

UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION II

SAM NUNN ATLANTA FEDERAL CENTER 61 FORSYTH STREET SW SUITE 23T85 ATLANTA, GEORGIA 30303-8931

August 11, 2003

Duke Energy Corporation ATTN: Mr. Ronald A. Jones Vice President Oconee Site 7800 Rochester Highway Seneca, SC 29672

SUBJECT: OCONEE NUCLEAR STATION - REACTOR AND SENIOR REACTOR

OPERATOR INITIAL EXAMINATION 05000269/2003301, 05000270/2003301,

AND 05000287/2003301

Dear Mr. Jones:

During the period June 16 - 24, 2003, the Nuclear Regulatory Commission (NRC) administered operating examinations to employees of your company who had applied for licenses to operate the Oconee Nuclear Station. At the conclusion of the examination, the examiners discussed the examination questions and preliminary findings with those members of your staff identified in the enclosed report. The written examination was administered by your staff on June 27, 2003.

Thirteen of the fifteen applicants passed the examinations. One of the nine ROs and one of the six SROs failed the simulator portion of the operating exam. There were no post examination comments.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Should you have any questions concerning this letter, please contact me at (404) 562-4638.

Sincerely,

/RA/

Michael E. Ernstes, Chief Operator Licensing and Human Performance Branch Division of Reactor Safety

Docket Nos.: 05000269, 05000270, 05000287 License Nos.: DPR-38, DPR-47, DPR-55

Enclosure: (See page 2)

DEC 2

Enclosure: Report Details

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NUCLEAR REGULATORY COMMISSION REGION II

Docket Nos.: 05000269, 05000270, 05000287

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

Report Nos.: 05000269/2003301, 05000270/2003301, and

05000287/2003301

Licensee: Duke Energy Corporation (DEC)

Facility: Oconee Nuclear Station, Units 1, 2, & 3

Location: 7800 Rochester Highway

Seneca, SC 29672

Dates: Operating Tests - June 16 - 24, 2003

Written Examination - June 27, 2003

Examiners: R. Aiello, Chief Examiner

G. Hopper, Senior Operations Engineer

G. Laska, Operations Engineer

Approved by: M. Ernstes, Chief

Operator Licensing and Human Performance Branch

Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000269/2003-301, ER 05000270/2003-301, ER 05000287/2003-301; 06/16 - 24/2003; Oconee Nuclear Station, Units 1, 2, & 3, Licensed Operator Examinations.

The NRC examiners conducted operator licensing initial examinations in accordance with the guidance in NUREG-1021, Draft Revision 9, "Operator Licensing Examination Standards for Power Reactors." This examination implemented the operator licensing requirements of 10 CFR §55.41, §55.43, and §55.45.

The NRC administered the operating tests during the period June 16 - 24, 2003. Members of the Oconee Nuclear Station training staff administered the written examination on June 27, 2003. The written examinations were developed by the NRC. The operating tests were developed by the facility. Thirteen of the fifteen applicants passed the examinations. One of the nine ROs and one of the six SROs failed the simulator portion of the operating exam. All of the applicants that passed were issued operator licenses commensurate with the level of examination administered.

The NRC identified generic weaknesses in applicant performance, and procedure usage and effectiveness.

Report Details

4. OTHER ACTIVITIES (OA)

40A5 Operator Licensing Initial Examinations

a. Inspection Scope

The NRC and the licensee developed the written and operating examinations respectively in accordance with the guidelines specified in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Draft Revision 9. The NRC examination team reviewed the proposed examination. Examination changes agreed upon between the NRC and the licensee were made according to NUREG-1021 and incorporated into the final version of the examination materials.

The Licensee's examination submittal was within the range of acceptability expected for a proposed examination. The examination changes agreed upon between the NRC and the facility were made according to NUREG-1021.

The examiners reviewed the licensee's examination security measures while preparing and administering the examinations to ensure examination security and integrity complied with 10 CFR 55.49, Integrity of examinations and tests.

The examiners evaluated nine Reactor Operator (RO) and six Senior Reactor Operator (SRO) applicants who were being assessed under the guidelines specified in NUREG - 1021. The examiners administered the operating tests during the period June 16 - 24, 2003. Members of the Oconee Nuclear Station training staff administered the written examination on June 27, 2003. The evaluations of the applicants and review of documentation were performed to determine if the applicants, who applied for licensees to operate the Oconee Nuclear Station, met the requirements specified in 10 CFR Part 55.

b. Findings

No findings of significance were identified. However, the exam team observed generic weaknesses in applicant performance, and procedure usage and effectiveness. The examiners noted common errors and repetitive misapplication of procedural steps during the simulator scenarios.

During the administration of the simulator scenarios, three of four exam crews took in excess of 15 minutes to restore vital power from the Keowee units following a Station Black Out (SBO). Emergency power was immediately available following the SBO through the CT-4 transformer. "Restoration of Offsite or Emergency Power Emphasis must be placed on restoring both emergency AC power and offsite power to the plant," in accordance with the B&W owners group guideline, Rev 9 (EOP Technical Bases Document, 74-1152414-09, Vol. 3,III.A-12). The exam crews were slow to initiate EOP Enclosure 5.38 which restored emergency power through the CT-4 transformer.

All four exam crews failed to take prompt corrective action to mitigate high reactor building pressure. The crews did not recognize the High Reactor Building pressure condition when performing step 1 of EOP Enclosure 5.1, "ES Actuation." Three of the exam crews failed to initiate reactor Building Spray when it was required.

Three of four exam crews failed to attempt to isolate steam going to the condenser on a turbine bypass valve failure by shutting the block valve (1-MS-17). With a subsequent steam generator tube rupture in progress on the same generator, this action, if successful, would have terminated the release of primary coolant into the condenser. The action is contained in the Response Not Obtained column of step three of the Excessive Heat Transfer procedure. One SRO directed the crew to close the block valve after careful consideration and application of systems knowledge. Three others, using the procedural guidance, made no attempt to shut the valve.

Several crews failed to apply many of the "If At Any Time" (IAAT) steps when they were applicable (i.e., high reactor building pressure). This was due, in part, to the large number of IAAT conditional statements that were active at any one time.

The examiners determined, based on observation of the scenarios and discussions with plant staff, that some of these errors may have resulted from the applicants being confused by the procedures. These and other issues were documented in the licensee's Problem Investigation Process Report (PIP) number O-03-04450.

Thirteen of the fifteen applicants passed the examinations. One of the nine ROs and one of the six SROs failed the simulator portion of the operating exam. The licensee did not submit any post-examination comments concerning the written examination. The RO and SRO written examinations and answer keys, combined RO/SRO examination and examination references may be accessed in the ADAMS system (ADAMS Accession Number ML032020259).

40A6 Meetings

Exit Meeting Summary

On June 24, 2003, the examination team discussed generic issues with Mr. Bentley Jones and members of his staff.

The examiners asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee personnel

- N. Constance, Operations Training Manager
- P. Gillespie, Shift Operations Manager
- B. Hamilton, Station Manager
- B. Jones, Training Manager
- L. Nicholson, RGC Manager
- R. Repko, Superintendent of Operations
- J. Steely, Initial Training Supervisor
- P. Stovall, Safety Review Group Manager

NRC personnel

M. Shannon, Senior Resident Inspector