



Carolina Power & Light Company

July 30, 1981

USNRC REGION II
ATLANTA, GEORGIA

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Serial: NO-81-1246

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II, Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
RESPONSE TO I.E. INSPECTION REPORT NO. 50-261/81-07

Dear Mr. O'Reilly:

Carolina Power & Light Company (CP&L) has received and reviewed the subject report and provides the following responses. As stated in the subject report, CP&L was not required to respond further to Significant Finding "A", as this was addressed in our letter to the NRC dated May 12, 1981.

Significant Appraisal Finding "B"

The personnel contamination control program was deficient. The appraisal found: (1) improper training of workers in the removal of protective clothing, (2) inadequate number and location of personnel friskers in the auxiliary building, (3) inadequate attention to and control of protective clothing to ensure that defective anticontamination clothing is not provided to workers, and (4) insufficient management attention and corrective actions taken in response to excessive personnel contamination instances.

RESPONSE

1. Steps Which Have Been Taken

(a) Finding B, Part (1)

An improved method of donning and removing protective clothing was provided on February 19, 1981. This method addressed the inspector's concern with the removal of outer gloves. Plant personnel who have access to radiation control areas were instructed in this revised method of donning and removing protective clothing.

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The General Employee Training (GET) lesson plan was revised on February 23, 1981, to incorporate the instructions outlined in the above method. Therefore, all new plant employees are instructed in the revised method for donning and removing protective clothing.

(b) Finding B, Part (2)

Additional personnel friskers have been located in the Auxiliary Building and Hot Machine Shop. Protective clothing removal instructions posted in the Auxiliary Building dress-out area instruct personnel to proceed to the nearest personnel frisker after leaving a contaminated area. Additional personnel friskers will be installed when work conditions warrant such action.

(c) Finding B, Part (3)

Plant radiation control personnel survey and inspect all protective clothing upon receipt from laundering. The torn and worn out clothing is replaced. The protective clothing beta-gamma dose rate limit has been reduced to 0.5 mR/hr. Protective clothing with a beta-gamma dose rate greater than 0.5 mR/hr is either laundered or disposed of as radioactive waste.

(d) Finding B, Part (4)

To ensure additional management attention is focused on personnel contamination events, instructions were provided on February 19, 1981, describing the steps to be taken following the detection of personnel contamination. These instructions require a contamination report to be completed by the contaminated individual, which is then reviewed by his immediate supervisor and forwarded to the ALARA Specialist for review and evaluation. The ALARA Specialist summarizes the contamination incidents on a weekly basis and issues a summary report to the Radiation Control Supervisor, Manager of Environmental and Radiation Control, and the Plant General Manager.

2. Steps Which Will Be Taken

As a result of the above steps taken (increased awareness on the part of employees and increased radiological surveillance), personnel contamination events have dropped from 68 events per week during the Health Physics Appraisal Inspection to less than 5 events during the first week of July, 1981. These corrective actions are ongoing and as indicated by the marked reduction in contamination events are effective. However, this program, as all programs, will continue to be monitored in order to identify further improvements. As identified, these further improvements will be implemented.

3. Schedule for Completion of Action

All corrective actions identified to date have been completed.

Significant Appraisal Finding "C"

The radiological surveillance program was deficient. The appraisal found: (1) the scope of radiation, contamination and airborne radioactivity surveys was not adequate to determine the general radiological status of the plant, (2) specific radiological surveys for radiation work permits written to support specific work activities were not being conducted, and (3) a detailed radiation survey of the secondary plant had not been performed even though primary to secondary leaks had occurred nor had a program been established to ensure that areas outside the radiation control area are routinely surveyed.

RESPONSE

1. Steps Which Have Been Taken

(a) Finding C, Part (1)

The appropriate surveillance procedures for the radiation control area were revised to provide for better documentation of survey data. This change included the use of survey maps for documenting radiation and contamination data. These maps provide the detailed information necessary to adequately assess the radiological status of the radiation control area.

Surveillance for airborne radioactivity is still done primarily on a per job basis when conditions warrant that air samples be collected. Continuous air monitors are utilized only as warning devices for the detection of unexpected airborne problems in large, high traffic areas. We believe that our airborne radioactivity monitoring program is currently adequate for assessing the radiological status of the radiation control area.

(b) Finding C, Part (2)

Specific radiological surveys for radiation work permits written to support specific work activities are now being conducted. The only Special Radiation Work Permits (SRWPs) that do not have an associated "pre-SRWP" survey are those SRWPs that are written for general inspection, surveillance, and valve operation throughout the radiation control area.

(c) Finding C, Part (3)

Surveys of areas outside the radiation control area (i.e., secondary systems and outside Unit No. 2) were being conducted prior to and during the Health Physics Appraisal

Inspection. There was, however, no formalized program to document this surveillance effort. A formalized program for surveillance of secondary systems was established on April 30, 1981; however, we believe this program is in need of further revision.

2. Steps Which Will Be Taken

(a) Finding C, Part (1)

No further corrective action is necessary.

(b) Finding C, Part (2)

The requirement for conducting "pre-SRWP" surveys has not yet been incorporated into an approved plant procedure. This requirement will be incorporated into an approved plant procedure by November 30, 1981.

(c) Finding C, Part (3)

A more comprehensive surveillance program for all areas outside the radiation control area will be formally established by November 30, 1981.

3. Schedule For Completion of Action

All corrective actions for the above findings will be completed by November 30, 1981.

Significant Appraisal Finding "D"

The safety evaluation performed to determine if the operation of the contaminated auxiliary boiler was acceptable (i.e., does not involve an unreviewed safety question or a change to Technical Specifications) did not include the following elements specified by IE Bulletin 80-10: (1) an assessment of potential releases of radioactivity to the environment, or (2) comparison of such releases with the radioactive effluent limits of 10 CFR 20 and the facility's Technical Specifications.

RESPONSE

1. Steps Which Have Been Taken

A revised safety analysis for the auxiliary boilers was drafted and reviewed by the Plant Nuclear Safety Committee (PNSC) by May 31, 1981. This analysis satisfies the intent of IE Bulletin 80-10, item 3, upon which this appraisal finding is based. The results of the analysis concluded that operation of the Auxiliary Boilers as radioactive systems is acceptable as long as the concentration of certain radionuclides is maintained below levels specified in the analysis.

2. Steps Which Will Be Taken

No further action is necessary.

3. Schedule for Completion of Action

The necessary action was completed by May 31, 1981.

Violation "A"- Severity Level V

10 CFR 20.408(b) states that "when an individual terminates employment with a licensee ..., the licensee shall furnish to the NRC a report of the individual's exposures to radiation and radioactive material incurred during the period of employment. Such a report shall be furnished within 30 days after the exposure of the individual has been determined."

Contrary to the above, the NRC was not furnished termination exposure reports within the 30-day limit in that:

- (1) a worker terminated employment on November 30, 1980, his exposure was determined on December 4, 1980, and the exposure report was furnished to the NRC on January 19, 1981,
- (2) a worker terminated employment on October 24, 1980, his exposure was determined on October 24, 1980, and the exposure report was furnished to the NRC on December 19, 1980, and
- (3) a worker terminated employment on September 25, 1980, his exposure was determined on September 26, 1980, and the exposure report was furnished to the NRC on December 16, 1980.

RESPONSE

1. Admission or Denial of Alleged Violation

Carolina Power and Light Company acknowledges Violation A as stated.

2. Reason for Violation

Notices of Termination were sent monthly from the H. B. Robinson dosimetry records office to the Corporate Records Office in New Hill, North Carolina. The Corporate Records Office in turn furnishes the NRC with the Termination Exposure Reports. The monthly frequency for sending Notices of Termination to the Corporate Records Office did not, in some instances, allow enough time for the Corporate Records personnel to generate the Termination Exposure Reports within the allowed time period. In addition to this problem, the Records Office at H. B. Robinson was not always aware of terminations for contract personnel. A contract employee check out form existed, however, this form was not required to be

routed to the Robinson Records Office upon its completion. This form would have provided the Robinson Records Office notice of a contract employee's termination in a timely manner.

3. The Corrective Steps Which Have Been Taken and The Results Achieved

The requirement to furnish a termination exposure record within 30 days of an employee's termination has been reviewed with the Corporate Records Office. The frequency of sending Notices of Termination to the Corporate Records Office has been increased from monthly to weekly. This will provide sufficient time for the Corporate Records Office to furnish the NRC with termination exposure reports within the 30-day limit.

4. The Corrective Steps Which Will Be Taken to Avoid Further Violation

The distribution of the contractor employee check out form will be changed to include the Robinson Records office. This should provide the Robinson Records office timely notification of termination by contract employees.

5. The Date When Full Compliance Will Be Achieved

The appropriate plant procedures will be revised and full compliance will be achieved by September 30, 1981.

Violation "B" - Severity Level V

10 CFR 20.103(a)(3) states that "... the licensee shall use suitable measurements of concentrations of radioactive materials in air for detecting and evaluating airborne radioactivity in restricted areas and in addition, as appropriate, use measurements of radioactivity in the body ... for timely detection and assessment of individual intakes of radioactivity by exposed individuals."

Contrary to the above, measurements of airborne radioactivity concentrations and personnel intakes of radioactive material were not made in that:

- (1) Between January 29, 1980, and July 20, 1980, three individuals commenced and terminated employment at the facility without having received whole body counts. During their employment the workers were required to wear respiratory protective equipment.
- (2) On September 2, 1980, workers removed insulation in the Residual Heat Removal Pit under SRWP 92-35 and wore respiratory protective equipment. No airborne radioactivity survey was performed.

- (3) On September 2, 1980, work was performed in the Waste Gas Compressor Room under SRWP 92-31 which required respiratory protection. No respirators were issued for this activity. No airborne radioactivity survey was conducted to support not issuing respiratory protective devices.

RESPONSE

1. Admission or Denial of Alleged Violation

Carolina Power and Light Company acknowledges the violation as stated; however, the violation identified in Part (3) may only be a documentation problem and not a violation per se.

2. Reason for Violation

(a) Violation B, Part (1)

The whole body counter is a mobile unit and was not available to be onsite from January 29, 1980, to April 25, 1980, and from May 7, 1980, to July 20, 1980. During these time periods, three individuals commenced and terminated employment at the Robinson Plant, Unit No. 2, without receiving whole body counts. During the course of their employment, these individuals were required to wear respiratory protective equipment.

(b) Violation B, Part (2)

On September 2, 1980, workers removed insulation in the Residual Heat Removal Pit under SRWP No. 92-35. Respirators were required and issued to the individuals who performed the work. Plant personnel are confident that air samples were collected and analyzed because of the requirement to wear respirators; however, documentation of these air samples taken for this work area on September 2, 1980 could not be retrieved from the plant files.

(c) Violation B, Part (3)

On September 2, 1980, SRWP No. 92-31 was issued for work in the Waste Gas Compressor Room. The "Respirator Required" block of the SRWP was checked; however, additional comments on the SRWP stated "air sample and respirator if required by H. P." No respirators were issued to any of the individuals working on this job and no documentation of air samples in the work area on September 2, 1980, could be retrieved from the plant files.

As allowed by Plant Procedure HP-7, a radiation control technician covering a particular job may relax or strengthen the protective clothing and equipment requirements for that job at his or her discretion. At present, radiation control technicians are not required to document these changes. Unless the technician documents such changes to the SRWP requirements, the documentation of personnel protection requirements appears to be in conflict with those requirements actually needed and utilized.

In the case cited, the plant had been shutdown for approximately four weeks; therefore, the probability that the waste gas compressor system would contain airborne radioactivity was very low. In the case cited, the plant believes the health physics technician covering this job recognized that this work situation did not require respirators and therefore relaxed this requirement as allowed by the statement on the SRWP, "air sample and respirator if required by H.P." Since this decision was apparently made before the work had commenced, our procedures do not require that an air sample be taken during work. All personnel who worked on SRWP No. 92-31 received whole body counts within 60 days of the SRWP issue date with all results less than 1% MPBB.

Two weaknesses are recognized which lead to this violation. First, the requirements of the SRWP were somewhat contradictory regarding respiratory protection requirements and secondly, the procedure does not require technicians to document changes made to SRWP's with regard to personnel protection requirements.

3. The Corrective Steps Which Have Been Taken and Results Achieved

Corrective measures are planned as per Section 4 of this response.

4. The Corrective Steps Which Will Be Taken to Avoid Further Violation

(a) Violation B, Part (1)

Installation of the permanent whole body counter presently on site should provide the capability to adequately assess intakes of radionuclides by workers. This installation should be completed by March 1, 1982. In addition, our whole body counting procedure will be revised to require whole body counting for all individuals who have used respiratory protection equipment while working in airborne radioactivity areas. This procedure change will be completed by September 30, 1981.

(b) Violation B, Part (2)

The appropriate health physics procedures will be revised to include a review mechanism for ensuring that air sampling documentation is available and properly correlated to the respiratory protection requirements specified on SRWP's. This action will be completed by November 30, 1981.

(c) Violation B, Part (3)

The SRWP procedure will be revised to require the documentation of changes made to the SRWP regarding personnel protection requirements.

In addition, radiation control personnel will be retrained on writing and using SRWP's with regard to clarity of the protection requirements and changes thereto. These actions will be completed by November 30, 1981.

5. Date When Full Compliance Will Be Achieved

(a) Violation B, Part (1)

Full compliance will be achieved by March 1, 1982.

(b) Violation B, Part (2)

Full compliance will be achieved by November 30, 1981.

(c) Violation B, Part (3)

Full compliance will be achieved by November 30, 1981.

Violation "C" - Severity Level V

10 CFR 20.103(c) states that "when respiratory protective equipment is used ... the licensee may make allowances for such use ... provided that such equipment is used as stipulated in Regulatory Guide 8.15, Acceptable Programs for Respiratory Protection." Regulatory Guide 8.15 requires as a minimum that respirable air of approved quality be provided in accordance with NUREG-0041. Section 5.2.4.1 of NUREG-0041 specifies that breathing air quality should meet the requirements for Grade "D" air.

Contrary to the above, the licensee did not insure that at least Grade "D" breathing air was provided for respiratory protective equipment in that analyses of breathing air quality performed in July 1978 by a contract laboratory and in January 1981 by the licensee employed equipment whose sensitivity was above the limits for Grade "D" air (5 milligrams per cubic meter condensed hydrocarbons, 20 parts per million (ppm) carbon monoxide, or 1000 ppm carbon dioxide).

RESPONSE

1. Admission or Denial of Alleged Violation

Carolina Power and Light Company acknowledges Violation "C".

2. Reason for Admission of Violation

An independent laboratory was contracted in July 1978, to verify that instrument air (breathing air) at Robinson met the Grade "D" quality for respirable air as defined in NUREG-0041. The laboratory used a Byron 231 instrument and a Orsat analyzer to obtain the results.

The contractor concluded that the instrument air met the Grade "D" respirable air quality. It should be noted that the test results for this air also met the more restrictive requirements of Grade "E" quality air. There is no reason to believe that the air quality has changed since the time of this analysis. An analysis of breathing air quality performed by H. B. Robinson Plant personnel in January, 1981, was conducted using detector tubes. The use of these tubes was deemed inadequate because the lower limit of sensitivity to compressed hydrocarbons was too high to meet the specifications of Grade "D" breathing air.

In addition, the air compressor used to fill SCBA bottles is certified as built to provide Grade "D" or better air. The air produced by this compressor has never been analyzed to assure it meets the requirements of Grade "D" air.

3. Corrective Steps Which Have Been Taken and Results Achieved

A contract to have instrument air (breathing air) and the SCBA air compressor tested annually has been issued to insure that Grade "D" respirable air quality is maintained.

4. The Corrective Steps Which Will Be Taken to Avoid Further Violation

The appropriate plant procedures will be revised to require the evaluation of breathing air quality on an annual basis. This annual test will commence in 1981.

5. Date When Full Compliance Will Be Achieved

Full compliance including the first annual test will be achieved by September 30, 1981.

Violation "D" - Severity Level V

Technical Specification 6.8.1 states that "written procedures ... shall be established, implemented and maintained that meet or exceed the requirements and recommendations of ... Appendix A of USNRC Regulatory Guide 1.33 dated November 3, 1972." Section G of Appendix A to Regulatory Guide 1.33 states that you should have procedures for Personnel Monitoring and Special Work Permits.

Contrary to the above, radiation protection procedures were not adhered to in that:

- (1) air sample data was not included on Form HP 3-1 as required by Plant Procedure HP-3,
- (2) six of eight simulated work activities were not performed during respirator fit testing on February 2, 1981 as required by Plant Procedure HP-6,
- (3) respirators were not submerged in a disinfectant solution following cleaning on February 2, 1981 as required by Plant Procedure HP-6,
- (4) a worker in the Boric Acid Evaporator Room on January 29, 1981, was not properly clothed as specified in RWP 129-2 and as required by paragraph 2.8.1 of Volume 8 of Plant Operating Manual, and
- (5) between March 1980 and February 1981, a quarterly inventory of respiratory equipment and associated replacement parts was not performed as required by Plant Procedure HP-6.

RESPONSE

1. Admission or Denial of Alleged Violation

Carolina Power and Light Company acknowledges the violation as stated except for Part (2) regarding simulated work activities for respirator fitting in a challenge atmosphere.

2. Reason For Admission of Violation

(a) Violation D, Part (1)

Section 3.5.2 of HP-3 (Revision 4) required that results of air samples be recorded on form HP-3-1 and attached to the corresponding laboratory sample submission form. The purpose of form HP-3-1 is to provide a mechanism for calculating MPC fractions, MPC-HRS, stay time, and correct assignment of respiratory protection equipment. The laboratory sample submission form contains pertinent information for sample

traceability such as sample location, RWP number, date and time of sampling, counting data, flow rate, flow time, and sample number. The fact that form HP-3-1 was not attached to the laboratory sample submission form was a failure to follow HP-3, however, both forms are cross-referenced by a sample number and for the most part, traceability of the sample is possible. This failure to follow procedure is attributed to inadequate personnel training.

(b) Violation D, Part (3)

The individual cleaning the respirators had received training on the approved method in HP-6 for cleaning respirators and was apparently knowledgeable in the specific requirements of the procedure. This event was the result of failure to follow procedure.

(c) Violation D, Part (4)

The individual observed by the inspector to be climbing in the overhead piping in the Boric Acid Evaporator Room was an Auxiliary Operator. This individual had signed in on RWP 129-2 which stated in part, "Anti-C's required by posting in Auxiliary Building ...". The entrance to the Boric Acid Evaporator Room was posted with a sign that required full Anti-C's for entry except for sampling operations. The inspector noted that the individual was only wearing shoe covers and gloves. This event was the result of failure to follow procedure.

(d) Violation D, Part (5)

Health physics procedure HP-6 requires a quarterly inventory of respiratory protection equipment and repair parts. Prior to March, 1980, the required inventory was being conducted by health physics personnel. Subsequent to March, 1980, a new stockroom computer inventory system was instituted and it was assumed that this computer inventory system would fulfill the quarterly inventory requirement of HP-6; however, the computer inventory system had not yet achieved full operational capabilities and was unable to fulfill the subject requirement. This failure to follow procedure is attributed to a misconception by health physics supervisory personnel of the capabilities and utilization of the stores computer inventory system.

3. Reason For Denial of Violation D, Part (2)

With regard to Part (2) of this violation, Section 8.5.1.2 of NUREG-0041 states, "The following are minimum movements that should be performed during testing of a respirator: ...", and the passage continues by listing eight simulated work activities. Section 2.3.3.5 of the version of HP-6 in effect on February 2, 1981, states, "You may be asked to perform some or all of the following movements while in the respirator test booth to establish proper fit under simulated work conditions ...", and the passage continues by listing the activities expressed in NUREG-0041. Page 19, Paragraph 3 of the subject inspection report (81-07) states, "The procedure specified eight simulated work conditions that an applicant may be required to perform during determination of respirator fit. However, during observation of the fit tests being administered, only two of the tests were used." Since two of the simulated work conditions were observed to have been performed and because there was no requirement that all eight tests be performed, Carolina Power and Light Company does not regard this item to be a violation of Technical Specification 6.8.1. We do, however, concur on a generic basis that improvements in the respirator fit test can be made. CP&L agrees that the two simulated work conditions performed (normal breathing and normal breathing to recheck seal after movements) do not provide an adequate example of work conditions and will therefore require performance of some or all simulated work conditions listed in NUREG-0041 (i.e., frown, talking, deep breathing) during respirator fit testing.

4. The Corrective Steps Which Have Been Taken and the Results Achieved

(a) Violation D, Part (1)

Personnel have been instructed on the present requirements of HP-3 and the problem of not attaching form HP-3-1 to the laboratory sample submission form has been corrected. These actions were completed by February 1, 1981.

(b) Violation D, Part (2)

Corrective steps are outlined in Section 3 above of this response.

(c) Violation D, Part (3)

The individual involved in cleaning respirators was reprimanded by a radiation control foreman and reminded that further violation of procedures would be justification for disciplinary action. The individual acknowledged the importance of following approved plant radiation control procedures.

(d) Violation D, Part (4)

The worker in the Boric Acid Evaporator Room was reprimanded by his supervisor and reminded that further violation of procedures would be justification for disciplinary action. The individual acknowledged the importance of following approved plant radiation control procedures.

(e) Violation D, Part (5)

A plant radiation control foreman has been assigned to supervise the conduct of the respiratory protection program. Part of this responsibility is to ensure that the quarterly inventory of respiratory protection equipment and repair parts is performed by health physics personnel. This has eliminated the confusion caused by using the computer inventory system. This action was completed by June 15, 1981, and will continue until the computer inventory system is operable and functioning properly. At that time, radiation control personnel will periodically check the accuracy of the computerized inventory system to confirm its operability.

5. The Corrective Steps Which Will Be Taken To Avoid Further Violation

The corrective actions stated above should be sufficient to avoid further violations.

6. Date When Full Compliance Will Be Achieved

Full compliance has been achieved as listed above for all items.

Violation "E" - Severity Level VI

10CFR 20.301 states that no licensee shall dispose of licensed material except: (a) by transfer to an authorized recipient as provided in Parts 30, 40, or 70 to Title 10 to the Code of Federal Regulations; (b) as authorized pursuant to 10CFR 20.302; or (c) as provided in 10CFR 20.303 (disposal by release into sanitary sewerage systems), 10CFR 20.304 (disposal by burial in soil), or 10CFR 20.106 (radioactivity in effluents to unrestricted areas). 10CFR 20.302 states that a licensee may apply to the Commission for approval of proposed procedures to dispose of licensed material in a manner not otherwise authorized in the regulations.

Contrary to the above, licensed material was disposed in a manner not specifically authorized in the regulations and without prior Commission approval in that in July, 1980, 3000 cubic meters of sediment from the east settling pond containing an estimated 20 millicuries of radioactive material (principally Co-60) was transferred to the licensee's ash pond outside the restricted area.

RESPONSE

1. Admission or Denial of Alleged Violation

Carolina Power and Light Company acknowledges Violation "E" as stated.

2. Reason For Violation

It appears that your interpretation of licensed material is any detectable quantity of source, special, or byproduct material which may be received, possessed, used, or transferred by a licensee. The difficulty with this interpretation is that detectability is a function of analytical technique and that the choice of proper analytical technique depends on the perception of standard industry practice that prevails at any given point in time. This poses two problems of practical importance. First, the fact that state-of-the-art technology is a perception makes the interpretation of what is licensed material difficult. For example, a relatively small sample of a material can be collected and with minimal treatment, be analyzed for gamma emitting radionuclides using a GeLi spectrometer and be deemed "clean". Alternately, radiochemical separations can be performed on a larger sample of the same material, each fraction counted on the same GeLi spectrometer using equivalent counting conditions, and the resultant increase in sensitivity reveals the presence of licensed material. Both techniques are entirely possible with today's technology. The problem is, which technique must a licensee use? Secondly, improvements in technology make the interpretation of licensed material difficult with respect to the passage of time. For example, a licensee may dispose of material, which by today's technology is deemed "clean", at a local landfill. Years later, new and more sensitive instrumentation is developed and a survey of the landfill indicates that the licensee actually disposed of licensed material. There is no question that the legal and economic impact of such incidents can be very far reaching and potentially damaging. Furthermore, as progressively more materials are deemed to contain licensed material due to improved technology, licensee's will be forced to dispose of large quantities of materials containing very low concentrations of radionuclides at licensed burial sites or apply to the Commission on a case-by-case basis for alternative means of disposal. Utilizing burial sites in this manner would waste valuable burial space and the application process itself is costly and time consuming while making no measurable improvement in public health and safety.

In our opinion, the key ingredient missing from 10CFR 20.301 is that of practicality. Carolina Power and Light Company acknowledges the need to control, by regulation, the disposition of licensed material; however, such regulation must be stated in terms that are clear and

practicable for compliance purposes on behalf of the licensee, for enforcement purposes on behalf of the Commission and in a manner realistically directed toward the preservation of public health and safety. Since it is possible to define exempt concentrations for the purposes of 10CFR 30-34, we believe it would also be beneficial to define exempt concentrations for the disposal of licensed material pursuant to 10CFR20.

In the case cited, samples of the east settling pond sediment were analyzed prior to the transfer operation and were found to contain radioactivity on the order of $1\text{E}-06$ to $1\text{E}-05$ uCi/gm, most of which was Co-60. For the sake of comparison, this concentration is well below the exempt concentration of $5\text{E}-04$ uCi/gm for Co-60 prescribed by 10CFR 30.70, Schedule A, with regard to the licensing requirements of 10CFR 30-34. A safety analysis was performed which evaluated the radiological hazards of disposing of the sediment in the ash pond. The conclusions of this analysis demonstrated that the concentration and amount of radioactivity that would be placed in the ash pond would pose no threat to the health and safety of the public. It was CP&L's determination at the time that, given these facts, CP&L's actions were appropriate. Nevertheless, CP&L recognizes, in retrospect, that it was perhaps an error in judgment to dispose of the sediment in the ash pond in view of the literal language of the regulation.

CP&L believes that a literal interpretation of 10CFR 20.301 is unnecessary to the protection of the public health and safety and creates an unreasonable burden upon licensees. CP&L, therefore, respectfully submits that this regulation must be revised to exempt specified concentrations from its coverage. In addition, CP&L respectfully requests that in assessing CP&L's activity in this regard, the Commission recognize the difficulty in achieving compliance with this regulation as explained above and CP&L's good faith attempt to comply with the regulation as CP&L had interpreted it at the time.

3. The Corrective Steps Which Have Been Taken and Results Achieved

A safety analysis which was performed on July 3, 1980, evaluated the radiological hazards of disposing of the sediment in the ash pond. The conclusions of this analysis demonstrated that the concentration and amount of radioactivity that would be placed in the ash pond would pose no threat to the health and safety of the public. These conclusions were also supported in a revision to the safety analysis performed on November 12, 1980.

4. The Corrective Steps Which Will Be Taken to Avoid Further Violation

If a similar transfer were to be considered in the future, Carolina Power and Light Company will apply to the Commission in accordance with 10CFR 20.302, for approval of proposed procedures to dispose of licensed material in a manner not otherwise authorized in the regulations.

5. Date When Full Compliance Will Be Achieved

Full compliance has been achieved with the completion of the safety analysis on November 12, 1980.

Violation "F" - Severity Level IV

Technical Specification 6.13 states that "any individual or group of individuals permitted to enter a High Radiation Area shall be provided with a radiation monitoring device which continuously indicates the radiation dose rate in the area."

Contrary to the above, on January 29, 1981, an individual was observed in the Boric Acid Evaporator Room without a dose rate survey instrument. General area radiation levels were greater than 100 mrem/hr at the time.

RESPONSE

1. Admission or Denial of Alleged Violation

Carolina Power and Light Company acknowledges Violation "F" as stated.

2. Reason for Violation

On January 29, 1981, an individual was observed in the Boric Acid Evaporator Room without a dose rate survey instrument. General area radiation levels were greater than 100 mrem/hr at the time. Technical Specification 6.13 requires that personnel entering a High Radiation Area be equipped with a dose rate survey instrument.

The individual had been in this room numerous times during his shift with a survey instrument and was familiar with the radiation levels present in the room. The individual did not realize that a survey instrument was required each time he entered the room.

3. The Corrective Steps Which Have Been Taken and Results Achieved

This individual received a reprimand from his supervisor stressing the importance of following correct health physics practices at all times, the possible consequences of his actions, and that further violations would be justification for disciplinary action. The individual acknowledged the importance of following radiation control procedures.

4. The Corrective Steps Which Will Be Taken to Avoid Further Violation

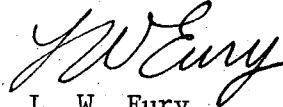
To insure that plant personnel were aware of their responsibilities and enforcement of the radiation protection program, guidance was provided on April 2, 1981, in the form of a memo to be reviewed by all plant personnel, describing plant personnel's responsibilities for radiation protection and health physics practices, the importance of radiation safety, and the adherence to established procedures during job performance.

5. Date When Full Compliance Will Be Achieved

Full compliance has been achieved with the reprimand of the individual. Followup action will be completed by August 15, 1981.

Should you have any questions regarding these responses, please contact a member of my staff.

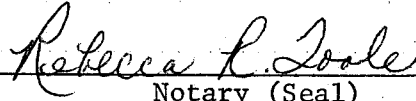
Very truly yours,



L. W. Eury
Senior Vice President
Power Supply

DCS/lr

L. W. Eury, 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.



Notary (Seal)

My Commission expires: 6-8-86