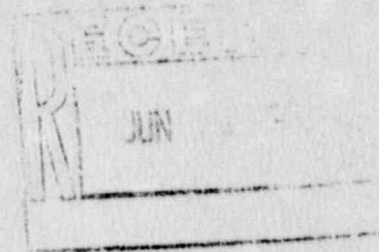


Omaha Public Power District

P.O. Box 399 Hwy. 75 - North of Ft. Calhoun Fort Calhoun, NE 68023-0399
402/636-2000

June 1, 1990
LIC-90-0489



Mr. John L. Pellet
Chief, Operator Licensing Section
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

Reference: Docket No. 50-285

Dear Mr. Pellet:

SUBJECT: Technical Review of the Reactor Operator Licensing Examination
Administered by the NRC at Fort Calhoun Station on May 29, 1990

Personnel at Omaha Public Power District have reviewed the Reactor Operator
licensing examination administered on May 29, 1990. Enclosed are our comments
on the examination in accordance with the requirements specified in ES-201.

Sincerely,

W. G. Gates

W. G. Gates
Division Manager
Nuclear Operations

WGG:ket

Attachments

c: LeBoeuf, Lamb, Leiby & MacRae w/o
R. D. Martin, NRC Regional Administrator
A. Bournia, NRC Project Manager
P. H. Harrell, NRC Senior Resident Inspector
Document Control Desk (NRC)

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QUESTION: 019 (1.00)

The reactor has tripped and EOP-00, Standard Post Trip Actions are complete. The following plant conditions exist:

- Pressurizer Level: 50% and decreasing
- Steam Generator Pressures: 850 psia and slowly decreasing
- 4160 VAC bus 1A3: Energized
- 4160 VAC busses 1A1, 1A2, and 1A4: Deenergized
- Containment Pressure: 1.0 psig

Choose the correct EOP to enter:

- a. EOP-02, Loss of off-site power.
- b. EOP-03, Loss of coolant accident.
- c. EOP-05, Uncontrolled heat extraction.
- d. EOP-20, Functional recovery procedure.

ANSWER 019 (1.00)

a.

REFERENCE:

FCS EOP-00, p. 33

000057G011 ..(KA's)

RESPONSE

OPPD requests accepting as equally correct answers (a) EOP-02 and (d) EOP-20.

Based upon the indications given, it is not apparent whether or not a single event is in progress or multiple events. There are two aspects of the question that would support the possibility that an uncontrolled heat extraction is in progress:

1. Steam generator pressure after the trip is lower than expected (850 psia vice 960 psia) and in fact is at the lower limit specified in step 3.14 of EOP-00. This step directs the operator to verify the steam dump and bypass valves are functioning to control RCS T-cold between 525-535 F and S/G pressure between 850-925 psia. With S/G pressure already at 850 psia and decreasing, it appears that the steam dump and bypass valves are not functioning properly to control S/G pressure. If these valves are not functioning properly (either slightly stuck open or leaking excessively) then an uncontrolled heat extraction could be in progress.
2. There is no information concerning RCS average temperature or pressure - either constant, decreasing or increasing. Assuming that the steam dump and bypass valves are not functioning properly as stated previously, then it is reasonable to assume that RCS average temperature and pressure would also be affected due to the increased RCS heat removal. This assumption is supported by the fact that pressurizer level is within the control band but is decreasing. When the assumption concerning RCS average temperature is coupled with the decreasing pressurizer level indication, they point to an uncontrolled heat extraction.

Therefore, two of the four answers given are correct and could be supported by the existing information and certain assumptions concerning RCS average temperature and pressure. Recognition of the lack of power to bus 1A4 by itself would direct the operator to EOP-02. However, the lack of power to bus 1A4 coupled with the possibility of an uncontrolled heat extraction (based upon S/G pressure at the low end of the control band and decreasing and unknown RCS average temperature and pressure values and trends) would direct the operator to EOP-20 due to the likelihood of multiple events in progress.

REFERENCES:

FCS EOP-00, page 11.
FCS EOP-00, page 16.
FCS EOP-00, page 33.
FCS EOP-05, page 2.

QUESTION: 046 (1.00)

If a waste gas release must be momentarily interrupted during an authorized release, shutting which one of the following valves will result in reset of the flow totalizer?

- a. FCV-532A
- b. FCV-532B
- c. FCV-532C
- d. FCV-532D

ANSWER 046 (1.00)

a.

REFERENCE:

FCS OI-WDG-02, REV. 08, p. 2

071000A202 ..(KA's)

RESPONSE

OPPD requests deletion of this question.

The question is technically incorrect as stated. The totalizer will stop at its last recorded value when FCV-532A closes, but does not reset at that time. The flow totalizer for a waste gas release does not reset until FCV-532A and FCV-532C are opened and flow starts by switching HC-532. Therefore, the answers listed do not answer the stated question due to the inaccuracy of the question.

REFERENCE:

FCS OI-WDG-02, REV. 08, page 3.

QUESTION: 065 (1.00)

Which source of makeup water to the Emergency Feedwater Storage Tank is the closest to the normal chemistry of emergency feedwater?

- a. Condenser hotwell
- b. Condensate storage tank
- c. Fire water header
- d. North Omaha Station

ANSWER 065 (1.00)

d.

REFERENCE:

FCS Auxiliary Feedwater STM, p. 19

061000K401 ..(KA's)

RESPONSE

OPPD requests deletion of this question.

The wording of the question contains insufficient information to allow the operator to correctly choose one of the listed answers. The statement in the STM addresses the need to provide a source of demineralized water to the Emergency Feedwater Storage Tank (EFWST) in the event of a loss of all AC. Understandably, if all AC is lost, trucking condensate grade water demineralized water from the North Omaha Station as per FCS AOP-30 is certainly an option. However, the question does not mention that a loss of all AC power has occurred. Rather, it focuses on chemistry similarities between various sources of makeup water and the EFWST. Referring to FCS Chemistry Procedure CMP-1.0, the condensate storage tank has chemistry limits that are very similar to the EFWST water. And, under certain conditions (after an outage, for example) the condenser hotwell may contain condensate grade water without chemical additives. Without more information on the conditions that would require using North Omaha Station condensate grade water, three of the answers listed could be correct.

REFERENCES:

FCS Chemistry procedure CMP-1.0
FCS AOP-30, REV. 0, page 4.
FCS Auxiliary Feedwater STM, page 19.