UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8931

August 14, 2009

Mr. David A. Heacock
President and Chief Nuclear Officer
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: SURRY POWER STATION – NRC OPERATOR LICENSE EXAMINATION REPORT 05000280/2009301 AND 05000281/2009301

Dear Mr. Heacock:

During the period July 20 – 23, 2009, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Surry Power Station. At the conclusion of the tests, the examiners discussed preliminary findings related to the operating tests with those members of your staff identified in the enclosed report. The written examination was administered by your staff on July 29, 2009.

All applicants passed both the operating test and written examination. There were two post-examination comments concerning the written examination. These comments, and the NRC resolution of these comments, are summarized in Enclosure 2. A Simulator Fidelity Report is included in this report as Enclosure 3.

In accordance with 10 CFR 2.390 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 the NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at http://www.nrc.gov/reading-rm.adams.html (the Public Electronic Reading Room).

If you have any questions concerning this letter, please contact me at (404) 562-4550.

Sincerely,

/FJE RA for/

Malcolm T. Widmann, Chief
Operations Branch
Division of Reactor Safety

Docket Nos.: 50-280 and 50-281
License Nos.: DPR-32 and DPR-37

cc w/Encl.: (See page 2)

Enclosures:
1. Report Details
2. Facility Comments and NRC Resolutions
3. Simulator Fidelity Report

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ADAMS: X☐ Yes ACCESSION NUMBER:_____ X SUNSI REVIEW COMPLETE ***FJE***

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SIGNATURE	MAB /RA/	FJE /RA for/					
NAME	MBates	MWidmann					
DATE	08/14/2009	08/14/2009					
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cc w/encl:
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Letter to David Heacock from Malcolm T. Widmann dated August 14, 2009

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NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	50-280, 50-281
License No.:	DPR-32, DPR-37
Report No.:	05000280/2009301, 05000281/2009301
Licensee:	Virginia Electric and Power Company
Facility:	Surry Power Station
Location:	5850 Hog Island Rd. Surry, VA 23883
Dates:	Operating Test – July 20 – July 23, 2009 Written Examination – July 29, 2009
Examiners:	M. Bates, Chief Examiner, Senior Operations Engineer F. Ehrhardt, Senior Operations Engineer
Approved by:	Malcolm T. Widmann, Chief Operations Branch Division of Reactor Safety

Enclosure 1

SUMMARY OF FINDINGS

ER 05000280/2009301, 05000281/2009301, 07/20-23/2009 & 07/29/2009; Surry Power Station; Operator License Examinations.

Nuclear Regulatory Commission (NRC) examiners conducted an initial examination in accordance with the guidelines in Revision 9, Supplement 1, of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." This examination implemented the operator licensing requirements identified in 10 CFR §55.41, §55.43, and §55.45, as applicable.

The operating tests were developed by Surry Power Station staff and the written examination was developed by members of the NRC.

The NRC administered the operating tests during the period of July 20 – 23, 2009. Members of the Surry Power Station training staff administered the written examination on July 29, 2009. All Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. Five applicants were issued licenses commensurate with the level of examination administered.

There were two post-examination comments.

No findings of significance were identified.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA5 Operator Licensing Initial Examinations

a. Inspection Scope

The operating tests were developed by members of the Surry Power Station staff and the written examination was developed by members of the NRC. All examination material was developed in accordance with the guidelines contained in Revision 9, Supplement 1, of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." The NRC examination team reviewed the proposed examination. Examination changes agreed upon between the NRC and the licensee were made per NUREG-1021 and incorporated into the final version of the examination materials.

The NRC reviewed the licensee's examination security measures while preparing and administering the examinations in order to ensure compliance with 10 CFR §55.49, "Integrity of examinations and tests."

The NRC examiners evaluated five Senior Reactor Operator (SRO) applicants using the guidelines contained in NUREG-1021. The examiners administered the operating tests during the period July 20 – 23, 2009. Members of the Surry Power Station training staff administered the written examination on July 29, 2009. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the Surry Power Station, met the requirements specified in 10 CFR Part 55, "Operators' Licenses."

b. Findings

No findings of significance were identified. The NRC determined, using NUREG-1021, that the licensee's examination submittal was within the range of acceptability expected for a proposed examination.

Five applicants passed both the operating test and written examination and were issued licenses.

Copies of all individual examination reports were sent to the facility Training Manager for evaluation of weaknesses and determination of appropriate remedial training.

The licensee submitted two post-examination comments concerning the written examination. A copy of the final written examination and answer key, with all changes incorporated, and the licensee's post-examination comments may be accessed in the ADAMS system (ADAMS Accession Number ML092260186, ML092260242 and ML092260259).

4OA6 Meetings

Exit Meeting Summary

On July 23, 2009 the NRC examination team discussed generic issues associated with the operating test with Mr. B. L. Stanley, Director Nuclear Safety & Licensing, and members of the Surry Power Station staff. The examiners asked the licensee if any of the examination material was proprietary. No proprietary information was identified.

KEY POINTS OF CONTACT

Licensee personnel

L. Baker, Superintendent, Shift Operations
A. Barbee, Manager, Training
J. Dillich, Assistant Plant Manager
J. Ford, Nuclear Training
K. Grover, Manager, Operations
S. Irwin, Nuclear Training
P. Kershner, Station Licensing
W. Marshall, Nuclear Training
B. Stanley, Director Nuclear Safety & Licensing
D. Wilson, Supervisor, Nuclear Training

NRC personnel

J. Nadel, Resident Inspector

FACILITY COMMENTS AND NRC RESOLUTIONS

A complete text of the licensee's comments can be found in ADAMS under accession number ML092260259.

SRO QUESTION 86

Licensee Comment:

The licensee contends that actions of Technical Specification (TS) 3.1.A.4 are not required to be taken and actions of TS 3.1.A.5 are required to be taken, thereby making "B" the only correct answer.

The licensee contends that TS 3.1.A.4 is intended to apply only to reactor coolant loops, and that reactor coolant pump status does not impact TS 3.1.A.5. The licensee contends that the position of reactor coolant loop stop valves primarily determines whether or not the loop is in service and that the presence (or absence) of forced coolant flow has no impact on determining whether or not a reactor coolant loop is in service.

The licensee supports their conclusion by stating that a separate TS (TS 3.17) exists to address the impact of reactor coolant loop stop valves. TS 3.17 lists several items which are required to be met in order to return a loop to service, none of which require a reactor coolant pump to be operating.

The licensee also supports their position with Section 4.2 of the Updated Final Safety Analysis Report which lists the following criteria which are required to return a reactor coolant loop to service:

2. Prevent opening of a cold-leg stop valve unless:
    a. The hot-leg stop valve has been opened a specified time.
    b. The loop bypass valve has been opened a specified time.
    c. Flow has existed through the relief line for a specified time.
    d. The cold-leg temperature is within 20°F of the highest cold-leg temperature in other loops and the hot-leg temperature is within 20°F of the highest hot-leg temperature in the other loops.

The licensee states that these conditions required for returning a loop to service do not include any items that suggest that forced flow through the loop is required to consider the loop to be in service.

Lastly, the licensee contends that the question statement is worded such that it asks for whether or not action statements of the LCO are required to be performed, and TS 3.1.A.4 does not contain any actions to be performed.

NRC Discussion:

The NRC agrees with the licensee's assessment of the question. The NRC agrees that actions of Technical Specification (TS) 3.1.A.4 are not required to be taken and actions of TS 3.1.A.5 are required to be taken.

Based on supporting information provided by the licensee, the determination of a reactor coolant loop being in service is not dependent on forced flow existing within that loop. If the loop stop valves are fully open, the loop would be considered “in service” and the conditions of LCO 3.1.A.4 would be met, thus not requiring any action statements to be performed.

Lastly, the NRC also agrees that TS 3.1.A.4 does not contain any action statements to be performed, regardless of whether the reactor coolant loop is considered to be in service.

NRC Resolution:

“B” is the only correct answer.

SRO QUESTION 93

Licensee Comment:

The licensee contends that alarm 1D-C6, PZR PWR RELIEF VV LO AIR PRESS, can annunciate on either low backup air bottle pressure (1000 psig) or low backup air system pressure downstream of the pressure regulator (80 psig). Due to backup air bottle pressure being greater than 1000 psig, the cause of the alarm would have to be low backup air pressure downstream of the regulator, which would render the PORV inoperable and the conditions of TS 3.1.A.6 would not be met. The TS actions of restoring the PORV backup air supply within 14 days OR be in HSD within the next 6 hours would be required. Therefore, “C” is the only correct answer.

The licensee contends that air bottle pressure was provided as 1050 psig in the stem of the question, which is above the 1000 psig setpoint to cause 1D-C6 to annunciate. The licensee further states that the alarm would have to be caused by a low backup air system pressure downstream of the regulator since the potential cause of low air bottle pressure can be ruled out due to the given air bottle pressure of 1050 psig. As specified in 1D-C6 and in TS 3.1.A.6 Bases, the PORV is required to be declared inoperable if backup air pressure downstream of the regulator is less than 80 psig.

NRC Discussion:

The NRC agrees with the licensee’s contention that the conditions of TS 3.1.A.6 were not met due to low backup air pressure downstream of the regulator and that the required actions of restoring the PORV backup air supply within 14 days OR be in HSD within the next 6 hours would be required.

The NRC agrees that the alarm can annunciate due to low backup air bottle pressure less than or equal to 1000 psig, low backup air system pressure of less than or equal to 80 psig downstream of the regulator, or an instrument failure. The low backup air bottle pressure can be ruled out as the cause of the alarm because air bottle pressure of 1050 psig was provided in the question stem. No conditions in the stem were provided that would indicate that an instrument failure existed for the pressure switch downstream of the regulator, which could cause the 1D-C6 alarm to be lit. Therefore, the cause of 1D-C6 being lit would be a low backup air pressure downstream of the regulator.

1D-C6 leads the operator to Step 4 in the presence of a low backup air system pressure downstream of the regulator. Step 4 directs the operator to declare pressurizer PORVs inoperable and start the 14 day clock in accordance with TS 3.1.A.6.f.

NRC Resolution:

“C” is the only correct answer.

SIMULATION FACILITY REPORT

Facility Licensee: Surry Power Station

Facility Docket Nos.: 05000280/05000281

Operating Tests Administered on: July 20 – July 23, 2009

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and, without further verification and review in accordance with Inspection Procedure 71111.11 are not indicative of noncompliance with 10 CFR 55.46. No licensee action is required in response to these observations.

No simulator fidelity or configuration items were identified.