



DUKE POWER COMPANY

Environmental Leadership Program Pilot Project

Final Report - November 1996

Riverbend Steam Station - Mount Holly, North Carolina



Executive Summary

This document represents the final report for the Duke Power Riverbend Environmental Leadership Program (ELP) pilot project and discusses the projects undertaken during the pilot year. Activities in the pilot project concentrated on environmental auditing and environmental process improvement. During the course of the pilot project, a multitude of intangible benefits were realized:

- enhanced working relationship between the Environmental Protection Agency (EPA), the North Carolina Department of Environment, Health and Natural Resources (NCDEHNR), and the Duke Power-Riverbend facility;
- better understanding of the processes affecting a fossil fuel power plant; and
- the opportunity to reshape environmental policies.

The 1995 environmental audit for Riverbend Steam Station was conducted in October. The Riverbend ELP team participated in the audit as part of the Riverbend ELP pilot project, but unexpected budgetary constraints precluded participation by EPA Region 4. This “open” assessment arrangement afforded by and developed for the ELP pilot project provided a unique partnership arrangement for the Riverbend ELP team.

Due to EPA Region 4 absence at the Duke-Riverbend facility audit, EPA-Region 4 requested that the Riverbend ELP team participate in the Riverbend 1996 environmental assessment. Riverbend did not have a scheduled assessment for 1996. For this reason, the Riverbend ELP team agreed to solicit support for an additional “open” assessment at a Duke facility other than Riverbend.

As a result, assessment participants from NCDEHNR in Winston-Salem and Raleigh, EPA Region 4 and EPA Headquarters and Duke met at Belews Creek Steam Station in mid-July to conduct the 1996 environmental “open” audit at the facility.

The future of the “open” assessment program will be decided in a later EOC meeting. Recommendations will be made to the committee to include this activity as part of the annual environmental assessment plan. In 1997, proposals will be considered for an “open” assessment in both North Carolina and South Carolina.

As part of the ELP pilot project, the Duke-Riverbend facility participated in an auditor exchange with the Arizona Public Service (APS) during the 1995 Riverbend environmental audit. An auditor exchange in effect produces the same results as contracted from a third party evaluation of a process, with a cost savings. This approach provides information exchange and recommendations for improvements at “minimal” cost to either party.



The Riverbend ELP team identified environmental management processes, and selected specific processes for improvement using the Business Process Improvement (BPI) Methodology. The identification of the facility operational and regulatory processes that affect the environment allowed the Riverbend project team to evaluate the overall quality or effectiveness of the processes.

The Riverbend ELP project team provided ideas, comments and suggestions for designing the criteria for the full-scale program. Generally, the team felt that the program should allow the participants to innovate. This was a strength of the pilot phase.

At the May meeting of the project team, the team designed an outline for the full scale program. The structure of the plan emphasizes the importance of the “open” assessment and the importance of the partnering aspects to the project. Also noted, team would like to see a corporate program developed as an enhancement to the facility-based program and negotiated and achieved goals as an incentive for participation.

The product of the full scale ELP framework developed by EPA is a culmination of the knowledge gained through the ELP pilot project, and the institutional knowledge of all of the participants; facility and regulatory agencies. The full scale program differs from the pilot phase of the project in that it is relatively prescriptive in the requirements for admission and maintenance of membership. Because of the prescriptive nature of the requirements, the chance for the participating environmental leaders to innovate in their project activities is decreased. Also missing from the program is implementation of the continuous improvement process.

The request for proposals (RFP) for participation in the full scale Environmental Leadership Program is due from the EPA in the first quarter 1997. When the RFP is published as a Federal Register, Duke Power will evaluate the merits of the full-scale program and make recommendations for participation by Duke facilities.

The partnership activities that the Riverbend ELP team experienced in the pilot phase may be the ultimate reward a company and project team can derive from participation in the ELP. The added value of the ELP to the project team was the relationship and trust that has been developed between Duke, EPA Headquarters, Region 4, and the NC regulatory teammates.

For the Riverbend ELP project, regulators and industry constructively discussed problems and cooperatively developed approaches to solving problems in manners acceptable to all sides. All parties learned about the other and each other’s “businesses”.

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I. Introduction

This document represents the final report for the Duke Power Riverbend Environmental Leadership Program (ELP) pilot project and discusses the projects undertaken during the pilot year. A brief overview and description of the ELP pilot project is provided in this report. During the course of the pilot project, a multitude of intangible benefits were realized such as:

- enhanced working relationship between the Environmental Protection Agency (EPA), the North Carolina Department of Environment, Health and Natural Resources (NCDEHNR), and the Duke Power-Riverbend facility;
- better understanding of the processes affecting a fossil fuel power plant; and
- the opportunity to reshape environmental policies.

Note: All references to the Riverbend ELP Team includes Duke (Riverbend and/or Belews Creek), NCDEHNR, EPA-HQ and EPA Region 4.

II. Overview

The EPA, with participating States, has completed a year-long pilot phase of the ELP. Selected facilities developed and demonstrated certain compliance tools and principles that the EPA identified as important to the concept of “environmental leadership.”

The Memorandum of Agreement (MOA) (available separately) provided the framework for Riverbend, EPA, and the state to conduct an ELP pilot project, and laid out the ground rules for participation. The MOA has served as the “blueprint” for the Riverbend ELP pilot projects.

III. Riverbend ELP Objectives

The Duke Power-Riverbend Steam Station Environmental Leadership Program Pilot Project was designed to develop and test alternative compliance tools and compare to traditional compliance methods used by industry and regulatory agencies. An example is to evaluate facility self audits against regulatory inspections. One pivotal aspect of this project was to evaluate Duke’s environmental management systems and compliance audit techniques. Duke Power’s environmental management system seeks to identify and



promote improved environmental conditions and compliance assurance. A goal of the environmental audit was to verify whether appropriate management systems facilitate compliance assurance or improved environmental conditions. Another important aspect of the project was the use of a volunteer “third-party” industry auditor who evaluated Duke’s environmental management system. Finally, a number of forums and process evaluation sessions occurred which facilitated information exchange on process technology and pollution prevention. All aspects of the project enhanced working relationships within the project team.

IV. Riverbend ELP Project Goals and Expectations

The MOA (signed the summer of 1995) contained general project goals; these goals were further defined during a Riverbend ELP team topic forum held in Atlanta, Georgia on April 18 and 19, 1996. The forum focused on Duke’s EMS and audit processes, Riverbend ELP goals and expectations, the National ELP program, and communications. EPA-Region 4 Senior Management was also engaged in the dialogue and a number of recommendations on ways to improve the overall ELP project were developed. Listed below are the goals and expectations agreed to by Riverbend ELP Team that the pilot project would accomplish.

The Riverbend ELP pilot project would:

1. Enhance working relationships between Duke Power, NCDEHNR, and EPA.
2. Explore ways that might encourage other companies along with the regulatory agencies to:
 - develop innovative auditing and compliance programs through compliance “incentive” programs,
 - reduce impacts to the environment and to increase compliance rates,
 - apply the knowledge gained from this project to other industries.
3. Explore ways that might encourage Duke-Riverbend, through the ELP process, to reduce the risk of non-compliance through pollution prevention practices.
4. Help design a full scale ELP.
5. Show how the ELP can aid the environmental compliance program which can be employed in conjunction with or to enhance internal policing.
6. Determine appropriate roles for regulatory agencies in the compliance process, especially in light of limited regulatory resources.
7. Establish a new type of relationship between the regulator and the regulated community.
8. Discuss and recommend incentives under which “environmental leaders” may be identified/rewarded.
9. Discover/test new methods for information exchange between the ELP participants and develop/share “all” information and results related to all activities with all team members.
10. Explore the feasibility of “volunteer” industry third party EMS audit.



11. To increase awareness that government and private industries can work together to enhance the environment.

V. Projects Conducted by the Riverbend ELP Team

A. Multi-media Compliance Assurance: Environmental Auditing

1. Riverbend ELP Audit

On September 18, 1995, the Riverbend ELP Team held the first topic forum scheduled as part of the Memorandum of Agreement (MOA). The forum was held at the NCDEHNR office in Raleigh, North Carolina to discuss, in detail, the environmental audit program. The focus of Topics Forum 1 was to describe the methodology used by Duke Power in performing its environmental audits and to familiarize all team members with some concerns about legal liability and maintaining confidential information. Highlights of the Duke Power audit process include the review of Duke-Riverbend's:

- compliance and environmental management systems audit,
- multi-media assessment,
- facility performance measures (facility assessment score),
- facility audit selection criteria,
- corporate assessments annual report,
- process continuous improvement opportunities through
 - third party process evaluation
 - assessment feedback form sent to facility management and guest auditors.

The 1995 environmental audit for Riverbend Steam Station was conducted in October. The Riverbend ELP team participated in the audit as part of the Riverbend ELP pilot project, but unexpected budgetary constraints precluded participation by EPA Region 4. This "open" assessment arrangement afforded by and developed for the ELP pilot project provided a unique partnership arrangement for the Riverbend ELP team. In an "open" assessment, participating regulators work directly with the Duke assessment team and the facility personnel as assessors. The participating regulators help to determine compliance findings, process management concerns, and capture recommendations for improvements and good practices. The participants are encouraged to provide ideas into the assessment process for future improvements.

2. Auditor Exchange

As part of the ELP pilot project, the Duke-Riverbend facility participated in an auditor exchange with the Arizona Public Service (APS) during the 1995 Riverbend environmental audit. The auditor exchange was effective due to the strength of each of the audit programs at APS and Duke. Guidance from ISO 14010 and ISO 14012 were



used to develop the protocols for the assessment of the Duke and APS audit function. The protocols used in the assessment are presented in Appendix A and include:

- ISO 14010 - Guidelines for Environmental Auditing, General Principles of Environmental Auditing,
- ISO 14012 - Qualification Criteria for Environmental Auditors.

An auditor from APS reviewed the environmental management system utilized by Duke at the Duke-Riverbend facility and provided Duke with a report on recommendations for audit process improvements. In exchange, a Duke auditor visited APS in late October 1995 to review APS's environmental management system and provided a similar review of the APS audit program. An auditor exchange in effect produces the same results as contracted from a third party evaluation of a process, with a cost savings. This approach provides information exchange and recommendations for improvements at "minimal" cost to either party. The cost to each participant is the travel expense and the time it takes to review the environmental management system and provide verbal and written comments.

3. "Open" Assessment

The "open" assessment originated at Duke-Riverbend facility during the 1995 environmental audit. Due to EPA Region 4 absence at the Duke-Riverbend facility audit, EPA-Region 4 requested that the Riverbend ELP team participate in the Riverbend 1996 environmental assessment. Riverbend did not have a scheduled assessment for 1996, due to a process criteria for selecting facilities that are assessed in a given year. The Riverbend ELP team agreed to solicit support for an additional "open" assessment at a Duke facility other than Riverbend.

The Duke Power project team presented the "open" assessment concept at the April 30, 1996 session of the Duke Power Environmental Oversight Committee (EOC) meeting. Belews Creek Steam Station, near Winston-Salem, NC, was selected for the 1996 "open" environmental assessment.

Assessment participants from NCDEHNR in Winston-Salem and Raleigh, EPA Region 4 and EPA Headquarters, Belews Creek Steam Station, Duke's Environmental Protection section and Legal Department met at Belews Creek Steam Station in mid-July to conduct the 1996 environmental audit at the facility. The results of the audit were evaluated and compiled by Duke. The guest auditors provided ideas for the findings, recommendations, and good practices for Belews Creek. The Draft Assessment report was issued September 3, 1996 and the Final Assessment Report was issued October 15, 1996. Additional feedback was requested along with the Final Report. This information will be used to improve the assessment process for the 1997 assessment year. The ELP-Duke Team is in the process of reviewing the final audit report and recommendations.



The future of the “open” assessment program will be decided in a later EOC meeting. Recommendations will be made to the committee to include this activity as part of the annual environmental assessment plan. In 1997, proposals will be considered for an “open” assessment in both North Carolina and South Carolina. Moving this activity into South Carolina will give Duke the opportunity to partner with the South Carolina Department of Health and Environmental Control (DHEC) along with EPA in the audit activity. Additionally, the Riverbend project team sees this activity as an integral part of a successful and mutually beneficial full-scale Environmental Leadership Program.

B. Environmental Management Systems (EMS): Environmental Process Improvement Project

The Riverbend ELP team identified environmental management processes, and selected specific processes for improvement using the Business Process Improvement (BPI) Methodology. The BPI Methodology is a comprehensive tool, based on total quality management (TQM) principles, to improve the quality and performance of processes. The identification of the facility operational and regulatory processes that affect the environment allowed the Riverbend project team to evaluate the overall quality or effectiveness of the processes. The project charter is included as Appendix B of this document.

The Riverbend ELP team selected “Prevent, Control, and Clean Oil Spills “ as their improvement opportunity project. This opportunity was identified by potential environmental benefit, the number of reportable oil spills to water, and Riverbend’s management desire to improve environmental performance. The Riverbend ELP team determined that the two processes surrounding this improvement were “Manage Oil” and “Manage Spills.” Improvements on these two processes would help Riverbend reduce the potential for oil spills and possibly reduce the total quantity of oil products stored at the facility. In addition, by evaluating how to better “manage” oil spills at Riverbend, the facility and participating regulatory agencies could improve their processes to better respond to oil spills in the event they occur. The Riverbend ELP team evaluated the Riverbend and NCDEHNR processes associated with “Prevent, Control, and Clean Oil Spills “ by:

- identifying sub processes,
- defining their current state,
- designing desired future state, and
- evaluating opportunities for improvement.

Summary of Events:

January 1996- Riverbend began the ELP Process Improvement Project (ELP-PIP). The project team performed Modules 1 and 2 during the first session of the project. Activities included team building exercises, brainstorming, and developing a global hierarchy of



processes that affect the environment at Riverbend Steam Station. The primary process is “Manage Environment” with the sub-processes “Protect Environment” and “Enhance Environment.” The team selected “Prevent, Control, and Clean Oil Spills” as the facility process to further evaluate.

February 1996- Milestone 1 presentation was made to the Riverbend Quality Steering Team (QST) to communicate the results of Modules 1 and 2 of the project. Refer to the presentation materials attached to this report for the details of the communication (see Appendix C). Approval was given to the Riverbend ELP team to continue by the QST.

March 1996- Riverbend continued with Module 3 the ELP-PIP. In this Module the team evaluated current state, developed current state process flow charts and identified process improvement opportunities for the environmental processes defined under “Prevent, Control, and Clean Oil Spills.”

April 1996- Milestone 2 presentation was made to the Riverbend QST to communicate the results of Module 3 of the project. Approval was given to the ELP team to continue the effort by the QST.

May 1996- The ELP-PIP team designed a “first cut” to the future state of the selected processes and evaluated “best practices” for the environmental processes defined under “Prevent, Control, and Clean Oil Spills.”

June 1996- Milestone 3 presentation was made to the Riverbend QST to communicate the results of Module 4 of the project. The presentation evolved into a working session between the QST and representatives of the Riverbend ELP team. Results of the June meeting with the QST were taken to the final project team session in July 1996.

July 1996- The ELP-PIP met for the last time and developed future state recommendations to the Riverbend QST for the environmental processes defined under “Prevent, Control, and Clean Oil Spills.”

August 1996- Final recommendations of the Process Improvement Project were presented to the Riverbend QST on August 29. Riverbend management will respond to the recommendations during 1997 Operational Planning scheduled for November 1996. Final project team recommendations are presented in Appendix D.

November 1996- Riverbend Steam Station will conduct Operational Planning for 1997 and beyond. Recommendations from the Process Improvement Project will be assessed by facility management. Implementation of improvement opportunities will be included in the 1997 plan and beyond. (Note: The results of the Operational Planning were not complete at the time of this report)

Conclusion for the BPI project:



The “Prevent, Control, and Clean Oil Spills” BPI project:

- defined and mapped specified Riverbend processes that affect the environment;
- provided a structure for process ownership and implementation through recommendations to Riverbend’s QST;
- strengthened personal relationships between the project participants;
- built institutional trust between Duke and the agencies;
- educated the project team in the operations of Duke Power, Riverbend, NCDEHNR, EPA and the quality process.

There were several recommendations formulated as a direct result of this project. These include recommendations that may:

- affect other fossil fuel activities;
- reduce liability for Riverbend;
- protect the public health and the environment;
- improve efficiency and in turn reduce operating cost for Riverbend, EPA and NCDEHNR;
- lessen the severity of oil spills and its impact on the environment; and
- improve the reporting process in the event of an oil spill.

C. Duke University Student - Master’s Project

Kira Jacobs is a student at the Duke University Nicholas School of the Environment. Since January 1996, she has been an active participant in the Riverbend ELP as a full team partner. Kira’s initial exposure to the project was at the September 1995 Topics Forum held in Raleigh, NC. The forum gave her the opportunity to learn about the project and the participants. At that time Kira decided to participate in the Riverbend ELP because it addressed many issues of interest to her;

- relationships between industry and regulators,
- use of innovative, non-market based policy programs, and
- goals of improving the environment by non-traditional means.

The result of Kira’s participation will be her Master’s Project and for the Riverbend ELP, a third party, non-stakeholder documentation of the Riverbend ELP. The report will be presented as a case study. It will thoroughly examine the history of the Riverbend ELP and document the team’s activities and results. The audience anticipated are those interested in learning more about ELP and the nature of the collaboration in a pilot policy project.

For more information concerning the master’s project, contact:

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VI. View of the Full Scale ELP

A. Riverbend ELP Design for Full Scale ELP

The Riverbend ELP project team provided ideas, comments and suggestions for designing the criteria for the full-scale program. Generally, the team felt that the program should allow the participants to innovate. This was a strength of the pilot phase.

At the May meeting of the Process Improvement Project, the following outline for the full scale program was explored by team participants from EPA Headquarters and Region 4, NCDEHNR and Riverbend. The structure of the plan emphasizes the importance of the “open” assessment and the importance of the partnering aspects to the project. Also, as noted below, the team would like to see a corporate program developed as an enhancement to the facility-based program and negotiated and achieved goals as an incentive for participation.



Riverbend ELP Project Team Proposal

1. Application process	a) Compliance record check b) Describe EMS, etc. (environmental principles) c) ELP participation will be limited to permitted facilities and facilities required to have a Facility Response Plan (FRP) due to the quantities of oil stored onsite.
2. Entrance Phase	a) Agency and facility agree on goals and measures (agency will suggest broad menu criteria) b) Negotiate Memorandum of Agreement (MOA) c) Solicit public comments d) Initial audit- open to regulating agencies including an audit report. The “open” audit policy will continue at the facility as long as the facility is in the program. Audit reports will be available for review by the participating regulating agencies.
3. Acceptance into the program	The EPA has final approval
4. Benefits/Incentives	a) Enforcement Response Guidelines, b) Recognition, c) Achieved goals as established in the entrance phase (public results), d) Improved relationships and gained trust between industry and agencies through the partnership of the ELP, e) Education on the business process and operations of the facility and the agencies, and f) Other benefits could include flexible permitting
5. Corporate Program	Entry after successful completion of facility program for a specified period of time with established goals met. Facility full scale ELP participation and open audits will be limited to permitted facilities and FRP facilities. For corporate participation corporations would show how EMS applies and is implemented throughout the organization. Nonpermitted facilities would not be audited.



B. Environmental Leadership Program Full Scale Program - Riverbend and Duke Power in the Proposed Framework

The proposed ELP framework was released in October 1996 (see EPA 305-F-96-012). The product of the framework is a culmination of the knowledge gained through the ELP pilot project, and the institutional knowledge of all of the participants; facility and regulatory agencies. The full scale program differs from the pilot phase of the project in that it is relatively prescriptive in the requirements for admission and maintenance of membership. Because of the prescriptive nature of the requirements, the chance for the participating environmental leaders to innovate in their project activities is decreased when compared to the pilot phase of the program. Missing from the program is implementation of the continuous improvement process. The program is or should be an opportunity for the participating facilities and the regulatory agencies to:

1. negotiate and establish environmental performance measures goals, for both the facilities and the agencies,
2. establish performance goals based on the measures of performance that are above and beyond traditional goals,
3. measure performance and communicate as appropriate, and
4. reevaluate the measures and goals and negotiate more stretch.

With this approach, an intrinsic incentive and reward of the project is achieving the goals in a partnership.

Discussed below are highlights of the proposed framework of the full scale program and comments on how well Riverbend fits into the proposed framework. Many of the elements of the full scale ELP as outlined by EPA are not addressed and are considered acceptable, easily attainable, or already in place at Riverbend.

Who may be eligible to be an ELP participant?

1. Environmental management system in place for 2-years

Riverbend as a facility benefits as do all other Duke Power facilities from the advantages of a corporate EMS that has been rapidly developing since the mid-eighties.

2. Community outreach/employee involvement programs

Community outreach/employee involvement programs are beneficial to the EMS of a facility if the activities are appropriate to the needs of the facility, the employees, and the public. Riverbend is involved in these activities primarily as site-based environmental partnering projects, community outreach in public schools, and employee Quality Steering Teams. It is anticipated these programs will continue to



develop and grow at Riverbend and other Duke Power facilities. It is not anticipated that the public will be involved in facility planning or facility audits in the near future.

3. Facility-wide compliance audit results and EMS information obtained within the previous two years

As part of the overall EMS at Duke Power and Riverbend, much effort has been expended to develop a state-of-the-art audit program. An element of this program is the "Facility Selection Process". This process allows Duke Power to evaluate facilities and determine which facilities should be audited in a given year. The selection criteria includes the following elements:

- a) Relative risk of environmental harm,
- b) Outage and construction activities,
- c) Visibility to public and public sensitivity to facility,
- d) Organizational changes,
- e) Environmental performance,
 - trend in reportable incidents,
 - trend in audit results,
- f) Risk of regulatory inspection,
- g) Regulatory changes affecting the facility.

Based on this criteria, Riverbend was not audited in 1996. Plans to audit in 1997 have not been finalized at this time.

How will participants maintain ELP status?

1. Implement a mentoring program or make good faith effort

Riverbend has provided mentoring services on a local level to schools for recycling activities. Duke Power has provided mentoring services to other companies on a corporate level, but not facility based. It is not anticipated that Riverbend as a facility would provide this additional broad based mentoring in the future. A corporate effort could be conducted in the name of Riverbend with Riverbend employees involved. This is a resource issue for Riverbend in a competitive environment.

2. Conduct compliance and EMS audit in years two and five of the project

As discussed above, Duke Power has developed within the corporate EMS a criteria for annually selecting the facilities to be audited. Riverbend could conform to the requirements of the program, but this would occur by coincidence with the Duke facility selection process or for the sake of the full scale program. All environmental audits at Duke Power facilities encompass both compliance and management systems.



C. Duke's Future Participation on the ELP and Activities Planned

The request for proposals (RFP) for participation in the full scale Environmental Leadership Program is due from the EPA in the first quarter 1997. When the RFP is published as a Federal Register, Duke Power will evaluate the merits of the full-scale program and make recommendations for participation by Duke facilities. Discussion of Riverbend in terms of the full scale program framework and the Riverbend ELP pilot project team suggestions for the full scale program are included within this document.

VII. Project Benefits and Lessons Learned from Duke-Riverbend Environmental Leadership Program

A. Partnering

The partnership activities that the Riverbend ELP team experienced in the pilot phase may be the ultimate reward a company and project team can derive from participation in the ELP. The added value of the ELP to the project team was the relationship and trust that has been developed between Duke, EPA Headquarters, Region 4, and the NC regulatory teammates.

For the Riverbend ELP project, regulators and industry constructively discussed problems and cooperatively developed approaches to solving problems in manners acceptable to all sides. All parties learned about the other and each other's "businesses." The Riverbend ELP team developed appreciation and respect for what each other does and how each other approaches problems and opportunities. The team found each other to be reliable and trustworthy to varying degrees, but we didn't find each other to be unapproachable, nor impossible to discuss problems of mutual interest.

B. Auditing

- In many cases an audit will be much more intensive than a single-media regulatory inspection. Audits are useful for identifying a facility's weaknesses and good practices using corporate/third party expertise and providing this information to facility management. Audits, conducted by the corporate office, are useful for identifying and communicating the best environmental management systems/practices within a company.
- Similar to an auditor exchange or third party evaluation, inclusion of regulators as participants in the audit process can provide expertise to identify shortcomings in the audit itself, thereby strengthening the audit process and hopefully the company's compliance.
- The time dedicated for an audit may help regulators identify problems that would not normally be found during a routine inspection.



- A good audit process well implemented and utilized may generate the information needed to allow for less inspections at facilities, thus giving regulators more time to focus on problem facilities.
- Due to resource limitations and or management support some companies may not possess the regulatory expertise to develop and conduct an adequate audit.

VIII. Conclusion

Riverbend ELP team accomplished the primary goals established by the Riverbend ELP MOA. The project consisted of five different environmental process identification modules, several topic forums (see six-month progress report), and a third party audit evaluation. In addition, Riverbend ELP team conducted an “open” assessment at two of their facilities as a concept program. The two “open” audits were conducted at the ELP pilot Facility Riverbend and a second at the Belews Creek Steam Station facility. Duke is considering conducting additional “open” audits with regulators in 1997 and beyond as a result of the success of the Riverbend ELP pilot project.

The success of the pilot program was due to the Riverbend ELP team and the “empowerment” that management from each team allowed. The Riverbend ELP team, consisting of Duke Power managers and staff, State personnel from North Carolina, and EPA Region 4 managers and staff was instrumental to the projects success.



Appendix A

Auditor Exchange Protocols



Appendix B

Process Improvement Project

Project Charter



Appendix C

Process Improvement Project

Milestone 1



Appendix D

Process Improvement Project

Final Recommendations



Appendix E

Project Contacts