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DUKE POWER

September 01, 1994

Mr. James Lieberman, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

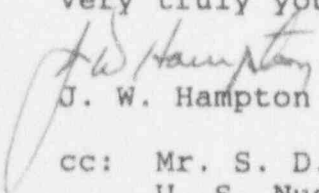
Subject: Duke Power Company
Oconee Nuclear Station Units 1, 2, and 3
Docket Nos 50-269, 50-270, 50-287
Response to a Notice of Violation and Proposed
Imposition of Civil Penalty, EA 94-104

Dear Mr. Lieberman,

In accordance with 10 CFR 2.201 and 10 CFR 2.205, Duke Power Company hereby submits its "Reply to a Notice of Violation and Proposed Imposition of Civil Penalty" issued by the NRC (Region II) on August 2, 1994. A check for \$15,000 is enclosed as full payment for the imposed civil penalty. The Duke Power Company response to the cited violations is also included in the attachments to this letter.

I declare under penalty of perjury that the statements set forth herein are true and correct to the best of my knowledge.

Very truly yours,


J. W. Hampton

cc: Mr. S. D. Ebnetter, Regional Administrator
U. S. Nuclear Regulatory Commission, Region II

Mr. L. A. Wiens, Project Manager
Office of Nuclear Reactor Regulation

Mr. P. E. Harmon
Senior Resident Inspector
Oconee Nuclear Site

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Attachment 1
Reply to Notice of Violation
Violation 269/94-16-01 (I), Severity Level IV

Technical Specification 6.4.1.b requires that approved written procedures with appropriate check-off lists and instructions be provided for refueling operations.

Refueling procedure OP/1/A/1502/07, Enclosure 5.2, Refueling Verification Form, Step 38, requires that fuel assembly 75V, located in the spent fuel pool in position L1, be placed in the reactor core at location M4.

Contrary to the above, on May 26, 1994, the licensee failed to perform Unit 1 refueling activities in accordance with procedure OP/1/A/1502/07, in that fuel assembly 75L, which was originally located in the spent fuel pool in position K1, was installed in reactor core location M4.

RESPONSE:

1. The reason for the violation, or if contested, the basis for disputing the violation:

Duke Power acknowledges this violation.

Fuel assembly 75L was incorrectly placed in core location M4. Core Location M4 was intended to receive fuel assembly 75V. The cause of misplacing assembly 75L was incorrectly positioning the spent fuel pool fuel handling bridge over SFP position K1 rather than SFP location L1, as directed by the refueling procedure, step 38. The incorrect location of assembly 75L was discovered at procedure step 70.

The reason for the incorrect positioning of the SFP bridge was due to inadequate self-check and independent verification of the trolley position by the SFP bridge operators. Some human factors could have been involved in that the independent verifier of the bridge and trolley position, the spotter, may have been able to overhear the communication to the bridge operator identifying the fuel assembly location. This could have contributed to the spotter improperly performing independent verification of the location of the fuel assembly.

2. The corrective steps that have been taken and the results achieved:

When step 70 of OP/1/A/1502/07, Enclosure 5.2 was being performed, the fuel assembly at SFP location K1 was not in that SFP location. Fuel handling was immediately stopped

and an investigation commenced, using B&W video equipment. Fuel assembly NJ075V was found at SFP location L1. This assembly should have been in core location M4. The core was scanned by video, and assembly NJ075L was found at core location M4. NJ075L had been located at SFP location K1.

Fuel handling operations were immediately stopped and Reactor Engineering consulted. Alternate core loading procedure steps were prepared and the fuel assemblies were placed in the proper locations.

Fuel handlers in the Spent Fuel Pool and the Reactor Building were given instructions stressing the importance of verifying the proper locations for positioning of the fuel handling equipment. The fuel handlers were also retrained in proper procedure adherence.

No further fuel assemblies were mispositioned during the rest of the refueling sequence.

3. The corrective steps that will be taken to avoid further violations:

The process for directing fuel movement will be changed to insure complete and total blind verification of the fuel bridge mast location. The bridge operator, who has a copy of the refueling procedure, will be directed by the Refueling Senior Reactor Operator (SRO) Assistant in the Control Room to go to a "step" in the refueling sequence. The bridge operator will read the step and go to the location directed by that step. Once the operator has the bridge and trolley positioned at the correct location, he will then direct the spotter to verify the location of the bridge and trolley. The spotter will not be given prior notification of the desired location until the bridge and trolley have been positioned.

The process of independent verification will then proceed as outlined in the response to Violation 269,287/93-03-01:

The individual performing the independent verification of the indexed position will report the actual position of the fuel handling bridge and trolley directly to the Refueling SRO Assistant (title has been changed since 93-03-01 to allow a 'qualified individual', rather than a licensed Reactor Operator, to direct operations from the refueling booth in the Control Room) in the refueling booth.

The Refueling SRO Assistant, in the refueling booth, will ensure that the independently verified position agrees with the position determined by the bridge

operator. If both position determinations agree, the actual position will then be compared with the desired position directed by Enclosure 5.2 of the Refueling Procedure. When all position assessments agree, the Refueling SRO Assistant will direct the bridge operator to lower the fuel mast. If there is any disagreement with any of the position assessments, permission will not be given to lower the fuel mast. The Refueling SRO Assistant will immediately notify the Refueling SRO and they will determine the reason for the disagreement. Only when the discrepancies have been resolved with complete agreement of the position assessments and with the concurrence of the Fuel Handling SRO, will the Refueling SRO Assistant give permission to lower the fuel mast. This independent verification will apply to the applicable Reactor Building and Spent Fuel Pool fuel handling bridges during all defueling and refueling activities.

The procedure changes required by the corrective actions for 93-03-01 have been implemented. They will be reinforced by training all individuals who may be involved in fuel handling operations.

As a corrective action for violation 269/94-16-01 (I), video cameras will be installed at the fuel transfer upender mechanisms in the Spent Fuel Pool which will allow the Transfer Operator to visually check the fuel assembly identification number. The Transfer Operator will then contact the refueling booth and inform the Refueling SRO Assistant what the ID number is. The refueling booth operator will confirm the fuel assembly ID, and if correct, give directions to lower the upender and transfer the assembly to the Reactor Building.

4. The date when full compliance will be achieved:

Use of video equipment and directions for the process of visually verifying the fuel assembly ID number will be completed and changes made to the refueling procedure before the next refueling outage, which will be Unit 2, 2EOC14, October 6, 1994.

Attachment 2
Reply to Notice of Violation
Violation 269/94-16-01 (II), Severity Level IV

Technical Specification 6.4.1.b requires that the station be operated and maintained in accordance with approved procedures and that written procedures with appropriate check-off lists and instructions be provided for refueling operations.

Procedure OP/1/A/1502/07, Refueling Procedure, was established to describe the procedure to be followed for refueling.

Contrary to the above, on May 25, 1994, procedure OP/1/A/1502/07 was inadequate in that it did not contain revised steps to delineate the refueling sequence deviations to support nuclear instrumentation testing during the reload of the reactor core.

RESPONSE:

1. The reason for the violation, or if contested, the basis for disputing the violation:

Duke Power Company acknowledges this violation.

Prior to core reload, old fuel assemblies were being suspended in core locations relative to the newly installed Gammametrics nuclear instrumentation in order to verify the neutron response of the instruments to be sure that they would be on-scale and indicating correctly for the upcoming refueling sequence.

Representatives of the Reactor Engineering department, the Fuel Handling Supervisor, and the Senior Reactor Operator in charge of fuel movement conferred to study the recommended guidelines for the NI checkout. The guidelines were provided by the Reactor group, and were written in memo form. Because the core quadrant at the NI was empty, and because there were no technical criticality concerns or restrictions for the configuration of spent fuel assemblies, they agreed that there was no necessity for a formal procedure. The intent of the memo was to suspend the assembly in the quadrant of the core adjacent to the NI and check the NI response. There was never any intent to ungrapple the assembly from the fuel handling bridge. A Reactor Engineer and the Fuel Handling Supervisor were observing the evolution from the refueling booth in the Control Room.

Therefore, the cause of this violation was inadequate procedure generated for the fuel movement due to insufficient awareness that ANY fuel movement requires detailed instructions.

2. The corrective steps that have been taken and the results achieved:

The above bridge movement with a loaded fuel assembly was observed and questioned by the NRC Resident Inspector as to the acceptability of positioning fuel assemblies in core locations without an approved procedure, the Fuel Handling SRO stopped activities. Alternate fuel handling steps were written using Enclosure 5.2A of procedure OP/1/A/1502/07 of the fuel handling procedure to reflect the moves desired by the Reactor Engineering Group. All further movements to verify NI response were done using these alternate procedure steps.

3. The corrective steps that will be taken to avoid further violations:

The Superintendent of Operations reinforced instructions to all Senior Reactor Operators that no fuel assembly moves will be performed without an approved procedure.

For future refueling outages, procedures to check nuclear instrumentation response using spent fuel assemblies will have detailed approved procedures, reviewed by the Reactor Engineering Group before any fuel assemblies are moved.

For all future fuel handling operations involving placement of fuel in the core, all steps associated with these fuel movements will have an approved procedure. Additionally, these procedures will be reviewed by the Reactor Engineering group whenever they involve movement of new fuel assemblies in the reactor core.

4. The date when full compliance will be achieved:

October 1994, Unit 2 Refueling Outage 2EOC14.