UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

January 23, 2003

Tennessee Valley Authority
ATTN: Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT - NRC EXAMINATION REPORT 50-259/02-301, 50-260/02-301, AND 50-296/02-301

Dear Mr. Scalice:

During the period December 16 - 19, 2002, the Nuclear Regulatory Commission (NRC) administered operating examinations to nine employees of your company who had applied for licenses to operate the Browns Ferry Nuclear Plant. At the conclusion of the examination, the examiners discussed the preliminary findings with members of your staff. The preliminary findings are identified in Enclosure 1. The written examination was administered by your staff on December 13, 2002.

All nine applicants passed the written examination. One applicant failed the administrative part of the operating test. There were three post examination written comments which are identified in 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).

Sincerely,

/RA/

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

Docket Nos.: 50-259, 50-260, 50-296
License Nos.: DPR-33, DPR-52, DPR-68

Enclosures: (See page 2)

Enclosures: 1. Report Details
2. Post Examination Comment Resolution

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NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos:	50-259, 50-260, 50-296
License Nos:	DPR-33, DPR-52, DPR-68
Report Nos:	50-259/02-301, 50-260/02-301, 50-296/02-301
Licensee:	Tennessee Valley Authority (TVA)
Facility:	Browns Ferry Nuclear Plant, Units 1, 2, & 3
Location:	Corner of Shaw and Nuclear Plant Roads Athens, AL 35611
Dates:	Written Examination - December 13 , 2002 Operating Tests - December 16-19, 2002
Examiners:	E. Lea, Chief Examiner T. Kolb, Operations Engineer L. Mellen, Senior Operations Engineer
Approved by:	M. Ernstes, Chief Operator Licensing and Human Performance Branch Division of Reactor Safety

Enclosure 1

SUMMARY OF FINDINGS

ER 05000259/02-301, ER 05000260/02-301, ER 05000296/02-301, on 12/13-16/2002, Tennessee Valley Authority, Browns Ferry, Units 1, 2 and 3, licensed operator examinations.

The NRC examiners conducted operator licensing initial examinations in accordance with the guidance of Examiner Standards, NUREG-1021, Revision 8, Supplement 1. This examination implemented the operator licensing requirements of 10 CFR §55.41, §55.43, and §55.45.

Operator Licensing Initial Examinations

The NRC administered the operating tests during the period December 16 -19, 2002. Members of the Browns Ferry Nuclear Plant training staff administered the written examination on December 13, 2002. The operator licensing initial written examinations were developed by the NRC. The operating tests were developed by members of Browns Ferry Nuclear Plant training staff. All applicants, four Reactor Operators (RO) and five Senior Reactor Operators (SRO) passed the written examination. One SRO failed the administrative section of the operating test. Those applicants that passed both the written and operating section of the examination 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 examiners reviewed the licensee's examination security measures while preparing and administering operator licensing examinations to ensure examination security and integrity complied with 10 CFR 55.49, Integrity of examinations and tests. The examiners reviewed the operating examinations developed by the licensee for compliance with the guidelines specified in NUREG-1021, Revision 8, Supplement 1.

The examiners evaluated four RO and five SRO applicants who were being assessed under the guidelines specified in NUREG 1021, Revision 8, Supplement 1, and reviewed written examinations that were administered under the guidelines specified in the NUREG. The NRC administered the operating tests during the period December 16 - 19, 2002. Members of the Browns Ferry Nuclear Plant training staff administered the written examination on December 13, 2002. The evaluations of the applicants and review of documentation were performed to determine if the applicants, who applied for licenses to operate the Browns Ferry Nuclear Plant, met requirements specified in 10 CFR Part 55.

b. Findings

No findings of significance were identified.

The licensee submitted three post examination comments concerning the written examination (ADAMS Accession Number ML030210538). The RO and SRO written examinations and answer keys may be accessed in the ADAMS system (ADAMS Accession Number ML030210502 and ML030210512).

4OA6 Meetings

Exit Meeting Summary

On December 19, 2002, the examiners discussed generic applicant performance and examination development issues with Mr. Terry Chinn, Operations Training Manager, and other members of your 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

T. Chinn, Operations Training Manager
J. Lewis, Operations Manager
R. Knight, Operations Training Instructor-Lead
D. Langley, Site Licensing Supervisor
R. Moye, Operations Training Instructor
J. Wallace, Licensing Nuclear Engineer
D. White, Nuclear Assurance Assessment Specialist

Post Examination Comment Resolution

Question: **#20, SRO Exam**
#27, RO Exam

Comment: The question requires the applicant to determine what actions are required to reopen 3-FCV-74, RHR SYS II LPCI INBD INJECT VLV, following a spurious Group II isolation while Unit 3 is in a refueling outage with Shutdown Cooling in operation on RHR Sys II. The licensee recommends accepting answer "A" as a correct answer in addition to answer "C". Based on information provided in procedure 3-AOI-74-1, Loss of Shutdown Cooling and e-print 3-730E938, the licensee stated that "in order to manually reopen 3-FCV-74-67 following Group 2 Isolation signal, at least one of the two Shutdown Cooling Suction Valves must be closed and the isolation signal must be reset. The only method at BNF to reset a Group 2 Isolation Signal to the 3-FCV-74-67, RHR SYS II LPCI INBD INJECT VLV, is to use the RHRSYS II CLG INBD INJECTION ISOL RESET pushbutton and answer "A" implies that this reset method has been performed."

Resolution: Recommendation accepted. Performing the actions described in answer A and C will result in re-opening 3-FCV-74, RHR SYS II LPCI INBD INJECT VLV, following a spurious Group II isolation.

The answer key will be changed to reflect that A and C are correct answers.

Question: **#33, SRO Exam**
#44, RO Exam

Comment: The question asked the applicant to determine what action is required, based on the given conditions, if the diesel is expected to be operated for an extended period of time. The licensee recommends accepting answer "A" as a correct answer in addition to answer "C". The licensee indicated that "both reflect correct responses for the generator conditions. In accordance with PI-82, Standby Diesel Generator System, Step 8.1.12, the required 0.8 power factor may be achieved either by placing the Voltage Regulator Switch to the RAISE position or by placing the Governor Control Switch to the LOWER position in order to reach the diagonal line on Illustration 1, DGKW vs KVAR LOADING." The licensee stated "Since the question only asks for the correct required action (and not the supporting reason)" both answers are correct.

Resolution: Recommendation not accepted. Each answer describes the action that should be taken and how the generator will respond as a result of the action taken. Taking the voltage regulator control switch to raise will not result in a reduction in field current as stated in answer "A".

The answer key will remain unchanged.

Question: **#50, RO Exam**

Comment: The question asked the applicant to describe what actions should be taken after the Control Room is notified that a fuel bundle was dropped and gas bubbles are visible in the pool during the Unit 3 refueling outage. The applicant was informed that specific control room alarms were received in the Control Room as a result of the dropped fuel bundle. The licensee recommends accepting answer "A" as a correct answer in addition to answer "B." The licensee states that the Refueling Zone HVAC radiation monitors and the Reactor Zone HVAC radiation monitors are in close proximity to each other such that they should both be reading the same thing. The supporting documentation shows the location of the detectors and the set-points of the detectors (set-points are the same).

Resolution: Recommendation not accepted. The stem of the question clearly states which radiation monitors are in alarm. The drawings indicate that the detectors are on the same floor but distances cannot be determined. 3-AOI-79-1, Fuel Damage During Refueling, states that the Reactor Zone isolation should automatically occur on Reactor Zone Exhaust High Radiation only. The Reactor Zone Exhaust High Radiation monitor was not one of the monitors specified to be in alarm in the initial conditions. Therefore, the Reactor Zone Exhaust High Radiation monitor alarm set-point had not been reached and automatic isolation of the Reactor Zone would not have occurred.

The answer key will remain unchanged.