

FACILITY POST-EXAMINATION COMMENTS

FOR THE DAVIS-BESSE INITIAL EXAMINATION - JULY 2005

Mark B. Bezilla
Vice President - Nuclear

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Docket Number 50-346
License Number NPF-3
Serial Number 1-1429

10 CFR 55

August 3, 2005

Mr. Michael E. Bielby - Addressee Only
Chief Examiner, NRC Region III
United States Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Subject: Submittal of Examination Documentation for the Initial Licensed Operator
Examination Conducted at the Davis-Besse Nuclear Power Station

Dear Mr. Bielby:

On Thursday, July 28, 2005, the Nuclear Regulatory Commission (NRC) held an Exit Meeting at the Davis-Besse Nuclear Power Station Training Center following the NRC's onsite portion of the Initial Licensed Operator Exam. In accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," (Revision 9) Section ES-501, Section C.1.a, which states that the licensee shall forward certain examination documentation to the NRC as soon as possible (within 5 working days, when practical) after administering the examination, FirstEnergy Nuclear Operating Company hereby submits the following examination documentation:

- the graded written examinations plus a clean copy of each applicant's answer sheet
- the master examination and answer key, annotated to indicate changes made while administering and grading the examination
- students' questions (and answers given) and comments from the examination
- the written examination seating chart
- a completed Form ES-403-1, "Written Examination Grading Quality Checklist"
- documented explanation for the deletion of one question from the Reactor Operator and Senior Reactor Operator examination
- a written examination analysis
- the original Forms ES-201-3, "Examination Security Agreement," with a pre- and post-examination signature by every individual who had detailed knowledge of any part of the operating tests or written examinations before they were administered.

AUG 05 2005

Docket Number 50-346
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Page 2 of 2

In addition to the hard copies of the documents listed above, a compact disc is also enclosed with this submittal which includes the electronic copies of the simulator scenarios, the job performance measures (JPMs), the written examination and the answer key.

Should you have any questions or require additional information, please contact Mr. Mark A. Trump, Manager, Training, at (419) 321-8494.

Sincerely yours,

*Benny Allen for
Mark A. Trump*

AWB/s

Attachment 1 - Commitment List

Attachment 2 - Examination Documentation

Enclosure - Compact Disc of Simulator Scenarios, the JPMs, the Written Examination and the Answer Key

cc: NRC Regional Administrator, Region III (w/o Attachment 2 and Enclosure)
Chief - Operations Branch, NRC Region III (w/o Attachment 2 and Enclosure)
DB-1 NRC/NRR Project Manager (w/o Attachment 2 and Enclosure)
DB-1 NRC Senior Resident Inspector (w/o Attachment 2 and Enclosure)
USNRC Document Control Desk (w/o Attachment 2 and Enclosure)
Utility Radiological Safety Board (w/o Attachment 2 and Enclosure)

Justification for Deletion of Question 52

During the examination a question was asked by 2 different candidates pertaining to Question 52. In the stem of the question BA 304, the SFAS Low Pressure Bistable in SFAS Channel 3 is tripped. Since the bistable number begins with the number "3", the candidates ask if this should be labeled as the SFAS Low-Low Pressure Bistable in SFAS Channel 3. The low pressure bistable will actuate SFAS level 2 components which would make distracter D correct as shown on the answer key. The low-low pressure bistable will actuate SFAS level 3 components which would make distracters A and B correct. The examination proctor incorrectly told the candidates that the bistable was mislabeled in the question stem and should be labeled as "SFAS Low-Low Pressure Bistable in SFAS Channel 3". Three candidates had already completed and turned in their examination when the information was incorrectly supplied to the rest of the candidates. This led to some candidates answering the question as written and the rest of the students answering the question based on the incorrect information. Some students changed their answers from the original correct answer based on the incorrect information. Since Question 52 has three correct answers depending upon what information was used by the candidates, the question should be deleted in accordance with ES 403, step D.1.b.

References are attached that verify 2 correct answers for a SFAS Low-Low Pressure Bistable which would actuate SFAS level 3 components.

Examination Outline Cross-reference:	Level	RO	SRO
	Tier #	1	
	Group #	1	
	K/A #	057 AA1.04	
	Importance Rating	3.5	

Ability to operate and / or monitor the following as they apply to the Loss of Vital AC Instrument Bus: RWST and VCT valves

Proposed Question: Common 52

The plant is at 100% power.

The RCS pressure low trip bistable (BA 304) in SFAS Channel 3 has been tripped to comply with a Tech. Spec action statement

Which one of the following describes how a subsequent loss of Y1 bus will affect the Makeup and Purification System?

- A. Seal Return will be lost due to MU 59A, MU 59B, MU 59C and MU 59D going closed
- B. Seal Injection will be lost to RCP 1-1 and RCP 2-2 due to MU 66B and MU 66C going closed
- C. RCS Makeup will be lost due to MU 6422 going closed
- D. Letdown will be lost due to MU 2A going closed

Proposed Answer: D

Explanation (Optional):

- A. Incorrect. MU 59 valves are SFAS level 3 actuated
- B. Incorrect. MU 66 valves are SFAS level 3 actuated
- C. Incorrect. MU 6422 is not an SFAS valve
- D. Correct. MU2A is an SFAS level 2 valve. BA 304 will actuate level 2 output modules

Technical Reference(s): DB-OP-02000 (Attach if not previously provided)

Proposed references to be provided to applicants during examination: None

Learning Objective: OPS-SYS-506-05K (As available)

Question Deleted

Question Source: Bank # _____
Modified Bank # _____ (Note changes or attach parent)
New X

Question History: Last NRC Exam _____

Question Cognitive Level: Memory or Fundamental Knowledge _____
Comprehension or Analysis X

10 CFR Part 55 Content: 55.41 X
55.43 _____

Comments:

Davis-Besse Nuclear Power Station

SURVEILLANCE TEST PROCEDURE

~~EFAS CHANNEL~~ FUNCTIONAL TEST

DB-SC-03112

REVISION 10

Prepared by: Steve Brouwer

Procedure Owner: Supervisor - Nuclear Electrical System Engineering

Effective Date: APR 15 2005

Procedure Classification:

 X Safety Related
 Quality Related
 Non-Quality Related

LEVEL OF USE:

STEP-BY-STEP

ATTACHMENT 1: ADDITIONAL INFORMATION AND GUIDANCE

Page 1 of 2

This attachment provides helpful information which may be referenced on an as-needed basis.

A. Bistable summary:

BA302 CTMT RADIATION CHANNEL FAILURE Bistable
 BA303 R.C. PRESSURE LO BLOCK Bistable
~~BA304 R.C. PRESSURE LO TRIP Bistable~~
 BA305 R.C. PRESSURE LO LO BLOCK Bistable
 BA306 R.C. PRESSURE LO LO TRIP Bistable
 BA307 R.C. PRESSURE CHANNEL FAILURE Bistable
 BA308 CTMT PRESSURE CHANNEL FAILURE Bistable
 BA309 CTMT PRESSURE HI HI TRIP Bistable
 BA310 CTMT PRESSURE HI TRIP Bistable
 BA311 BWST LEVEL CHANNEL FAILURE Bistable
 BA312 BWST LEVEL LO TRIP Bistable
 BA313 CF TK 1 OUT VLV CF 1B PERMISSION TO OPERATE Bistable

B. SFAS Data Light Information:

The SFAS Data Lights are those LED lamps found in columns below the output modules in each SFAS cabinet. Each column is associated with one Output Module above it. Five states for the data lights exist and are defined as follows:

LED STATUS	INDICATED EQUIPMENT STATUS*
ON GREEN	Normal (neither Channel is tripped and control power is available).
OFF	Indicates one or more of the following: <ul style="list-style-type: none"> • Channel is tripped <u>AND</u> not in shutdown bypass. • Relay has failed to tripped state. • LED has failed. • Control power is not available to the component. • Solenoid operated component <u>OR</u> Motor Operated Valve is in SA position <u>AND</u> channel is not in Shutdown Bypass. • DC power to the SFAS channel is <i>deenergized</i>.
FLASHING GREEN	Relay of Complementary Channel is in tripped state.
ON RED	In shutdown bypass mode.
FLASHING RED	Channel is in shutdown bypass mode. In complementary channel, relay is tripped <u>AND</u> shutdown bypass is ineffective.

* EXCEPTIONS AND NOTES

1. For data lights of switchgear operated equipment (HPI Pump 1, CCW Pump 1 and 3, SW Pump 1 and 3, DH Pump 1, CS Pump 1), removal of the breaker's control power fuses will cause the data lights to be OFF.
2. Except for switchgear operated equipment, IF the breaker for a piece of equipment is open or racked out, data lights will be OFF.

ATTACHMENT 1: ADDITIONAL INFORMATION AND GUIDANCE

Page 2 of 2

Reference: Davis-Besse Nuclear Power Station Unit No. 1

Operational Schematic: Makeup and Purification System

Dwg No. 05-002 SH 1, Rev. 24

Dwg No. 05-002 SH 2, Rev. 18