



Duquesne Light

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October 4, 1978

Director of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Attention: A. Schwencer, Chief
Branch No. 1
Division of Operating Reactors
Washington, D. C. 20555

Reference: Beaver Valley Power Station, Unit No. 1
Docket No. 50-334
Request for Amendment to Operating License

Gentlemen:

Enclosed are three (3) signed originals and thirty-seven (37) copies of proposed Technical Specifications for Overpressure Protection in accordance with your August 28, 1978 request.

We agree with your determination that this is a Class III Amendment. Since we provided proposed Technical Specifications for Overpressure Protection with our November, 1977 submittal on this subject, we believe that submittal of Standard Technical Specifications at your request should be considered as a part of the original submittal which predates the fee schedule requirements of 10CFR 170.22a

Having determined that the fee referenced in your letter is not applicable, we have, therefore, not submitted one with this transmittal.

Very truly yours,

C. N. Dunn
Vice President, Operations

Attachment

LPDR

7810 110 144

PDR ADOCK 050-334 P 7810BY

(CORPORATE SEAL)

Attest:

H. W. Staas
Secretary

COMMONWEALTH OF PENNSYLVANIA)

) SS:

COUNTY OF ALLEGHENY)

On this 4th day of OCTOBER, 1978, before me,
DONALD W. SHANNON, a Notary Public in and for said Commonwealth
and County, personally appeared C. N. Dunn, who being duly sworn,
deposed, and said that (1) he is Vice President of Duquesne Light,
(2) he is duly authorized to execute and file the foregoing Sub-
mittal on behalf of said Company, and (3) the statements set forth
in the Submittal are true and correct to the best of his knowledge,
information and belief.

DONALD W. SHANNON, Notary Public
Pittsburgh, Allegheny Co., Pa.
My Commission Expires
June 7, 1979

PROPOSED TECHNICAL SPECIFICATION

REACTIVITY CONTROL SYSTEMS

CHARGING PUMP - SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.1.2.3 One charging pump in the boron injection flow path required by Specification 3.1.2.1 shall be OPERABLE and capable of being powered from an OPERABLE emergency bus.

APPLICABILITY: MODES 5 and 6.

SURVEILLANCE REQUIREMENTS

4.1.2.3 All charging pumps, except the above required OPERABLE pump, shall be demonstrated inoperable at least once per 12 hours verifying that the motor circuit breakers have been removed from their electrical power supply circuits.

PROPOSED TECHNICAL SPECIFICATION

REACTIVITY CONTROL SYSTEMS

CHARGING PUMPS - OPERATING

LIMITING CONDITION FOR OPERATION

3.1.2.4 At least two charging pumps shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4[#].

ACTION:

With only one charging pump OPERABLE, restore at least two charging pumps to OPERABLE status within 72 hours or be in at least HOT STANDBY and borated to a SHUTDOWN MARGIN equivalent to at least 1% $\Delta k/k$ at 200°F within the next 6 hours; restore at least two charging pumps to OPERABLE status within the next 7 days or be in COLD SHUTDOWN within the next 30 hours.

SURVEILLANCE REQUIREMENTS

4.1.2.4.1 At least two charging pumps shall be demonstrated OPERABLE by verifying, that on recirculation flow, each pump develops a discharge pressure of ≥ 2402 psig when tested pursuant to Specification 4.0.5.

4.1.2.4.2 All charging pumps, except the above required OPERABLE pump, shall be demonstrated inoperable at least once per 12 hours whenever the temperature of one or more of the RCS cold legs is ≤ 275 F by verifying that the motor circuit breakers have been removed from their electrical power supply circuits.

[#] A maximum of one centrifugal charging pump shall be OPERABLE whenever the temperature of one or more of the non isolated RCS cold legs is ≤ 275 F.

3/4.1 REACTIVITY CONTROL SYSTEMS

BASES

3/4.1.1 BORATION SYSTEMS

The limitations for a maximum of one centrifugal charging pump to be OPERABLE and the Surveillance Requirement to verify all charging pumps except the required OPERABLE pump to be inoperable below 275°F provides assurance that a mass addition pressure transient can be relieved by the operation of a single PORV.

REACTOR COOLANT SYSTEM

BASES

The OPERABILITY of two PORVs or an RCS vent opening of greater than 3.14 square inches ensures that the RCS will be protected from pressure transients which could exceed the limits of Appendix G to 10 CFR Part 50 when one or more of the RCS cold legs are $\leq 275^{\circ}\text{F}$. Either PORV has adequate relieving capability to protect the RCS from overpressurization when the transient is limited to either (1) the start of an idle RCS with the secondary water temperature of the steam generator $\leq 50^{\circ}\text{F}$ above the RCS cold leg temperature or (2) the start of a charging pump and its injection into a water solid RCS.

PROPOSED TECHNICAL SPECIFICATION

3/4.4 REACTOR COOLANT SYSTEM

3/4.4.1 REACTOR COOLANT LOOPS

NORMAL OPERATION

LIMITING CONDITION FOR OPERATION

3.4.14 A reactor coolant pump in a non isolated loop shall not be started with one or more of the non isolated RCS cold leg temperature $\leq 275^{\circ}\text{F}$ unless:

1. The pressurizer water volume is less than 1120 cubic feet or
2. The secondary water temperature of each steam generator is less than 50°F above each of the RCS cold leg temperatures.

PROPOSED TECHNICAL SPECIFICATION

REACTOR COOLANT SYSTEM

OVERPRESSURE PROTECTION SYSTEMS

LIMITING CONDITION FOR OPERATION

3.4.9.3 At least one of the following overpressure protection systems shall be OPERABLE:

- a. Two power operated relief valves (PORVs) with a lift setting of ≤ 350 psig, or
- b. A reactor coolant system vent of ≥ 3.14 square inches.

APPLICABILITY: When the temperature of one or more of the non isolated RCS cold legs is $\leq 275^{\circ}\text{F}$.

ACTION:

- a. With one PORV inoperable, either restore the inoperable PORV to OPERABLE status within 7 days or depressurize and vent the RCS through a 3.14 square inch vent(s) within the next 8 hours; maintain the RCS in a vented condition until both PORVs have been restored to OPERABLE status.
- b. With both PORVs inoperable, depressurize and vent the RCS through a 3.14 square inch vent(s) within 8 hours; maintain the RCS in a vented condition until both PORVs have been restored to OPERABLE status.
- c. In the event either the PORVs or the RCS vent(s) are used to mitigate a RCS pressure transient, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days. The report shall describe the circumstances initiating the transient, the effect of the PORVs or vent(s) on the transient, and any corrective action necessary to prevent recurrence.
- d. The provisions of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENT

4.4.9.3.1 Each PORV shall be demonstrated OPERABLE BY:

PROPOSED TECHNICAL SPECIFICATION

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- a. Performance of a CHANNEL FUNCTIONAL TEST on the PORV actuation channel, but excluding valve operation, within 31 days prior to entering a condition in which the PORV is required OPERABLE and at least once per 31 days thereafter when the PORV is required OPERABLE.
- b. Performance of a CHANNEL CALIBRATION on the PORV actuation channel at least once per 18 months.
- c. Verifying the PORV isolation valve is open at least once per 72 hours when the PORV is being used for overpressure protection.
- d. Testing in accordance with the inservice test requirements for ASME Category C valves pursuant to Specification 4.0.5.

4.4.9.3.2 The RCS vent(s) shall be verified to be open at least once per 12 hours* when the vent(s) is being used for overpressure protection.

* Except when the vent pathway is provided with a valve which is locked, sealed, or otherwise secured in the open position, then verify these valves open at least once per 31 days.

PROPOSED TECHNICAL SPECIFICATION

EMERGENCY CORE COOLING SYSTEMS

ECCS SUBSYSTEMS - $T_{avg} < 350^{\circ}\text{F}$

LIMITING CONDITION FOR OPERATION

3.5.3 As a minimum, one ECCS subsystem comprised of the following shall be OPERABLE:

- a. One OPERABLE centrifugal charging pump,[#]
- b. One OPERABLE Low Head Safety Injection Pump, and
- c. An OPERABLE flow path capable of taking suction from the refueling water storage tank upon being manually realigned and transferring suction to the containment sump during the recirculation phase of operation.

APPLICABILITY: MODE 4.

ACTION:

- a. With no ECCS subsystem OPERABLE because of the inoperability of either the centrifugal charging pump or the flow path from the refueling water storage tank, restore at least one ECCS subsystem to OPERABLE status within 1 hour or be in COLD SHUTDOWN within the next 20 hours.
- b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date.

[#] A maximum of one centrifugal charging pump and one safety injection pump shall be OPERABLE whenever the temperature of one or more of the non isolated RCS cold legs is $\leq 275^{\circ}\text{F}$.

PROPOSED TECHNICAL SPECIFICATIONS

EMERGENCY CORE COOLING SYSTEMS

ECCS SUBSYSTEMS - $T_{avg} < 350^{\circ}\text{F}$

SURVEILLANCE REQUIREMENTS

4.5.3.1 The ECCS subsystem shall be demonstrated OPERABLE per the applicable Surveillance Requirements of 4.5.2.

4.5.3.2 All charging pumps and safety injection pumps, except the above required OPERABLE pumps, shall be demonstrated inoperable at least once per 12 hours whenever the temperature of one or more of the non isolated RCS cold legs is $\leq 275^{\circ}\text{F}$ by verifying that the motor circuit breakers have been removed from their electrical power supply circuits.

PROPOSED TECHNICAL SPECIFICATION

EMERGENCY CORE COOLING SYSTEMS

BASES

The limitation for a maximum of one charging pump to be OPERABLE and the Surveillance Requirement to verify all charging pumps except that required OPERABLE pump to be inoperable below 275°F provides assurance that a mass addition pressure transient can be relieved by the operation of a single PORV.