



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 180 AND 161 TO FACILITY OPERATING
LICENSE NOS. DPR-70 AND DPR-75
PUBLIC SERVICE ELECTRIC & GAS COMPANY
PHILADELPHIA ELECTRIC COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY
SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-272 AND 50-311

1.0 INTRODUCTION

By letter dated September 28, 1995, the Public Service Electric & Gas Company (the licensee) submitted a request for changes to the Salem Nuclear Generating Station, Unit Nos. 1 and 2, Technical Specifications (TSs). The requested changes will remove "Reactor Coolant System - Chemistry" Specification 3/4.4.7 for Salem Unit 1 and Specification 3/4.4.8 for Salem Unit 2 and relocate these sections to the Salem Updated Final Safety Analysis Report (UFSAR), and the Surveillance Requirements and Limiting Conditions for Operations to applicable plant procedures controlled by the 10 CFR 50.59 process. In addition, the applicability will be changed from "At all times" to "Modes 1, 2, 3, 4, 5 and 6."

2.0 BACKGROUND

Section 182a of the Atomic Energy Act (the "Act") requires applicants for nuclear power plant operating licenses to state the TSs to be included as part of the license. The Commission's regulatory requirements related to the content of the TSs are set forth in 10 CFR 50.36. That regulation requires that the TS include items in five specific categories, including (1) safety limits, limiting safety system settings and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls. However, the regulation does not specify the particular requirements to be included in a plant's TSs.

The Commission has provided guidance for the contents of TSs in its "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors" ("Final Policy Statement"), 58 FR 39132 (July 22, 1993), in which the Commission indicated that compliance with the final policy statement satisfies Section 182a of the Act. In particular, the Commission indicated that certain items could be relocated from the TSs to licensee-controlled

documents, consistent with the standard enunciated in *Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 273 (1979). In that case, the Atomic Safety and Licensing Appeal Board indicated that "technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operation is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety."

Consistent with this approach, the Final Policy Statement identified four criteria to be used in determining whether a particular matter is required to be included in the TSs, as follows:

- (1) installed instrumentation that is used to detect, and indicate in the control room a significant abnormal degradation of the reactor coolant pressure boundary;
- (2) a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
- (3) a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier; and
- (4) a structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to public health and safety.¹

As a result, existing TS requirements which fall within or satisfy any of the criteria in the Final Policy Statement must be retained in the TSs, while those TS requirements which do not fall within or satisfy these criteria may be relocated to other licensee-controlled documents.

3.0 EVALUATION

The licensee has proposed relocating TS 3/4.4.7, "Reactor Coolant System - Chemistry," to the UFSAR. The reactor coolant chemistry program provides limits on particular chemical properties of the primary coolant, and

¹ The Commission recently adopted amendments to 10 CFR 50.36, pursuant to which the rule was revised to codify and incorporate these criteria. See Final Rule, "Technical Specifications," 60 FR 36953 (July 19, 1995). The Commission indicated that reactor core isolation cooling, isolation condenser, residual heat removal, standby liquid control, and recirculation pump trip systems are included in the TS under Criterion 4, although it recognized that other structures, systems, and components could also meet this criterion. (60 FR 36956)

surveillance practices to monitor those properties, to ensure that degradation of the reactor coolant pressure boundary is not exacerbated by poor chemistry conditions. However, degradation of the reactor coolant pressure boundary is a long-term process, and there are other, direct means to monitor and correct the degradation of the reactor coolant pressure boundary which are controlled by regulations and TSs; for example, in-service inspection and primary coolant leakage limits. Therefore, requirements related to the chemistry program do not constitute initial conditions that are assumed in any design basis accident or transient related to the Reactor Coolant System (RCS) integrity, nor does the reactor coolant chemistry program constitute a primary success path or risk-significant safety function warranting TS requirements under the criteria in the Final Policy Statement.

The licensee states that the reactor coolant chemistry requirements will be maintained in the UFSAR. Any changes to these chemistry requirements would be evaluated in accordance with 10 CFR 50.59 and if any changes are determined to involve an unreviewed safety question, the license must submit a license amendment to obtain prior NRC review and approval.

In addition, the licensee has proposed changing TS 3.4.7 applicability from "At all times" to "Modes 1,2,3,4,5 and 6." Currently, the licensee is required by the TSs to perform water chemistry sampling every 72 hours in all modes for the following parameters: dissolved oxygen, chloride, and fluoride. The proposed change will only require chemistry sampling during Modes 1, 2, 3, 4, 5 and 6.

For the Salem Units, moving all fuel to the fuel pool is a common outage activity and once the vessel is defueled this condition is commonly referred to as the "Mode Undefined." The Mode Undefined allows the licensee to take relief from certain equipment operability requirements in the TSs and allows them to drain water from the reactor vessel to support outage related work.

The Bases for the Technical Specification is to minimize and reduce the potential for RCS leakage or failure due to stress corrosion cracking. The effects of exceeding the oxygen, chloride and fluoride TS limits are time and temperature dependent. However, high stress and high temperature conditions that lead to stress corrosion, are absent in the Mode Undefined.

Also, with the relocation of the RCS - Chemistry from the TS to the UFSAR, plant procedure requirements will continue to provide adequate assurance that concentrations in excess of the limits will be detected.

In conclusion, the above relocated requirements relating to RCS - Chemistry are not required to be in the TS under 10 CFR 50.36 or §182a of the Atomic Energy Act, and are not required to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety. Further, they do not fall within any of the four criteria set forth in the Commission's Final Policy Statement, discussed above. In addition, the staff finds that sufficient regulatory controls exist under 10 CFR 50.59 [or

such other specific regulatory control as may be applicable in the particular instance] to assure continued protection of the public health and safety. Accordingly, the staff has concluded that these requirements may be relocated from the TS to the licensee's UFSAR.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Jersey State official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (60 FR 56369). The amendment also relates to changes in recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (10). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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