

January 6, 1994

MEMORANDUM FOR: James H. Joyner, Chief, FRSSB, DRSS, Region I
William E. Cline, Chief, RPEPB, DRSS, Region II
Cynthia D. Pederson, Chief, RPB, DRSS, Region III
Dwight D. Chamberlain, Director, DRSS, Region IV
James H. Reese, Chief, RRPB, DRS, Region V

FROM: LeMoine J. Cunningham, Chief
Radiation Protection Branch
Division of Radiation Safety
and Safeguards
Office of the Nuclear Reactor Regulation

SUBJECT: REVISED PART 20 VIOLATIONS

Enclosed for your information is the first summary package to date of the revised Part 20 notices of violation (NOV). We are distributing these summaries to ensure a uniform implementation of the revised Part 20. In a March 23, 1993, memorandum F. Congel informed regional DRSS Directors that all proposed violations and non-cited violations against the revised Part 20 (10 CFR 20.1001-20.2401) proposed for inclusion in power reactor licensee inspection reports should be submitted to PRPB for review. To date we have only received three such submittals (the latest is still under Regional review.) As a reminder, any and all violations and non-cited violations proposed against Part 20 should be submitted to PRPB for review.

If you have any comments on these violations, or questions pertaining to the required submittal contact Dan Carter (301) 504-1848 or Jim Wigginton (301) 504-1059.

Original signed by L. Cunningham

LeMoine J. Cunningham, Chief
Radiation Protection Branch
Division of Radiation Safety
and Safeguards
Office of Nuclear Reactor Regulation

Enclosures:

- 1. McGuire NOV
- 2. Oconee NOV

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ENCLOSURE 1NOTICE OF VIOLATION

Duke Power Company
McGuire Units 1 and 2

Docket Nos. 50-369, 50-370
License Nos. NPF-9, NPF-17

During an NRC inspection conducted on May 17-21, 1993, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," the violations are listed below:

- A. 10 CFR 20.1904(a) requires the licensee to ensure that each container of licensed material bears a durable, clearly visible label bearing the radiation symbol and the words "Caution, Radioactive Material," or "Danger, Radioactive Material." The label must also provide sufficient information (such as radionuclides present, an estimate of the quantity of radioactivity, the date for which the activity is estimated, radiation levels, the kinds of materials, and mass enrichment) to permit individuals handling or using the containers, or working in the vicinity of the containers, to take precautions to avoid or minimize exposures.

Technical Specification (TS) 6.11 requires that procedures for radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained, and adhered to for all operations involving personnel radiation exposure.

Radiation Protection Directive IV-2, Labeling and Marking of Containers, Revision 0, dated January 1, 1993, step 5.6, states to label drums or containers used inside the radiologically controlled area (RCA) for collecting contaminated items as follows:

- ° 5.6.1 - At a minimum, place labels on the center section of the drums or containers at two locations 180 degrees apart.
- ° 5.6.2 - Use standard 2" wide yellow and magenta "Caution Radioactive Material" tape to encircle the top third of the drum for radioactive containers.

Contrary to the above requirements, on May 18, 1993, the licensee failed to label as required by the above listed requirements, three vacuum cleaners in Unit 1 containment that contained radioactive material.

This is a Severity Level IV violation (Supplement IV).

c. Surveys and Posting/Labeling

10 CFR 20.1501(a) requires each licensee to make or cause to be made such surveys as (1) may be necessary for the licensee to comply with the regulations and (2) are reasonable under the circumstances to evaluate the extent of radioactive hazards that may be present.

During tours of the plant, the inspector noted that the licensee's posting and control of radiation areas, high radiation areas, airborne radioactivity areas, contamination areas, radioactive material areas, was adequate. All doors posted as locked high radiation areas were found locked and the keys were controlled.

During tours of the plant, the inspector observed HP technicians performing radiation and contamination surveys. The inspector performed independent radiation/contamination surveys in various areas including Unit 1 upper containment and the Auxiliary Building. No radiation or contamination beyond allowable limits was found. In addition, the inspector made direct observations of individuals exiting Unit 1 lower containment and other sections of the RCA with regard to disrobing and frisking the whole body and hand-carried items (lunch boxes, tools, etc.) and no concerns were noted.

10 CFR 20.1904(a) requires the licensee to ensure that each container of licensed material bears a durable, clearly visible label bearing the radiation symbol and the words "Caution, Radioactive Material," or "Danger, Radioactive Material." The label must also provide sufficient information (such as radionuclides present, an estimate of the quantity of radioactivity, the date for which the activity is estimated, radiation levels, the kinds of materials, and mass enrichment) to permit individuals handling or using the containers, or working in the vicinity of the containers, to take precautions to avoid or minimize exposures.

Technical Specification (TS) 6.11 requires that procedures for radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained, and adhered to for all operations involving personnel radiation exposure.

RP Directive IV-2, Labeling and Marking of Containers, Rev. 0, dated January 1, 1993, step 5.6, requires that drums or containers used inside the RCA for collecting contaminated items be labeled as follows:

- * 5.6.1 - At a minimum, place labels on the center section of the drums or containers at two locations 180 degrees apart.
- * 5.6.2 - Use standard 2" wide yellow and magenta "Caution Radioactive Material" tape to encircle the top third of the drum for radioactive containers.

During radiological tours of the Unit 1 containment, the inspector conducted brief interviews with personnel regarding immediate work area dose rates and radiological techniques observed at the job site. No discrepancies were noted and all work observed was performed with good radiological work practices. Continuing with the walkdown, the inspector noted that all vacuum cleaners in the Unit 1 lower containment were not labeled as containing radioactive material nor did they have any other markings other than a station housekeeping tag. Radiation levels taken around the vacuums revealed levels comparable to containment background levels of 5 to 10 millirem per hour. The vacuums were used as wet vacuums to collect potentially radioactive water and discharge it to the floor drain system. One of the vacuums had a clamp loose which held the top of the canister to the vacuum cleaner body. The inspector noted that only two clamps were used for this purpose and discussed with the HP technician the potential for inadvertent separation of the head of the vacuum from the body and loss of contents in containment. The technician indicated that he did not know of any problems like this occurring at the station. Later this same issue was discussed with management and the inspector informed management that the failure to label containers of radioactive material in accordance with requirements was a violation of 10 CFR 20.1904(a) (VIO: 50-369/93-08-01).

ENCLOSURE 1NOTICE OF VIOLATION

◀ Duke Power Company
Oconee ▶

Docket Nos. 50-269, 50-270, 50-287
License Nos. DPR-38, DPR-47, DPR-55

During an NRC inspection conducted on October 18-22, and telephone conferences on October 29 and 29, 1993, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C the violation is listed below:

10 CFR 20.1601(a) requires that the licensee ensure that each entrance or access point to a high radiation area has one or more of the following features:

- (1) A control device that, upon entry into the area, causes the level of radiation to be reduced below that level at which an individual might receive a deep-dose equivalent of 0.1 rem in one hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates;
- (2) A control device that energizes a conspicuous visible or audible alarm signal so that the individual entering the high radiation area and the supervisor of the activity are made aware of the entry; or
- (3) Entryways that are locked, except during periods when access to the areas is required, with positive control over each individual entry.

Contrary to the above, during the period of March - October 1993, the licensee maintained approximately 50 rooms as high radiation areas and failed to ensure that each entrance or access point into those high radiation areas had one or more of the required features. For example, Room 121 (Unit 2 decay heat removal system) had radiation levels that ranged 120 - 200 millirem per hour at 30 centimeters and neither of the two entrances had one or more of the required features.

This is a Severity Level IV violation (Supplement IV).

e. Access Controls for High Radiation Areas

10 CFR 20.1601(a) requires that the licensee ensure that each entrance or access point to a high radiation area has one or more of the following features:

- (1) A control device that, upon entry into the area, causes the level of radiation to be reduced below that level at which an individual might receive a deep-dose equivalent of 0.1 rem in one hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates;
- (2) A control device that energizes a conspicuous visible or audible alarm signal so that the individual entering the high radiation area and the supervisor of the activity are made aware of the entry; or
- (3) Entryways that are locked, except during periods when access to the areas is required, with positive control over each individual entry.

10 CFR 20.1601(b) states that in place of the controls required in 20.1601(a) for a high radiation area, the licensee may substitute continuous direct or electronic surveillance that is capable of preventing unauthorized entry.

10 CFR 20.1601(c) states that a licensee may apply to the Commission for approval of alternative methods for controlling access to high radiation areas.

Prior to March 1993, the licensee historically chose to lock high radiation areas (HRAs) at 100 millirem per hour pursuant to 10 CFR Part 20. Most commercial nuclear power plants in the U.S. have been approved by the NRC to control access to HRAs by utilizing alternative methods other than those prescribed in 10 CFR Part 20. In all cases, these alternative methods have been approved in the form of a TS change. The standard TS change generally allowed the doors/barriers leading to HRAs with radiation levels between 100 and 1,000 millirem per hour to be unlocked, with other specified access controls employed. HRAs with radiation levels in excess of 1,000 millirem per hour remained locked and the keys controlled.

In early 1993, the licensee decided to adopt the change in practice and unlock HRAs with radiation levels between 100 and 1,000 millirem per hour as part of a utility effort to be consistent with the other two Duke nuclear plants. The other Duke plants adopted and implemented the standard TS change years ago. The licensee conducted an internal evaluation and the decision was made to control access in accordance with Draft Regulatory Guide (RG) DG-8006, "Control of Access to High and Very High Radiation Areas in Nuclear Power Plants." In March 1993, the HRA doors/barriers that met the guidance of the draft RG began to be unlocked. In June 1993, the draft guide was finalized and became effective as RG 8.38 (same title). During discussions with licensee personnel and review of procedural requirements during the October 1993 inspection, the inspector was informed that the change in operating policy had been made, but no TS changes or other approvals were obtained. The inspector questioned the licensee's judgement in not seeking NRC approval for the change and informed the licensee that an apparent violation of 10 CFR 20.1601(a) had occurred due to the fact that the change was made without the approval of the NRC pursuant to 10 CFR 20.1601(c).

From a regulatory standpoint, specifically 10 CFR 20.1601, the licensee's control of the three doors was appropriate, as were the postings. However, the licensee's procedure that addressed HRA key control, Radiation Protection Directive No. III-15, "Access Controls for High, Extra High, and Very High Radiation Areas," Revision (Rev.) 3, dated October 1, 1993, indicated that Reactor Building keys were only controlled by the Operations Shift Supervisor and RP personnel. The licensee considered those three keys controlled by Security to perform their daily checks to be Reactor Building keys.

The inspector discussed the issue with licensee personnel who agreed that there was a discrepancy with the procedural requirements and their current practice. The licensee proposed to correct the situation by revising the procedure to allow Security to have access to those three particular doors/keys. Although the licensee was technically not in compliance with the procedure, based on the nature of the problem, the licensee's proposed corrective action, and the lack of safety significance and/or Part 20 inconsistency, the inspector informed the licensee that the issue would be tracked as an unresolved item (URI 50-269, 270, 287/93-28-02).

One apparent violation and one unresolved item were identified.