

Public Service
Electric and Gas
Company

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Vice President - Nuclear Operations

JAN 2 x 1992

NLR-N91214

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

RESPONSE TO GENERIC LETTER 91-11
GENERIC ISSUE 48, "LCOs FOR CLASS 1E VITAL INSTRUMENT BUSES"
GENERIC ISSUE 49, "INTERLOCKS AND LCOs FOR CLASS 1E TIE BREAKERS"
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354

Generic Letter 91-11 requests each operating reactor licensee to ensure its plant has procedures, including time limitations and surveillance requirements, for:

- 1) Vital instrument buses (typically 120 V ac buses),
- 2) Inverters or other onsite power sources to the vital instrument buses, and
- 3) Tie breakers that can connect redundant Class 1E buses (ac or dc) at one unit or that can connect Class 1E buses between units at the same site.

For plants without procedures covering each of the above activities, the Generic Letter requests an evaluation justifying the licensee's position.

The following is Hope Creek Generating Station's response to Generic Letter 91-11.

Generic Issue 48, "LCOs for Class 1E Vital Instrument Buses"

The HCGS Class 1E Onsite Power Distribution System is grouped into four independent channels (A, B, C, D), each of which includes two 120 Vac vital instrument buses. Technical Specification 3/4.8.3.1, applicable during Operational Conditions 1, 2 and 3 (Power Operation, Startup and Hot Shutdown), requires each of the four channels to be energized. During Cold Shutdown, Refueling, and handling of irradiated fuel within secondary containment, Technical Specification 3/4.8.3.2 requires two channels to be energized. In both cases, the surveillance

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... include verification that the channels are energized
... per 7 days. The Technical Specification pages are
...

... purpose of defining Operability of the 120 Vac vital
... ment buses, "energized" is interpreted as "capable of
... loads, including the automatic supply of power from an
... dc bus through the inverter in the event of a Loss of
... (LOP) or loss of ac feed to the inverter." This Technical
... interpretation is documented per Operations
... department procedure [OP-AP.23-111(Q)].

Generic Issue 49, "Interlocks and LCOs for Class 1E Tie Breakers"

Hope Creek Generating Station (HCGS) does not have tie breakers
between any redundant vital buses.

Please feel free to contact us if there are any questions
regarding this transmittal.

Sincerely,



Attachment
Affidavit

C Mr. S. Dembek
Licensing Project Manager

Mr. T. Johnson
Senior Resident Inspector

Mr. T. Martin, Administrator
Region I

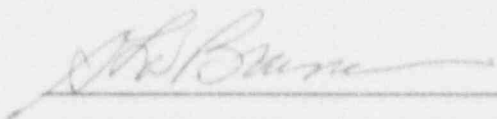
Mr. Kent Tosch, Chief
New Jersey Department of Environmental Protection
Division of Environmental Quality
Bureau of Nuclear Engineering
CN 415
Trenton, NJ 08625

REF: NLR-N91214

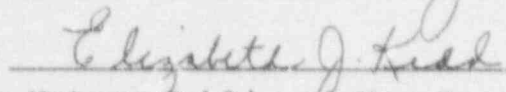
STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

S. LaBruna, being duly sworn according to law deposes and says:

I am Vice President - Nuclear Operations of Public Service
Electric and Gas Company, and as such, I find the matters set
forth in our letter dated JAN 28 1992 , concerning the
Hope Creek Generating Station, are true to the best of my
knowledge, information and belief.



Subscribed and Sworn to before me
this 28th day of January, 1992



Notary Public of New Jersey

ELIZABETH J. KIDD
Notary Public of New Jersey
My Commission Expires April 25, 1995

My Commission expires on _____

ELECTRICAL POWER SYSTEMS

3/4.C.3 ONSITE POWER DISTRIBUTION SYSTEMS

DISTRIBUTION - OPERATING

LIMITING CONDITION FOR OPERATION

3.8.3.1 The following power distribution system channels shall be energized:

a. A.C. power distribution:

1. Channel A, consisting of:

- a) 4160 volt A.C. switchgear bus 10A401
- b) 480 volt A.C. load centers 10B410
10B450
- c) 480 volt A.C. MCCs 10B212
10B411
10B451
10B553
- d) 208/120 volt A.C. distribution panels 10Y401(source:10B411)
10Y411(source:10B451)
10Y501(source:10B553)
- e) 120 volt A.C. distribution panels 1AJ481
1YF401(source:1AJ481)
1AJ482

2. Channel B, consisting of:

- a) 4160 volt A.C. switchgear bus 10A402
- b) 480 volt A.C. load centers 10B420
10B460
- c) 480 volt A.C. MCCs 10B222
10B421
10B461
10B563
- d) 208/120 volt A.C. distribution panels 10Y402(source:10B421)
10Y412(source:10B461)
10Y502(source:10B563)
- e) 120 volt A.C. distribution panels 1BJ481
1YF402(source:1BJ481)
1BJ482

3. Channel C, consisting of:

- a) 4160 volt A.C. switchgear bus 10A403
- b) 480 volt A.C. load centers 10B430
10B470
- c) 480 volt A.C. MCCs 10B232
10B431
10B471
10B573
- d) 208/120 volt A.C. distribution panels 10Y403(source:10B431)
10Y413(source:10B471)
10Y503(source:10B573)

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

e)	120 volt A.C. distribution panels	1CJ481 1YF403(source:1CJ481) 1CJ482
4.	Channel D, consisting of:	
a)	4160 volt A.C. switchgear bus	10A404
b)	480 volt A.C. load centers	10B440 10B480
c)	480 volt A.C. MCCs	10B242 10B441 10B481 10B583
d)	208/120 volt A.C. distribution panels	10Y404(source:10B441) 10Y414(source:10B481) 10Y504(source:10B583)
e)	120 volt A.C. distribution panels	1DJ481 1YF404(source:1DJ481) 1DJ482
b.	D.C. power distribution:	
1.	Channel A, consisting of:	
a)	125 volt D.C. switchgear	10D410
b)	125 volt D.C. fuse box	1AD412
c)	125 volt D.C. distribution panel	1AD417
d)	250 volt D.C. switchgear	10D450
e)	250 volt D.C. fuse box	10D422
f)	250 volt D.C. MCC	10D251
2.	Channel B, consisting of:	
a)	125 volt D.C. switchgear	1GD420
b)	125 volt D.C. fuse box	1BD412
c)	125 volt D.C. distribution panel	1BD417
d)	250 volt D.C. switchgear	10D460
e)	250 volt D.C. fuse boxes	10D432
f)	250 volt D.C. MCC	10D261
3.	Channel C, consisting of:	
a)	125 volt D.C. switchgear	10D430 10D436
b)	125 volt D.C. fuse box	1CD412 1CD448
c)	125 volt D.C. distribution panel	1CD417
4.	Channel D, consisting of:	
a)	125 volt D.C. switchgear	10D440 10D446
b)	125 volt D.C. fuse boxes	1DD412 1DD448
c)	125 volt D.C. distribution panel	1DD417

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With one of the above required A.C. distribution system channels not energized, re-energize the channel within 8 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With one of the above required 125 volt D.C. distribution system channels not energized, re-energize the division within 2 hours or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- c. With any one of the above required 250 volt D.C. distribution systems not energized, declare the associated HPLI or RCIC system inoperable and apply the appropriate ACTION required by the applicable Specifications.

SURVEILLANCE REQUIREMENTS

4.8.3.1 Each of the above required power distribution system channels shall be determined energized at least once per 7 days by verifying correct breaker/switch alignment and voltage on the busses/MCCs/panels.

ELECTRICAL POWER SYSTEMS

DISTRIBUTION - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.3.2 As a minimum, 2 of the 4 channels, one of which shall be channel A or channel B, of the power distribution system shall be energized with:

a. A.C. power distribution:

1. Channel A, consisting of:
 - a) 4160 volt A.C. switchgear bus 1CA401
 - b) 480 volt A.C. load centers 10B410
10B450
 - c) 480 volt A.C. MCCs 10B212
10B411
10B451
10B553
 - d) 208/120 volt A.C. distribution panels 10Y401(source:10B411)
10Y411(source:10B451)
10Y501(source:10B553)
 - e) 120 volt A.C. distribution panels 1AJ481
1YF401(source:1AJ481)
1AJ482
2. Channel B, consisting of:
 - a) 4160 volt A.C. switchgear bus 10A402
 - b) 480 volt A.C. load centers 10B420
10B460
 - c) 480 volt A.C. MCCs 10B222
10B421
10B461
10B563
 - d) 208/120 volt A.C. distribution panels 10Y402(source:10B421)
10Y412(source:10B461)
10Y502(source:10B563)
 - e) 120 volt A.C. distribution panels 1BJ481
1YF402(source:1BJ481)
1BJ482
3. Channel C, consisting of:
 - a) 4160 volt A.C. switchgear bus 10A403
 - b) 480 volt A.C. load centers 10B430
10B470
 - c) 480 volt A.C. MCCs 10B232
10B431
10B471
10B573
 - d) 208/120 volt A.C. distribution panels 10Y403(source:10B431)
10Y413(source:10B471)
10Y503(source:10B573)

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

e)	120 volt A.C. distribution panels	1CJ481 1YF403(source:1CJ481) 1CJ482
4.	Channel D, consisting of:	
a)	4160 volt A.C. switchgear bus	10A404
b)	480 volt A.C. load centers	10B440 10B480
c)	480 volt A.C. MCCs	10B242 10B441 10B481 10B583
d)	208/120 volt A.C. distribution panels	10Y404(source:10B441) 10Y414(source:10B481) 10Y504(source:10B583)
e)	120 volt A.C. distribution panels	1DJ481 1YF404(source:1DJ481) 1DJ482
b.	D.C. power distribution:	
1.	Channel A, consisting of:	
a)	125 volt D.C. switchgear	10D410
b)	125 volt D.C. fuse box	1AD412
c)	125 volt D.C. distribution panel	1AD417
2.	Channel B, consisting of:	
a)	125 volt D.C. switchgear	10D420
b)	125 volt D.C. fuse box	1BD412
c)	125 volt D.C. distribution panel	1BD417
3.	Channel C, consisting of:	
a)	125 volt D.C. switchgear	10D430 10D436
b)	125 volt D.C. fuse boxes	1CD412 1CD448
c)	125 volt D.C. distribution panel	1CD417
4.	Channel D, consisting of:	
a)	125 volt D.C. switchgear	10D440 10D446
b)	125 volt D.C. fuse box	1DD412 10D448
c)	125 volt D.C. distribution panel	1DD417

ELECTRICAL POWER SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

APPLICABILITY: OPERATIONAL CONDITIONS 4, 5 and *.

ACTION:

- a. With less than two channels of the above required A.C. distribution system energized, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.
- b. With less than two channels of the above required D.C. distribution system energized, suspend CORE ALTERATIONS, handling of irradiated fuel in the secondary containment and operations with a potential for draining the reactor vessel.
- c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.8.3.2 At least the above required power distribution system channels shall be determined energized at least once per 7 days by verifying correct breaker/switch alignment and voltage on the busses/MCCs/panels.

*When handling irradiated fuel in the secondary containment.