



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

Report No.: 50-369/84-09

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

Docket No.: 50-369

License No.: NPF-9

Facility Name: McGuire Unit 1

Inspection at McGuire site near Charlotte, North Carolina

Inspector: Frank Jape

for J. L. Mathis

4/16/84
Date Signed

Approved by: Frank Jape

Frank Jape, Chief Test Program Section
Engineering Branch, Division of
Reactor Safety

4/16/84
Date Signed

SUMMARY

Inspection on April 1-6, 1984

Areas Inspected

This unannounced inspection involved 44 inspector-hours on site in the areas of Preparation for Refueling, Unit 1 (60705) Refueling Activities, Unit 1 (60/10) Spent Fuel Pool Activities Unit 1 (86700) and Plant tour, Unit 1 (71302).

Results

Of the 4 areas inspected, no violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *T. L. McConnell, Technical Services Superintendent
- *D. Mendezoff, Licensing Engineer
- *G. A. Copp, Nuclear Engineer-Licensing
- *G. Gilbert, Operation Engineer
- *Mark E. Budger, Chemistry Supervisor
- D. McGennis, Engineering Specialist
- D. Marquis, Reactor Engineer
- J. Rowe, Associate Engineer
- W. Reeside, SRO

Other licensee employees contacted included three operators and two office personnel.

Other Organization

A. C. Stalker, EG&G

NRC Resident Inspector

R. C. Pierson

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 6, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the inspector's findings.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Plant Tours (Unit 1) (71302)

The inspector conducted plant tours periodically during the inspection interval to verify that monitoring equipment was recording as required, equipment was properly tagged, operations personnel were aware of plant conditions, and plant housekeeping efforts were adequate. The inspector

also determined that appropriate radiation controls were properly established, critical clean areas were being controlled in accordance with procedures, excess equipment or material was stored properly and combustible material and debris were disposed of expeditiously. During tours the inspector looked for existing fluid leaks, piping vibrations, pipe hanger and seismic restraint settings, various valve and breaker positions, equipment caution and danger tags, component positions and status, adequacy of fire fighting equipment, and instrument calibration dates. Two tours were conducted on backshift.

Within the areas inspected no violations or deviations were identified.

6. Preparation for Refueling (60705)

The inspector reviewed the Unit 1 preparation for refueling procedure PT/1/A/4550/01 which provided the surveillance testing required by Technical Specifications, limitations and precautions and prerequisites necessary for preparing the unit for refueling.

Refueling of the reactor core into the spent fuel pool was completed prior to the start of this inspection. However, the inspector reviewed documentation to verify that prior to fuel handling in the core, surveillance testing required by Technical Specifications had been performed and was current. The inspector reviewed the following fuel handling procedures:

- PT/1/A/4550/05, Reactor Building Auxiliary Hoist Operability Checklist
- PT/1/A/4550/06, Total Core Unloading
- PT/1/A/4550/09, Fuel Assembly - Insert Verification
- PT/1/A/4200/02C, Containment Integrity Verification during Core Alteration
- PT/1/A/4550/18, Reactor Building Auxiliary Hoist Load Test
- OP/1/A/6450/04, Fuel Pool Ventilation System
- OP/1/A/6200/05, Spent Fuel Cooling System
- OP/1/A/3050/10C, Calibration of Spent Fuel Pool Handling Load Cell

Within the areas inspected, no violations or deviations were identified.

7. Refueling Activities (60710)

The inspector witnessed reloading activities from the control room and reactor building to verify that activities were being accomplished in accordance with Technical Specifications, license and NRC requirements. The inspector reviewed the total core reload procedure, PT/1/A/4550/07, and accompanying data to verify the following:

- a) Direct communication was established between the control room and containment floor.
- b) Instruments monitoring radiation levels was properly calibrated and operating with a measurable countrate.
- c) Good housekeeping was maintained in the refueling areas.
- d) Controls of personnel and material entering the refueling areas was in accordance with administrative procedures.
- e) Containment integrity was maintained as required by Technical Specifications.
- f) Changes to procedures were made in accordance with administrative procedures.

In addition, the inspector reviewed control room logs and refueling logs for difficulties encountered during the refueling outage. During core reload the licensee noted several bowed assemblies while performing procedure PT/1/A/4550/07, therefore the licensee made procedural changes to allow the varying of the core loading sequence to accommodate bowed assemblies as long as proper records were kept. Enclosure 13.16 of PT/1/A/4550/07 establishes a new sequence to place the bowed assembly on the baffle to build a 3-sided or 4-sided box to aid in aligning the bowed assembly in its proper location. The inspector witnessed 3 shifts of core reloading to verify that such activities were being performed in accordance with approved procedures.

Within the areas inspected no violations or deviations were identified.

8. Spent Fuel Pool Activities (86700)

The inspectors observed fuel handling operations during fuel movement in the spent fuel pool area and reviewed procedures related to fuel handling to verify that the procedures included the following:

- a) A limitation on the number of fuel assemblies that can be out of safe geometry locations at the same time.

- b) Provisions for verifying prior to fuel handling that the spent fuel pit area crane interlocks or physical stops will prevent the crane from passing over fuel storage locations.
- c) Provisions for verifying prior to fuel handling that the spent fuel pool area ventilation system is operable.
- d) Provisions for verifying that the spent fuel storage area isolation occurs on a high radiation signal.
- e) Provisions for verifying that minimum water level requirements are monitored during fuel handling operations.
- f. Provisions for verifying that the spent fuel pool storage and radiation and airborne radioactivity monitors are operable.
- g. Provisions for verifying that the spent fuel pool cooling and clean-up system is operable.

No violations or deviations were identified in the areas inspected.