

TO BE A PREMIER UTILITY

1990 - 1992

The goal for the 1990s was to make CP&L a truly premier utility. Sherwood Smith expressed his vision in 1990 annual management information meetings when he emphasized the importance of being successful, "not just of surviving, but being one of the very best electric utilities in the United States and being recognized as that." He defined a premier utility as being in the first quartile and, when possible, at or near first place.

Six critical success factors had been identified to guide business planning, goal setting and strategy options. They were: 1) providing a reliable source of electric energy; 2) operating efficiently and controlling expenditures; 3) managing the growth of electricity sales; 4) positioning rates competitively; 5) operating in a fair and reasonable political and regulatory climate; and 6) achieving total quality.

In a meeting with senior nuclear managers early in 1990, Smith declared the biggest part of attaining "this vision depends upon what happens in our operation of nuclear facilities. The dollars are just that big, the nuclear operation is just that complex, safety and environmental concerns are just that great, and the demands of regulation and the public are just that challenging.

"Because we built the last nuclear plant in the Carolinas, our rates are higher than our neighbors. This will be the case for years to come. It is like being in a horse race carrying the biggest handicap.

"The race for excellence which we are in has no finish line. Everybody knows what happens to people and organizations who race but are left behind. I don't want us to be also-rans. Some other nuclear plants have been put out to pasture for years and come back after paying a terrible price for their companies."

He cited another company's nuclear plant, saying it was out of service for two and one-half years unnecessarily, "not because they had not spent enough money, not because they did not have experienced people, but because of an attitude.

"Someone who is well-grounded in his field, knows it cold, usually has a lot of self-confidence and maybe thinks that technically he is right can fail to adapt to a changed environment, fail to see the big picture, fail to recognize the role of others on the team, fail to accept accountability, and fail to confront his own shortcomings. All of us are capable of such failings, unless we constantly are alert."

Smith emphasized the importance of continued improvement. He said NRC was measuring one company against another as all sought to improve. Thus, the target of excellence was moving. His comments were prophetic.

Smith told the nuclear managers that "things possibly could happen in other areas to hold us back from success." But he considered that unlikely.

In a move to strengthen the nuclear management team, Al Watson, senior vice president for nuclear operations, employed Gerald E. Vaughn who had been manager of nuclear stations for Duke Power and later was vice president of nuclear operations for Houston Lighting and Power. Vaughn joined CP&L as manager of the nuclear services department. Consistent with the Company's plan for rotating nuclear managers, in early 1992 Vaughn replaced R. B. Richey as vice president of the Harris nuclear project. Richey succeeded Russell Starkey as vice president of the Brunswick nuclear project. Starkey who had been elected a vice president in 1989 moved to the nuclear services department.

Favorable Fuel Costs

As reflected in the average cost per million btu for all fuel, the Company's nuclear plants had performed well during the previous five years. This cost had trended downward from a high of \$1.67 in 1984 to a low of \$1.24 in 1987. The low fuel cost continued in 1990 and 1991. Nuclear plants supplied 46 percent of the Company's total generation in 1991. Coal-fired plants set a reliability record of their own: equivalent availability of 89.8 percent, as compared to an industry average of near 80 percent.

With this kind of plant performance and the savings which flowed out of the organization analysis, the Company was successful in improving earnings. One thing it had been doing to trim expense was take advantage of lower interest rates to refinance its debt. In 1991 imbedded cost for debt was down to 8.04 percent, the lowest it had been since 1978. Market value of the common stock at the end of 1991 was 1.64 times book value.

Senior Management Changes

Two key executives retired in 1990 -- Edward G. Lilly, Jr., executive vice president and chief financial officer, and Wilson W. Morgan, senior vice president for customer and operating services. Lilly earned respect and credibility in the financial community as he successfully raised the money to get the Company through its difficult construction years. During the period of Lilly's financial leadership, capitalization increased from \$954 million to \$5.3 billion. Morgan was a 40-year employee who spent most of his career in operating and engineering before heading the corporate services and the customer and operating services groups.

Charles Barham became executive vice president, chief financial officer and a director. Richard Jones was elected a senior vice president and elevated to group executive for legal and regulatory. Jones in turn was succeeded as head of the legal department by Ray Starling who had returned to the Company in 1990 after three years at Hawaiian Electric. Starling had an undergraduate degree in mechanical engineering from North Carolina State University and earned his law degree at Wake Forest University.

Norris L. Edge succeeded Morgan. He began his career with the Company in sales, subsequently served as sales manager in Sanford and Asheville, and was manager at Siler City. He was chosen by Behrends as a key player in the expansion of the rate department in the early '70s and later headed that department.

Vaughn and Richey were elected vice presidents in 1990 along with R. Michael Jones, public affairs; Larry Boyer, customer support; Jerry Kirk, northern division; and Jim Massengill, Raleigh division. Three others were elected vice presidents in 1991: R. J. White, corporate communications; Charles R. Dietz, Robinson nuclear project; and Starling, head of the legal department. A. M. Lucas, manager of nuclear engineering, was elected a vice president in 1992.

There was no plan to add baseload generating capacity before the turn of the century. Expensive construction was avoided by contracting with Indiana Michigan Power to buy 250 megawatts of capacity for 20 years, beginning in 1990; and with Duke Power to purchase 400 megawatts of firm capacity beginning in 1993 and continuing for six years. The next additional capacity which the Company had planned for its system was three more combustion turbines at the Darlington county plant. They would have combined capacity of 225 megawatts and were scheduled for 1996. By relying on combustion turbines which required relatively short lead time for purchase and installation, the Company maintained flexibility to adjust its expansion to changing consumer demand and also reduced its capital outlay.

Strategy for Achieving Rate Equality

Dick Jones outlined the strategy to bring rates in line with neighboring utilities: "We need to hold our base rates flat, and try to reduce our fuel costs per kilowatt-hour through attaining high capacity factors, while our neighbors over time increase their rates because they have to build more plants than we do or because they operate less efficiently than we do."

He said that in addition to working smarter and at lower cost, "the major way we hold our rates down is by minimizing the number of generating plants we have to build."

Therefore, a key of the strategic plan was to sell more energy while managing demand, essentially continuing the conservation and load management activity initiated during the 1980s, but with more emphasis on selling off-peak. For residential customers, key components of the expanded activity were an aggressive effort to promote the installation of high efficiency heat pumps, including the identification of quality heat pump dealers; renaming of the customer water heater and air conditioner control program to "EZ-\$64", an expanded loan program to help customers finance energy management improvements, and promotion of Safeshine lighting.

Installations of heat pumps and Safeshine lighting far exceeded the goals for 1991. But Jones emphasized that a large amount of off-peak capacity from coal-fired plants remained. Selling it could improve load factor and profitability.

In the industrial and commercial sector, marketing efforts continued to focus on energy-efficient practices and shifting energy-usage to off-peak hours, benefitting the customer with lower prices and the Company with lessened demand. A Target Business Recruitment program focused on attracting new industries whose major power needs would occur during fringe or off-peak periods. To help attract new industry and create jobs, the Company in 1990 invested \$1 million in a speculative building in the Sumter, S. C., industrial park. Graham said the Company believed the project would enhance regional growth and development. The building was sold to a manufacturer of precision bearings.

Employee Volunteerism

At the 1992 management information meetings, Graham commended employees for financial support of United Way and Project Share and for their participation in volunteer activities. Acknowledging that this participation was motivated by sincere desire to help those in special need, he said it also reflected well on CP&L. "It is not easy for adversaries to portray the Company as arrogant and greedy when most people know that we demonstrate in so many ways that we care and that we are willing to contribute and to work and make life better for others as well as ourselves."

One of the newer volunteer activities focused on state parks. In 1991 the Company announced its "Adopt State Parks" program, pledging \$144,000 over a four-year period to help preserve and improve 34 state parks in North Carolina. The program included a challenge campaign to get other businesses to help support the parks, and the enlistment of volunteers to help with specific activities.

After one year, employees from CP&L had given their time to assemble 120 picnic tables for two parks, survey boundary lines, design a footbridge, and produce audio tracks for a museum. The department of parks and recreation estimated the support of CP&L and its employee volunteers was worth more than \$130,000 during the first year. Employees in South Carolina started a similar program which focused on the Cheraw State Park.

Established volunteer programs included the United Way, the Company's Project Share, cutting firewood for needy families, helping in school activities and hosting American Red Cross blood drives. Raleigh area employees completed a new project in 1992 -- building a Habitat for Humanity house with materials bought by CP&L.

"Deregulatory" Legislation Opposed

Graham, who was a former president of the Greater Raleigh Chamber of Commerce,

outlined the Company's opposition to two legislative initiatives in Congress. The first would amend the Public Utility Holding Company Act to allow unregulated generators with no obligation for public service to enter the power generation business. "While we are under a legal obligation to serve, these generators would be unregulated and would have an unfair competitive advantage that could adversely affect service reliability." Smith was leading a segment of the industry which opposed the legislation.

The second objectionable legislative initiative provided for mandatory transmission access, a measure which would require a utility to transmit power generated by others, even from outside its system. Graham said "this would permit industrial customers to pick and choose among suppliers, leaving facilities already constructed to serve them to stand idle. Other customers consequently could be burdened with additional costs."

Proposed under the umbrella of deregulation, the two measures produced a deep division within the electric industry. Smith testified before a Department of Energy hearing in January 1990. He said:

"The type of `competition' now advocated by some who would deregulate generation (and substitute non-utility generation for utility-owned and operated generation) would not result in what might be called `pure competition,' because you would have utilities still subject to the franchise duty to serve the public but having the burden of being required to buy a competitor's product and deliver it to customers at the expense of using their own product; whereas the non-regulated `competitor' has no franchise duty to supply the public. My message is simply `stop, look and listen' carefully before advocating policies in the name of competition that could drastically alter our existing efficient, reliable and economic electric system. No one has the ability to predict exactly how deregulation and this new form of unequal competition or partial deregulation would work out. Certainly the experience in other deregulated industries is not a guide for the electric industry which has a very different structure and a unique product or service."

Smith also testified before a Senate committee in 1991, describing the proposed amendment to create a new class of "Exempt Wholesale Generators" (EWG) as an effort by proponents "to reap larger returns on their investments in these new plants than would be permitted by state regulators were the new facilities instead built by electric utilities under regulation... Unfortunately, the higher returns can come from no source other than the pockets of electricity consumers."

He cautioned that transmission "access" proposals are a first step toward full-blown retail wheeling which would permit EWGs to make direct sales to large industrial customers. "We strongly oppose any system of mandatory wheeling," he emphasized, because it would jeopardize the financial health of electric utilities and their smaller customers. Smith warned that the proposed legislation would "create loopholes that would deform --not reform-- the Holding Company Act."

Graham described another legislative development which could resolve an old and

very important issue. He noted that while the Department of Energy had spent \$3.5 billion for development of a repository for spent fuel from nuclear power plants, its efforts were being frustrated by opposition from the state of Nevada, the location of the repository. Congress was considering legislation to enable DOE to move ahead with the Yucca Mountain repository over objections of the state. Until the repository was opened, CP&L faced the continuing need to ship spent fuel from Robinson and Brunswick to the Harris plant. Congress subsequently passed this legislation.

Total Quality as the Vehicle to Premier Status

Barham also spoke to managers in 1992, declaring that "our shared vision is to be recognized as one of the very best electric utilities in the country by those groups of people who can and do influence the success of our business: our investors, our customers, our employees, our regulators, and our government representatives. These groups of people are in a real sense our constituents...."

"The premier utility concept is based upon a relative, not an absolute, standard. It is the absolute performance of other companies which establishes performance norms and, in turn, the performance expectations of our constituents. We are pursuing a moving target, both in terms of absolute performance and constituent expectations. What may be considered best in class today may not even be above the norm next year.

"Total quality is the vehicle we have chosen to carry us to premier status.... During the last two years we focused on internal customer satisfaction and experienced a nearly 20 point increase over that period as measured by our principal customers.

"By early summer, every employee will have completed the training and the entire Company will be moving together utilizing Effective Performance Management (EPM) to leverage our corporate performance." One aspect of EPM was to link individual and corporate goals by involving individuals in setting their personal performance expectations and by making semi-annual performance reviews.

The former total quality department was integrated into employee relations in 1990 under the leadership of Fred Day, manager of total quality performance. A new TQ steering committee was established in 1991. Day was chairman. Members were C. V. Bailes, fossil operations; Larry Boyer, customer support; Cecil Goodnight, employee relations; Emerson Gower, southern division; Scotty Hinnant, Harris plant; Cindy Smith, information services; and Gerald Vaughn, nuclear services. Barham was senior management sponsor for the committee which was asked to look for additional opportunities for quality initiatives and to provide line management with perspective and direction for planning.

At the end of 1991, there were at work across the Company 657 quality teams, including cross-functional groups. They involved about 4,000 employees.

Total Quality Awards

In March 1991 the Company began the recognition phase of its total quality program by honoring five individuals and nine teams with cash awards for making significant contributions to the Company's business success. Each individual received \$3,000. Team members also received \$3,000 each except that where a team had more than five members a total of \$15,000 was divided equally between them. A look at what recipients of the first awards did provided an insight into the results which total quality was producing.

Individual winners of the first annual awards were George Attarian of nuclear engineering for increasing the effectiveness of the department in meeting regulatory requirements; Jane Hurst, division stores supervisor for the Raleigh division, for streamlining the stores operation and significantly reducing manpower; Larry Jernigan of technical services for expediting the repair of a feedwater discharge valve at the Sutton plant, thereby shortening an outage; Galen Jones of employee relations for developing and implementing the very successful human resources program to support the organizational analysis; and D. Edward Quigley of the Brunswick nuclear project for diagnosing and correcting two problems experienced during unplanned outages.

Awards were given to the Baseline Rate Contract team from the customer support department for developing a process that simplified the evaluation of contractor bids for line construction and right-of-way maintenance. The process was implemented in all divisions with significant dollar savings. Members of the team were Bill Ashe, Ron Brady, Buddy Cline, Tommy Harrill, Terry Hill, Christine Jones, Jesse League, Bennie McLeod, Dan O'Hannon, Bobby Simpson, DeWitt Smith, Billy Smith, Joe Sutton, Wayne Thompson, Gary Tyner and Marvin Weant.

The Clean Air Review team was recognized for its review, analysis and assessment of the impact of the proposed 1990 Clean Air Act amendments. The team's work supported the successful efforts of the Company's director of federal public affairs, Emerson Gower, and the electric industry to moderate the legislation. Team members were Gower, Dave Killen, John McGowen, Cal Ogburn and Dan Roeder.

A Coal Hardness Test team from the fossil fuel and fossil operations departments determined from tests at the Roxboro plant that there was a definite correlation between coal hardness and energy output. This finding and the performance results from a full-scale operating plant represented a major breakthrough in understanding the impact of coal hardness. The fossil fuel department began using the data in negotiation and administration of coal contracts to assure that the hardness characteristics of coal were reflected in pricing. The team included Gary Pope, Bobby Currier, Mike Walker, Chester Bowen, Larry Marynak, Jeanette Watson, Danny Satterwhite, Shirley Williams and Jerry Boyd.

The Faison Iceberg team from rates and energy services cooperated with the North Carolina Alternative Energy Corporation to design, procure, install and successfully demonstrate a

prototype thermal energy storage system for cooling farm produce. On the team were Thomas L. Davis, John P. Shell, Joe Gregory, Pamela Nettles and Alex Hobbs.

The Leveraged ESOP team, primarily from the treasury department, developed and implemented a leveraged employee stock ownership plan, a \$300 million transaction that would reduce the Company's tax cost in each of the next 15 years. The approach was recognized nationally as a creative and innovative model for utilities. Team participants were Murray F. Gould, Masceo S. DesChamps, Kenneth W. Hooper, John B. Gripman, Jim Bass, Henry Oehmann and Adrian Wilson.

The Pipe Replacement Project team from the Brunswick plant significantly reduced the time required to complete an outage task, setting a world time record for accomplishing the work and thereby saving the Company significant dollars. Roy Johnson, Dennis Cooper, Jeff Ferguson, Lou McGary, Karl Neuschaefer, Rick Smith and Hal Wall were on the team.

A Project Quality team from fossil operations reduced operating and maintenance expenses at the Roxboro plant by lowering the inventory of spare parts for turbines and generators. The team also discovered that software available from the support services department would enable further cost reductions. The two software packages were installed at Roxboro and later replicated at other fossil plants. On the team were Mark Frederick, Bayard Crumpton, Betsy Wagstaff, Alan Pruitt, David Sumner, Larry Byrd, Ronny Hicks, Donald Harris and Jonathan B. Skowvron.

A team from Cary Line and Service challenged the policy on same-day service to customers, confirming that next-day service met the needs of inspectors, builders, customers and other parties. Thus the group of line and servicemen while searching for a safer, more cost effective work practice successfully questioned a Company policy. The team included Ricky Pope, Dave Watts, Wayne McKoy, Mark Baker, Don Holland, Elbert Spence, Roger Lewter and Doug Lewis.

The Transmission Conversion team formulated designs that minimized the need for additional right-of-way along existing lines. The new design provided improved service and reliability at about half the cost of an earlier design proposal. Paul A. Cox and Robert D. Fulmer were the team.

Eury gave his view of the impact of total quality at CP&L: "People draw together when there is a driving, compelling need. Issues cause people to unite. Competition has become such an issue that people have done things here they would never have believed they could do."

Great Ideas at Work

In May 1991, the Company implemented the recommendation of one of its original section manager project quality teams by establishing the Great Ideas at Work program. The team led by Bill Stocks had the assignment of offering recommendations to enhance the process for identifying waste and inefficiency. Great Ideas came out of its report. Jackie Clements was the first director. She described Great Ideas as "employee driven," a reflection of the changed corporate

culture in which individual employees were encouraged to think of value added by the work they did and how the work could be done more efficiently. She saw it as a great motivational tool.

By July 31, 1992, over 1,600 ideas had been submitted. Of these, 359 had been implemented at a net saving of \$15 million. Hundreds of other ideas remained to be evaluated.

Three employees in the fossil fuel department received the first cash awards for a great idea. They proposed selling excess inventory of propane which the Company had in storage at Tirzah, S. C., to propane suppliers, and did so at a benefit to the Company of \$225,000. Judi Brettschneider, Reid Stephenson and Shirley Williams each received a \$5,000 award.

An individual award of \$15,000 was made to Patrick Riban of the technical support function at the Brunswick nuclear plant. He suggested a streamlined process for testing safety relief valves which resulted in reduced expense for spare parts and vendor labor. An audit showed that implementation of his idea produced savings in the first year in excess of \$300,000. Riban's \$15,000 award was the maximum under the Great Ideas program. The program paid up to 10 percent of the audited first year savings to the originator of a suggestion.

Nuclear Plant Performance

Overall performance of CP&L's nuclear plants was just below the 50 percentile for 1990 and just below the 60 percentile in 1991. Al Watson, senior vice president for nuclear operations, said the index included 112 United States nuclear units operated by more than 50 utilities. He projected that CP&L would reach the 70 percentile in 1992.

When the Harris plant reached its fifth anniversary in 1992, the News and Observer reported that in 1990 it had been one of the five most efficient nuclear plants in the United States. Federal regulators had fined it only twice for safety violations -- far below the national average. Noting the criticism which accompanied its construction and start-up, the newspaper reported "most of the criticism has abated." The Robinson nuclear unit had performed satisfactorily.

But problems had surfaced at Brunswick. The plant had been shut down in the summer of 1990 after 14 of 20 reactor operators failed to pass requalification examinations. In Southport and Wilmington, newspaper reports were caustic. One headline read, "CP&L operators in the dark." A three-week outage ensued while the training program was requalified and the operators given further training. An NRC report for the year ending in September 1990 said the Brunswick plant's engineering and technical support -- which includes operator training -- was the one area needing attention.

The problems at Brunswick were made more difficult in some respects because news about them dominated what the public saw and heard in the media about CP&L. Little else was happening in the Company to claim headlines.

On a visit to Brunswick in October 1991, Dr. Ivan Selin, chairman of the NRC, said it had been "sort of an average" plant. But he noted that CP&L had "clear commitments" to long term improvement.

Poor SALP Report

In early 1992, the NRC's Systematic Assessment of Licensee Performance (SALP) gave Brunswick poor marks. There was harsh criticism of management, followed by an in-depth inspection by NRC teams which looked at every aspect of plant operations that had been addressed in the SALP.

In April a Company inspection revealed that interior walls in the diesel generator building did not meet seismic qualifications. These were not load-bearing walls. Their only function was to act as shields between the generators. The plant was withdrawn from service on April 21. There followed an extensive investigation to verify compliance with seismic qualifications in other areas of the plant.

The regional NRC administrator in a June 23 letter emphasized the need for "effective changes in the philosophy of operation" as well as for upgrading the physical plant.

In July the NRC decided to put Brunswick on its watch list of troubled plants, promising to give it closer scrutiny. Seven units of other companies were on the watch list. Brunswick was classified as "category two" which meant it was not mandated to remain shutdown. NRC's executive director for operations wrote:

"Brunswick's performance has been declining as evidenced by repetitive work control failures, personnel errors and ineffective management oversight. The material condition of the plant is degrading due to inattention to maintenance, excessive corrosion conditions and lack of attention to detail by management."

Lynn Eury, executive vice president, said the Company was committed to spending \$225 million over the next five years to correct the problems which it had identified and the NRC had cited. Since January 1990 Brunswick had been fined more by the NRC than any other nuclear plant. Its civil penalties for the period totaled \$500,000. Harsh as that may have sounded, the plant was never unsafe.

Through the years, as Smith had observed, the nuclear industry had moved steadily along an upward course, continually improving performance. Brunswick had been on an upward track, too. But with all its improvements, the plant had not closed the gap between its level of performance and that of the industry. It needed to make a "jump step".

Media Criticism of Brunswick

With Brunswick scheduled to remain out of service until late 1992, some feared the scene was set for a repeat of events of the early 1980s. The daily \$400,000 added cost for fuel which the Company incurred was a significant expense. To recover it, the Company would have to seek regulatory approval for an adjustment in the fuel charge.

The Wilmington (N.C.) Morning Star, a long-time critic of the Brunswick plant, editorialized on June 16: "At some point, is the NRC going to conclude that this plant is snake bit -- badly built, badly managed -- and that it ought to be closed?if there's any comfort at all in the latest discoveries, it is that the NRC seems to realize it has a king-sized problem on its hands."

The editorial page cartoonist for the News and Observer depicted CP&L stirring in a big pot of Brunswick stew.

To counter negative public impressions about Brunswick, Eury spoke to a breakfast meeting of the Wilmington Chamber of Commerce. "This plant has not consistently met the high standards we set for our nuclear plants," he acknowledged. "Our Robinson plant is a solid performer. Our Harris plant is a top performer.

"Brunswick has had periods of excellent performance. It set a world performance record in 1987 for boiling water reactors. There have been periods of unexpected downtime ... and improvement efforts that fell short. Through all this the plant has never jeopardized public health and safety. We've continued to make improvements. But what was good enough in the 1970s or even in the 1980s is not good enough today."

Eury spoke of the stepped-up improvement effort that was underway. He said it focused on reducing the backlog of tasks such as preventive maintenance items, upgrades of the plant's physical condition and upgrades in records management. He noted that additional resources had been committed to catch up on maintenance, to improve plant designs, to improve work procedures and processes, and to raise the skills of employees.

In late July, Watson, the Company's senior vice president for nuclear operations, in a letter to the regional NRC administrator, outlined the Company's plan for remedying the deficiencies at Brunswick and restoring the facility to operation. The corporate plan would benefit the Harris and Robinson plants, too.

An interesting contrast was the staffing of nuclear and coal-fired plants. Brunswick had 999 company employees and 558 contractors; Robinson 575 employees and 252 contractors; Harris plant had 645 employees and 305 contractor personnel. Roxboro had 237 authorized positions and Mayo 71. The four nuclear units had slightly less capacity than Roxboro and Mayo combined. Contrary to the Company's early expectation, nuclear units had proved to be personnel

intensive. Nuclear plants also required support of a large corporate staff of engineers and scientists. To overcome the backlog at Brunswick required the temporary commitment of hundreds of additional corporate and contract personnel to the site.

Complying with the Clean Air Act

Availability of its nuclear capacity was expected to be a major advantage for the Company as it prepared to comply with the Clean Air Act Amendments of 1990. The Act imposed strict air emission standards but did not specify how a utility must comply. Options included the use of low sulfur coal, installation of new equipment, use of other generation sources such as nuclear, and buying allowances from other utilities. Allowances are units of sulfur dioxide emissions allowed a company. In the 1990 annual report to shareholders, Smith said CP&L's "use of nuclear power and low sulfur coal has put us in a good position. Our sulfur-dioxide emission rate remains one of the lowest on the East Coast. We are already in compliance with the major requirements of Phase I of the Act, to take effect in 1995."

The legislation required installation of nitrogen oxide burners on coal-fired plants by 2000. To begin preparing for the changes that would be necessary, the Company established a Clean Air Act compliance project and set up a steering committee chaired by Jim Davis, group executive for fossil generation and power transmission. Others on the steering committee were Ron Coats, manager of technical services; Peggy Glass, treasurer; Dick Jones, group executive for legal and regulatory services; Bobby Montague, vice president for system planning and operations; and Rick White, vice president for corporate communications.

A project committee also was established. It was chaired by Max Thompson who was designated project manager. A veteran engineer, Thompson had been involved in managing construction of the Harris plant and was project manager for moving spent nuclear fuel from the Robinson and Brunswick plants to the Harris plant. More than 65 persons were involved in the Clean Air project activity. It was anticipated the plant modifications to comply with limitations on sulfur and nitrogen oxide emissions would raise rates more than 10 percent. The regulations would introduce an environmental factor to be considered by the energy control center in determining which plants to operate as system loads fluctuated. For CP&L, the objective was to make early preparation for the changes and assure that the best possible decisions would be made in a timely way.

"Our strategy is to manage risk, provide flexibility, control costs and accommodate load growth," Davis explained.

New Information Management Systems

In 1986 the Company had launched a major corporate information resources planning project which it called CIRP. More than 80 people representing a cross-section of the Company were involved. Their efforts were yielding fruit in 1992. A new customer information management system (CIMS) was scheduled for start-up in November. It was to replace the 24-year-old customer accounting and information system. Its capacity was 4.5 million lines of computer code and it would be used by 1,500 employees everyday, putting at their finger tips detailed information about the account of each customer.

Tom Dwyer, vice president for information services, described CIMS as the first system in the Company where work processes were changed before the information system was developed. It would enhance productivity and customer service.

A new financial/accounting information management system (FAIM) was set to begin in 1993. Dwyer anticipated it would literally change the way budgeting and accounting was done, allowing activity-based cost management. Among utilities, CP&L was on the leading edge. In fact, the Company already enjoyed recognition from industry peers and a trade magazine as "premier" in its use of computer technology for information management.

Barham said FAIM would enable management to look at an individual manager's performance compared to the dollars spent on any given business activity, and allow the allocation of more resources to value-added activities while maximizing the ability to lower costs.

LEADING IN BUSINESS SUPPORT OF EDUCATION

The September 1991 issue of North Carolina magazine pictured Sherwood Smith on its cover, calling him an "Education Reform Advocate". That label underscored his philosophy about responsibility to be involved in the community -- local, state and national. While leading CP&L to a position of prominence in support of education, he also had advocated protection of environmental resources.

As concern about the quality of public education mounted during the 1980s, Smith jumped to the fore as a spokesman for business. His interest was sparked initially by a report entitled, "A Nation at Risk". Through his activities in the Committee for Economic Development, he became familiar with a CED report entitled, "Teaching the Disadvantaged". As chairman of North Carolina Citizens for Business and Industry, he established that organization's first education committee.

If Smith needed any premise on which to base his commitment to education it had been provided much earlier: "the future of CP&L is the future of the area we serve." Certainly, education had become the key to the hopes and dreams of individuals and communities in the

Carolinas.

In 1985 Smith joined with former State Senator Gerry Hancock, Jay Robinson who was superintendent of Mecklenberg county schools, and Tom Lambeth of the Reynolds Foundation to organize the Public School Forum, a broad-based North Carolina leadership group. Its aim was to bring together the different interest groups speaking for education, and have a united front in presenting the needs of education.

An early draft of a purpose statement identified the problem which Smith, Hancock, Lambeth and Robinson sought to address. "The competition of interests which now exists among the various constituencies of public education -- parents, teachers, administrators, school boards, municipal and county governments, the board of public instruction, and legislators -- is not healthy because it has become a conflict over disparate issues, usually in the General Assembly, instead of a technique to develop consensus for new approaches to the overall problem."

They spoke of developing a plan, or at least options, whereby the private sector could be "more involved in the support and improvement of the school system as well as in decisions about the allocation of resources for the system."

Public School Forum

When the 42-person Public School Forum was constituted, its members included business executives from the Governor's Council on Management and Development, appointees by the lieutenant governor and the speaker of the house, the state superintendent of public instruction, the chair of the state board of education, the head of the state's higher education system, and leaders of the North Carolina Association of Educators, the Association of School Administrators, the School Boards Association and the Association of County Commissioners. Hancock was chairman. Smith was a member of the executive committee.

Its mission as initially described was "to establish a permanent forum for consideration of major public education issues" which would "work to identify the significant challenges facing elementary and secondary schools and develop consensus responses which will deserve support of the people."

The Forum defined its goals as two-fold. First, it wanted to insure that "the public schools are staffed by talented, well-trained, dynamic, professional teachers and administrators." Second, it advocated "an atmosphere and work conditions that are professionally challenging and financially rewarding."

When formation of the Forum was announced, Smith told a press briefing that "our human resources determine how the other resources of the nation will be developed and managed. Without a skilled and knowledgeable work force, neither business nor government can work efficiently or productively. Schools are the central institution for the development of human

resources."

Smith later reflected that decisions about education were being made on a short-term political basis. "It was important to establish a permanent forum to discuss educational needs and policy outside the halls of the General Assembly. We wanted to support and strengthen the present system while working for longer-term improvements."

One of the early achievements of the Forum was to gain private and state financial support for the North Carolina Fellows program. Modeled after the Morehead Scholars program at the University of North Carolina at Chapel Hill, its objective was to attract outstanding high school seniors into the teaching profession by providing college scholarships in exchange for a commitment to teach for a specified period following graduation. Through the Fellows program, about 400 scholarships were awarded annually.

Study of the Future of Community Colleges

In 1987 Smith was appointed chairman of a 23-person blue ribbon Commission on the Future of the North Carolina Community College System. After more than a year of work by the Commission, Smith wrote in the official report:

"Our investigation focused on a growing gap between job requirements and skills of our workers -- a problem which will confront our state with growing seriousness over the next 25 years, unless North Carolina acts now to raise the basic and advanced skills of many of its adult citizens.... We looked into the challenges faced by business and industry competing in a competitive economy where efficiency, flexibility, and mastery of new technologies are increasingly demanded. The clear message to our state, and to our community colleges, is that 'business as usual' will not work for education, as it will not work for businesses facing an increasingly competitive and demanding economy. Our businesses must adapt to meet new challenges, and our community colleges must adapt to meet the needs of those who work in North Carolina. Yet our higher expectation for community colleges will only be realized if we first invest more into the system."

Also a member of the Governor's Commission on Workforce Preparedness, Smith authored a statement which appeared in the September 1990 issue of Business North Carolina:

"It is imperative that the business community call for the best from our educational system and for business people to actively help our schools.... The competitiveness and profitability of North Carolina business will depend on the quality and motivation of the young people educated by our primary and secondary schools, community colleges and universities.

"Since there is a direct correlation between the quality of the workforce and the

quality of education, it is in the best interest of the business community to ensure that its future employees are fully prepared for the increasing demands of a highly technical, complex work environment.

"Inadequately trained or unmotivated workers place an additional burden on our already limited resources.... It is essential our schools have the resources to do the job properly the first time.

"Improvements will not happen overnight. Education is a complex, dynamic process and improvements must be based on good judgment and implemented systematically."

Recognition for Support of Education

Smith's interest in and support of education also led to other honors. Honorary doctoral degrees were awarded him in 1988 by St. Augustine's College in Raleigh, in 1989 by Francis Marion College at Florence, S. C., and in 1990 by Campbell University at Buies Creek, N. C. He also received the first Friend of Education award from the Wake County (N.C.) Education Foundation in 1990. He was a driving force in establishment of foundations in Wake and other counties. He had been president of the Board of Visitors at the University of North Carolina at Chapel Hill and vice chairman of the Morehead Scholars' central selection committee at UNC.

Writing in The Forum Report, a publication of the Public School Forum of North Carolina, Smith endorsed local education foundations. "I would encourage every business to get involved If a community does not have a foundation, help start one. We have only begun to realize the tremendous power of strengthening the bonds between business and education."

He added: "Many business leaders see education as a field best left to local and state governments. Many education leaders feel that businessmen are not suited to provide policy direction for educational reforms and improvements. Those attitudes must change or they will cost business and education far more than they realize."

Under Smith's leadership, CP&L became a generous supporter of local education foundations across its service area. It also provided annual scholarship grants to the 38 community colleges and technical schools in its area. One of the Company's grants in 1989 provided funds which enabled the Darlington county (S.C.) high school to establish a skills enhancement center, a 30-station computer lab used in teaching adults to read.

Governor Carroll Campbell spoke at the dedication of the facility. Describing adult illiteracy as a major barrier to economic growth in South Carolina, he said "this represents a community effort to do something about a problem that affects the people of this county. By pooling the resources of the school board, county council, the county development board and business, you have hit on the formula for success."

In a speech at Campbell University, Smith told students one of the bigger tasks facing the nation "is to improve the quality of our total education system and the products of that system to meet the challenges of an increasingly competitive world. Upon graduation, you not only will be in competition with your peers in this country, but you will be competing with a world community of bright, well-educated and highly motivated young people.

"...Education of our young people and the job skill training of our workforce provide the cornerstone that will either ensure the success or place at risk the prosperity of this nation in the 21st century."

In a commencement address at Francis Marion College in December 1989, Smith described life as a race, marked by a start and a finish. "It is what we do and learn during the race, and how we apply that experience that determines whether our participation in the race is successful. If we learn from each success, and from each failure, and if we improve ourselves through this process, then we will fulfil our potential and perform well," he said.

As he spoke to young people, Smith frequently expressed what he described as an underlying principle. "Your rewards in life will be in direct proportion to your contributions."

SAFETY ALWAYS EMPHASIZED

Safety has known no season or year at CP&L. It has been a constant in a business where change has been the norm. The guiding principle was expressed in the slogan:

No job is so important
And no service so urgent
That we cannot take time
To perform our work safely.

The Company was a charter member of the National Safety Council in the 1920s and has been an aggressive promoter of safety in the workplace ever since. It has been so successful that other utilities from this country, Canada and Great Britain have chosen to study and emulate its program. Safety training has included instruction in first aid, including cardio-pulmonary resuscitation (CPR).

The May 1963 Spotlight reported about Kimball W. Burriss, a serviceman in Wilmington, saving the life of a fisherman who had fallen from a boat into the Cape Fear river. When he came upon the accident, Burriss pulled the drowning man from the water into his boat, and applied artificial respiration with one hand while he used the other to steer the boat to shore. It was off-duty use of the first aid training learned during his 35 years with Tide Water Power and CP&L. Other employees performed similar, if less spectacular, lifesaving acts.

When 87 employees at the Cape Fear plant in 1978 set what was then a record 450,000 man-hours for time worked at a steam generating plant without a doctor attended injury, Manager Leon Ellis commented: "A good safety record means efficiency of operation as well as the safety of the employee. That efficiency, in the long run, adds up to dollars saved for our consumers."

In September 1983, employees at the Weatherspoon plant completed one million hours of work time without a doctor-attended injury. Manager C. V. Bailes described the safety achievement as an all-time record for the Company's power plants.

In 1985 a Sumter line and service crew was recognized by the South Carolina department of labor for working one million man-hours without a lost time accident. The achievement spanned 35 years during which 31 different employees had been members of the crew.

Spotlights regularly pictured safety councils which had reached milestones ranging from 100,000 up to 2,000,000 man-hours without an accident. In October 1991 the Brunswick instrumentation and control electrical maintenance safety council reached two million man-hours without an on the job injury. The record started in May 1984.

There were 134 safety councils within the Company in 1992. Each met monthly. Those which achieved the better safety records were recognized annually at a Raleigh luncheon with senior management. There also was recognition for individual councils as they achieved significant safety milestones. Smith frequently reminded employees that to be successful they should combine good judgment and skill with sincere dedication to safety.

Two safety councils did not have an accident requiring the attention of a doctor for over 30 years. The 10-member council at Dillon and the 14-person council at the Walters plant held that distinction while the Mt. Olive council had exceeded 20 years. Stacey Griffin of the Dillon council who had logged 39 years with the Company spoke of trying to emphasize safety continually. "We're proud of the record and proud of the work done to reach 30 years," he declared. A 1991 accident ended the Dillon record at 32 years.

Through 1990 the Company had earned the EEI safety achievement award in 14 of the last 17 years, the National Safety Council award of honor or merit in 15 years, and the Southeastern Electric Exchange accident prevention award in 13 of the 17 years.

THE PIONEER CLUB -- 1947 to 1992

To recognize employees who had been with the Company for 25 years, the Company in 1947 started the Pioneer Club. After 74 new members were inducted in 1992, Barbara Allen,

head of the community relations department and executive secretary of the Pioneers, said membership was 1,333. Of this number, 497 still were active employees. Allen had completed 12 years as executive secretary of the club. Her predecessors in that position were Gordon L. Jones, Howell R. Rickman and Tom Byrum.

Jones was a special accountant in electronic data processing when he retired June 28, 1967. His career which started as a \$5 per week office boy in Asheville spanned 50 years, 10 months and 5 days. Only Kenneth Isley, who retired as a salesman in Henderson on January 1, 1966, had worked longer for the Company. His career exceeded Jones' by 54 days. Both were outdistanced by Walter Ammenhauser when he retired November 1, 1970. Born in Germany, Ammenhauser had been employed by Tide Water Power Company when he was 13. His first job was in a refreshment stand at the end of one of the Company's trolley lines. He was a serviceman from 1928 until his retirement. Ammenhauser's career spanned 51 years, six months and 15 days.

A record of a different kind was set by Edna Murray, office supervisor in Henderson. From May 27, 1946 -- her first day on the job at CP&L -- until her retirement August 1, 1988, she never missed a day except for vacation. "For a long time, I never really thought about it," she said. "I had a job to do, I was expected to be here and I wanted to be here. After many years, I realized I had not missed a day. Then it became a goal to keep it going."

"I have always been impressed by the people I have met throughout CP&L. You just don't find better people," Murray declared. "When you are working with good people and for a good company, it makes it a lot more enjoyable to go to work each morning."

Another unique career ended in 1978 with the retirement of John Humphrey, manager of the Sutton plant. He began work with CP&L in 1939 at the Hartsville substation of which his father was superintendent. When John became a member of the Pioneer club in 1964, he and his father were the club's first and only father-son team.

The Company sponsored annual dinner meetings for the Pioneers each spring, providing an opportunity to renew old acquaintances as well as to recognize new members.

NEW PRESIDENT AND CHIEF OPERATING OFFICER

In a move which marked him as the likely successor to Smith as chief executive, William Cavanaugh III came to CP&L on September 1, 1992, as president and chief operating officer. Since 1980 Smith had held the titles of chairman and president.

Cavanaugh had a strong background in nuclear management, the area which Smith believed held the greatest challenge for CP&L. He had been group president for energy supply at

Entergy Corporation, an electric utility holding company based in New Orleans, and chairman of Entergy Operations, Inc., Entergy Corporation's nuclear operating subsidiary. Some would recognize Entergy better as the old Mid-South company. Its operating utilities included Mississippi Power and Light Company in Jackson, Mississippi, of which Cavanaugh was president from 1984 until 1986.

A mechanical engineering graduate of Tulane University, he spent eight years in the U. S. Navy's nuclear program. He had been at Entergy for 23 years, holding varied management positions in its nuclear operations.

The reaction to Cavanaugh's appointment was that Smith was responding, at least in part, to NRC's continuing criticism of management of the Brunswick plant. Cavanaugh was highly respected throughout the nuclear industry. But Smith, 58, saw the move as providing for an orderly transition in the management of the Company. Cavanaugh was 53.

With the arrival of Cavanaugh, all of the power supply functions reported to him. Graham and Barham continued to report to Smith. Graham had responsibility for the legal and regulatory group, the customer and operating services group, and the corporate communications and public affairs departments. Barham was responsible for the finance and administration functions.

CP&L APPRAISED

Sherwood Smith sat in his office on a Saturday morning in the summer of 1992 and assessed the state of CP&L, much as Sutton had done before the Newcomen Society in 1958. Behind Smith was a framed quote from one of his speeches: "Quality is not a technique at all but an attitude put into action. Quality initiatives don't succeed because of the novelty of the ideas but because of determination, persistence and skill of implementation."

"We are strong financially," he said. "We expect to need a minimum of capital for new plants. Our biggest capital requirements for the remainder of the '90s will be to comply with the Clean Air Act and to maintain nuclear plants.

"We have strong technical skills and we are growing in our orientation to business management. Our business continues to become more complex and sophisticated. Many of our managers are better equipped because of deliberate cross-training. We have to excel in meeting customer needs in a competitive environment. We have to use our TQ skills effectively.

"We have to recognize the leverage which nuclear has on our business. Only seven other companies have nuclear operations at three different locations."

He reflected about the Brunswick plant, characterizing its problems as more regulatory than technical.

To one reading news reports, he suggested, it sounds a lot worse than it is. He was confident that a July 23 response to the NRC outlined corporate plans that would expedite the return of Brunswick to service, and result in improvements at the Company's other nuclear facilities.

Still a spokesman for the nuclear industry, he was chairman of the Nuclear Power Oversight Committee. Speaking before the U. S. Senate Environment subcommittee on nuclear regulation in behalf of Edison Electric Institute and the American Nuclear Energy Council, Smith described what it would take to allow utilities to order and build nuclear plants:

"Congress must pass legislation that enhances standardization of plant design and provides for licensing reform. To further reduce dependence on foreign oil, nuclear energy must be an important component of any national energy strategy."

The Company which Smith headed had grown to 959,000 customers and annual revenues of \$2.686 billion at the end of 1991. Its system had capability of 9,867,000 kilowatts. Its assets exceeded \$7.5 billion.

A member of the Business Roundtable and the Business Council, Smith had seen his sphere of influence grow steadily over the years. In his leadership of a corporation subjected to public and regulatory criticism, he had shown amazing personal resiliency. He rolled with the punches and doggedly kept plowing ahead. Always he seemed able to see a silver lining in the storm clouds. Few individuals could have given more of themselves in service to their community than he had while guiding the fortunes of CP&L during 13 years as chief executive. The Greater Raleigh Chamber of Commerce recognized him with its A. E. Finley Distinguished Service Award in 1985; the University of North Carolina with its 1984 Distinguished Alumnus Award; and the Occaneechee Council of Boy Scouts with its 1988 Distinguished Citizen Award.

His peers in the electric industry praised him for his leadership in Washington; for his ability to analyze situations and formulate strategy to deal with legislative issues. They were inspired and heartened by his leadership.

Impressive as his achievements had been, Smith looked ahead to more years of leadership at CP&L and service to his community with the same excitement and intensity that had marked his first 27 years with the Company.