



Carolina Power & Light Company

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Mr. V. Stello, Jr., Director
Office of Inspection & Enforcement
United States Nuclear Regulatory Commission
Washington, D. C. 20555

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

RESPONSE TO NOTICE OF VIOLATION - IMPROPER DISPOSAL OF RADIOACTIVE MATERIAL

Dear Mr. Stello:

Pursuant to 10CFR2.205, Carolina Power & Light Company hereby encloses its check in the amount of \$89,000, payable to the Treasurer of the United States, in full satisfaction of the Notice of Proposed Imposition of Civil Penalty issued by you dated August 1, 1980. As required by 10CFR2.201, CP&L's response to the Notice of Violation issued concurrently with the Notice of Proposed Imposition of Civil Penalty follows.

I. GENERAL RESPONSE TO NOTICE OF VIOLATION

We agree that there was a problem with the implementation of the contamination monitoring program at BSEP and that there were inadequate controls to detect that the problem was occurring. Based on an on-site in-depth investigation and analysis by senior management, we believe that these implementation difficulties stemmed from:

1. Over-reliance on individual responsibility for trash separation (i.e., individual responsibility to put clean trash only in clean containers and contaminated trash only in contaminated containers) and individual responsibility for contamination monitoring of personal tools, equipment, clothing, and skin.
2. Failure of individuals to understand the seriousness and importance of good contamination control or the consequences of improper control.
3. Slippage in enforcement of proper health physics requirements at the beginning of the extensive outages due to:
 - a. High volume of plant modifications and associated outage work requiring an excessive number of contract workers on-site.

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These modifications included those associated with the TMI lessons learned as well as required plant improvements.

- b. An underestimation of the volume of work requiring health physics support during the outage resulting in a shortage of professional and supervisory health physics support at the beginning of the outage.
- c. Unavailability of a sufficient number of contract health physics technician support in both the quantity and quality of available personnel.

Carolina Power & Light Company is confident of its ability to implement sound health physics programs at its nuclear plants in concert with other plant functions and believes that actions recently taken at the Brunswick Plant will avoid recurrence of the items discussed in the Notice of Violation. Recent efforts to enhance the health physics program at the Brunswick Plant have concentrated on the following areas: enhancement of the plant organization, improvements in the health physics training program, actions to lower background levels of radiation, and purchase of new, more sophisticated health physics equipment. Each of these items is discussed below:

Enhancement of the Plant Operating Organization

Changes have been implemented in the plant organization to allow increased management attention in the area of health physics. A new position of Manager of Environmental and Radiation Control (E&RC) has been approved and filled. Reporting to the Manager of E&RC are two new positions, the Environmental and Chemistry Supervisor and the Radiation Control Supervisor. These three new management positions replace the former position of Environmental and Radiation Control Supervisor. In addition, there have been significant improvements in the supporting professional staffs in the E&RC group by the addition of two chemist positions and two health physics positions. All Radiation Control Foremen report to the Radiation Control Supervisor. As part of CP&L's effort to maintain radiation/contamination as low as practical, a new decontamination unit has been established. This unit reports to a foreman who reports to the Radiation Control Supervisor. This unit has responsibility for the operation of the tool decontamination facility and for general plant decontamination.

The above changes serve to allow increased management attention in the area of health physics and to separate these areas from other functions such as the monitoring of water chemistry. The creation of the position of Manager of E&RC provides a strong management position to monitor health

physics activities. In the prior organization, the manager responsible for E&RC also had responsibility for plant engineering and administrative activities. The new Manager of E&RC has no responsibilities other than health physics, chemistry, and environmental related activities. The new Radiation Control Supervisor has no responsibilities other than health physics related activities. These changes have produced enhanced performance in the health physics area and provide a framework for future improvements.

Improvements to the Radiation Protection Training Program

In order to further enhance the health physics program at the Brunswick Plant, the following improvements have been made:

1. Significant resources of CP&L have been directed to expanding and enhancing the radiation control training program at BSEP. Senior Management fully recognizes the importance of effective training to facilitate a quality radiation control program and have become directly involved in this activity. Outside consultants have been employed to critique our training programs and to offer constructive suggestions.

The General Employee Training Program, which is applicable to all contract and Company personnel, has been expanded to re-emphasize and improve training in practical considerations such as individually dressing out in anti-C clothing, removing anti-C clothing, handling of dosimetry and radiation survey instruments, properly crossing step-off pads, and demonstrating a knowledge of information contained on radiation and contamination area posting signs. Successful completion of this program is a prerequisite to gaining unescorted access to the plant.

2. Training sessions for all first line supervisors and above have been initiated which emphasize the role and responsibilities of supervisors to ensure their subordinates carry out good health physics practices, provide in-depth knowledge of appropriate plant health physics procedures and instructions, and allow for the demonstration of practical considerations which have occurred or are anticipated to occur in the field.
3. Prescreening tests are provided to all contract health physics personnel to ensure that they can demonstrate basic health physics knowledge. Following the prescreening tests is an in-depth training program which is site specific with testing afterwards. Poor performance on either of these tests results in the contract employee not being employed at the plant.
4. Company health physics personnel have been evaluated and their retraining needs identified. A training program has been initiated

for those individuals who have demonstrated weakness in particular areas.

5. Intermediate and Advanced Radiation Control and Protection courses are under development. These courses will be given to the Company's health physics personnel on a progressive basis to further enhance their technical and practical knowledge of health physics techniques.

Actions to Lower Background Levels of Radiation

Significant steps have been taken at Brunswick to lower background radiation levels. These steps have been accomplished by conducting thorough cleanup operations in the Turbine and Reactor buildings. Additional cleanup operations are in progress for the Radwaste Building, with shipments of waste in excess of our allocations at the Barnwell facility to the Hanford facility. Essentially all excess stored radwaste material will have been removed from the site by October 1, 1980, assuming adequate off-site disposal allocations at the Barnwell and Hanford waste facilities. These actions serve to significantly lower background levels at Brunswick and, more importantly, to provide an environment where potential health physics problems are more easily detected.

Purchase of New Health Physics Equipment and Upgrading of Existing Equipment and Other Measures

Significant numbers of additional survey instruments have been acquired or are on order. Additionally, upgraded hand and foot monitors and portal monitors which reflect the current state of the art are being purchased. These additional instruments will augment the present instruments at Brunswick and provide increased flexibility and survey capabilities. Monitors have also been shielded and/or background radiation levels reduced to enhance detection capability. Personnel have also been added to more closely monitor frisking procedures.

In the area of personnel, steps have been taken by CP&L to enhance the quality of contract health physics personnel. In addition to improvements in training, which were described earlier, screening techniques for contract personnel have been strengthened to aid in assuring the quality of these personnel. Additionally, CP&L has implemented changes in the plant health physics staff.

The largest impact in the area of personnel, however, was the reduction of contract and construction personnel on site by around 25 percent. The ability of our health physics organization to provide acceptable coverage of ongoing work will determine the number of contract and construction personnel on site. This action has allowed the health physics organization to provide better coverage of ongoing work and to better plan for future work.

The above actions to provide additional survey instruments, to provide higher quality contract health physics personnel, to reorganize the health physics organization, to increase the size of the health physics staff, and to reduce on site construction forces have served to strengthen the capability of the health physics organization to perform its daily tasks and to improve planning for future work.

As evidenced by the above discussions, CP&L has undertaken a course of action at the Brunswick Plant which is dedicated to continued improvement in the health physics area and has already produced positive results. Carolina Power & Light company is confident that the actions it has taken will avoid any recurrence of the items discussed in the Notice of Violation.

II. DETAILED RESPONSE TO NOTICE OF VIOLATION

Infraction:

- "A. 10CFR20.301 prohibits a licensee from disposing of licensed material except as authorized by 10CFR Parts 20, 30, 40, and 70. In addition, 10CFR20.201 requires that surveys be made as may be necessary to comply with 10CFR Part 20.

Contrary to the above, on at least 16 separate occasions during the period from mid-1978 through April 1980, licensed material (in the form of contaminated equipment) was disposed of without authorization. In addition, surveys conducted for the purpose of detecting and identifying items radioactively contaminated with licensed material were inadequate, thereby contributing to the unauthorized disposal of licensed material. These 16 occasions consisted of the following disposals: at least 13 times during mid-1978 through April 1980, to the Brunswick County sanitary landfill; once during April 1980, to the North Carolina Salvage Company in Goldsboro; once during May 1979, to the Horton Iron and Metal Company; and, once prior to May 1980, to the Merrit Holland Company in Wilmington, North Carolina."

Response & Cause:

Carolina Power & Light Company admits that these items of non-compliance did occur. The disposal of material off-site with measurable levels of radioactivity resulted from inadequate surveys and reliance on individuals to properly dispose of low level radioactive trash in the proper container. Another contributing factor was that background radiation levels at some monitoring locations made the low level of radioactivity on material found in the landfill difficult to detect.

Corrective Actions:

- a. All off-site shipments of trash to the Brunswick County landfill were stopped on April 28, 1980. A complete survey of the landfill

was made on April 29, 1980, with additional surveys being made through the first two weeks in May. Background radiation levels at the landfill ranged from five to seven $\mu\text{R/hr}$. All areas in the landfill which had radiation intensities of nine $\mu\text{R/hr}$ on the surface were identified and excavated. All materials found during the excavation of these areas having a radiation intensity of 10 $\mu\text{R/hr}$ or greater were recovered and returned to the plant for disposal as radioactive material. A preliminary report of the Brunswick County Landfill recovery operations and other activities associated with the recovery of contaminated materials was submitted to Mr. James P. O'Reilly, Director, United States Nuclear Regulatory Commission, Region II, on May 14, 1980. A final report of these activities will be submitted by September 1, 1980.

A new procedure has been written for the "Control and Monitoring of Nonradioactive Plant Waste and Scrap" (RC&T Procedure 0216). This procedure has been reviewed and approved by the USNRC and by the State of North Carolina. Subsequently, the NRC granted permission to resume shipments of nonradioactive waste from the plant; however, at the present time, CP&L has no plans to resume shipment of waste from the Brunswick Plant to the Brunswick County Landfill. A permit has been obtained from the State of North Carolina to operate a landfill on CP&L property. All nonradioactive waste material from operations at the Brunswick Plant will be disposed of at this landfill in accordance with approved procedures.

- b. All off-site shipments of scrap materials and other potentially contaminated equipment and materials were terminated on May 2, 1980. A thorough evaluation was made of all vendors who might have received material which could potentially have been contaminated. Thorough surveys were made of all vendor's facilities which had been identified and all radioactively contaminated materials found were returned to the Brunswick facility. The results of these surveys have been reported in the two reports referenced in Item a. RC&T Procedure 1216 for the "Control and Monitoring of Nonradioactive Plant Waste and Scrap" was prepared and approved by the NRC prior to the resumption of shipments of scrap materials and other removal of equipment and materials from the plant.
- c. The construction vehicle gate was closed so that there was only one point of exit from the plant for materials and equipment. A procedure was established which required that all vehicles, tools, and equipment leaving the plant site would be surveyed and released by health physics personnel.
- d. Extensive efforts have or are being made to reduce background radiation levels. This included the relocation of radioactive waste on site to a more remote location while awaiting disposal. It is

anticipated essentially all excess radioactive waste will be shipped to approved disposal sites by October 1, 1980. Extensive efforts have been made to decontaminate the condensate storage tanks (CST) and the auxiliary surge tank (AST). These efforts have been partially successful, however, radiation levels in the tanks remain at an undesirable level. Samples have been obtained of the material inside these tanks in order to establish a procedure for further cleaning. Present plans are to clean these tanks by using an underwater mobile vacuum cleaner. All equipment necessary to clean these tanks by this method is on site and has been tested. Procedures have been written, reviewed by the Plant Nuclear Safety Committee (PNSC), and approved by plant management. It is expected that these tanks will be cleaned to the point that radiation levels are acceptable by the end of September.

All corrective actions have been completed except for the cleaning of the CSTs and AST. This will be completed by the end of September.

Infraction:

- "B. BSEP Technical Specification (TS) 6.8.1.a requires that written procedures be established, implemented, and maintained covering the activities and procedures recommended in Appendix A of Regulatory Guide 1.33, November 1972. This Regulatory Guide requires radiation protection procedures for control of radioactive materials to prevent release to the environment and minimize personnel exposure."
- "1. Licensee procedure BSEP Vol. VIII, RPM, Paragraph 6.2.2, requires that equipment to be unconditionally released from the "Radiation Control Area" to the "clean area" have less than 200 dpm/100cm² loose surface contamination and less than 0.25 mR/hr fixed contamination measured at one inch from the surface of the item. The "clean area" is defined as any area within the "Controlled Access Area" in which contamination levels are less than those specified above. The "Radiation Control Area" is defined as any area to which access is controlled for the purpose of limiting radiation exposure or preventing the spread of contamination."

"Contrary to the above, on April 29, 1980, this procedure was not implemented in that criteria used by contract workers would have permitted the release of items to the clean area with levels of loose surface contamination in excess of the above limits."

Response & Cause:

Carolina Power & Light Company admits that this item of noncompliance did occur. The procedure for surveying and releasing equipment and materials to the clean area and the limiting criteria for release had been changed allowing materials to be monitored

using a RM-14 with a HP-210 detector and not requiring a smear survey. The Radiation Protection Manual (RPM) was not changed; consequently, there was a conflict between the RPM and the procedure.

Corrective Actions:

- a. A new procedure (RC&T Procedure 0215) was implemented during the first week of May 1980 whereby all materials being removed from the contamination control areas for unrestricted use would be surveyed or evaluated by a health physics technician. The survey includes a direct radiation evaluation and a smear survey to ensure that radioactive contamination levels are below the limits as set forth in the Radiation Protection Manual for unrestricted release. We feel confident that this technique, combined with increased emphases on this control will significantly reduce the possibility for a recurrence.
- b. All personnel went through a retraining program as described in the response to Item A which emphasized the practical aspects of contamination control. During this retraining, it was emphasized that all items being removed from the contamination control area for unrestricted release must be surveyed by health physics personnel.

All corrective actions associated with this item have been completed or are of a continuing nature.

Infraction:

- "2. BSEP Vol. VIII, RPM, Paragraph 6.6.6, requires personnel leaving the Radiation Control Area to monitor themselves for contamination.

Contrary to the above, on April 27, 1980, two workers exiting the reactor building 50' elevation near the torus access (a Radiation Control Area) failed to monitor themselves for contamination at the monitor station provided."

Response & Cause:

Carolina Power & Light Company admits the incident based on the NRC Inspector's report. For unknown reasons, two contract workers clearly violated instructions and procedure.

Corrective Actions:

- a. Radiation Control personnel were added at all high traffic frisker stations to ensure that all individuals exiting radiation control areas adequately monitored themselves.

- b. A training program was established which provided for retraining in all pertinent health physics practices and procedures, with specific emphases on contamination control. This retraining program included demonstrations and lectures on how to put on and remove protective clothing and how to monitor for contamination. Each individual was required to demonstrate his knowledge and skill in this area by "suitsing up," removing the protective clothing and monitoring for contamination while being observed by an instructor. This program stressed the requirement for monitoring upon exiting from the radiation control areas. This retraining was provided to all contract workers, permanent plant personnel and anyone else badged to enter the plant except that health physics personnel were not required to take the retraining program. The badges of all personnel not receiving this retraining were pulled so that they could not enter the plant prior to receiving this training. This retraining program has been incorporated into the initial health physics orientation program so that all new personnel to the plant will receive that training prior to being granted unescorted access to the plant site.

All corrective actions associated with this item are complete.

Infraction:

- "3. BSEP Vol. VIII, RPM, Paragraph 10.1.1, requires personnel to be assisted by the Radiation Control and Test Group (RC&T) in cases of skin contamination.

Contrary to the above, on April 29, 1980, three non-RC&T individuals at the personnel decontamination station were engaged in decontamination of their skin. The workers failed to notify RC&T to gain assistance although a call button was provided for workers' use."

Response & Cause:

Carolina Power & Light Company admits the incident based on the NRC Inspector's report. The cause of the infraction is a different interpretation of the reference in the RPM by the Inspector than that heretofore made by CP&L. The manual states that the RC&T group would assist in personnel skin decontamination meaning that they would provide assistance when necessary and was not intended to say that RC&T assistance was required for each case of skin decontamination.

Corrective Actions:

- a. RC&T Procedure 0210 (Personnel Decontamination) was revised to require that RC&T be notified of all cases of skin contamination. In addition, the procedure was revised to provide for documentation of the causes and corrective actions associated with all cases of skin contamination. The procedure also provides for dose evaluation when skin contamination levels exceed a specified level.
- b. The Plant General Manager has emphasized to all employees and contractors on site the importance of good health physics practices and the need for following all health physics procedures and practices, including the requirement for notifying RC&T personnel of all instances of skin decontamination.
- c. One of the areas stressed in the retraining program, as previously described, was the requirement to notify RC&T personnel of all cases where skin contamination occurs.

All corrective actions are complete.

Infraction:

- "4. RC&T Procedure 0110, Paragraph 8.5, requires personnel to use portal monitors.

Contrary to the above, on April 29, 1980, an individual bypassed the portal monitor at the construction exit from the restricted area."

Response and Cause:

Carolina Power & Light Company admits the incident based on the NRC Inspector's report. For unknown reasons, the worker violated health physics procedures and would have received disciplinary action if he had been identified.

Corrective Actions:

- a. On May 2, 1980, personnel monitoring (frisking) was initiated at both plant security exits. All frisking is performed by health physics personnel who have been adequately trained in survey techniques. Acceptable limits for contamination and background radiation were specified in RC&T Procedure 0110.
- b. As described previously, the Plant General Manager stressed to all employees and contractors the requirement to follow all health

physics procedures and the consequences of not following these procedures.

All corrective actions have been completed.

Infraction:

- "5. RC&T Procedure 0211, Paragraph 3, requires protective clothing to be removed in such a way as to minimize the spread of contamination. Paragraph 8 of the same procedure requires that gloves and coveralls be removed in such a way that only the inside surfaces are touched with the hands.

Contrary to the above, on April 27, 1980, workers were observed touching potentially contaminated outside surfaces of coveralls and gloves with their hands as they undressed at the Unit 2 torus checkpoint.

Response and Cause:

Carolina Power & Light Company admits the incident based on the NRC Inspector's report. The most probable cause would be disregard for the importance of sound health physics practices on the part of the workers in question.

Corrective Actions:

- a. As previously described, all contractor and CP&L employees were retrained in acceptable health physics practices during May 1980. As part of this training, the proper donning and removal of protective clothing was stressed. An exercise was conducted whereby individuals completed a total dress-out exercise under the supervision of qualified health physics personnel. This same training is also being given to all new employees with the general orientation program.
- b. Health physics personnel at plant checkpoints were instructed to assist workers in properly dressing out and removing protective clothing.

Corrective actions associated with this item are complete.

Infraction:

- "6. RC&T Procedure 0110, Paragraph 8.3.3, requires the instrument probe to be moved slowly when performing a whole body frisk.

Contrary to the above, on April 27, 1980, at the frisker station on the 50' elevation exit from the reactor building, workers surveying

themselves at this station moved the instrument probe over their bodies so quickly that low levels of contamination would not be detected."

Response & Cause:

Carolina Power & Light Company admits that this incident did occur as stated by the NRC inspector. The most probable cause was poor judgment in the use of portable monitoring equipment and reliance on hand and foot monitors and portal monitors to detect low levels of contamination.

Corrective Actions:

- a. As previously described, the employee retraining program stressed the proper technique for frisking and the need for moving the probe slowly in order to detect low levels of radioactive contamination.
- b. Beginning on May 2, 1980, health physics personnel specifically trained in proper surveying techniques were stationed at frisker locations to observe and assist in proper frisking.
- c. Beginning on May 2, 1980, health physics personnel specifically trained in proper monitoring techniques were stationed at both exits from the plant to monitor all individuals prior to exiting the plant.
- d. Low background levels were obtained at all frisker locations, by relocation of the frisker and/or improved shielding. This enabled personnel to more accurately frisk.

Corrective actions associated with this item are complete.

Infraction:

- "7. RC&T Procedure 0302, Paragraph 2.1.1 requires the portal monitor alarm setpoint to be approximately 0.1 mR/hr.

Contrary to the above, on April 26, 1980, a portal monitor located at the main control point failed to alarm at 0.2 mR/hr."

Response & Cause:

Carolina Power & Light Company admits that this incident did occur as described by the NRC inspector. A cause for this was not determined. All portal monitors are on a weekly check program, and these monitors had been last checked on April 20, 1980 and found to be acceptable. All portal monitors were subsequently checked by instrument technicians and no equipment problems were detected.

Corrective Actions:

- a. Although the portal monitors are still in place and all personnel exiting the plant are required to pass through them, friskers (RM-14 with HP-210 detector) are now being used at all plant exits for contamination control. Their sensitivity allows the detection of contamination well below the levels of 0.1 mR/hr.
- b. More sensitive hand and foot counters have been ordered for evaluation. Also, more sensitive portal monitors are being evaluated. If they prove acceptable, they will be purchased to replace the existing equipment.

Corrective actions are complete or of a continuing nature.

Infraction:

- "8. BSEP Vol. VIII, Paragraph 6.5.4 requires protective clothing radiation levels be less than 0.5 mR/hr above background at one inch before issue to personnel for use.

Contrary to the above, on May 1, 1980, dose rates of 1.0 and 2.4 mR/hr (above background) at one inch were measured on coveralls ready for issue."

Response & Cause:

Carolina Power & Light Company admits that this incident did occur as described by the NRC inspector. During this period of time, protective clothing, particularly coveralls, was in very short supply due to the large number of workers in the facility. Due to the short supply, turnaround had to be very rapid; consequently, the monitoring of clean protective clothing was sometimes reduced to spot checking of individual garments with a complete survey of the container. The heavy workload and fast turnaround also resulted in less available time for maintenance, which meant less frequent changing of the filters on the dry cleaning unit and less frequent distillation of the cleaning fluid.

Corrective Actions:

- a. Dry cleaning and laundry vendors have been reinstructed in the fact that protective clothing with radiation levels in excess of 0.5 mR/hr after cleaning is unacceptable for use. Adequate checks of clean clothing are being made to ensure that this limit is being maintained.

- b. The number of workers on site was reduced so that turnaround did not have to be as rapid. Also, orders were placed for additional protective clothing.
- c. Background levels in the vicinity of the dry cleaning unit were reduced by the relocation of waste materials.
- d. A procedure was written, RC&T Procedure 0205, Radiological Controls for Portable Dry Cleaning Units, which specifies maximum limits on the dry cleaning filters and maximum activity of the dry cleaning fluid. A sampling program was established so that RC&T can monitor these parameters.
- e. RC&T Procedure 0205 was established whereby a container of used clothing would not be processed if readings were in excess of 25 mR/hr without first being opened and high activity garments removed and disposed of as radioactive waste.

All corrective actions associated with this item to prevent its recurrence have been completed.

Infraction:

- "C. 10CFR20.203(b) requires areas with whole body exposure rates in excess of 5.0 mR/hr to be posted as a 'Radiation Area.'

Contrary to the above, on April 30, 1980, the laundry shipping preparation area in which the dose rate to a worker was measured to be 25.0 mR/hr, was not posted as a 'Radiation Area'."

Response & Cause:

Carolina Power & Light Company admits the incident based on the NRC Inspector's report. Subsequent surveys by health physics personnel failed to detect any whole body exposure rates greater than 5 mR/hr. The most probable cause was insufficient health physics personnel to cover all work in progress and insufficient training of some plant workers in good health physics practices. It is normal practice for a health physics technician to be present and supervise the activities associated with the preparation of radioactive contaminated laundry for shipment. This case was no exception, as the technician monitored the laundry drums for radiation levels and supervised drum smearing. At the specific time that the NRC inspector was there, the technician had been called away to assist in covering another job.

Corrective Actions:

- a. All health physics technicians were reinstructed in the requirement for maintaining adequate posting and labeling.

- b. Additional contract health physics personnel were obtained to improve coverage of work in progress by health physics personnel.
- c. The training for all contract workers has been strengthened.

All corrective actions have been completed.

Infraction:

"D. 10CFR20.103(a)(3) requires that airborne radioactive material surveys be taken in restricted areas to evaluate workers' exposure to radioactive materials in air.

- (1) Contrary to the above, on April 24, 1980, airborne surveys were not conducted at the cleanup area on the reactor water cleanup system building roof (a restricted area) when work was underway which could cause high levels of airborne contamination."

Response & Cause:

Carolina Power & Light Company admits that this incident did occur as described by the NRC inspector. This incident occurred when a contract worker went into an area and performed a job that had not been assigned to him. Consequently, there was no opportunity for health physics personnel to evaluate the need for air sampling.

Corrective Actions:

- a. The importance of current surveys in all work areas, good communication with maintenance workers, and the necessity of coverage for ongoing work in controlled areas was stressed to all health physics technicians. The incident was discussed with the health physics technicians working at the drywell checkpoint and the incident report was reviewed by all health physics personnel.
- b. Radiation safety training as previously described was conducted for all personnel on site.
- c. Additional contract health physics technicians were brought on site to provide for an increased level of work coverage.
- d. The number of contract workers on site was reduced in order to provide a lower worker/HP ratio.
- e. The Reactor Water Clean Up (RWCU) roof was decontaminated to reduce the contamination/ airborne radioactivity potential.

Corrective actions associated with this item are completed.

Infraction:

"(2) Contrary to the above, on April 30, 1980, airborne surveys were not conducted in the Health Physics Systems Laundry trailer facility (a restricted area) when the potential for high levels of airborne contamination existed due to work in progress."

Response & Cause:

Carolina Power & Light Company admits that airborne surveys were not conducted. The incident occurred due to a different interpretation of the regulations. Airborne surveys had previously been taken periodically in the HPS trailer with the results indicating no airborne radioactivity problems. In addition, it is the practice of CP&L to require whole body counts for contract personnel entering the plant, upon completion of their work assignment at the plant and at other times upon the recommendation of Health Physics personnel. The purpose of these whole body counts is to evaluate the effectiveness of the respiratory protection program including airborne radioactive surveys as well as for the assessment of individual uptakes. This program had not detected any specific airborne exposure problems. For these reasons, it was felt that air sampling during the opening of each drum was unnecessary. Air samples subsequent to this have proved this to be a correct assessment of the situation.

Corrective Action:

Continuous air sampling was provided in the dry cleaning facility when it was in operation. Corrective actions are complete.

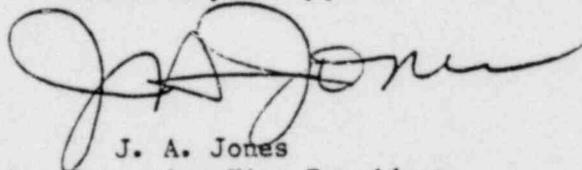
In summary, Carolina Power & Light Company is confident of its ability to implement sound health physics programs at its nuclear plants and believes that actions recently taken at the Brunswick Plant will avoid both recurrence of the items discussed in the Notice of Violation and future items of a similar nature. In the future, regardless of regulatory requirements for committing to completion dates for plant modifications, the total quantity of plant work performed at any one time will be dictated by the availability of qualified Health Physics personnel and the NRC's concurrence sought in adjusting deadlines where necessary. Plant background radiation levels will be strictly maintained to assure accurate monitoring and individual responsibility for strictly adhering to established Health Physics procedures will be regularly reemphasized. A pattern of negligent or willful

Mr. V. Stello

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disregard will result in appropriate disciplinary action. Plant management will also reemphasize to all employees and contract workers the authority of Health Physics personnel to control plant activities which have the potential for impacting the plant's radiation control programs. Should you have further questions regarding our management's health physics policies, please contact me.

Yours very truly,

A handwritten signature in black ink, appearing to read 'J. A. Jones', written in a cursive style.

J. A. Jones
Senior Executive Vice President
Chief Operating Officer

JAJ/mf

cc: Mr. R. A. Hartfield
Mr. J. P. O'Reilly