CP&L

Carolina Power & Light Company

H. B. ROBINSON STEAM ELECTRIC PLANT
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Robinson File No: 13510E Serial: RSEP/82-1926

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

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
RESPONSE TO NRC INSPECTION REPORT IE-82-34

Dear Mr. O'Reilly:

Carolina Power and Light Company has received and reviewed the subject report and provides the following response.

A. Severity Level IV Violation (IER-82-34-07-SL4, Items a & b)

Technical Specification 6.13.1 requires that any individual or group of individuals permitted to enter high radiation areas shall be provided with a radiation monitoring device which continuously indicates the radiation dose rate in the area. Also, each entrance or access point to a high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. shall be provided with locked doors to prevent unauthorized entry into such areas.

Contrary to the above, controls for high radiation areas were not adequately established in that:

(1) On September 27, 1982, an individual was observed coming out of the "B" waste evaporator room, a high radiation area, without a dose rate instrument. The instrument was observed to be outside of the high radiation area.

(2) On September 27, 1982, a ladder was observed leaning against a shield wall in the waste drumming room. The ladder was an unlocked entrance or access point which permitted the unauthorized entry into an area with radiation intensity greater than 1000 mrem/hr.

RESPONSE

1. Admission or Denial of the Alleged Violation

Carolina Power and Light Company denies that controls for high radiation areas were not adequately established in the first example and acknowledges the Inspector's concern in the second example.

2. a. Reason for Denial of First Example

The technician in question had been issued a radiation monitoring device which was capable of continously indicating the radiation dose in the area as per Technical Specification 6.13.1(a). Additionally, the technician made a survey of the area prior to any work being performed. He was leaving the area when he re-entered in order to check the position of a valve; he gave the survey instrument to a worker right outside the step-off pad to be protectively wrapped. The technician felt reasonably confident that the previously surveyed radiation level had not been altered in the brief time span from his survey of the area prior to leaving and his re-entrance into that area.

The Licensee was, therefore, in compliance with the Technical Specification 6.13.1(a) and 10CFR20.201(b). At the time the work was performed in the high radiation area, a survey was made which was "reasonable under the circumstances to evaluate the extent" of a radiation hazard.

b. Reason for Admission of Second Example

This Locked High Radiation Area was previously located behind a locked cage fence door. The lock was reported on August 25, 1932, as unsecurable. At this time, the RC Foreman in charge reviewed the Licensee's procedures for securing such an area. Procedure HP-1.1, Section 5.2.7, states, "each Locked High Radiation Area shall be bounded by physica barriers such as walls, doors, or

fences....". On the basis of this procedure, the Foreman had constructed a wall made out of water filled drums. This wall was constructed in such a manner as to preclude unauthorized access into the area and is discussed in CP&L's response to Inspection Report IER-82-31. However, it was the inspector's opinion, and CP&L concurs, that this area is still technically accessible from the top of the shield wall with the use of a ladder.

3. Corrective Steps Which Have Been Taken and Results Achieved

a. Example 1: No corrective steps are considered necessary.

b. Example 2: The door to the drumming room has been locked as a locked high radiation area.

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

Example 2: Procedure HP-1.1, Section 5.2.7 will be revised to be as rigorous as the Technical Specification.

5. Date When Full Compliance Will Be Achieved

Example 2: Full compliance will be achieved by January 31, 1983.

B. Severity Level IV Violation (IER-82-34-07, Item c)

10CFR20.203(c)(3) requires that high radiation area controls be established in such a way that no individual will be prevented from leaving a high radiation area.

Contrary to the above, high radiation area controls were not established in such a way that an individual could leave a high radiation area in that, on September 27, 1982, the door providing access to the "C" waste evaporator room was secured with a padlock, and no administrative controls were in place which would ensure that an individual would not be inadvertently locked in the area.

RESPONSE

1. Admission or Denial of the Alleged Violation

Carolina Power and Light Company acknowledges the violation.

2. Reason for Admission of Violation

The "C" waste evaporator room is posted as a Locked High Radiation Area. On September 27, 1982, this area was locked with a padlock, which did not provide for egress from the area. The Licensee was not in full compliance with 10CFR20.203(c)(3).

3. Corrective Steps Which Have Been Taken and Results Achieved

A work request for a rapid egress lock had been initiated prior to this inspection. The egress lock is installed and allows an individual to leave the "C" waste evaporator room while preventing unauthorized access.

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

The purpose of using rapid egress locks in High Radiation Areas will be discussed with the H.P. Technicians by their supervision.

5. Date When Full Compliance Will Be Achieved

Full compliance had been achieved on October 1, 1982, with the installation of the egress lock. Discussion with H.P. Technicians on egress locks will be completed by January 15, 1983.

C. Severity Level IV Violation (IER-82-34-04-SL4)

10CFR20.301 requires that no licensee dispose of licensed material except: (a) by transfer to an authorized recipient as provided in Parts 30, 40, 70 or 72 of Title 10 to the Code of Federal Regulations; (b) as authorized pursuant to 10CFR20.302; or (c) as provided in 10CFR20.303 (disposed of by release into sanitary systems); or 10CFR20.106 (radioactivity in effluents to unrestricted areas).

Contrary to the above, licensed material was disposed of in a manner not specifically authorized in the regulations and without prior Commission approval in that between April 22 and May 30, 1982, the Licensee disposed of approximately 1.2 microcuries of cobalt-60 in waste oil by transfer to an unauthorized recipient.

RESPONSE

1. Admission or Denial of the Alleged Violation

Carolina Power and Light Company acknowledges the violation.

2. Reason for the Violation

The sampling technique for the waste oil in the Unit #2 radiation controlled area was inadequate. Prior to NRC Inspection 82-31, waste oil storage barrels were each sampled once from the top of the barrel. From each barrel, 125 milliliters were sampled and transferred to a poly bottle. The bottle of oil was analyzed in a Nuclear Data 6650 gamma spectroscopy system. If no measurable radioactivity was detected (less than MDA), the oil was released to the Unit #1 uncontrolled area of the plant for distribution.

Apparently, the radioactive contaminated waste oil released in April, 1982, contained cobalt-60 contamination that was insoluble. As a result, the contamination was not uniformly distributed throughout the oil, and the 125 milliliters sample from the barrel indicated no demonstrable contamination. On the basis of this determination, the oil was released.

The oil was shipped to a distributor where it was mixed in with other oils and then reprocessed. This mixing greatly diluted the small amount of activity shipped from the site. Hence, no significant dose or public health threat exists.

3. Corrective Steps Which Have Been Taken and Results Achieved

Waste oil will not be released from the Unit #2 until adequate surveillance and release procedures for the release of waste oil are developed.

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

The corrective step above will prevent further violation.

5. Date When Full Compliance Will Be Achieved

The policy of not releasing any oil from Unit #2 until adequate procedures are developed will prevent further violations. Because unanswered questions remain on what are the limits for contaminated oil and what sampling and analysis methods should be used for oil, a commitment date for implementing procedures has not been established.

D. Severity Level V Violation

Technical Specification 6.5.1.1.1 requires that written procedures be established, implemented, and maintained covering applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, Rev. 2, February, 1978.

Contrary to the above, written procedures were not established, implemented, and maintained in that:

(1) IER-82-34-03-SL5

Personnel contamination records were not reviewed by a Radiation Control Foreman or the Environmental and Radiation Control Supervisor during the period of February to August, 1982, as required by health physics procedure HP-28.

(2) IER-82-34-08-SL5

On September 29, 1982, the hot machine shop was found to contain equipment with loose contamination and was not posted as a Contaminated Process Equipment Area as required by health physics procedure HP-1.1.

(3) IER-82-34-06-SL5

No procedure was established describing a method of representative sampling, sample size, or to even require sampling and analysis of waste oil, waste oil-water mixtures, and other fluids prior to release from the Unit #2 radiation control area.

RESPONSE

1. Admission or Denial of the Alleged Violation

Example 1: Carolina Power and Light Company denies that personnel contamination records were not reviewed, however, acknowledges that the original copy of the records that the Inspector reviewed did not contain the reviewers' signatures.

Examples 2 & 3: Carolina Power and Light Company acknowledges these examples of the violation.

2. Reason for the Violation

Example 1: Health Physics procedure HP-28 requires that Form HP-28-1 be reviewed by a Radiation Control Foreman and then filed in each individual's dosimetry record folder. Contrary to this, the original copies of these forms were reviewed and signed by a Radiation Control Foreman; however, they were filed in the plant vault rather than in each individual's dosimetry folder. The forms that appeared in the individual's dosimetry folders

were copies of the forms that were filed in the folder prior to the completion of the Radiation Control Foreman's review. Thus, the required reviews were performed; however, the procedure was not followed in that the reviewed forms were not filed in the manner prescribed by procedure.

Example 2: One smear survey was made of the lathe in the Hot Machine Shop by the NRC Inspector. The Inspector did not specify which of the two lathes in the machine shop was smeared. Counts on the lathe smear yielded a value in excess of the prescribed level for a Contaminated Process Equipment Area. Subsequent detailed surveys performed by the Licensee on both lathes verified the Inspector's survey on one of the lathes.

Surveys performed on both lathes by the Licensee September 13, 1982, thru September 30, 1982, showed contamination to be less than the levels required for posting. The lathe was not posted based on these surveys. Smear surveys are statistical samplings, and these surveys did not identify the contaminat on one of the lathes.

Example 3: Prior to the inspection, waste oil in the Unit #2 radiation control area of the plant was sampled once from the top of each barrel. From each barrel, 125 milliliters were sampled and transferred to a poly bottle. Both oil and container were analyzed in a Nuclear Data 6650 gamma spectroscopy system. No method of agitating the oil before sampling or drawing oil samples from the various layers of the barrel was established. This method of sampling apparently did not yield a representative sample from each barrel.

3. Corrective Steps Which Have Been Taken and Results Achieved

Example 1: As of November 16, 1982, the personnel contamination report which remains in the individual's dosimetry file will be the original and will include the reviewer's signature.

Example 2: Upon verifying the Inspector's survey, the area was posted as a Contaminated Process Equipment Area.

Example 3: Waste oil is currently not being released from Unit #2, and this policy will remain in effect until adequate surveillance and release procedures for the release of waste oil have been developed.

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

Example 1: The corrective step mentioned above in Item 3 will prevent further violation.

Example 2: What constitutes an adequate survey of an area will be re-examined, and the conclusions will be reflected in a revision to procedure HP-1.1.

Example 3: The corrective step mentioned above in Item 3, example 3, will prevent further violation.

5. Date When Full Compliance Will Be Achieved

Example 1: Full compliance has been achieved.

Example 2: HP-1.1 will be revised by April 30, 1983, to reflect what constitutes an adequate survey of an area.

Example 3: The policy of not releasing any oil from Unit #2 until adequate procedures are developed will prevent further violation. Because unanswered questions remain on what are the limits for contaminated oil and what sampling and analysis method should be used for oil, a commitment date for implementing approved procedures has not been established.

If you have any questions concerning this response, please contact me.

Very truly yours,

R. B. Starkey, Jr.
General Manager
H. B. Robinson SEG Plant

CLW:JMC/bss

cc: R. C. DeYoung