

SEABROOK STATION
Engineering Office:
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May 11, 1982

SBN-273
T.F. B 7.1.2



United States Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. Frank J. Miraglia, Chief
Licensing Branch #3
Division of Licensing

References: (a) Construction Permits CPPR-135 and CPPR-136, Docket
Nos. 50-443 and 50-444

Subject: Meeting Notes; Fire Protection of Seabrook Station

Dear Sir:

We have attached notes resulting from the March 10, 1982 meeting with Chemical Engineering Branch (CEB) regarding fire protection.

These notes were previously submitted to CEB.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

For: *Allen J. Legendre Jr.*
John DeVincentis
Project Manager

Attachment

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5/11*

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NOTES OF FIRE PROTECTION MEETING

March 10, 1982
NRC Office - Bethesda, Md.

General Guidance

1. Call out specific deviations clearly.
2. Short-term ventilation loss OK, but long-term may be a problem.
3. A marked-up set (or three) would be useful to NRR (showing Train A and B safe shutdown circuits).

A. Cable Spreading Room

1. NRC asked for fire loading - we say we can lose the room and still shutdown so the information is irrelevant.

B. Diesel Building EI 50

1. Ventilation area - Ventilation for diesel generator rooms and one Train B cable (cooling water jacket for diesel generator). No other safe shutdown cables.
2. We will remove Train B cable from area.
3. NRC asked how long before diesel rooms would heat up if ventilation were lost.
4. We stated there is no credible fire that could take out both ventilation trains.
5. Identify area as a deviation and state rationale for acceptance. State description of area, physical configuration, quantity, and orientation of cable trays.
6. We will provide detection.

C. PAB EI 25

1. Component Cooling Water (CCW) pumps (need 1 of 4) 2 per train.
2. Train B cable will be placed in conduit.
3. PAB will have fire detection.
4. NRC asked for fire loading for area - cable trays should be sprinkled.
5. NRC thinks vertical cable trays are a problem. We committed to review.
6. Metal cover protection considered for 1st 5-8 ft. of vertical trays.
7. NRC thinks suppression is required.
8. Penetration through floor will have a fire barrier.
9. 8x10 glossies of area may be helpful.
10. Look at barriers between trays and pumps.

PAB Fans (side by side)

1. Protect cabling to B Train fan.
2. Evaluate heat shield to protect from an exposure fire.

D. Mechanical Penetration Area El (-8)

1. CCW lines.
2. Assume 5 gallon heptane fire and state valves can still operate at X°F.
3. Write-up why we can still operate and safely shutdown.
4. Manual valve operations.
5. No in-situ fire loading.
6. NRC wants detection in area.
7. Address time to operate w/o manual actuation.

E. Mechanical Penetration Area El (-26)

1. Charging pump inlet.
2. Provide justification why area needs no protection.
3. NRC looking for detection.

F. Containment Enclosure Area - Two cooling units

1. How long could you operate without fans.
2. Detection is a must.
3. Explain why 5 gallons of heptane will not destroy fans.
4. Protect one train of conduit with barrier.

Containment Enclosure Area - Return Fans

1. Evaluate loss of fans in deviation request.
2. Will a fire that actuates fire damper but not shutdown fans cause the ducting to collapse.

I. Containment Pit Area - Nuclear Inst.

1. A & B cables are in conduit.
2. Can combustibles fall from above into the area?

J. Containment - Pressurizer

1. State rationale for no additional protection.
2. NRC indicated no apparent problems.

K. Emergency Feed Building

1. If a fire in this area does not cause a loss of off-site power, NRC stated it should be OK.
2. Discuss alternate feed pump scenario.
3. NRC indicated suppression was not needed.
4. Need approved alternate system per III.L.
5. Need detection.
6. Systems approach will be used to help justify area.

NRC Policy

1. If area has a lot of cables trays - follow SRP.
2. If area is enclosed in conduit, no large in-situ combustibles, deviations are likely to be granted on the basis of a good technical analysis.

3. In containment, 5-10 ft. separation is acceptable (horizontal or vertical).
4. Look at spraydown of safety-related equipment due to sprinkler actuation.
5. Acceptable definition of transient combustible is 5 gal. of heptane.
6. No transient combustible need be assumed in containment.

NRC Questions

1. What is qualification for Barriers - Reference construction standards.
2. What is qualification for penetrations. Make in accordance with SRP.
3. Detection System - What kind? Pyrotronics System III.
4. Detector in control room ventilation intake? Yes.
5. What is detection system in control room? Local panel annunciation in control room. Go to local panel to determine exact location. Does system meet 72D? NRC wants a block diagram of system.
6. Water supply. What is greatest water demand + 500 gallons?
7. Would a single break eliminate both primary and secondary protections? Could a single break wipe out all standpipes? Are standpipes still dry or permanently piped?
8. Pumps - UL package installed per 20? Yes.
9. Is pump annunciation to control room IHW 20?
10. Any better piping drawings of fire protection system? Send to Staug.
11. Valve supervision - will comply with Appendix A? What are provisions for supervision?
12. Fire detection will be required in most areas containing safe shutdown equipment.
13. Areas adjacent to control room should have 1 hour barrier and be sprinkled.
14. Control room must have general area detectors.
15. Need diagram if H₂ piping in safety-related areas.
16. Would like a colored drawing showing all safe shutdown equipment locations.