

MAR 21 1994

Virginia Electric and Power Company
ATTN: Mr. W. L. Stewart
Senior Vice President - Nuclear
5000 Dominion Boulevard
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Gentlemen:

SUBJECT: NRC EXAMINATION REPORTS 50-338/93-300, 50-339/93-300,
50-338/93-301, AND 50-339/93-301

We have received your two letters dated January 27, 1994, responding to weaknesses identified in NRC Examination Reports 50-338/93-300, 50-339/93-300, 50-338/93-301, and 50-339/93-301.

We have rereviewed information contained in these reports with consideration given to comments contained in your letters. The results of this review are provided in Enclosures 1 and 2.

With regard to Initial Examination Reports 50-338/93-300 and 50-339/93-300, we continue to believe that the questions were valid and that the answers indicated deficiencies in operators' knowledge. However, we agree that the responses to these questions did not provide sufficient basis to support the broad conclusions stated in the exam reports. In particular, our conclusion that there was a weakness in the area of accident and transient analysis, and our conclusion that there was a weakness in operator knowledge of the electrical distribution system, were not well supported and not appropriate.

With regard to Requalification Examination Reports 50-338/93-301 and 50-339/93-301, we continue to believe that there was a weakness in responding to questions in the administrative area for the reasons stated in Enclosure 2. However, we agree that our conclusions regarding weaknesses in knowledge of the RHR system and of emergency preparedness were not correct. As discussed in Enclosure 2, these errors were caused by our misinterpretation of facility reference material.

The results of this review will be considered along with other relevant information to insure that a proper assessment of licensed operator training activities is included in your next Systematic Assessment of Licensee Performance report.

Thank you for taking the time to respond to our reports. Your comments have provided us with valuable feedback on the conduct of examinations and our examination process.

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Please contact me if you have any further questions or comments.

Sincerely,

(Original signed by A. F. Gibson)

Albert F. Gibson, Director
Division of Reactor Safety

Enclosures:

1. Review of Exam Report
50-338/93-300 & 50-339/93-300
2. Review of Exam Report
50-338/93-301 & 50-339/93-301

cc w/encls:

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Exam Report 93-301 file
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**For previous list of concurrences, see attached page.

RII:DRS **	RII:DRS **	RII:DRS **	RII:DRP **	RII:DRS
JMoorman:jm/sd/fr 03/ /94	LLawyer 03/ /94	TPeebles 03/21/94	ABelisle 03/ /94	AGibson 03/ /94

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RII:DRS	RII:DRS	RII:DRS	RII:DRP	RII:DRS
JMoorman: jm/sd 03/10/94	LLawyer 03/16/94	TPeebles 03/16/94	ABelisle 03/16/94	AGibson 03/ /94

ENCLOSURE 1

The following is offered as response to your comments provided in a letter dated January 27, 1994 (Serial No. 93-701), concerning NRC identified weaknesses in NRC Examination Report Nos. 50-338/93-300 and 50-339/93-300.

NRC-IDENTIFIED WEAKNESS

Question 588 was developed by the NRC. Three of the five ROs and two of the six SROs missed this question. This part "A" question tested the operators knowledge of the Reactor Coolant System (RCS) response to a loss of one Reactor Coolant Pump (RCP). All five candidates who missed this question chose distracter "c" which stated incorrectly that the indicated flow in the affected loop would drop to zero and stay at zero. This indicated a weakness in the operators knowledge of transient and accident analysis. Actual indication on the control board would reflect a significant amount of reverse flow through the loop with the secured RCP.

VEPCO COMMENTS CONCERNING NRC-IDENTIFIED WEAKNESS

The five operators that missed this question chose distracter "c". This distracter was essentially identical to the correct answer with the exception of slightly increasing indicated flow versus indicated flow at zero. This reveals that the operators understand the dynamics of increased flow through the operating loops, and therefore back flow through the idle loop. The fact that very little differentiation between the distracters existed (decreased to zero then increased slightly versus decrease to zero and stay at zero) led to difficulties with this question. This shows that the operators actually had good knowledge of the reverse flow concept even though they answered the question incorrectly. Therefore, we do not feel that there is a weakness in the area of accident and transient analysis.

NRC RESPONSE TO VEPCO COMMENTS

The weakness identified by NRC developed question 588 indicates a deficiency in operators' knowledge of indications of reverse flow in an idle reactor coolant system loop. The distracter chosen by the candidates is clearly incorrect and should be identified by an operator with the requisite knowledge. While stating that this was a weakness in accident and transient analysis may have been an overly broad characterization, a weakness is still indicated in operator knowledge.

NRC-IDENTIFIED WEAKNESS

Four of the five ROs missed question 572 which tested the operators knowledge of how the electrical system will respond to a fault on the 1B station service bus. All four operators chose distracter "a", which stated incorrectly that the 1B and 1H busses would remain energized. This indicated a weakness in the operators knowledge of the electrical distribution system and ability to determine what actions should automatically occur during off normal conditions.

VEPCO COMMENTS CONCERNING NRC-IDENTIFIED WEAKNESS

The operators that missed this question may have been misled. The question was interpreted to mean that there was a fault on the breaker instead of a fault on the bus. As a result, the operators missed the question. To enhance future examinations, the question will be reworded to emphasize a fault on the bus rather than a fault on the breaker.

In addition to question 572, there were three other questions which related to the Electrical Distribution System on the "B/C" Shift NRC administered examination and the "B" Shift Non-NRC administered examination. Also, the "E" Shift NRC administered examination and "E" Shift Non-NRC administered examination contained three questions which related to the Electrical Distribution System. The question numbers and correct responses were as follows:

<u>Question Number</u>	<u>Correct Responses</u>
RA-0573	9/9
RA-0575	17/17
RA-0583	17/17
RA-0156	9/9
RA-0173	5/5
RA-0169	10/10

Based on the correct responses to all the questions relating to the Electrical Distribution System (71 of 75 or 94% correct) no weakness is indicated.

NRC RESPONSE TO VEPCO COMMENTS

Review of question 572 indicates that it is extremely unlikely that operators could have misread this question. The question is worded as follows: "Which one of the following statements correctly describes the response of the Electrical Distribution system if the normal feeder breaker to the 1B station service bus (15B2) were to trip open *due to a fault on the 1B station service bus.*" (Emphasis added). Failure by four of five ROs to correctly answer this question indicates a weakness in operator knowledge. While stating that this was a weakness in knowledge of the Electrical Distribution system may have been an overly broad characterization, a weakness is still indicated.

ENCLOSURE 2

The following is offered in response to your comments provided in a letter dated January 27, 1994 (Serial No. 93-722), concerning NRC identified weaknesses in NRC Examination Report Nos. 50-338/93-301 and 50-39/93-301.

NRC-IDENTIFIED WEAKNESS

The candidates did not know that the Residual Heat Removal (RHR) system was unavailable to reject core heat until approximately 20 hours after shutdown if the core had a high power history.

VEPCO COMMENTS CONCERNING NRC-IDENTIFIED WEAKNESS

A review of actual plant history has shown that the RHR system is capable of removing core decay heat in significantly less than 20 hours. This was the basis for candidate responses. However, the candidates also realize that the RHR system cannot be placed in service to remove decay heat until Mode 4 is reached. Until then heat is removed with the use of the steam dumps.

NRC RESPONSE TO VEPCO COMMENTS

The apparent weakness concerning candidates' unfamiliarity with the heat removal capacity of the RHR system resulted from our examiners incorrectly interpreting a statement in the RHR system lesson plan. Your comment was well founded and is appreciated. This is no longer classified as a weakness.

NRC-IDENTIFIED WEAKNESS

The candidates demonstrated a weakness in responding to questions in the administrative area. Several were unfamiliar with temporary modifications, tagging and clearances, and radiation protection.

VEPCO COMMENTS CONCERNING NRC-IDENTIFIED WEAKNESS

Discussions with the examiners revealed that the candidates answered the questions correctly but added "I would like to look that up". Previous examiners have encouraged candidates to demonstrate proficiency in the use of reference materials. The change in philosophy of having a closed book walk-through may have caused some confusion.

NRC RESPONSE TO VEPCO COMMENTS

The weakness concerning candidate ability to perform plant administrative duties stems from hesitance of the candidates to rely on their training and an over-reliance on the use of procedures when answering questions. Walkthrough examinations have been, and will continue to be, open reference exams. "Open reference" has been misinterpreted by some to mean that candidates can search all available references as long as is necessary to find the answer to a question. This is incorrect for two reasons. First, some tasks are commonly performed by licensed operators without the use of a reference. It is expected that operators will be able to perform these tasks without reliance

on a reference. Secondly, "open reference" means a candidate may use any normally available control room reference; *any* as distinct from *all*. That is, the candidate is expected to know which reference contains the needed information and should be capable of finding the information in that reference in a reasonable amount of time. The use of references during the walkthrough examination is addressed in NUREG 1021, "Operator Licensing Examiner Standards," ES-302, Attachment 1. This attachment contains instruction to the candidates for the operating test and is read in toto to all candidates prior to their simulator and walkthrough tests.

NRC-IDENTIFIED WEAKNESS

The candidates demonstrated a weakness in responding to questions in the area of emergency preparedness. Several could not show how to connect the TSC PA system with the plant PA system. Also, several candidates were unfamiliar with the NRC notification form information and the requirements to log certain requests from NRC Headquarters, responses from NRC Headquarters, and change of NRC Operation Officer or communicator.

VEPCO COMMENTS CONCERNING NRC-IDENTIFIED WEAKNESS

Connecting the TSC PA system to the plant PA system is not performed at North Anna nor is the function proceduralized. During the emergency exercises, the TSC usually communicates with the Control Room to provide information to make announcements to the plant staff. However, announcements can also be made to the plant staff by the TSC personnel with the use of the plant PA system.

Operator candidates were re-instructed on NRC communications and NRC notification form information prior to being placed on an operating shift.

NRC RESPONSE TO VEPCO COMMENTS

The apparent weakness regarding the candidates' ability to connect the TSC PA system with the plant PA system resulted from our examiners incorrectly interpreting facility procedures. Your comment was well founded and is appreciated. This is no longer classified as a weakness.