

Public Service  
Electric and Gas  
Company

Joseph J. Hagan

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-1200

Vice President - Nuclear Operations

**MAY 04 1995**

LR-N95056

LCR 95-06

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

Gentlemen:

**LICENSE AMENDMENT APPLICATION  
ONE-TIME EXTENSION OF SURVEILLANCE  
REQUIREMENT INTERVAL  
SALEM GENERATING STATION UNIT NO. 1  
FACILITY OPERATING LICENSE DPR-70  
DOCKET NO. 50-272**

This letter submits an application for amendment to Appendix A of Facility Operating License DPR-70 for the Salem Generating Station Unit No. 1. The application for amendment is being filed in accordance with 10CFR50.90. Pursuant to the requirements of 10CFR50.91(b)(1), a copy of this request for amendment has been sent to the State of New Jersey.

The proposed Technical Specification change contained herein represents a one-time change to Specification 3/4.6.1.2 "Containment Leakage." Public Service is requesting an extension for this surveillance requirement until the end of the next refueling outage, currently scheduled to start in September 1995, to facilitate testing during a refueling outage.

Typically, an eighteen month surveillance interval, with the 25% extension allowed by Technical Specification 4.0.2 is sufficient to accommodate normal variations in the length of an operating cycle. However, Salem Unit 1 entered a forced outage on April 7, 1994 during the 12th fuel cycle. This outage lasted approximately 2 months until June 4, 1994 when Salem Unit 1 resumed power operation. With usable fuel remaining in the current core, Public Service has rescheduled the April 1995 refueling outage to September 1995 to support the summertime peak period. Public Service, therefore, requests that this application for amendment be processed by July 1, 1995 since the surveillance, including the 25% allowance, will become overdue shortly thereafter.

If a forced outage occurs prior to the scheduled refueling outage, Public Service will perform the surveillance, time permitting, but will not prolong the forced outage for that purpose.

150031

9505220180 950504  
PDR ADCK 05000272  
P PDR

*Acc  
11*

MAY 04 1995

Document Control Desk  
LR-N95056

-2-

The proposed change has been evaluated in accordance with 10CFR50.91(a)(1), using the criteria in 10CFR50.92(c), and it has been determined that this request involves no significant hazards considerations.

A description of the requested amendment, supporting information and analysis for the change, and the basis for a no significant hazards consideration determination are provided in Attachment 1. The Technical Specification page affected by the proposed change is provided in Attachment 2 with pen and ink changes.

Should you have any questions regarding this request, we will be pleased to discuss them with you.

Sincerely,



Affidavit  
Attachments (2)

C Mr. T. T. Martin, Administrator - Region I  
U. S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406

Mr. L. Olshan, Licensing Project Manager - Salem  
U. S. Nuclear Regulatory Commission  
One White Flint North  
11555 Rockville Pike  
Mail Stop 14E21  
Rockville, MD 20852

Mr. C. Marschall (S09)  
USNRC Senior Resident Inspector

Mr. K. Tosch, Manager IV  
NJ Department of Environmental Protection  
Division of Environmental Quality  
Bureau of Nuclear Engineering  
CN 415  
Trenton, NJ 08625





ATTACHMENT 1

PROPOSED CHANGE TO TECHNICAL SPECIFICATIONS

LICENSE AMENDMENT APPLICATION

ONE-TIME EXTENSION OF SURVEILLANCE REQUIREMENT INTERVAL

SALEM GENERATING STATION UNIT NO. 1

FACILITY OPERATING LICENSE DPR-70

DOCKET NO. 50-272

LR-N95056

LCR 95-06

I. DESCRIPTION OF THE PROPOSED CHANGE

This amendment extends the surveillance interval for Surveillance Requirement 4.6.1.2.a which would expire prior to the rescheduled refueling outage for Salem Unit 1 in September 1995. The specification is revised by replacing the existing footnote with the following:

"The fifth inservice Integrated Leak Rate Test shall be performed prior to or during the twelfth refueling outage, but no later than November 30, 1995."

II. REASONS FOR THE CHANGE

Under normal circumstances, an eighteen month surveillance interval, with the 25% extension allowed by Technical Specification 4.0.2 is sufficient to accommodate minor variations in the length of an operating cycle. However, due to a two month forced outage during the 12th fuel cycle, Salem Unit 1 retained usable fuel in the current core. Given the availability of the fuel and the approaching summertime peak period, Public Service has rescheduled the April 1995 refueling outage to September 1995.

III. JUSTIFICATION FOR CHANGE

The containment leakage specification is intended to provide assurance that the total containment leakage volume will remain within the limit assumed in the accident analyses at the peak accident pressure. In this regard, the Technical Specification limit is conservatively set at 75% of the accident parameter to account for the possibility of degradation of containment leakage barriers between leakage tests.

These leakage tests are categorized as Type A tests, Type B and Type C. The Type A tests are defined in 10CFR50, Appendix J, Section II.F as "... tests intended to measure the primary reactor containment overall integrated leakage rate." Similar definitions identify the Type B tests as local leakage detection of various containment penetrations (e.g., piping

ATTACHMENT 1  
ONE-TIME EXTENSION OF SURVEILLANCE  
REQUIREMENT INTERVAL

LR-N95056  
LCR 95-06

penetrations, air lock door seals, etc.) and the Type C tests as determination of containment isolation valve leakage rates.

The current surveillance interval for the Type A Test, and the associated containment liner surveillance (§4.6.1.6.1), is 40 months  $\pm 10$  (see 10CFR50, Appendix J, Section III.D.1(a)) and is further clarified by 10CFR50, Appendix J, Section III.D.1(b) as to when the Type A test shall be performed. Specifically, "... when the plant facility is non-operational and secured in the shutdown condition ...." The Type B and C tests are required once per twenty four months. Since the last Type A test was performed at the end of the 1R10 refueling outage, April 1991, this surveillance interval, including the 25% grace period, will expire by July 7, 1995. Performance of the Type A test by November 30, 1995, at the latest, will result in an interval of 54.7 months since the last Type A test.

While this is an increase of approximately 37% beyond the normal 40 month surveillance interval, the following points were noted:

- the purpose of containment leak rate testing is to detect any containment leakage resulting from active or passive failures in the containment isolation boundaries. Since the Type B and C tests will not be modified by this submittal, they will continue to effectively detect containment leakage resulting from degradation of active isolation components (e.g., valves) as well as passive barriers (e.g., sealing material within the containment penetrations),
- containment leak rate testing is also used to determine the leakage through the containment shell (i.e., liner). Leakage through the shell can be aggravated by either environmental factors (e.g., pressure, temperature, radiation, chemicals, etc.) or the failure to perform required maintenance which would leave the structure with reduced capability.

Structural degradation from environmental factors is a gradual phenomenon requiring periods of time well in excess of the proposed four month extension. Changes to the existing maintenance program, concerning containment structural integrity, are infrequent and receive extensive review to ensure that containment capabilities are not diminished, and

**ATTACHMENT 1  
ONE-TIME EXTENSION OF SURVEILLANCE  
REQUIREMENT INTERVAL**

**LR-N95056  
LCR 95-06**

- historically, Salem 1 has not experienced an unacceptable Type "A" test. A review of the four Type "A" tests performed (see Table 1) substantiate the fact that Salem 1 has a low leakage containment and that the one-time extension will not jeopardize the ability of the containment in performing its intended function.

In light of the aforementioned considerations, Public Service believes that an extension of the Type "A" surveillance to the end of the 1R12 refueling outage is justified.

Table 1 - Unit 1 ILRT History

Date	Results (@ 95% upper confidence level) sccm	%La	Results corrected for as found data	%La
8/79	134,075	0.620%	N/A	N/A
8/84	88,663	0.410%	107,030	0.49%
12/87	92,988	0.430%	135,666	0.63%
4/91	74,548	0.344%	90,338	0.42%

Table 1 Notes

As per Specification §3.6.1.2, the leakage limit for an integrated leakage rate test (ILRT) (i.e., Type "A") is 0.75 La, which is 162,188 sccm (standard cubic centimeters/minute). As indicated above, there have been no Type A test failures at Salem Generating Station Unit 1. Type A Test results were not corrected for "as found" conditions until 1984. The "as found" corrections are described in NRC Information Notice 85-71.

The Unit Type A test history provides substantial justification for the proposed extension. As can be seen in Table 1, four (4) Type A tests have been performed to date and none have exceeded the 10CFR50 Appendix J acceptance criteria of 1.0 La, where La is equal to 0.1% per day of containment atmosphere at a peak accident pressure of 47 psig. Also, considerable margin exists between the Type A test results and the Technical Specification limit of 0.75% La. These tests demonstrate that the proposed one-time extension would not jeopardize the ability of the containment to maintain the leakage rate at or below the required Type A limits.

The Type A tests and associated visual examinations have not identified any conditions that would challenge the leak tight integrity of the containment structure or leakage paths that have not been identified by the local leak rate test (Type B and C) program. Corrective action has been taken on penetrations with unacceptable leakage. The penetrations with a history of unacceptable as found leakage are limited to the containment air lock shaft seals.

IV. DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

PSE&G has, pursuant to 10CFR50.92, reviewed the proposed amendment to determine whether our request involves a significant hazards consideration. We have determined that operation of Salem Generating Station Unit 1, in accordance with the proposed change:

1. Will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change involves no hardware changes, no changes to the operation of any systems or components, and no changes to existing structures. This change is temporary, allowing a one-time extension of a specific surveillance requirement for cycle 12 to allow surveillance testing to coincide with the twelfth refueling outage. The proposed surveillance interval extension is short and will not result in any significant reduction in structural reliability nor will the extension affect the ability of the structure in performing its intended functions. To preclude the possibility of an undetected containment failure/leakage at a valve or penetration seal, Type "B" and "C" tests will continue to be performed as required by the Technical Specifications. Therefore, this change will not involve a significant increase in the probability or consequences of any accidents previously evaluated.

2. Will not create the possibility of a new or different kind of accident from any previously evaluated.

Extending the surveillance interval for the performance of specific testing will not create the possibility of any new or different kinds of accident. No changes are required to any system configurations, plant equipment, or analyses. Therefore, this change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Will not involve a significant reduction in a margin of safety.

The proposed change will not alter any assumptions, initial conditions, or results of any accident analyses. The safety limits assumed in the accident analyses and the design function of the structure required to mitigate the consequences of any postulated accidents will not be changed since only the surveillance interval is being extended. Historical performance indicates a high degree

ATTACHMENT 1  
ONE-TIME EXTENSION OF SURVEILLANCE  
REQUIREMENT INTERVAL

LR-N95056  
LCR 95-06

of reliability, and surveillance testing performed during continued plant operation will verify that Salem 1 will remain within analyzed limits. Consequently, the change does not involve a significant reduction in a margin of safety.

V. CONCLUSIONS

Based on the above, PSE&G has determined that the proposed change does not involve a significant hazards consideration.