SEP 1 5 1982

Carolina Power and Light Company ATTN: Mr. J. A. Jones Vice Chairman 411 Fayetteville Street Raleigh, NC 27602

DESIGNATED ORIGINAL Certified By Home theyar

Gentlemen:

This acknowledges receipt of your letter dated August 16, 1982 enclosing a check for \$120,000 and a response to the Notice of Violation and Proposed Imposition of Civil Penalty which we sent to you in our letter dated July 16, 1982.

We have reviewed your response and we agree with your identification of "inadequate training and procedures" as a root cause of the incident under consideration. The response described the actions you have taken, and plan to take, to correct and prevent recurrence of the violations associated with this incident. Item 4 of your response required further elaboration. However, additional commitments regarding training and review, and revision of procedures, were made during the August 24, 1982, enforcement conference and confirmed by your September 1, 1982, letter. The conference and letter identified seven major program improvement objectives that will be described in detail in a report to the NRC on or before November 1, 1982. That report should provide sufficient information concerning the testing aspects of your training programs to provide assurance that the operations staff has a working knowledge of the actions required by Technical Specifications.

The corrective and preventive actions described in your response, during the enforcement conference, and in your September 1, 1982, letter will be examined during future inspections. The examination will include the results of tests administered to ensure adequate training of your staff and the relevant procedures.

Sincerely,

Jane Axelrad, Acting Director Enforcement Staff Office of Inspection and Enforcement

ES: IE GBarber 9/14/82 JL'ieberman 9/ 5/82

## Carolina Power and Light

Distribution PDR LPDR NSIC SECY ACRS CA RCDeYoung, IE JSniezek, IE JAxelrad, IE JLieberman, ELD VStello, DED/ROGR JPO'Reilly, RII Resident Inspector, Brunswick Enforcement Directors RI, RII, RIII, RIV, RV JCrooks, AEOD APuglise, RM HDenton, NRR JCummings, OIA FIngram, PA GBarber, IE EA File ES File

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Carolina Power & Light Company

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A.P. O'Rully

Mr. R. C. DeYoung, Director Office of Inspection and Enforcement U. S. Nuclear Regulatory Commission Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
RESPONSE TO NOTICE OF VIOLATION

Dear Mr. De Young:

Carolina Power & Light Company (CP&L) has received IE Inspection Report 50-324/82-02 and 50-325/82-02 for the Brunswick Steam Electric Plant, Unit Nos. 1 and 2. Carolina Power & Light Company has also received your letter of July 16, 1982 transmitting a Notice of Violation and Proposed Imposition of Civil Penalties (EA 82-75). The above mentioned items do not contain any information of a proprietary nature.

Pursuant to 10CFR2.205, CP&L hereby encloses its check in the amount of \$120,000, payable to the Treasurer of the United States, in payment of Violations A, B, and C. As required by 10CFR2.201, CP&L's response to the Notice of Violation issued with the Proposed Imposition of Civil Penalties is enclosed.

PDR +

If you need additional information, please contact us.

fours very truly,

Executive Vice President Power Supply and Engineering & Construction

DEN/ce (2020C1T4) Enclosures

Mr. R. A. Hartfield

Mr. D. O. Myers (NRC-BSEP)

Mr. J. P. O'Reilly (NRC-RII)

Mr. J. A. Van Vliet (NRC)

E. E. Utley, having been first duly sworn, did depose and say that the information contained herein is true and correct to his own personal knowledge or based upon information and belief.

My commission expires: OCT 04 1986

Franklin Munnay

NOTARY PUBLIC

#### Enclosure

### BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2 IE INSPECTION REPORTS 50-324/82-02 AND 50-325/82-02 RESPONSE TO NOTICE OF VIOLATION

IE Inspection Reports 50-324/82-02 and 50-325/82-02 identified three items that appear to be in noncompliance with NRC requirements. These items and Carolina Power & Light Company's response to each are addressed in the following text.

#### VIOLATIONS

Technical Specification 3.3.1 requires the licensee to ensure that reactor protection system instrumentation channels shown in Table 3.3.1-1 are operable when the reactor is in Operating Conditions 1 or 2. The table identifies the reactor vessel water level low instrumentation as a required condition of operability. The action statement requires the licensee to place an inoperable channel in the trip condition.

Technical Specification 3.3.2 requires the licensee to ensure that the isolation actuation instrumentation channels shown in Table 3.3.2-1 are operable when the reactor is in Operating Condition 1, 2, or 3. The table identifies the reactor vessel water level low instrumentation as a required trip function and specifies two operable channels per trip system as a required condition of operability. The action statement requires the licensee to place an inoperable channel in the trip condition.

A. Contrary to the above, from December 26 to 28, 1981, when the reactor was in Operating Condition 1 and the reactor vessel water level low instrumentation did not have two operable channels per trip system, the licensee did not place the inoperable channel of the reactor protection system or the primary containment isolation system in the trip condition. During this time, the inoperability of one of four differential pressure transmitters which measure reactor vessel water level low was indicated by an off-scale reading which was recorded each day in a log reserved for Technical Specifications required instrumentation and the entries were initialed by three Shift Foremen, who were Senior Reactor Operators, on successive shifts each day.

This is a Severity Level III violation (Supplement I) (Civil Penalty - \$45,000)

B. Contrary to the above, from December 28, 1981, until December 31, 1981, the state of noncompliance with Technical Specifications continued although attention was focused on the malfunctioning transmitter when a "trouble ticket" was prepared on December 28, 1981, by an Auxiliary Operator and reviewed by the Shift Foreman. The Shift Foreman indicated on the ticket that the transmitter was not required by Technical

Specifications and also initialed an entry indicating its inoperability in the log reserved for Technical Specification required instrumentation. This is a Severity Level III violation (Supplement I) (Civil Penalty - \$55,000) On December 31, 1981, corrective action was taken to meet the C. requirements of Technical Specification 3.3.1, but noncompliance with Technical Specification 3.3.2 continued until the transmitter was returned to service later in the day. This is a Severity Level III violation (Supplement I) (Civil Penalty - \$20,000) CAROLINA POWER AND LIGHT COMPANY'S RESPONSE Pursuant to the provisions of 10CFR2.201, CP&L hereby submits written explanation or statement in reply, including for each violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the corrective steps which have been taken and the results achieved; (4) the corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. (1) The violation is correct as stated. A . (2) The Operations personnel failed to recognize that the instrument readings indicated that a technical specification required instrument was inoperable. The root cause of this event was a combination of an inadequate procedure and inadequate training. Specifically, the Daily Surveillance Report (DSR) failed to provide acceptance criteria to properly determine when an instrument is inoperable. Furthermore, the DSR failed to provide adequate references to the technical specification sections each DSR item was intended to meet. The Control Operator and Auxiliary Operator DSRs have been (3)(4) a. thoroughly reviewed and extensively revised. Where practical, the responsibility for technical specification related surveillance responsibility has been assigned to the Control Operator. In both DSRs, applicable technical specification tolerances have been identified. In addition, all monthly required surveillances are identified in separate Periodic Tests (PTs) and do not appear in either DSR. Also, where applicable, all instrument channel checks are now performed by comparison with similar required instrument indications. Each operating shift has conducted an on-shift seminar to review this event with emphasis on the need to be alert to changes in plant instrumentation trending. Additionally, the seminar covered DSR readings and trending, the basis and purpose of instrumentation checks, and the operability concerns of recently installed analog type instrumentation. (5) The above actions have been completed.

- B&C (1) The violations are correct as stated.
  - (2) In these cases, the Senior Reactor Operator failed to recognize that these instruments were covered by the technical specifications and to take appropriate action. The root cause of these two incidents was inadequate training and procedures which resulted in personnel failure to recognize these instruments as technical specification related and to take appropriate action.
  - (3)(4) a. As a result of this incident, the involved personnel were counseled concerning the importance of immediate identification of any abnormal indications related to technical specification instruments and a more thorough review of technical specification applicability of failed instruments.
    - b. A new procedure has been developed, with expected implementation by August 31, 1982, to provide a cross-reference of technical specification related plant instrumentation. This procedure will define which instruments comprise a particular reactor instrumentation trip channel. This procedure will also define what actions will be taken if an instrument is inoperable. All licensed personnel will receive instruction on the use of this procedure. This training will be completed by September 30, 1982.
    - c. An on-shift seminar covering this event was conducted. Specific information was provided on the design and technical specification requirements associated with this system.
    - d. The training guide used to teach this system has been revised and upgraded to assure that this system is more fully covered with emphasis on the technical specification requirements.
    - e. An independent second verification of trouble ticket review has also been implemented to assure that technical specification related instrument problems are properly reviewed.
    - (5) Full compliance will be achieved by September 30, 1982.

In your letter of July 16, 1982, on page 2, you requested that four general areas related to these incidents be specifically addressed. These four areas are addressed below:

(1) Clarification of your control of safety related instrumentation.

Administratively, operability of safety related equipment is governed by OI-04, LCO Evaluation and Followup. This procedure defines how inoperable safety related equipment is controlled once it has been identified as inoperable. There are several methods whereby an operability problem with safety related equipment may be identified. These include the DSR, PTs, observation, and trouble

tickets. In the situtations cited, the failure occurred in that a problem was not properly identified to exist and the appropriate corrective action was not taken. A review of these incidents has resulted in the development of several procedural changes to help assure that proper corrective action is taken. These changes to preclude recurrence include the following:

- a. The DSR has been extensively revised to assure that operability criteria are clearly applied. Specifically, these changes include:
  - Clear identification of expected instrument operating range.
  - Addition of a step requiring specific instrument reading comparison to assure readings are within a specified acceptable value.
  - 3. The definition of instrument check has been included.
  - Appropriate technical specification references have been added.
- Technical specifications typically require that an instrument be placed in the tripped condition within one hour of being found inoperable. It is often a complicated task to exactly identify the separate functions which an instrument performs and to take the appropriate action in the required time frame. Furthermore, the appropriate action to trip the instrument may not always be well defined, but might include isolating an instrument and opening the equalizer valve, pulling a fuse, installing a jumper, or inserting a test signal of the appropriate magnitude into the trip unit. In addition, some instruments are referenced in several sections of technical specifications and are not cross-referenced. In order to assure that instrument functions are properly identified and that appropriate technical specification requirements can be executed in a timely and accurate manner, a new procedure has been developed. This procedure includes the instruments referenced in the technical specifications and includes the following:
  - A list of technical specification references for each instrument.
  - 2. What functions the instrument performs.
  - 3. Instrument logic associated with the functions performed.
  - 4. Instructions on how to specifically place the instrument in trip or as required by technical specification action statements.

It is our belief that this procedure will greatly facilitate timely and accurate compliance with technical specifications.

(2) Steps taken to ensure surveillance procedures contain appropriate information and instructions.

A detailed review of the DSR was performed resulting in extensive rewriting as described above to assure that procedure requirements are clearly defined. In addition, the monthly surveillance requirements were consolidated in a monthly periodic test.

The Operations staff has been expanded to provide timely review of plant modifications. This will assure that modifications are reviewed in a timely manner and that appropriate revisions to the DSR, PTs, and operating procedures are incorporated when a modification is placed into service.

(3) Actions planned or taken to ensure that such procedures are followed by the operations staff.

A seminar was provided for each shift to emphasize the significance of these events. In this seminar, emphasis was placed on system knowledge and performance, and on proper identification of failed equipment.

(4) Actions planned or taken to ensure that the operations staff has a working knowledge of actions required by technical specifications.

Several actions apply to this area.

- a. The shift seminar provided on this subject emphasized the actions pertinent to the modifications identified in this incident.
- b. The training material dealing with plant instrumentation has been revised to cover this area more thoroughly.
- c. Although the operator must have a working knowledge of this area, the operating instruction described above should greatly reduce the need to rely on memory for this information.
- d. A review will be made of present RO, SRO and retraining programs, and an assessment made of the technical specification training program. Upon completion of this assessment, appropriate revisions to the training program will be initiated.

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NUCLEAR REQUESTORY COMMISSION

REGIONII 101 MARIETTA STREET, M. ATLANTA GEORGIA CRESS

JUL 16 1982

Docket No. 50-325 License No. DPR-71 FA 82-75

DESIGNATED ORIGINAL

Certified By Momos Khilis

Carolina Power and Light Company ATTN: Mr. J. A. Jones, Senior Executive Vice President and Chief Operating Officer 411 Fayetteville Street Raleigh, NC 27602

Gentlemen:

A special inspection was conducted by NRC Region II during the period January 6-7, 1982 at the Brunswick site to evaluate the regulatory significance of the reported failures of your Unit 1 staff to recognize, over a several day period, a failure of a safety related water level instrument and to fully implement an action statement required by a Technical Specification once the failure was recognized. The inspection findings indicate that regulatory requirements were violated. The inspection findings were discussed with site representatives at the conclusion of the inspection on January 7, 1982. NRC concerns relating to the violation were discussed with the Plant General Manager and the Vice President, Nuclear Operations by telephone on January 12 and 19. 1982, respectively, and between Carolina Power and Light Company representatives and the Regional Administrator and other Region II staff members at an Enforcement Conference held by Region II at the Brunswick site on February 24. 1982.

The event started when an Auxiliary Operator (AO) recorded a reactor low level water instrument as reading off scale, i.e., greater than 210 inches. This reading was recorded on two successive days and initialed by three Shift Foremen, licensed Senior Reactor Operators (SRO), on successive shifts each day. Neither the AOs nor the foremen recognized that the instrument was inoperable nor that Technical Specifications required it to be operable. An AO on the third day did recognize the instrument as being inoperable and initiated a "trouble ticket." The staff still failed to recognize the Technical Specifications requirements. On the sixth day the staff recognized that compensatory action was required as a result of the failed instrument and implemented an action statement on one Technical Specification. However, the staff failed to recognize an action required by another Technical Specification action statement.

The NRC has two concerns about this event. Our first concern is that a safety system was degraded over a period of six days. Our second and principal concern

CERTIFIED MAIL RETURN RECEIPT REQUESTED

is that the operational staff, the keystone of the reactor safety program, frandled this particular matter in a manner that we consider to be unsatisfactory. The NRC expects nuclear power plant operators to have a high level of knowledge, within their sphere of responsibility, pertaining to: (1) the identity of instruments relating to the safe operation of nuclear power plants; (2) the criteria for determining acceptable operation of safety related instruments; and (3) the actions required in the event of safety related instrument malfunctions. On the occasion under consideration these expectations were not met.

After consultation with the Director of the Office of Inspection and Enforcement, I have been authorized to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of One Hundred and Twenty Thousand Dollars. We propose to impose this civil penalty to emphasize the need for better control of licensed activities, including: (1) comprehension of conditions and plant status which require implementation of Technical Specifications action statements and (2) the need for taking prompt and complete required action.

The violations have been categorized as Severity Level III in accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C) published in the Federal Register, 47 FR 9987 (March 9, 1982). As provided in the Policy, the violations which existed over a period of six days, have been considered to comprise three events: (1) the action that occurred between December 26 and 28, 1981; (2) the failure to recognize the instrument described on the trouble ticket as one required by Technical Specifications between December 28 and 31, 1981; and (3) the failure to fully meet the requirements of Technical Specifications related to the instrument on December 31. The first event has been assessed a civil penalty of \$45,000 which reflects the duration of the violation including the opportunity to identify and correct the violation. The penalty for the second event is \$55,000 which reflects both the duration of the violation and the fact that on October 19, 1981 you were notified of a similar violation; to which you responded that SROs would be counseled concerning the necessity of promptly screening trouble tickets to identify items requiring immediate action. A penalty of \$20,000 has been assessed for the third event because of the incomplete corrective action.

You are required to respond to the Notice. In preparing your response you should follow the instructions specified in the Notice. In addition, your response should include your specific corrective actions and implementation dates relating to: (1) clarification of your control of the operable status of safety related instrumentation; (2) steps taken to ensure surveillance procedures contain appropriate information and instructions; (3) actions planned or taken to ensure that such procedures are followed by the operations staff; and (4) actions planned or taken to ensure that the operations staff has a working knowledge of the actions required by the Technical Specifications.

We intend to monitor closely your response to this enforcement action. Should your future performance indicate that measures taken or to be taken fail to raise the quality of operations at the Brunswick facility, further enforcement action will be considered. Such actions would include meeting with myself and the Director of the Office of Inspection and Enforcement.

in accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," Part 2. Title 10. Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the NRC's Public Document Room.

The responses directed by this letter and the accompanying Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,

ames P. O'Reilly

Ragional Administrator

Enclosure:

Notice of Violation and

Proposed Imposition of Civil Renalties

cc w/encl:

C. R. Dietz, Plant Manager

## APPENDIX

# NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTIES

Carolina Power and Light Company Brunswick Unit 1 Docket No. 50-325 License No. DPR-71 EA 82-75

A special inspection conducted at the Brunswick site on January 6-7, 1982 disclosed that from December 26-31, 1981 Brunswick 1 operated in excess of Limiting Conditions for Operations without satisfying the appropriate action statement. One of four differential pressure transmitters which measure reactor vessel low water level was inoperable due to a slow leak in its reference leg. The instrumentation connected to the inoperable transmitter showed an off-scale high reading. The reading was recorded for two days by an Auxiliary Operator (AO) on a form reserved for Technical Specifications items. Entries on the form were reviewed and approved by each Shift Foreman. On the third day an AO recognized that the off-scale reading was indicative of a malfunction and he tagged the instrument for checking by maintenance personnel. For the following three days the record showed the instrument as being out of service but its required operability under Technical Specifications was not recognized. On December 31 a supervisor, in discussion with maintenance personnel, recognized that operability of the instrument was required by Technical Specifications. However, instead of tripping the instrument itself, and thereby causing a half-scram and a containment half-isolation, he tripped the reactor protection channel only and thus did not satisfy the requirement to trip the primary containment isolation system.

To emphasize the need to better control licensed activities, including (1) comprehension of conditions and plant status which require implementation of technical specifications action statements and (2) the need for taking prompt and complete required action, the Nuclear Regulatory Commission proposes to impose a civil penalty of \$120,000 for this matter. In accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C) 47 FR 9987 (March 9, 1982), and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205, the particular violations and their associated penalties are set forth below:

Technical Specification 3.3 1 requires the licensee to ensure that reactor protection system instrumentation channels shown in Table 3.3.1-1 are operable when the reactor is in Operating Conditions 1 or 2. The Table identifies the reactor vessel water level low instrumentation as a required condition of operability. The action statement requires the licensee to place an inoperable channel in the trip condition.

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Technical Specification 3.3.2 requires the licensee to ensure that the isolation actuation instrumentation channels shown in Table 3.3.2-1 are operable when the reactor is in Operating Condition 1, 2 or 3. The Table identifies the reactor vessel water level low instrumentation as a required trip function and specifies two operable channels per trip system as a required condition of operability. The action statement requires the licensee to place an inoperable channel in the trip condition.

A. Contrary to the above, from December 26 to 28, 1981, when the reactor was in Operating Condition 1 and the reactor vessel water level low instrumentation did not have two operable channels per trip system, the licensee did not place the inoperable channel of the reactor protection system or the primary containment isolation system in the trip condition. During this time the inoperability of one of four differential pressure transmitters which measure reactor vessel water level low was indicated by an off-scale reading which was recorded each day in a log reserved for Technical Specifications required instrumentation and the entries were initialed by three Shift Foremen who were Senior Reactor Operators, on successive shifts each day.

This is a Severity Level III violation (Supplement I) (Civil Penalty - \$45,000)

B. Contrary to the above, from December 28, 1981 until December 31, 1981, the state of noncompliance with Technical Specifications continued although attention was focused on the malfunctioning transmitter when a "trouble ticket" was prepared on December 28, 1981 by an Auxiliary Operator and reviewed by the Shift Foreman. The Shift Foreman indicated on the ticket that the transmitter was not required by Technical Specifications and also initialed an entry indicating its inoperability in the log reserved for Technical Specification required instrumentation.

This is a Severity Level III violation (Supplement I) (Civil Penalty - \$55,000)

C. On December 31, 1981, corrective action was taken to meet the requirements of Technical Specification 3.3.1, but noncompliance with Technical Specification 3.3.2 continued until contransmitter was returned to service later in the day.

This is a Severity Level III violation (Supplement I) (Civil Penalty - \$20,000)

Pursuant to the provisions of 10 CFR 2.201, Carolina Power and Light Company is hereby required to submit to the Director, Office of Inspection and Enforcement, USNRC, Washington, DC 20555 and a copy to the Regional Administrator, USNRC, Region II within thirty days of the date of this Notice a written statement or explanation in reply, including for each violation: (1) admission or denial of the alleged violation; (2) the reasons for the violation if admitted; (3) the

corrective steps which have been taken and the results achieved; (4) the corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitte. ...der oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, Carolina Power and Light Company may pay the civil penalty of One Hundred and Twenty Thousand Dollars or may protest imposition of the civil penalty in whole or in part by a written answer. Should Carolina Power and Light Company fail to answer within the time specified, this office will issue an order imposing the civil penalty in the amount proposed above. Should Carolina Power and Light Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty such answer may: (1) deny the violation presented in this Notice in whole or in part; (2) demonstrate extenuating circumstances; (3) show error in this Notice; or (4) show other reasons why the penalty should not be imposed.

In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incoporate by specific reference (e.g., giving page and papagraph numbers) to avoid repetition. In requesting mitigation of the proposed penalty, the five factors contained in Section IV (B) of 10 CFR Part 2, Appendix C should be addressed. Carolina Power and Light Company's attention is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due, which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282.

FOR THE NUCLEAR REGULATORY COMMISSION

James P. O'Reilly Regional Administrator

Dated at Atlanta, Georgia this 16 day of July 1982