



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 REGION II  
 101 MARIETTA ST., N.W., SUITE 3100  
 ATLANTA, GEORGIA 30303

Report Nos. 50-269/79-35, 50-270/79-32 and 50-287/79-35

Licensee: Duke Power Company  
 422 South Church Street  
 Charlotte, North Carolina 28242

Facility Name: Oconee

License Nos. DPR-38, DPR-47 and DPR-55

Inspection at Oconee Site near Seneca, South Carolina

Inspected by:	<u>A. F. Gibson</u>	<u>1/28/80</u>
	C. M. Hosey	Date Signed
Approved by:	<u>A. F. Gibson</u>	<u>1/28/80</u>
	A. F. Gibson, Section Chief, FFMS Branch	Date Signed

SUMMARY

Inspection on November 27-30, 1979

Areas Inspected

This routine, unannounced inspection involved 31 inspector-hours onsite in the areas of radiation protection, including qualification of health physics personnel, radiological control procedures, posting, labeling and control; review of licensee action on I&E Bulletins, Circulars and Notices and followup on an onsite spill of radioactive water.

Results

Of the 4 areas inspected, no items of noncompliance or deviations were identified in 2 areas; 2 apparent items of noncompliance were found in 2 areas-Infraction-failure to follow procedure-Paragraph 6 and 8 and Deficiency-failure to label containers of radioactive material-Paragraph 6.

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## DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*J. M. Davis, Superintendent of Maintenance
- J. N. Pope, Superintendent of Operations
- \*T. Owens, Superintendent of Technical Services
- \*C. T. Yongue, Station Health Physicist
- D. Rochester, Station Chemist
- S. R. Newcomb, Health Physicist
- D. Davidson, Health Physics Supervisor
- T. Alexander, Health Physics Supervisor
- R. T. Bond, Technical Services Supervisor
- J. W. Herring, Shift Supervisor
- \*H. R. Lowery, Operating Engineer
- G. R. Jones, Shift Supervisor
- D. Yoh, Shift Supervisor
- \*R. J. Brackett, Station Senior QA Engineer

#### NRC Resident Inspector

F. Jape

### 2. Exit Interview

The inspection scope and findings were summarized on November 30, 1979, with those persons indicated in Paragraph 1 above. The acting station manager acknowledged the items of noncompliance. With regard to the non-compliance item relating to failure to follow procedure, a member of station management stated that the utility operator did follow the procedure and check the valve closed. The inspector stated that attempting to close a valve, normally equipped with a hand wheel, by holding the stem with bare hands is not taking reasonable care to ensure the valve is properly positioned. With regard to the noncompliance items relating to failure to label containers of radioactive material, a member of station management stated that the container should not have to be labeled if the container was located in a locked high radiation area. The inspector commented that 10 CFR 20.203(f) clearly states when containers must be labeled. With regards to the plant review of I&E Circular 79-21 and Notice 79-09, the acting station manager stated that the station would promptly review the Circular and Notice and take appropriate action. The inspector discussed with station management the desirability of acquiring emergency radiation survey instruments with ranges up to 10,000 R/hr. Instruments of this type were needed immediately following the Three Mile Island accident, but were not available.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. New unresolved items identified during this inspection are discussed in Paragraph 7.

5. Qualification of Health Physics Personnel

The inspector reviewed the qualifications of newly acquired contract health physics technicians and discussed the technician's training and experience and job assignments with licensee representatives. The inspector had no further questions.

6. Posting and Labeling and Control

- a. The inspector reviewed the licensee's posting, and control of radiation areas, high radiation areas, airborne radioactivity areas, contamination areas, radioactive material areas, and the labeling of radioactive material during tours of the Auxiliary Buildings.
- b. 10 CFR 20.203(f) states, in part, that each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents. The label shall bear the radioaction symbol and the words "Caution, Radioactive Material". It shall also provide sufficient information to permit individuals handling or using the containers, or working in the vicinity thereof, to take precautions to avoid or minimize exposures. During a tour on November 27, 1979, five bags of radioactive material were found on the Unit 3 LPI deck which did not bear a label identifying the radioactive contents. At the request of the inspector, a health physics technician accompanying the inspector surveyed the bags. The highest radiation levels on contact with four of the bags was 4 mr/hr. The highest radiation level on the fifth bag was 60 mr/hr. A licensee representative stated that he believed the labels were not necessary if the material was stored in a locked high radiation area. The inspector commented that 10 CFR 20.203(f) is very specific about the conditions necessary for the containers to be exempt from labeling. The inspector stated that failure to label the bags of radioactive material is in noncompliance (269/287/ 79-35-03; 270/79-32-03) with 10 CFR 20.203(f).
- c. T. S. 6.4 states in part that the station shall be operated and maintained in accordance with approved procedures. Station Procedure HP/O/B/1000/10, Working Limits for Contamination Control states, in part, that in areas where contamination exist above the working limits specified, (greater than 200 dpm/100cm<sup>2</sup> for areas outside the radiation

control area), a posted and/or roped-off contamination area will be established. During a tour of the Unit 1 turbine deck on November 29, 1979, the inspector noted that four holddown bolts that had been removed from the Unit 1 high pressure turbine were tagged as radioactive material. The bolts were on the turbine deck with approximately 20 other bolts. According to the labels affixed to the bolts, the contamination levels on the four bolts were approximately 1,000, 3,000, 6,000 and 12,000 dpm/100cm<sup>2</sup> respectively. The area containing the bolts was not posted and/or roped-off as a contamination area. The inspector stated that failure to post and/or rope-off the area as a contamination area as required by procedure HP/O/B/1000/10 was a noncompliance (269/287/79-35-01; 270/79-32-01) with Technical Specification 6.4.

7. IE Notices, Circulars and Bulletins

- a. Information Notice 79-09, "Spill of Radioactively Contaminated Resin". The inspector discussed the Notice with a licensee representative and toured the area where transfers of resin to shipping cask take place. The inspector observed a yard drain located approximately eight feet from the pad where the shielded cask is filled with spent resin. The inspector stated that the drain should be sealed during resin transfers to prevent a release to an unrestricted area in the event of a resin spill. A licensee representative stated that action would be taken to seal the drain. The inspector also stated that other areas where spent resin or liquid waste are loaded into shipping cask should be reviewed for potential release paths in the event of a spill. The inspector stated that this item would remain open (269/287/79-35-05; 270/79-32-05) pending a review of the licensee's action to minimize the consequences of spills of contaminated resin.
- b. Circular 79-21, "Prevention of Unplanned Releases of Radioactivity". The inspector discussed the Circular with licensee representatives. The licensee had not reviewed the procedures, management controls or "as built" systems for handling radioactive material nor taken other action to institute the recommendations of the Circular. The inspector stated that, in view of the spills and unplanned releases which had occurred at the plant this year, prompt action should be taken to implement the recommendations of the Circular. A licensee representative stated that Circular would be promptly reviewed and appropriate action taken to minimize unplanned releases. The inspector stated that the item would remain open (269/287/79-35-05; 270/79-32-05) pending completion of the review by the licensee.
- c. Bulletin 79-19, "Packaging of Low-Level Radioactive Waste for Transport and Burial". The inspector discussed Duke Power Company's letter of

September 24, 1979, in response to the subject Bulletin and reviewed the specific actions taken by the licensee in response to the Bulletin.

- (1) The inspector reviewed plant procedure HP/0/B/1006/01, Procedure for Shipment and Receipt of Radioactive Materials and discussed the procedure with licensee representatives. The inspector noted during the review that the procedure did not include a review of the requirements of 10 CFR 71 prior to the shipment of greater than Type A quantities of radioactive material. A licensee representative stated that the procedure would be revised to incorporate a review of 10 CFR 71 requirements prior to making shipments of radioactive material. Other specific actions to be taken in response to the Bulletin, such as revising administrative procedures to specify training requirements (type and frequency), and actions to reduce the amount of waste generated are still to be completed. The inspector stated that this item will remain open (269/287/79-35-06; 270/79-32-06) pending completion of all action.
- (2) The inspector reviewed the results of the following audits performed in the area of low-level radioactive waste processing and disposal required by Bulletin 79-19.

Departmental Audit 0-79-11, September 24-October 8, 1979, performed by the Corporate Quality Assurance Department, Audit Division

Quality Assurance Surveillance 0-S79/56, October 19 November 27, 1979, performed by the Station Quality Assurance Group

The Quality Assurance Department, Operations Division representatives onsite are conducting a 100% review of all packaging and shipments of low level radioactive waste. In the near future, QA surveillance will be performed on reduced frequency. Specific discrepancies noted during the audits were corrected. The inspector had no further questions concerning the audits.

- (3) Technical Specification 6.1.2.1, requires that station procedures be approved, prior to use, by the station manager, Operations superintendent, Technical Services Superintendent or Maintenance Superintendent. During a review of procedures used by the waste contractor for solidification of evaporator bottoms, it could not be determined if the procedures had been approved in accordance with Technical Specifications. A licensee representative stated that the procedures had been reviewed by station technical personnel, however, the representative could not provide evidence that the procedures had been approved. The inspector stated that failure to have the procedures approved, prior to use would be in noncompliance with Technical Specification 6.1.2.1. The inspector stated that the item would remain unresolved (269/287/79-35-04; 270/32-04) pending further review during subsequent inspections.

- (4) The inspector reviewed the shipping papers, inspected the shipping cask and performed independent radiation surveys for a shipment of spent resin made on November 29, 1979. On November 29, 1979, the inspector also had the licensee open two drums of radioactive waste before the drums were loaded on a truck for shipment. The material in the drums met the disposal criteria specified for the waste burial site. The inspector had no further questions.

## 8. Other Areas Inspected

The inspector reviewed the spill of radioactive water from the Unit 3 low pressure injection (LPI) system "B" train.

- a. Technical Specification 6.4 states that the station shall be operated and maintained in accordance with approved procedures. Plant Procedure OP/0/A/1102/06, "Removal and Restoration of Station Equipment", Step 6.1 states that the individual performing the valve or breaker lineup necessary to restore the system to service shall initial and date the check list (Step 7.1.13 of enclosure 7.1) when the valve or breaker is in the position called for in the check list. On October 16, 1979, the Unit 3 LPI system "B" train was being returned to service following valve maintenance. During the initial valve lineup the valve check list called for vent valve 3GWD-152 to be closed. The nuclear equipment operator (NEO) performing the valve lineup observed that the handwheel for the valve was missing. The NEO attempted to turn the valve stem with his bare hands; however, the stem did not move. The NEO assumed the valve was closed and completed the entries on the valve check list. Water was introduced into the system when the operator completed the valve alignment. During a second verification of valve positions, a second NEO observed water coming from vent valve 3 GWD-152. After obtaining approval from the shift supervisor, the second NEO closed the valve. Approximately 1500 gallons of reactor coolant system water was released to the west penetration room. Approximately 130 gallons ran under an exterior auxiliary building door and contaminated an outside area of 32 square feet. The activity of the water was  $2.25 \times 10^{-3} \mu\text{Ci/ml}$ . The area outside the building was decontaminated by the removal of dirt and asphalt. The removed dirt and asphalt will be sent to a licensed burial site for disposal. The concrete wall immediately below the doorway could only be partially decontaminated. The remaining fixed contamination will be painted over with epoxy paint and the area labeled as a contaminated area. The inspector stated that failure of the nuclear equipment operator to close vent valve 3 GWD-152 as called for in Paragraph 7.1.13 of Enclosure 7.1 of plant procedure OP/0/A/1102/06 was in noncompliance (269/287/79-35-01; 270/79-32-01) with Technical Specification 6.4.
- b. During the review of the spill, the inspector noted that plant procedure OP/0/A/1102/06 did not contain instructions necessary to insure that the alignment of valves or breakers was sequenced, such that the system was not placed in service (filled, pressurized, energized,

etc.) until after the second verification of valve/breaker positions was completed. In returning the LPI system "B" train to service, the system was filled when the last valve was positioned from the control room. The first and second verification of this valve position was performed at the same time. The inspector commented that the valve operated from the control room could have been positioned after the second verification and jointly observed and verified by the two operators.

Discussions with licensee representatives revealed that some shift supervisors consider the sequencing of valves and breakers when completing the checklist for removal and restoration of station equipment and others do not. A licensee representative stated that specific instructions have not been given to shift supervisors to sequence valves and breakers in such a manner that the system is not placed in service until after the second verification is completed. The inspector commented that proper sequencing should be considered each time a valve or breaker lineup is performed.