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E. E. UTLEY
Senior Executive Vice President
Power Supply and Engineering & Construction

Dr. J. Nelson Grace, Regional Administrator
United States Nuclear Regulatory Commission
Suite 2900
101 Marietta Street, NW
Atlanta, GA 30323

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23

SHEARON HARRIS NUCLEAR POWER PLANT
UNIT NO. 1 - DOCKET NO. 50-400

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 & 50-324/LICENSE NOS. DPR-71 & DPR-62

RESPONSE TO NRC SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE REPORT NOS. 50-261/85-33, 50-325/85-36, 50-324/85-36, AND 50-400/85-41

Dear Dr. Grace:

Carolina Power & Light Company (CP&L) has reviewed the Systematic Assessment of Licensee Performance (SALP) Board Reports forwarded by your letter of January 15, 1986, which evaluated CP&L's performance during the period May 1, 1984 through October 31, 1985. We are pleased with the Board's recognition of CP&L's satisfactory performance and continued demonstration of proper concern for nuclear safety. We also appreciate you and your staff's comments at our meeting of January 23, 1986, which further explained the SALP Board's evaluation of CP&L's safety performance.

Carolina Power & Light Company is concerned, however, that the SALP Board has not given full value to all of CP&L's achievements in improving safety performance during the period of evaluation. It is with this in mind that we submit the attached additional response to the SALP Board Reports. We have indicated those areas which we believe should be rated higher and the bases for our belief and have discussed enhancements made to improve performance in several areas. Per your request, this response also describes actions CP&L has taken to enhance performance in the electrical equipment and cables area at the Harris Plant.

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We hope that this additional information supports your recognition of improved performance in your deliberations leading to final transmittal of the SALP evaluations.

Yours very truly,

E. E. Utley

SRZ/wc (133)

Attachment

cc: Mr. B. C. Buckley (NRC)
Mr. H. R. Denton (NRC)
Mr. E. D. Sylvester (NRC)
Mr. G. F. Maxwell (NRC-SHNPP)
Mr. G. Requa (NRC)
Mr. H. E. P. Krug (NRC-RNP)
Mr. W. H. Ruland (NRC-BNP)
Wake County Public Library
Mr. Travis Payne (KUDZU)
Mr. Daniel F. Read (CHANGE/ELP)
Mr. Wells Eddleman
Mr. John D. Runkle
Dr. Richard D. Wilson
Mr. G. O. Bright (ASLB)
Dr. J. H. Carpenter (ASLB)
Mr. J. L. Kelley (ASLB)

RESPONSE TO NRC's SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE BOARD REPORT FOR BRUNSWICK, ROBINSON, AND HARRIS PLANTS, DATED JANUARY 15, 1986

Carolina Power & Light Company concurs with the objectives of the SALP Program. NRC has stated that the SALP review process should not only aid in improving licensee performance, but provide a basis for allocation of NRC inspection resources and improve the overall NRC inspection program. Given these objectives and the definitions of the SALP ratings as well as the criteria used by NRC in assessing each functional area, we offer the following responses for each SALP Board Report:

H. B. ROBINSON
SALP BOARD REPORT NO. 50-261/85-33

1. **Radiological Controls** (SALP Board Rating: Category 2. Trend: Improving)

The SALP Board recommended that further management attention should be directed to the ALARA program. A major improvement in this area has resulted from replacement of steam generators. Steam generator inspections, tube plugging and, finally, replacement, accounted for approximately 30 percent of the yearly man-rem exposure during the last 5 years. However, in 1985, Robinson exposure was 311 man-rem, which is well below the national average cited by the SALP Board for US PWRs. Also, the steam generator replacement itself was conducted at an exposure of 1207 man-rem, significantly below the Region II average of 1712 man-rem for steam generator replacements. Most importantly, on an individual exposure basis, Robinson plant has managed an ALARA program which reduced exposure to 0.23 rem/man-year in 1985, down from 0.70 rem/man-year in 1984 and below the US PWR average of 0.49 rem/man-year.

Additionally, the Robinson plant management has organized an ALARA Task Force Program to increase ALARA awareness at all levels on-site, has performed maintenance and cleanup to decrease the number of Locked High Radiation Areas significantly (reduced from 12 to 3), has implemented an improved, comprehensive radiological outage work planning program (e.g, the 1986 outage preplanning began in March 1985), has increased the ratio of on-the-job health physics supervisors to technicians significantly for outage work, has decreased the amount of contaminated area significantly (currently 5,532 $ft.^2$ compared to 9,000 $ft.^2$ in February 1985), has revised numerous procedures to improve respiratory protection and to simplify compliance with Radiation Work Permits, and has implemented a program for personnel who routinely work in the radiation controlled area and their immediate supervision to complete advanced radiation protection training (GET Level III). By the end of 1985, 98.6% of the 414 people identified for this training had completed it.

In summary, we feel our ALARA program is on the right track and has caused significant reductions in annual exposures compared to previous years. We believe that continued application of these techniques and programs will justify a higher rating in this area during the next evaluation period.

2. Fire Protection (SALP Board Rating: Category 2. Trend: Constant)

CP&L believes that a Category 1 rating is warranted in this area based on the following additional information.

The SALP Board rating in this area seems to weigh heavily on the results of the Appendix R inspection in early 1985. This audit was held approximately 6 months before CP&L committed to be in compliance with Appendix R. CP&L agreed to an early audit and made it clear prior to the audit that certain items had not yet been completed, but would be completed prior to the CP&L committed date of July 31, 1985. CP&L had identified incomplete items to the inspectors before the audit, demonstrating our management's understanding of the fire protection programs. Of the 22 open items from the audit, five open items resulted from pending exemption requests which had not been dispositioned by the NRC. The remaining 17 open items were resolved prior to July 31, 1985. There were no violations associated with those portions of Appendix R that were required to be complete at the time of the audit and there have been no fire protection violations during the last two SALP periods. CP&L interprets the audit results as a very positive indication that CP&L understood what was required to meet Appendix R and was "on course" to achieving compliance by the CP&L committed date. We believe that had the audit been conducted after the CP&L committed date, the Robinson plant would have been found to have met these commitments. We believe this high level of performance demonstrates CP&L managements' aggressive involvement in fire safety resulting in a highly skilled and trained staff; therefore, a continuation of the previous Category 1 rating is indicated.

3. Quality Programs and Administrative Controls Affecting Quality (SALP Board Rating: Category 2. Trend: Constant)

CP&L believes that a Category 1 rating is warranted in this area based on the performance of the QA organization. As we discussed, we feel this area is more fairly evaluated when examining the performance of the QA organization and assigning the evaluation of other quality-related issues to the appropriate functional areas.

We agree with the Board's positive observations concerning the on-site QA/QC programs. Unlike previous SALP reports, which addressed the QA organization more directly, this report identified plant improvements and deficiencies of a more general nature. Although we basically agree with the Board's observations, we are disappointed that formal recognition was not given to CP&L's QA surveillance program, which has been recognized by INPO and the NRC as being worthy for other utilities to adopt. The surveillance program was further strengthened during this evaluation period by the addition of a Project QA Specialist and several transfers from plant technical groups into the Surveillance Subunit. The voluminous document and modification package reviews associated with the steam generator outage were performed completely and on time and the safety review qualification training program was upgraded, yet these major efforts were not recognized.

We are also disappointed that the Board did not recognize the improvements made in nuclear records management which have resulted in significant benefits in quality at the Robinson plant. The records management function was strengthened through the appointment of a Records Manager experienced in records turnover and control of documents at major US nuclear installations. Improvements in records

management included the development of a required records listing and the design and completion of a records vault. Significant improvements were made in the control of safeguards information and the development of a responsive program for the upgrade and control of technical manuals. A program for more effective control of plant operating manual procedures and revisions thereto, was instituted during this period and has brought positive comments from INPO and other utilities. Significant progress has been made in the development of improved modification documentation and design information control during this same period. The micrographics program has been significantly improved with respect to processing and quality control on an ongoing basis.

The QA/QC coverage of the intensive work effort associated with the steam generator change-out, including the successful management of over 80 contractors, demonstrates that CP&L management exhibited aggressive involvement oriented toward nuclear safety and justifies a Category 1 rating.

4. Licensing Activities (SALP Board Rating: Category 2. Trend: Improving)

CP&L believes that a Category 1 rating is warranted in this area. This is the second consecutive SALP evaluation rated Category 2 with an improving trend.

Specific management action has been taken to improve the licensing function: a principal engineer now heads the licensing unit thereby giving a higher level of management attention to day-to-day interface with NRC Project Manager. Further, a senior engineer has been permanently located at the plant site to expedite routine and nonroutine responses to NRC requests for information. Also, as acknowledged in the SALP report, the former Manager of Technical Support was appointed the Director of Regulatory Compliance.

During the evaluation period, the results of these actions and diligence of the licensing taff was evident. CP&L has improved its performance in meeting its committed date for licensing submittals and has instituted additional measures to insure completeness. During the evaluation period, compliance with the EQ Rule was achieved, the reactor vessel pressurized thermal shock issue was resolved, a fire protection audit was conducted on an accelerated schedule per NRC request (during which no violations were identified), several NUREG-0737 items were closed out, and outstanding TMI Technical Specification changes required by GL 83-37 and GL 82-16 were completed.

Improved liaison and communications with the NRC were accomplished through the scheduling of monthly issues meetings with the Project Manager. These meetings have been held at NRR and at the Robinson plant and were scheduled at CP&L initiative in cooperation with the NRR Project Manager. Communications have been further enhanced by CP&L's quarterly meeting of the Directors of Regulatory Compliance for the three CP&L plants and the Nuclear Licensing Unit supervisors.

CP&L's licensing activities have been clearly pro-active and demonstrate an aggressive involvement oriented toward nuclear safety; therefore, a Category 1 rating is indicated.

5. **Training** (SALP Board Rating: Category 2. Trend: Improving)

CP&L believes a Category 1 rating is warranted in this area. During the period covered by the report, training at the Robinson plant was conducted at a level of excellence associated with the best in the nuclear industry.

The current SALP report does not fully recognize several significant accomplishments and improvements in Robinson plant training. The Robinson plant staff demonstrated a high operator licensing success rate for the past four years made possible by the continued excellence of the operator training program. The success rate for Robinson plant licensed operators and non-operators is 94.1 percent over the past four years. During this SALP evaluation period, six out of six SRO candidates passed, and six of eight RO candidates passed.

CP&L also achieved significant success in the area of INPO accreditation. During the period covered by the report, three plant training programs were accredited--nonlicensed operator, reactor operator, and senior reactor operator/shift supervisor training. In addition, self-evaluation reports were submitted for accreditation of training programs for the three principal maintenance classifications and STA during this SALP period, and INPO subsequently accredited them as well.

To further support the training program, a new training facility was completed and CP&L released a contract to purchase a plant-specific Robinson simulator. Acquisition of the simulator is progressing according to schedule for delivery in April 1987.

CP&L also instituted significant improvements in the Training and Qualification Program for plant employees in maintenance, radiation control, and environmental and chemistry classifications. This program provides a comprehensive, coordinated approach to training and qualifying employees to perform plant tasks, based on systematic job analysis. CP&L implemented this program in April 1985 for maintenance classifications and in August 1985 for radiation control and environmental and chemistry. The program includes revised qualification cards, answer guides, and an improved system for administering the qualification program, including special training for personnel who administer qualification check outs; a training instruction common for all plants to provide a more consistent and systematic approach to plant training; additional instructors to provide plant-specific craft and technical training and continuing training for plant employees; and increased management involvement in training through advisory committees that represent plant management for specific training programs.

In summary, the total training effort has shown significant improvement since the previous SALP report. In addition, the high success rate that has characterized replacement operator licensing indicates a strong and well-managed training program oriented toward nuclear safety; therefore, a Category 1 rating is indicated.

BRUNSWICK UNITS 1 AND 2
SALP BOARD REPORT NOS. 50-325/85-36 AND 50-324/85-36

1. Plant Operations (SALP Board Rating: Category 2. Trend: Improving)

During this period, Brunswick plant operations were enhanced in many areas not recognized by the SALP Board report. For example, CP&L added a senior AO to the shift complement, added a second SRO to the shift complement during startup, continued the smooth operation of the radwaste processing systems, implemented the new Emergency Operating Procedures, upgraded the control room lighting and labeling, accomplished a 100 percent pass rate on requalification of licensed operators, and was recognized by INPO for good practices in the Valve Labeling Program, the Scram Reduction Program, and the Technical Specification Interpretation Program. In addition, NRC recognized the Plant Manager for having received an ANS award for excellence in plant operations.

The SALP Board criticized the plant staff for failure to clearly identify the plant's position on event related regulatory issues prior to discussions with the NRC. However, during the previous SALP report period and throughout most of this SALP period, CP&L was encouraged by the NRC to interface with the resident office during all phases of "issue" identification, assessment, and resolution. Often during this time period, CP&L's "position" was not or could not have been established until the assessment or resolution was complete. Because the plant staff discussed the issue with NRC throughout the process, the NRC had advance notice and could better follow the issue. NRC responded favorably to this method of CP&L and NRC interface.

During the final months covered by this SALP, Region II management changes have reflected a different management philosophy. It now appears that the desired time of direct interface between CP&L and the NRC is when CP&L has established its position on a given issue. CP&L is making a determined effort to adopt this current philosophy of defining our position prior to discussing an issue with the NRC. CP&L believes that it has and must continue to identify issues to the NRC when they become known to CP&L and will continue; however, follow-up will be conducted within the new philosophy.

The SALP Board also stated that clear lines of communication between working groups were not always maintained, that interface between maintenance and the system engineers was not formalized, and that responsibilities of the system engineer, a new concept at Brunswick this evaluation period, need further development.

We believe that these statements are based on a misconception of the way in which our personnel interact. For example, the Systems Engineering Supervisor and the Maintenance Production Engineering staff discuss areas of concern each working day. The system engineers are responsible for design, maintenance, and operating problems associated with their systems; therefore, they must, and do, maintain constant communications with the other plant subunits.

A record run on Unit 2 in 1985 and improved availability and capacity factors for both units are indicative of the improved communications and operations of the plant and demonstrate aggressive management attention in the area of plant operations. We believe continued development and application of management attention in this area will justify an improved rating during the next SALP evaluation.

2. Radiological Controls (SALP Board Rating: Category 2. Trend: Improving)

The SALP Board stated (1) that waste reduction methods were initiated, but the waste volume remained above average for a similar sized plant, and (2) that the licensee disposed of 48,000 cubic feet of solid waste in 1984 and this was higher than the average of waste shipped by a BWR in 1984 which was 33,000 cubic feet.

However, the average 33,000 cubic feet shipped by a BWR in 1984 was per unit and not per site. Using these numbers, CP&L shipped approximately 27 percent less per unit than the BWR average. Waste volume control should have been identified as a strength for the Brunswick units.

The SALP Board also observed that "...the licensee's program for maintaining radiation exposure as low as reasonably achievable (ALARA) has been ineffective..."

CP&L feels that its ALARA program for Brunswick is effective, and is improved over the program which was rated a Category 1 during the previous SALP evaluation. During the previous SALP period "management support and radiation exposure elements" were noted as a positive. Subsequent to the previous SALP evaluation period, management support has intensified as demonstrated by the recent recirculation piping decontamination process which is expected to save approximately 1000 man rem during the current Unit 2 outage and the institution of a GET III program which will enhance plant supervision and craft personnel sensitivity to the need for reduced exposure.

The SALP report stated that the Brunswick site received a high collective dose during this period. CP&L is concerned that this statement ignores the trend of the total ALARA program. Since the previous SALP report which showed a 3,492 man-rem value for 1983, Brunswick has experienced a man-rem reduction of approximately 20 percent (2804 rem in 1985) while conducting extensive outage work within the drywells of each unit. The man-rem average for Brunswick in 1984 was 0.51 rem/person-year as compared to a U. S. average of 0.65 rem/person-year at other similar BWR units for 1984. The 1985 Brunswick average was further reduced to 0.49 rem/person-year. This is indicative of a progressive and effective ALARA program, improved since the previous SALP period. CP&L also recognizes that extensive 30+ week outages are a major contributor to man-rem accumulation; therefore, a five-year outage plan has been established which reduces scheduled outage time to approximately 12 weeks per cycle. By establishing these shorter outages, fewer personnel will be utilized for a shorter period of time, accumulating fewer man-rem, thus further reducing total dose.

CP&L does not feel that declaring the Brunswick ALARA program "...ineffective as evidenced by the fact that the plant has produced the highest BWR cumulative radiation dose in the U. S. for the period 1980-1984..." is appropriate. As noted above, extended outages utilizing large numbers of support personnel have contributed to a significant cumulative site exposure. Most importantly, however,

the effectiveness of the CP&L ALARA program has enabled a 20 percent man-rem reduction throughout the assessment period which has resulted in individual average exposures less than the industry average. In striving for the lowest achievable personnel exposure, the CP&L ALARA program has achieved a level of success comparable to the industry. Future, shorter outages are anticipated to result in even greater reductions of exposure.

The SALP Board further observed "...IGSCC in weld regions of the recirculating water system as well as cracking in disks of low-pressure turbines that has been attributed to improper control of reactor coolant chemistry."

However, CP&L has consistently operated the Brunswick units within vendor recommended and NRC approved (technical specifications) conductivity limits. In addition, CP&L has responded promptly to industry IGSCC concerns once the initiating mechanisms were identified. The level of knowledge concerning the relationship between water chemistry and the IGSCC corrosion mechanism of Type 304 stainless steel has increased significantly since the Brunswick units were placed into commercial operation. In addition, Brunswick has made significant engineering and design improvements to the condensate and reactor water cleanup system to enhance chemistry control.

The cracking in the disk of the LP turbines is caused by high oxygen concentrations in manufacturing induced high stress areas of the hub of rotor wheels. Therefore, to improve the rotors/wheels resistance to stress corrosion cracking the wheel design has been changed to remove areas of high stress and crevices which allow the accumulation of oxygen concentration. CP&L has ordered new rotors with the improved design. Also, operating procedures have been changed to maintain the rotors/wheels at temperatures which reduce the susceptibility of the metal to cracking. Since the problem of rotor/wheel cracking is being addressed by design and operating changes, this item should not be referenced in the SALP report as a weakness in the chemistry area.

3. Emergency Planning (SALP Board Rating: Category 2. Trend: Constant)

CP&L believes that a Category 1 is warranted in this area. This area has continued to receive strong CP&L management involvement resulting in a successful emergency exercise with no violations. Most importantly, practical application of emergency preparedness was demonstrated by CP&L's excellent performance during two hurricanes at the Brunswick Plant.

The SALP Board noted that "...notifications to the county organizations were delayed." However, it would be inappropriate to imply this is any reflection on CP&L performance. CP&L made timely notifications required by procedure through agreements with supporting local and State agencies. As noted, CP&L notified the State within the required 15 minutes and the State notified CP&L that they were activated. By procedure, the State was required to assume the responsibility for county notifications. Approximately 30 minutes following notification, the State contacted CP&L and informed CP&L that they had in fact not activated, and had not contacted the counties. It should be noted that the State did not totally activate during this drill and was supplying partial support for the drill. CP&L at that time took on the additional task of notifying the counties. Based on CP&L's demonstrated procedural compliance and assumption of additional reporting requirements, it is felt that this does not represent a weakness but, in fact, a strength.

CP&L has continued aggressive management involvement in emergency preparedness activities; therefore, continuation of a Category 1 rating is appropriate.

4. Quality Programs and Administrative Controls Affecting Quality (SALP Board Rating: Category 2. Trend: Constant)

CP&L believes a Category 1 is warranted in this area. We consider that the Quality Assurance Program has improved since the last evaluation period.

For example, the previous SALP report listed several areas where increased efforts could improve the Quality Assurance Program. CP&L improved performance in these areas as recommended. Since none of these areas were again addressed in this SALP report, acknowledgment of improvement in these areas is indicated.

Also, the NRC has been extremely complimentary of the BSEP QA Surveillance Program, the Tech. Spec. Surveillance Program, and the QA participation in the Prestart-up Readiness Program, to the point of recommending these programs to other nuclear utilities. Extensive training of QA/QC personnel was conducted during this period including significant cross-training of key personnel and plant systems training. Also, QA/QC conducted special audits during this period. These facts were not addressed in the SALP report.

We concur with the SALP Board listing of strengths. However, two items contained in the Quality Programs Analysis section merit further comments to indicate the improvements that have occurred. A total of 252 maintenance surveillance test procedures were rewritten and generally upgraded during this evaluation period. Also, the issue of performing out-of-tolerance evaluations for installed process instruments has been resolved internally with no action required.

CP&L's actions in this area demonstrate an aggressive involvement oriented toward nuclear safety; therefore, a Category 1 rating is justified.

5. Licensing Activities (SALP Board Rating: Category 2. Trend: Improving)

CP&L believes a Category 1 rating is warranted in this area based on additional information not noted in the SALP Board report. During this period, INPO cited the CP&L licensing commitment tracking and management reporting system as a good practice which promotes timeliness and is worthy for other utilities to consider. Also, the Director of Regulatory Compliance contributed to the NRC-initiated Technical Specification Improvement Program by serving as Chairman of the BWR Owners' Group subcommittee which supports this NRC task. In addition, the directors of Regulatory Compliance at the three CP&L plants and the Nuclear Licensing Unit supervisors meet quarterly to promote consistency in CP&L regulatory programs.

The Board observation was made that: "Weakness was observed in the licensee review of amendment requests,...the evaluations for significant hazards considerations in amendment requests did not clearly support the conclusions reached." However, during the SALP evaluation period, the NRC's guidance with regard to the content of the significant hazards analysis was continually revised. CP&L made a conscientious effort to tailor license amendment requests to this

changing NRC guidance. CP&L kept in close contact with the NRC Project Manager and in several instances submitted revised significant hazards analyses for pending requests. Rather than a weakness, this demonstrates a CP&L strength in working with the NRC to expedite licensing activities.

The Company's request to extend the deadline for compliance with 10 CFR 50.49 also came under scrutiny with respect to resolution of technical issues. The Board statement was made: "However, a recent request to extend the environmental qualification completion date was not viewed favorably by the Commission based on the licensee's early efforts in this area." CP&L believes that there are sound technical and economic justifications for the requested extension. After the Commission ruled on the request, the Company began the Brunswick-2 refueling/maintenance outage on November 30, 1985 despite the NRC approval for continued operation under civil penalty. It is not justified to base an evaluation of licensing performance on "early efforts" that predate the SALP evaluation period or on technical differences for which there is a sound basis for disagreement.

Finally, the Company would like to address the areas of staffing and communications. The SALP Board observation was that: "...too few personnel and less than adequate communication between licensing staff and plant staff led to a backlog of less important licensing actions. The backlog of licensing actions was being reduced as evidenced by the influx of new submittals to NRC. Recent licensee staff losses have slowed this effort." However, at no time during the SALP evaluation period was there a backlog of NRC required submittals. The referenced backlog is assumed to refer to CP&L-initiated license amendment requests. It would be inappropriate to assess any CP&L-initiated license amendment requests as a weakness in licensing performance. As stated in the SALP analysis the number of outstanding amendments at the NRC was reduced due to close cooperation between CP&L and the NRC. Contrary to the Board statement that recent licensee staff losses have slowed progress on license amendments, seven submittals associated with license amendments were made during the last three months of the evaluation period. This trend has continued through the end of 1985 with five additional submittals. The number of licensee initiated requests pending submittal to the NRC should have no bearing on the SALP evaluation for licensing activities.

CP&L's establishment of an on-site licensing position has led to better communication between the corporate licensing staff, the plant staff and the NRC. The Company does not believe there was ever less than adequate communication. The Brunswick licensing unit kept in close contact with plant personnel on each technical issue before the NRC. Existing procedures ensured the technical integrity and completeness of NRC submittals. CP&L has made significant improvements in timeliness and technical completeness of licensing submittals.

In summary, CP&L's aggressive management involvement in licensing activities justifies a Category 1 rating.

6. **Training** (SALP Board Rating: Category 2. Trend: Constant)

CP&L believes that a Category 1 rating is warranted in this area. The SALP Board report does not fully recognize several significant accomplishments and improvements in Brunswick training.

Brunswick plant staff improved in the rate of success on NRC-administered requalification examinations. In 1985, 12 of 15 operations and non-operations candidates passed the requalification exam on the first attempt (4 of 4 RO, 8 of 11 SRO). All of operations candidates passed on the first attempt. In 1983 the rate was 11 of 15 (5 of 7 RO, 6 of 8 SRO).

Also, CP&L made significant achievements in the area of INPO accreditation. During the period covered by the report, three plant training programs were accredited--nonlicensed operator, reactor operator, and senior reactor operator/shift supervisor training. In addition, self-evaluation reports were submitted for accreditation of training programs for the three principal maintenance classifications and STA during this SALP period and INPO subsequently accredited them as well.

During this SALP period, CP&L achieved full implementation of plant-specific simulator training (turnover from the vendor took place in July 1985). During the last half of the period covered by the report, the simulator has been operated twelve hours per day in support of plant training. Also, CP&L developed and implemented a comprehensive fire protection training program.

In addition, CP&L made significant improvements in the Training and Qualification Program for plant employees in maintenance, radiation control, and environmental and chemistry classifications. This program provides a comprehensive, coordinated approach to training and qualifying employees to perform plant tasks, based on systematic job analysis. The program was implemented in April 1985 for maintenance classifications and in August 1985 for radiation control and environmental chemistry. Benefits and improvements resulting from these programs include revised qualification cards, answer guides, and an improved system for administering the CP&L qualification program, including special training for personnel who administer qualification check-outs, a training instruction common for all plants to provide a more consistent and systematic approach to plant training, additional instructors to provide plant-specific craft and technical training and continuing training for plant employees, and increased management involvement in training through advisory committees that represent plant management for specific training programs.

In summary, the Brunswick training program has been enhanced significantly. CP&L believes that proper consideration of these improvements leads to the conclusion that management attention and involvement are aggressive and oriented toward nuclear safety; therefore, a Category 1 rating is justified.

SHEARON HARRIS NUCLEAR POWER PLANT UNIT NO. 1
SALP REPORT NO. 50-400/85-41

1. Emergency Planning (SALP Board Rating: Category 2. Trend: Improving)

CP&L believes that a Category 1 rating is warranted in this area. This SALP evaluation period covered the evolution of emergency planning program from the completion of the plan through the implementation of the training, drills, and full-scale exercise. We concur with the SALP Board that the full-scale exercise conducted in May 1985 demonstrated that the emergency response facilities were well designed, and CP&L was able to successfully implement the emergency plan. Although the inspection process identified 49 incomplete items and 34 improvement items, which represent a significant amount of work, many of the "incomplete items" could not have been completed until the plant is closer to fuel load (e.g., distribution of emergency planning information to the public, establishing emergency food supplies and water for the control room, final calibration of instruments for emergency lockers, etc.). The SALP report does not recognize that the incomplete items had been identified by CP&L prior to the Emergency Planning Appraisal and follow-up inspection and that CP&L has had a very aggressive program to complete these items. A follow-up inspection closed 64 of these items which represent 92 percent of the items statused by CP&L as complete. This indicates that CP&L has a clear understanding of the required actions and the capability to efficiently complete them as construction of the plant progresses. Additionally, the plant has moved aggressively to incorporate the NRC suggested improvement items and to date has completed all 34 of these items. It would be inappropriate to consider these items as any weakness in CP&L's performance in the category of emergency planning. Further, these items did not impact the very successful full-scale exercise conducted in May 1985.

Not noted in the SALP report is the fact that the Harris plant staff has developed flow-path procedures for emergency event classification and protective action recommendations that stand out among the industry. These flow paths were used successfully in the full-scale emergency drill.

In summary, the Harris plant has an energetic and progressive program for emergency preparedness and is committed to protect the public. This commitment has been demonstrated in audits and emergency exercises. CP&L management attention and involvement are aggressive and oriented toward nuclear safety and CP&L resources are ample and effectively used so that a high level of performance with respect to emergency preparedness is being achieved. Therefore, a Category 1 rating is justified.

2. Electrical Equipment and Cables (SALP Board Rating: Category 3. Trend: Improving)

The following information is provided as requested in response to this SALP report on actions and programs established to attain improvements in this area.

During this SALP evaluation period, electrical engineering, construction, and operations were at an intensive phase of activity. CP&L recognized the need for additional supervision and training in the electrical discipline and instituted a number of changes in the organization, and procedural controls for electrical

activities. During this SALP period, CP&L took the initiative to stop work in the I&C and Electrical areas and take corrective actions prior to recommencing work.

CP&L divided the Electrical Engineering and I&C Engineering disciplines into two organizations in order to focus additional supervision on the individual work efforts. CP&L established an integrated field interface group consisting of Harris Plant Engineering Section (HPES) and Harris Plant Construction Section (HPCS) engineering personnel under the supervision of HPES. HPES established teams consisting of key engineering, craft, and inspection personnel to improve the engineering and design interface with construction personnel and assure proper understanding of electrical attributes in the areas of raceway and cable installation, and cable termination.

CP&L also increased management supervision and craft direction in the electrical installation area, placing experienced CP&L personnel in key construction and craft management positions; improved craft training with the emphasis on engineering and design criteria attributes; and assigned responsibility for construction management in the areas of electrical cable, terminations, and panel modification to experienced HPES engineers. HPES completed a successful testing/analysis program in support of electrical separation criteria for SHNPP, and developed 12 electrical-specific design guidelines to support electrical engineering and design work. CP&L implemented a training program to instruct the appropriate Electrical Unit personnel in use of electrical design guidelines and the application of project electrical design criteria. Additional training is scheduled as part of the engineering transition program to provide instructions, application, and awareness for all electrical engineering calculations.

In addition, CP&L developed an engineering transition program to transfer original design engineering responsibility to CP&L and strengthened the technical expertise of the Electrical Unit by assigning additional degreed electrical engineers as well as increasing experienced Ebasco supervisory and engineering personnel on site. CP&L assigned the Ebasco electrical supervisor to the site to assume the duties and responsibilities of electrical unit manager for HPES Electrical in order enhance the technical guidance and supervision onsite and improve the overall communication and transition of work between the Ebasco and HPES electrical sections.

We have seen improved performance in the conduct of onsite electrical activities, and fully expect that this activity will continue to support project needs for safe electrical installation, testing and operation.

3. Quality Programs and Administrative Controls Affecting Quality (SALP Board Rating: Category 2. Trend: Improving)

CP&L believes that a Category 1 rating is warranted in this area based on the following additional information.

We agree with the SALP Board that solid improvements have been made in a number of highly significant functional areas. For example, the Board states: "the licensee consistently demonstrated a sound technical approach toward resolving problems that could affect quality at the facility. They have implemented changes to upgrade the QA program and provide management with information needed to improve the site overall." The Board also cites a number of specific instances in which improvements resulted from programs that were initiated by CP&L, independent of external stimulus. Implementation of the Quality Check Program,

the on-site Operations QA/QC Unit, the strengthening of the QA Surveillance Program, and the formation of a special nonconformance report review group are examples.

It is significant to note that the innovative programs discussed in this report were carried out in addition to continuing the efforts that received compliments in the previous SALP report for the period February 1, 1983 through April 30, 1984. The current report did not recognize the consistently excellent results that continued to be produced by these previously cited programs. Earlier QA organizational changes, including establishing the site QA Engineering Unit, and procedural changes are examples.

In addition, Item 3 of Section H implies that one of the reasons a Category 1 rating was not justified was because of numerous deficiencies identified in the area of Electrical Equipment and Cables, Auxiliary Systems and Safety-Related Equipment - Mechanical. The identification of these deficiencies by the NRC is acknowledged; however, credit has not been given for the fact that in a number of cases, similar deficiencies had been identified and reported by the QA/QC organization, and corrective action was in progress prior to the violations being identified by the NRC. Also, the SALP evaluation of these other areas (Sections D, E, and F) has already factored these deficiencies into the assignment of their respective ratings; further cross-referencing of these deficiencies into Section H results in duplicate accounting of the deficiencies.

We also believe that Harris personnel deserve recognition in light of the small number of Harris Nuclear Project violations in relation to the level and nature of activity during the period of this report, 15 Severity Level V and 11 Severity Level IV. Of these, only 6 were identified in Section H, 2 Severity Level V and 4 Severity Level IV, of which only 2 directly related to the performance of the QA/QC organization. The high ratio of 250 NRC inspection hours per violation for the Harris Nuclear Project during the SALP evaluation period is another indicator of superior performance, especially when compared with the Region II average of about 132 inspector hours per violation. That CP&L achieved these excellent results during the high tempo of construction activity, with over 6,000 people assigned to the site, with a low number of allegations, demonstrates the strength of the quality programs and administrative controls affecting quality at Harris, and justifies a Category 1 rating.

4. Licensing Activities (SALP Board Rating: Category 2. Trend: Improving)

CP&L believes that a Category 1 rating is warranted. This is the second consecutive SALP Board evaluation that has rated licensing activities as Category 2 with an improving trend.

We concur with the SALP Board that CP&L management was effective and instrumental in resolution of many licensing issues. Examples of major issues demonstrating aggressive management involvement include the establishment of a Licensing Readiness Review Program, technical specification development, fire protection safety review, functional capability of Class 1 piping, and design of the containment sump. We also concur with the SALP Board that CP&L management and staff demonstrated a sound understanding of the technical issues such that

complex issues were adequately addressed. Examples of effective, high-level performance include the pipe support design audit, the emergency services chilled water system audit, estimating noble gas activity, and revised pressure temperature curves.

During this period an enhanced response verification procedure was implemented to further ensure accuracy of information transmitted to NRC. The Regulatory Compliance organization on-site was supplemented with additional personnel and quarterly meetings between the three CP&L plant directors of Regulatory Compliance and Nuclear Licensing Unit supervisors were held to enhance consistency in regulatory programs. CP&L's performance demonstrates that management attention and involvement has been aggressive and oriented toward nuclear safety; therefore, a Category 1 rating is justified.

CP&L

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Atlanta, GA 30323

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23

SHEARON HARRIS NUCLEAR POWER PLANT
UNIT NO. 1 - DOCKET NO. 50-400

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 & 50-324/LICENSE NOS. DPR-71 & DPR-62

RESPONSE TO NRC SYSTEMATIC ASSESSMENT OF LICENSEE PERFORMANCE
REPORT NOS. 50-261/85-33, 50-325/85-36, 50-324/85-36, AND 50-400/85-41

Dear Dr. Grace:

Carolina Power & Light Company (CP&L) has reviewed the Systematic Assessment of Licensee Performance (SALP) Board Reports forwarded by your letter of January 15, 1986, which evaluated CP&L's performance during the period May 1, 1984 through October 31, 1985. We are pleased with the Board's recognition of CP&L's satisfactory performance and continued demonstration of proper concern for nuclear safety. We also appreciate you and your staff's comments at our meeting of January 23, 1986, which further explained the SALP Board's evaluation of CP&L's safety performance.

Carolina Power & Light Company is concerned, however, that the SALP Board has not given full value to all of CP&L's achievements in improving safety performance during the period of evaluation. It is with this in mind that we submit the attached additional response to the SALP Board Reports. We have indicated those areas which we believe should be rated higher and the bases for our belief and have discussed enhancements made to improve performance in several areas. Per your request, this response also describes actions CP&L has taken to enhance performance in the electrical equipment and cables area at the Harris Plant.