

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 7911060315 DOC. DATE: 79/10/26 NOTARIZED: NO DOCKET #
 FACIL: 50-219 Oyster Creek Nuclear Power Plant, Jersey Central Powe 05000219
 50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe 05000220
 50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moha 05000410
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 ARMSTRONG, B. Jersey Central Power & Light Co.
 RECIP. NAME: RECIPIENT AFFILIATION
 HODGES, W. Commission

SUBJECT: Forwards response to preliminary comments on GE generic rept
 re BWR reactors.

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NOTES: LCY: J. SHAPAKER, C. HOFMAYER.

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1077 2004

October 26, 1979

Mr. W. Hodges
United States Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Md. 20014

Dear Mr. Hodges:

Enclosed please find Response to Preliminary Comments on G.E. submittal related to System from Jersey Central "Oyster Creek" and Niagra Mohawk "Nine Mile Point #1".

Vermont Yankee, Montecello and Browns Ferry have not responded as yet. Will forward same as soon as I receive their input.

Very truly yours,

Bill Armstrong
Bill Armstrong

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3/1

3911060315



W. Armstrong

Jersey Central Power & Light Company
Madison Avenue at Punch Bowl Road
Morristown, New Jersey 07960
(201) 455-8200

September 28, 1979

Mr. Paul J. McGuire
Boston Edison Company
Pilgrim Station
Rocky Hill Road
Plymouth, Mass. 02360



Dear Mr. McGuire:

Attached are answers for those NRC questions about the
GE BWR generic report that apply to Oyster Creek. Please contact
me if additional information is required.

Very truly yours,

Stanley S. Chan

Stanley S. Chan
201-455-8909

1a

Attachment

See note on page 9

Question 1. Major manual valves on safety, feedwater and condensate systems are administratively controlled.

Question 5. CST requires DC for level alarm and AC for level indication.

Question 6. Item 2-8, Auxiliary systems required for isolation condenser operation. ... None.

Item 5-8 Auxiliary systems required for LPCS

Normally, recirculation fans provides cooling for the rooms in which the core spray pumps are located, however loss of this fans will not lead to pump failure.

- a). systems will operate indefinitely after loss of recirculation fan for core spray pump rooms.
- b). see a) above, exact temperature limit is not known.
- c). onsite or offsite AC.
- d). core spray pumps, temperature limitation not known.

Item 9-8 Auxiliary system required for the shutdown cooling system is component cooling water (from RBCCW) for the shutdown cooling pump seals.

a) when component cooling water is lost, pumps will keep on running, but there will be leakage of primary water.

Question 6
(Continued)

Item 9-8 (Continued). Shutdown cooling system

- b). information not available
- c). source of component cooling water is RBCCW pumps which depend on onsite or offsite AC.

Operation of RBCCW system depends on service water system, power sources for service water pumps are onsite and off-site AC.

- d). Specific components requiring cooling are shutdown cooling pumps, temperature limitation is not known

Item 9-8

Auxiliary systems required for containment spray system include

- 1. recirculation fans for containment spray pump rooms
- 2. emergency service water system

However containment spray pumps will continue to operate even without recirculation fans for an indefinite period without failure. The emergency service water system requires no cooling.

Question 7. Requirements for feedpump ventilation system:

Supply fan and exhaust fan circulating air at 68,000 CFM, normal room temperature is 114°F when outside air temperature is 8.9°F or less.

- a) information not available
- b) operating temperature limit is 212°F with or without fans for feed pump motors
- c) power source for inlet and exhaust fans is normally offsite AC, however, they can be run on onsite AC if diesel loading permits
- d) component requiring cooling are feed pump motors, temperature limitation is 212°F



Question 8... Power sources required for system (including auxiliary systems) operation:

1. Isolation Condenser onsite DC
2. LPCS DC, onsite or offsite AC
3. ADS DC
4. Safety Valves None
5. Relief Valves DC
6. shutdown cooling, containment spray DC, onsite or offsite AC
7. SSW DC, onsite or offsite AC
8. RBCCW, Recirc Pump/Motor DC, onsite or offsite AC
Cooling System
9. CRDS DC, onsite or offsite AC
10. CST DC, offsite AC,
11. Main Feedwater System DC, Service air, offsite AC

Question 9. Since systems can be manually initiated in the control room, they can be accomplished in seconds.

Question 10. System functional and surveillance testing will indeed impede systems from auto initiating, but in the case that there is a redundant system, its operation will not be affected.

Question 11. Required operator actions for control of systems within two hours of system initiation:

Isolation Condenser: System must be manually controlled (i.e. on, off operation) to control cool down rate. Makeup to shell side from CST is necessary in 1 hr. 40 minutes.

LPCS: manual control is necessary once level recovers.

ADS: no operator action is required at any time.

Question 12. Size of strainers:

LPCS

$\frac{3}{8}" \times \frac{3}{8}"$

RHR

$\frac{3}{8}" \times \frac{3}{8}"$

SSW

$\frac{3}{8}" \times \frac{3}{8}"$ or bigger

Main feedwater

none



Question 13 The following systems have valves whose position are not indicated in the control room:

RBCCW Manual valves on shell side of heat exchangers on both inlet and outlet of heat exchangers, administratively controlled.

CRDS valves at suction and discharge of pumps, valve on return line to vessel they are administratively controlled.

CST mostly manual valves without indication in control room, administratively controlled.

Main Feedwater System valves at ~~for~~ condensate pump discharge and condensate demineralizer inlet and discharge, they are administratively controlled, but only isolation valves inside containment are locked ^{open}.

Recir. Pump/Motor Cooling System no remote indication for manual isolation valves on pump and motor cooling for recir. pump/motor, valves are administratively controlled.

Question 14. Oyster Creek has no remote control panels, but there exists a procedure for plant shutdown from outside control room.

Question 15. Primary means of detecting leaking safety and relief valves is temperature from thermal couples located on discharge lines of these valves. Other indirect means include high dry well temperature, increasing torus level and temperature etc.

Question 16. Oyster Creek performs independent physical verification of system lineup.

Question 23. See page 8.

Question 29. Failure to manually reset to start on low water level and/or high reactor pressure will make the isolation condensers inoperable.

Question 30. Service air is required as an auxiliary system for the feedwater system.

Question 33. There are radiation monitors for the isolation condensers.

Question 23. Trips due to component malfunction:

<u>System</u>	<u>Trips</u>
Isolation Condenser	None
LPCS	core spray pumps — bus undervoltage, motor fault, ground fault booster pump — bus undervoltage, motor fault.
ADS	loss of DC power
Safety valves	none
Shutdown Cooling	overcurrent trip for pumps
Containment Spray	overcurrent trip for pumps
RBCCW	undervoltage and overcurrent trips for pumps
CRDS	undervoltage and overcurrent trips for pumps
CST	overcurrent trip for condensate transfer pumps

Question 23 (continued)

SystemTrips

Feedwater System — condensate pump — ground fault, undervoltage, overcurrent

feed pumps — low suction pressure, differential protection, ground fault, overcurrent, undervoltage

Recirc. Pump / Motor..

Same as RBCCW.

Cooling System

Note : Answers for the following questions are provided :
1, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 23, 29,
30 and 33

Remaining questions are either not applicable to Oyster
Cook or are generic in nature.

From Peter Francisco, Niagara Mohawk (715) 474-1511
To Paul McGuire NINE MILE POINT UNIT 1 ext. 1487

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OCT 2 1979

PILGRIM DIVISION

Response to Preliminary Comments on
GE Submittal Related to System

Additional valves installed by AE are either motor-operated or
administratively controlled (i.e. locked open) etc.),

2. N/A to Nine Mile Point Unit 1.
3. N/A to Nine Mile Point Unit 1.
4. N/A to Nine Mile Point Unit 1.
5. Level indication is not required for system operation. Therefore,
N/A is correct response for power source required for system
operator of the condensate storage tanks.
6. N/A to Nine Mile Point Unit 1.
7. N/A to Nine Mile Point Unit 1.
8. We originally responded to this question thinking the NRC was asking
power source for startup logic. Power source for system and auxiliary
systems in items 9b are as follows:

All systems require offsite A.C. (115 kV) or onsite A.C.
(diesel generator) except for:

HPCI (FWCR of unit) - requires offsite A.C. not loaded
on diesels.

ADS - requires D.C. power for operation of solenoids.

SRV - requires no power source.

CST - requires no power source.

9. Manual actions required are only for operation to turn a switch to activate system, less than 30 seconds.
10. The yes means in general there are certain short term incidents during testing when ECCS signals will not override.
11. In column 13 of Table 2.1-2a the none indicates that the operator doesn't have to take any actions after initiation, but for better performance operator will perform functions indicated in the notes.
12. NRC originally informed the owners group of their definitions for coarse and fine and that is what we followed.
13. N/A to Nine Mile Point Unit 1.
14. Nine Mile Point Unit 1 can shut down plant from outside the control room but does not have a remote shutdown panel. ^{The} No response is generic qualified by footnote.
15. Other means of detecting a leaking SRV are suppression pool temperature and level increases and loss of core inventory without an increase in drywell pressure.
16. Nine Mile Point Unit 1 ~~does~~ procedure verification. Procedures are reviewed and approved by Site Operations Review Committee. Test results are documented and reviewed to verify system restored to normal condition.
17. N/A to Nine Mile Point Unit 1.
- 18-22. N/A to Nine Mile Point Unit 1.

23. N/A to Nine Mile Point Unit 1.

No trips on component malfunction. There are pump motor overcurrent and undervoltage trips.

24. N/A to Nine Mile Point Unit 1.

25. This has been corrected in revised version.

26-28.

N/A to Nine Mile Point Unit 1.

29. Nine Mile Point Unit 1 Isolation Condensor initiation logic automatically resets to start on low low water level.

30. Instrument and Service or Systems are required for Main Feedwater System Operation.

31. N/A to Nine Mile Point Unit 1.

32. ADS is not required to operate for manual operation of back up water source. It is required to operate for low pressure systems to inject water into the vessel. If HPCS and HPCI are unavailable ADS will depressurize reactor in sufficient time for low pressure systems to prevent core uncover.

33. Nine Mile Point Unit 1's Isolation Condenser isolates on high radiation in the system's vent.

