



Entergy Operations, Inc.  
17265 River Road  
Killona, LA 70066  
Tel 504 739 6650

W3F1-2002-0014  
A4.05  
PR

January 30, 2002

Mr. E.W. Merschoff  
Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011

Subject: Waterford 3 SES  
Docket No. 50-382  
License No. NPF-38  
Operator Examination Comments

Dear Mr. Merschoff:

During the week of January 21, 2002, an NRC RO / SRO Examination was administered to eleven candidates at Waterford 3. As discussed with the examination team last week, we are hereby submitting comments (attached) associated with examination questions. The comments are being submitted per guidance in NUREG 1021, ES-402, Section E. This submittal does not contain any commitments.

If you have any questions concerning the above, please contact R.W. Fletcher at (504) 739-6038.

Very truly yours,

A handwritten signature in black ink, appearing to read "R.D. Peters".

R.D. Peters  
Acting - Director,  
Nuclear Safety Assurance

RDP/OPP/ssf  
Attachment

Operator Examination Comments

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cc: w/out attachments  
NRC Document Control Desk  
N. Kalyanam (NRC-NRR)  
J. Smith  
N.S. Reynolds  
NRC Resident Inspectors Office

## RO-20/SRO-26

### QUESTION

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A pressurizer safety has lifted. Pressurizer level indicates 100%. Which of the following conditions would allow throttling of HPSI to prevent RCS solid conditions? Assume conditions not given in each selection are met.

- A. RVLMS Plenum Level is 100%, CET Temperature 470°F and slowly lowering, Pzr pressure is 700 psia and steady.
- B. RVLMS Plenum Lvl is 60% and steady, CET Temperature is 525°F and slowly rising, Pzr pressure is 1000 psia and steady.
- C. S/G levels are 62% WR and rising, EFW is in Auto, RVLMS Plenum Lvl is 80% and steady.
- D. RVLMS Plenum Lvl is 100%, S/G levels are 67% WR and slowly lowering, EFW and MFW are unavailable.

### ANSWER

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C

Reference OP-902-002

### COMMENTS

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Waterford 3 recommends accepting answer 'A' instead of answer 'C' on this question. - Answer 'C', which is the original correct answer per the key is not correct due to the S/G level of 62% WR is below the required level of 68% WR. Distracter 'C' does not meet the HPSI throttle criteria with a S/G level of 62% WR. Answer 'A' is correct because all the conditions listed under this answer satisfy the criteria for throttling HPSI flow. The examinees had to use steam tables to determine if the Sub-Cooled Margin criteria are met for this answer. Using the pressure steam table for 700 psia, the corresponding saturation temperature is 503°F. Subtracting the given CET value of 470°F from the calculated Saturation Temperature of 503°F would result in a saturation margin of 33°F. This would meet the criteria of 28°F Sub-cooled Margin for HPSI Throttle Criteria. The other criteria listed in answer A also meets the HPSI Throttle Criteria.

The question was designed to test the students' ability to recognize the requirements for HPSI Throttle Criteria. The students are expected to be able to recognize the criteria for throttling HPSI and to be able to use the Steam Tables to determine Sub-Cooled Margin.

Ten of eleven students who missed this question selected answer 'A'. The two distracters (C&D) that were not selected by any students did not meet the HPSI Throttle criteria requirements. Therefore, Waterford 3 recommends accepting answer 'A' based on it meeting the HPSI Throttle Criteria.

The question will be revised prior to addition to the General Question Bank.

INSTRUCTIONSCONTINGENCY ACTIONS**HPSI Throttle Criteria**

- \* 23. IF HPSI pumps are operating, **AND ALL** of the following conditions are satisfied:
- RCS subcooling is greater than or equal to 28°F
  - Pressurizer level is greater than 7% and controlled
  - At least one steam generator level is being maintained or restored to within **ANY** of the following:
    - 50% to 70% NR using MFW
    - 50% to 70% NR using EFW in manual
    - 68% to 71% WR using EFW in automatic
  - RVLMS indicates level higher than Hot Leg by at least one of the following:
    - QSPDS REACTOR VESSEL LEVEL 5 **NOT** voided
    - VESSEL LEVEL PLENUM greater than or equal to 80%
- THEN** throttle HPSI flow or stop **ONE** HPSI pump at a time.

**QUESTION**

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Containment Spray Pump A was running due to Hi-Hi Containment pressure when a loss of offsite power occurs. From the time EDG A gets a start signal, determine the time that Containment Spray A breaker gets a close signal if the EDG breaker closes in at the maximum time for the EDG to reach TS required speed and voltage.

- A. 13.4 sec
- B. 11.5 sec
- C. 9.9 sec
- D. 8 sec

**ANSWER**

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B

Reference: CWD Sheets E605 and 2341

**COMMENTS**

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TS max time = 10 sec; CS Pump A starts on 1.5 sec block  $10+1.5=11.5$  sec  
Provide examinee with copy of CWD Sht.E605

Waterford 3 recommends removing this question from the exam. The question requires the students to:

- Recall from memory the maximum time for the EDG to reach the Technical Specification required speed and voltage.
- Be able to determine through the use of the provided CWD which sequencer load block the Containment Spray Pump breaker receives a close signal.

The provided CWD E605 contained a sequencer contact for starting the Containment Spray pump, but did not designate which load block the pump started on. A sequencer contact on sheet E605 references CWD 2341.

If CWD 2341 had been given as reference, the students would have been able to determine the Sequence Load Block Time.

The six students that missed this question all answered 'A'. Distracters 'C' and 'D' have a time that is less than the Technical Specification required maximum time for the diesel reaching rated voltage and speed. Without CWD 2341 as a reference the students could not determine the correct answer between selections 'A' and 'B'. This question was designed to test the students' ability recall from memory the maximum time for the EDG to reach the Technical Specification required speed and voltage, and how to read a CWD. While the students are required to know the maximum time for the Diesel Generator start and loading, the students are not required to remember Sequencer Load Block times. Therefore, Waterford 3 recommends removing the question from the exam.

The question will be revised prior to addition to the General Question Bank.

**SRO-96**

**QUESTION**

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Containment Purge was secured after operating for several days with the plant in Mode 6. Prior to commencing core alterations, the refueling crew requests that Containment Purge be reinitiated.

In this situation, Containment Purge may be reinitiated:

- A. by issuing a Batch Release Permit; with Chemistry approval.
- B. by issuing a Batch Release Permit; without Chemistry approval.
- C. using the Continuous Release Permit; with Chemistry approval.
- D. using the Continuous Release Permit; without Chemistry approval.

**ANSWER**

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D

Reference: CE-003-515

**COMMENTS**

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Waterford 3 recommends that Answer C be accepted as the only correct answer for the following reasons:

This question was designed to test the students' ability to recognize the conditions required for restoring Containment Purge after being shutdown.

Per CE-003-515, Gaseous Radioactive Release Permit, page 14, the Note states that "Containment Purges releases during plant shutdowns will normally be accounted for on continuous permits following the initial Batch Release Permit period. Containment Purge may be re-started during plant shutdowns, with Chemistry Approval, without issuing additional Batch Release Permits." Therefore, Answer D is incorrect.

Two of the three students selected Answer C. Therefore, Waterford 3 recommends that Answer C be accepted as the only correct answer for this question.

The question will be revised prior to addition to the General Question Bank.

## 10.2 BATCH PERMIT APPROVAL AND ACTUAL RELEASE

- 10.2.1 Submit the GRP to the Shift Superintendent or Control Room Supervisor (SS/CRS) for approval and recording of the actual release data.

### NOTE

The in-service GDT pressure should be monitored during GDT discharges, and if pressure suddenly decreases, the release should be terminated and the Release Permit returned to Chemistry for updating and evaluation. A Condition Report should be initiated to ensure appropriate corrective actions are taken and reportability requirements identified.

- 10.2.2 Operations shall record data at the beginning and end of the release and as stipulated on the permit during the release.

### NOTE

Containment Purge releases during plant shutdowns will normally be accounted for on continuous permits following the initial Batch Release Permit period. ~~Containment Purge may be initiated during plant shutdowns, with Chemistry approval, without issuing additional Batch Release Permits.~~

- 10.2.3 The person terminating the release should enter the required data, calculate cubic feet released (For GDT only), sign "Release Completed by," have the SS/CRS review it, and return the GRP to Chemistry.
- 10.2.4 Operations shall comply with all special conditions noted on the release permit.



CONTROLLED

COPY

COPY No. 08A

BLOCKS	CONTACTS			POSITION			COP	SAL
	OFF	ON	START	9	12	3		
1	X	X	X	X	X	X	*	*
2	X	X	X	X	X	X	*	*

SPRING RETURN FROM START TO NORMAL MAINTAINED IN OFF

This drawing was used in its entirety to non-confess to produce this revision, Rev 5.

THIS SHEET

EBASCO SERVICES INCORPORATED

LOUISIANA POWER & LIGHT CO.  
WATERFORD S.E.S. UNIT NO. 3  
CONTROL WIRING DIAGRAM  
CONTAINMENT SPRAY PUMP A

REV	DATE	BY	CHK	APPROVED	DATE	BY	CHK	APPROVED
4	2/20/81	SL	SL	[Signature]	2/20/81	SL	SL	[Signature]
3	2/2/81	SL	SL	[Signature]	2/2/81	SL	SL	[Signature]
2	12-3-80	SL	SL	[Signature]	12-3-80	SL	SL	[Signature]
1	10-2-80	SL	SL	[Signature]	10-2-80	SL	SL	[Signature]

(G-163)

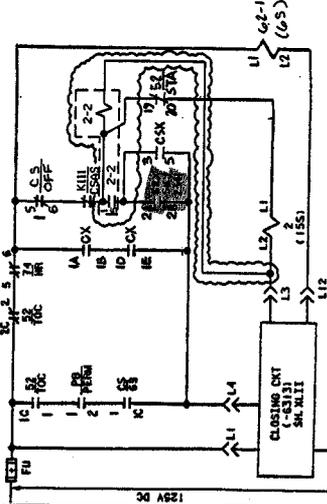
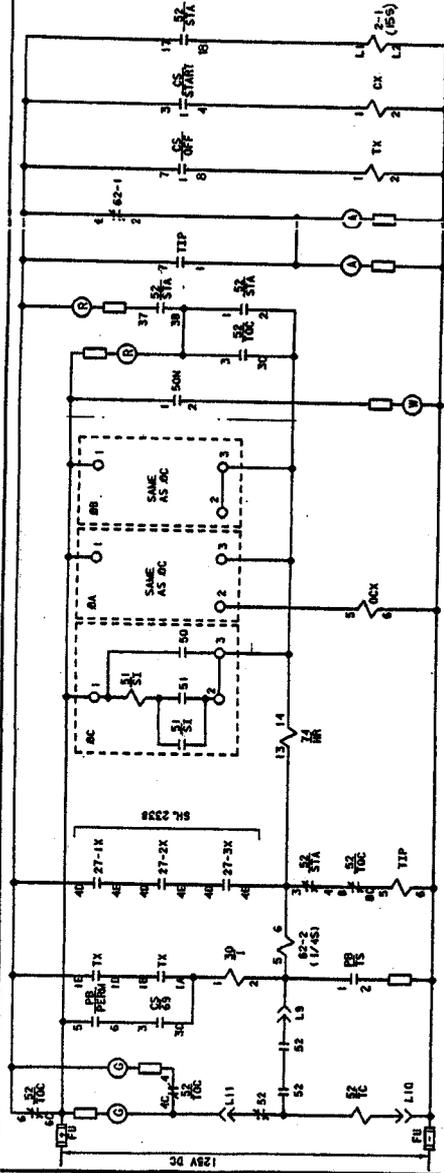
INCORP DRN BQ4012A

ORIGINAL

15012-001

SHEET 8605

LOU-1564  
B-424



- 9-11-14 SH. 1005 SAFETY PUMP IN A COOLER AH-21 3C-5A1
- 10-14 SH. 1005 SAFETY PUMP IN A COOLER AH-21 3C-5A1
- 13-14 SH. 1006 SAFETY PUMP IN A COOLER AH-21 3C-5A1

15012-001

SHEET 8605

LOU-1564  
B-424