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Attachment A

ADDITION OF TECHNICAL SPECIFICATION 3/4.7.1.6 AND ASSOCIATED BASES TO ASSURE OPERABILITY OF STEAM GENERATOR 10 PERCENT ATMOSPHERIC DUMP VALVES

A. DESCRIPTION OF AMENDMENT REQUEST

This license amendment request (LAR) proposes to add Technical Specification 3/4.7.1.6 and associated Bases to assure the operability of the steam generator (SG) 10 percent atmospheric dump valves (ADV) for mitigation of a steam generator tube rupture (SGTR) accident.

The proposed amendment would add limiting condition for operation (LCO) action statements, surveillance requirements, and bases to the technical specifications for the SG ADVs. The proposed technical specification LCO action statements and surveillance requirements will require the operability of the SG ADVs using remote manual controls with safety-related backup air bottles and will require the associated block valve for each SG ADV to be open. The proposed LCO requires all four SG ADVs to be operable. Action statements are proposed limiting plant operation with less than four SG ADVs operable. Surveillance requirements have been proposed to verify that the backup air supply is available, to verify that the SG ADV block valves are open, and to verify that the SG ADVs are capable of being opened and closed using remote manual controls and the backup air bottles.

The SG ADVs are already required to be operable by Technical Specification 3/4.6.3 to satisfy containment isolation requirements. Therefore, appropriate controls to maintain these valves operable for containment isolation purposes already exist.

The proposed SG ADV technical specification and associated bases are included in Attachment B.

B. BACKGROUND

In accordance with License Condition 2.C.(9) of Amendment 12 to Facility Operating License No. DPR-82, PG&E submitted a revised SGTR analysis for DCPD Units 1 and 2 (PG&E Letter No. DCL-88-114, dated April 29, 1988). As discussed with the NRC Staff, PG&E concurs with the NRC Staff's position that a technical specification is needed to assure SG ADV operability.

As described in the SGTR analysis (DCL-88-114), the SG ADVs are relied upon, following an SGTR accident concurrent with loss of offsite power, to cool down the primary plant to facilitate equalizing pressures between the reactor coolant system and the faulted steam generator. This eliminates further primary to secondary leakage and potential subsequent overflow of the affected steam generator.

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The current design of the SG ADV system configuration will be enhanced during the fourth refueling outage for each unit to increase the reliability of these valves in the event of an SGTR. Since this LAR assumes the planned enhancements are in place, the technical specification is scheduled for DCPD implementation prior to Cycle 5 startup of each unit.

Until the proposed Technical Specification 3/4.7.1.6 is approved, the operability of the SG ADVs will be administratively controlled by plant operating procedures. DCPD Operating Procedure (OP) 0-20, "Operating Order 0-20: Operability Requirements for the Steam Generator 10% Dump Valves (ADV)," has been established and defines the operability requirements for the SG ADVs consistent with the proposed technical specification. The SG ADVs are surveilled in accordance with OP 0-20 to monitor their operability. Also, Surveillance Test Procedure V-3R1, "Exercising 10% Atmospheric Dump Valves PCV-19, 20, 21, 22," requires, on a quarterly basis, exercising of the SG ADVs and monitoring of the stroke opening and closing times.

The SG ADV system enhancements to increase the reliability of these valves will be installed during the fourth refueling outage for each unit (scheduled for February 1991 for Unit 1 and September 1991 for Unit 2).

As described in PG&E Letter No. DCL-90-052, dated February 22, 1990, the SG ADVs are being upgraded to:

1. Provide an independent vital control power source for the backup air bottle controls for each valve, and
2. Increase operator flexibility by providing for manual selection of backup air supplies.

The system enhancements require a lead time for development of the detailed design changes and an extended outage for installation. As such, the enhancements are scheduled for installation during the fourth refueling outages.

C. JUSTIFICATION

This LAR proposes to add Technical Specification 3/4.7.1.6 and associated Bases to assure the operability of the SG ADVs, which are required for mitigation of an SGTR accident as described in the SGTR analysis (DCL-88-114).

Similar license amendments to assure the operability of the SG ADVs have been issued for Catawba, Wolf Creek, Comanche Peak, and Seabrook.

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D. SAFETY EVALUATION

The DCCP design includes four SG ADVs, one SG ADV for each steam generator. The SG ADV design includes remote manual controls and seismically qualified backup air bottles.

The operability of all four SG ADVs ensures that following an SGTR accident concurrent with loss of offsite power, subcooling can be achieved, consistent with assumptions used in the SGTR analysis, to facilitate equalizing pressures between the reactor coolant system and the faulted steam generator. This eliminates further primary to secondary leakage and potential subsequent overflow of the affected SG. The analysis assumes that the SG ADV on the ruptured SG is unavailable, and that the other three SG ADVs are used for heat removal. The proposed surveillance requirement for the SG ADVs backup air bottles ensures that the ADVs will be available to mitigate the consequences of an SGTR accident concurrent with loss of offsite power. The proposed number of operable SG ADVs assures that subcooling can be achieved within the assumed time constraints and in accordance with single failure assumptions used in the SGTR analysis.

Each SG ADV is equipped with a manual block valve that is locally operated. To assure that subcooling can be achieved within the assumed time constraints of the SGTR analysis, the manual block valve is required to be open for the associated SG ADV to be operable. The proposed surveillance requirements include verification that the SG ADV block valves are open.

The proposed technical specification is applicable in plant operational Modes 1, 2, and 3. The proposed Technical Specification is not applicable in Modes 4, 5, and 6. In Mode 4, the 10 percent SG ADVs are not needed for the RCS cooldown following a SGTR accident because depressurization that will terminate the SG tube leak can be accomplished with the subcooling existing at temperatures $\leq 350^{\circ}\text{F}$ (Mode 4). In Modes 5 and 6, the RCS temperature is by definition below 200°F and depressurization can be accomplished without any additional cooldown.

The restoration time periods provided in the proposed action statements are based on the low probability of having an SGTR event coincident with a loss of offsite power during the time period that one or more of the SG ADVs are out of service. The allowed outage time (AOT) of seven days for the case of one inoperable SG ADV is longer than the time period (72 hours) allowed for the case of two inoperable SG ADVs. In addition, a probabilistic risk assessment (PRA) has been performed which supports an approximate doubling of the seven day and 72 hour AOTs. However, to meet the current needs of DCCP, this license amendment is proposing AOTs of seven days and 72 hours, respectively. The proposed AOTs are consistent with previously approved license amendments for the addition of SG ADV technical specifications.

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The surveillance requirement intervals of the DCPD inservice valve testing program for ASME Code valves are considered appropriate for the SG ADVs. As such, the surveillance requirement in the proposed technical specification requires the verification at least once per 18 months that all SG ADVs will operate using the remote manual controls and the safety-related backup air bottles.

Until the proposed SG ADV technical specification is approved, the operability of the SG ADVs will be administratively controlled by plant operating procedures. OP O-20 has been established and controls the operability requirements for the SG ADVs consistent with the proposed technical specification.

Based upon the information provided above, PG&E believes that there is reasonable assurance that the proposed LAR will not adversely affect the health and safety of the public.

E. NO SIGNIFICANT HAZARDS EVALUATION

PG&E has evaluated the no significant hazard considerations involved with the proposed amendment, focusing on the three standards set forth in 10 CFR 50.92(c) as quoted below:

The Commission may make a final determination, pursuant to the procedures in paragraph 50.91, that a proposed amendment to an operating license for a facility licensed under paragraph 50.21(b) or paragraph 50.22 or a testing facility involves no significant hazards considerations, if operation of the facility in accordance with the proposed amendment would not:

- (i) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (ii) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (iii) Involve a significant reduction in a margin of safety.

The following evaluation is provided for the no significant hazards consideration standards.

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed change is administrative and constitutes additional limitations and controls not presently included in the technical specifications to assure that the SG ADVs are operable for mitigation of an SGTR event.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.



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2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed change will be adding additional technical specification requirements for existing components. No new mode of operation is introduced by this change. There is no change in the method by which any safety related system performs its function. In addition, the design changes to be implemented during the fourth refueling outage of each unit are enhancements and increase the reliability of the SG ADVs.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

The proposed change is administrative, and will add technical specification restrictions to existing equipment to ensure equipment operability for mitigation of an SGTR event. The proposed technical specification requirements do not alter the margins of safety established in previous accident and transient analysis.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

F. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the above safety evaluation, PG&E concludes that the activities associated with this LAR satisfy the no significant hazards consideration standards of 10 CFR 50.92(c) and, accordingly, a no significant hazards consideration finding is justified.

G. ENVIRONMENTAL EVALUATION

PG&E has evaluated the proposed change and determined that the change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed change is not required.



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