



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
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ATLANTA, GEORGIA 30303-8931

July 3, 2003

Southern Nuclear Operating Company, Inc.
ATTN: Mr. J. B. Beasley, Jr.
Vice President
P. O. Box 1295
Birmingham, AL 35201

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC EXAMINATION REPORT
50-348/2003-301 AND 50-364/2003-301

Dear Mr. Beasley:

During the period May 19-27, 2003, the Nuclear Regulatory Commission (NRC) administered operating examinations to employees of your company who had applied for licenses to operate the Joseph M. Farley Nuclear Plant. 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 May 30, 2003.

Three reactor operator (RO) applicants and five senior reactor operator (SRO) applicants passed both the written and operating examinations. Four SRO applicants passed the operating test but failed the written examination. The NRC resolution of post examination comments is included in this report as Enclosure 2.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures 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 By G. Hopper Acting For/

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

Docket Nos.: 50-348, 50-364
License Nos.: NPF-2, NPF-8

Enclosures: (See page 2)

SNC

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Enclosures: 1. Report Details
2. Simulation Facility Report

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NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-348, 50-364

License Nos.: NPF-2, NPF-8

Report No.: 50-348/2003-301 and 50-364/2003-301

Licensee: Southern Nuclear Operating Company, Inc. (SNC)

Facility: Joseph M. Farley Nuclear Plant Units 1 and 2

Location: 7388 N. State Highway 95
Columbia, AL 36319

Dates: Operating Tests - May 19-27, 2003
Written Examination - May 30, 2003

Examiners: L. Miller, Chief, Senior Operations Engineer
S. Rose, Operations Engineer
T. Kolb, Operations Engineer

Approved by: M. Ernstes, Chief
Operator Licensing and Human Performance Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000348/2003-301, ER 05000364/2003-301; Southern Nuclear Corporation; 5/19 - 27/2003; Farley Nuclear Station, Units 1 and 2, 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 May 19 - May 27, 2003. Members of the Farley Nuclear Station training staff administered the written examination on May 30, 2003. The written examinations and the operating tests were developed by the NRC. Three Reactor Operators (RO) and five Senior Reactor Operators (SRO) passed both the operating and written examinations. Four SRO applicants passed the operating examination, but failed the initial written examination. The three RO applicants and five SRO applicants who passed both the operating and written examinations were issued operator licenses commensurate with the level of examination administered.

No significant issues were identified.

Report Details

4. OTHER ACTIVITIES (OA)

4OA5 Operator Licensing Initial Examinations

a. Inspection Scope

The NRC developed the written and an outline for the operating examinations in accordance with the guidelines specified in NUREG-1021, Draft Revision 9. The licensee provided the expected operator actions simulator scenarios and job performance measures for the operating examinations.

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 three Reactor Operator (RO) and nine 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 May 19 - May 27, 2003. Members of the Farley Nuclear Station training staff administered the written examination on May 30, 2003. The evaluations of the applicants and review of documentation were performed to determine if the applicants, who applied for licenses to operate the Farley Nuclear Station, met requirements specified in 10 CFR Part 55.

b. Findings

No findings of significance were identified.

Three Reactor Operators (RO) and five Senior Reactor Operators (SRO) passed both the operating and written examinations. Four SRO applicants passed the operating examination, but failed the initial written examination. The licensee submitted five post examination comments concerning the written examination. The RO and SRO written examinations and answer keys, licensee's post examination comments, and combined RO/SRO examination and examination references may be accessed in the ADAMS system (ADAMS Accession Numbers, ML031820721 and ML031820740, ML031820718, ML031840048).

4OA6 Meetings

Exit Meeting Summary

On May 28, 2003, the examination team discussed generic issues with Mr. Don Grissette and members of his staff.

The inspectors 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

- D. Grissette, General Manager
- R. Johnson, Assistant General Manager - Operations
- P. Crone, Licensing Manager
- C. Barefield, Operations Superintendent
- C. Nesbitt, Training Manager
- J. Horn, Operations Training Supervisor

NRC

- T. Johnson, Senior Resident Inspector

NRC Resolution of Facility Post Examination Comments

Question # 56

Facility Comment: The stem of the question states that Unit 1 is starting up but does not state if the startup is being conducted per UOP-1.2 or UOP-1.3. SOP-26.0 Appendix 1 allows the canal makeup valve to be in remote manual or in automatic operation. Change to accept both the A and B answers as correct.

NRC Resolution: Recommendation not accepted. There is only one answer. Choice "B" is the only correct answer in accordance with the licensee's procedures. Which startup procedure, FNP-1-UOP-2.1 or FNP-1-UOP-1.3, is used does not matter to the question of which one of the following describes the process by which water is made up to the Circulating Water Canal. Startup of Unit from Hot Standby to Minimum Load version 62.0, and FNP-1-UOP-1.3 Startup of Unit Following an at Power Reactor Trip version 44.0, Precautions and Limitations steps 3.34 and 3.35 respectively, state "Circulating Water Make-Up Control Valve, Q1P16V560, should be maintained in the OPEN position with canal level being maintained by use of the manual valves until Unit 1 reaches 100% Power."

In the initial conditions for FNP-1-UOP-1.2 step 2.23 states, "Circ water canal make up is being controlled manually with N1P16V748, CW CANAL SW SUPP MANUAL ISO, or with Q1P16V560 in Remote Manual per appendix 1 of FNP-1-SOP-26.0." FNP-1-SOP-26.0, Circulating Water System version 31.0, provides the specific operating instructions on a variety of circulating water system lineups and operational modes. Appendix 1 of FNP-1-SOP-26.0 contains guidance on the operational modes, but does not dictate any specific operational mode for specific plant conditions.

Question #63

Facility Comment: This question should be deleted due to no correct answer.

NRC Resolution: Recommendation accepted. The question is deleted due to no correct answer.

Question #71

Facility Comment: There are two correct answers.["C" and "D"] If the candidate assumes that they establish normal charging at that moment and waits on the step to be completed, then they would see the PZR [pressurizer] level dropping and would attempt to recover by raising charging flow. In this case they would utilize the RNO column of ESP-1.1, Step 10.2.3 to deal with the problem and go to ESP-1.2, or the team could use ESP-0.0, Rediagnosis to get to EEP-1. Either way would be acceptable.

If the team is continues through ESP-1.1, while actions are taken for Step 10.2.3, Step 12 has the operator check PZR level greater than 7%. There are no radiation alarms, containment

moisture alarms, or containment sump alarms. The team has no indications of anything going on other than PZR level dropping. The operator could "Assume" the PZR level cannot be restored and is trending to 7%, use the RNO column to re-establish HHSI flow and then transition to EEP-1. Or due to the unexplained loss of level and needing an SI and a procedural flow path, enter Rediagnosis, ESP-0.0, based on operator judgement, which would lead you to EEP-1.

Recommendation not accepted. The stem of the question clearly establishes that "At the procedural step when normal charging was established, PRZR [pressurizer] level started trending down from 15% and could not be controlled." With pressurizer level decreasing less than 15% the operator should go to Step 10.2.3 RNO to realign HHSI per Attachment 2.

Applicants were read the NUREG- 1021 Appendix E, Policies and Guidelines for Taking NRC Examinations which says that if the applicant has questions concerning intent or the initial conditions of a question, do not hesitate asking the exam proctor. No applicant asked any question concerning question #71. Appendix E tells the applicant not to make assumptions regarding conditions not specified in the question unless they occur as a consequence of other conditions that are stated in the question.

None of the possible answers contained a transition to ESP-0.0, so discussion of use of ESP-0.0 to reach EEP-1 is not a possible choice. The question stem states that pressurizer level started trending down from 15% and a rate of decrease is not stated. No starting point was given for pressurizer level and the SI termination criteria given in FNP-1-EEP-0, Reactor Trip or Safety Injection, for pressurizer level [Step 30.4] states "Check pressurizer level greater than 7 %. Therefore, there is nothing in the question that could be used to establish a rate of decrease for pressurizer level that would establish pressurizer level of less than or equal to 7%.

Question #81

Facility Comment: Change question to accept A and B. 'B' actions could be acceptable in the described situation making 'B' a possible correct answer. This is actually the most conservative thing to do since containment pressure is rising and both ESP-1.3 and FRP-Z.1 have you place CS on recirculation.

NRC Resolution: Recommendation not accepted. The question is deleted due to the question stem being technically incorrect and has no answer. The initial conditions stated in the question are not realistic. It is not possible during a Large Break LOCA for containment pressure pressure rise to be delayed such that 27 pounds in containment is reached while aligning 1B RHR pump for cold leg recirculation.

Question #83

Facility Comment: Delete from exam due to low operational validity.

NRC Resolution: Recommendation not accepted. Long term loss of Spent Fuel Pool cooling can be a real concern. The question evaluates the knowledge of the Abnormal Operating Procedures, AOP-36.0, Loss of Spent Fuel Pool Cooling and tests the understanding of boron concentrating as temperature approaches the boiling point. The question matches the 033G2.4.11 Knowledge and Abilities (KA) statement of NUREG-1122, Knowledge and Abilities

Catalog for Nuclear Power Plant Operators - Pressurized Water Reactors, and has a point value of 3.4/3.6. The question meets the requirements of 10CFR55.43(b)(5) for a SRO only question.