

ATTACHMENT TO LICENSE AMENDMENT NO. 188

FACILITY OPERATING LICENSE NO. DPR-43

DOCKET NO. 50-305

Replace the following page of Facility Operating License No. DPR-43 with the attached revised page. The changed area is identified by a marginal line.

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t. LEAKAGE

LEAKAGE shall be:

a. Identified LEAKAGE

1. LEAKAGE, such as that from pump seals or valve packing (except reactor coolant pump (RCP) seal water injection or leakoff), that is captured and conducted to collection systems or a sump or collecting tank.
2. LEAKAGE into the containment atmosphere from sources that are both specifically located and known either not to interfere with the operation of leakage detection systems or not to be pressure boundary LEAKAGE, or
3. Reactor Coolant System (RCS) LEAKAGE through a steam generator to the Secondary System (primary to secondary LEAKAGE);

b. Unidentified Leakage

All LEAKAGE (except RCP seal water injection or leakoff) that is not identified LEAKAGE, and

c. Pressure Boundary Leakage

LEAKAGE (except primary to secondary LEAKAGE) through a nonisolable fault in an RCS component body, pipe wall, or vessel wall.

d. RCS Operational LEAKAGE

1. When the average RCS temperature is $> 200^{\circ}\text{F}$, RCS operational leakage shall be limited to:
 - A. No pressure boundary LEAKAGE,
 - B. 1 gpm unidentified LEAKAGE,
 - C. 10 gpm identified LEAKAGE, and
 - D. 150 gallons per day primary to secondary LEAKAGE through any one steam generator (SG).
2. If the limits contained in TS 3.1.d.1 are exceeded for reasons other than pressure boundary LEAKAGE or primary-to-secondary LEAKAGE, then reduce the LEAKAGE to within their limits within 4 hours.
3. If the limits contained in TS 3.1.d.1 for pressure boundary or primary to secondary LEAKAGE are exceeded, or the time limit contained in TS 3.1.d.2 is exceeded, then initiate action to:
 - Achieve HOT SHUTDOWN within 6 hours, and
 - Achieve COLD SHUTDOWN within an additional 30 hours.
4. When the reactor is critical and above 2% power, two reactor coolant leak detection systems of different operating principles shall be in operation with one of the two systems sensitive to radioactivity. Either system may be out of operation for up to 12 hours provided at least one system is OPERABLE.

g. Steam Generator (SG) Tube Integrity

1. When the average reactor coolant system temperature is $> 200^{\circ}\text{F}$ the following shall be maintained:

- A. SG Tube integrity shall be maintained, and
- B. All SG tubes satisfying the tube repair criteria shall be plugged in accordance with the Steam Generator Program.

Note: Separate entry condition is allowed for each SG tube.

2. If the requirements of TS 3.1.g.1.B are not met, then:

- A. Within 7 days verify tube integrity of the affected tube(s) is maintained until the next refueling outage or SG tube inspection, and
- B. Plug the affected tube(s) in accordance with the Steam Generator Program prior to entering INTERMEDIATE SHUTDOWN following the next refueling outage or SG tube inspection.

3. If the requirements of TS 3.1.g.2.A or TS 3.1.g.1.A are not met, then initiate action to:

- Achieve HOT SHUTDOWN within 6 hours
- Achieve COLD SHUTDOWN within an additional 30 hours.

4.18 RCS Operational LEAKAGE

APPLICABILITY

Applies to the surveillance requirements for RCS operational LEAKAGE in TS 3.1.d.

OBJECTIVE

To assure that the RCS operational LEAKAGE requirements are verified in a sufficient periodicity.

SPECIFICATION

Note 1: LEAKAGE surveillances are not required to be performed until 12 hours after establishment of steady state operation.

Note 2: TS 4.18.a is not applicable to primary to secondary LEAKAGE

- a. Verify RCS operational LEAKAGE, except for primary to secondary LEAKAGE, is within limits by performance of RCS water inventory balance each 72 hours.
- b. Verify primary to secondary LEAKAGE is ≤ 150 gallons per day through any one SG each 72 hours.

4.19 Steam Generator (SG) Tube Integrity

APPLICABILITY

Applies to the surveillance requirements for Steam Generator (SG) Tube Integrity in TS 3.1.g.

OBJECTIVE

To assure that the Steam Generator Tube Integrity requirements are verified in a sufficient periodicity.

SPECIFICATION

- a. Verify SG tube integrity in accordance with the Steam Generator Program.
- b. Verify that each inspected SG tube that satisfies the tube repair criteria is plugged in accordance with the Steam Generator Program prior to entering INTERMEDIATE SHUTDOWN following a SG tube inspection.

- b. Whenever integrity of a pressure isolation valve listed in Table TS 3.1-2 cannot be demonstrated, the integrity of the remaining pressure isolation valve in each high pressure line having a leaking valve shall be determined and recorded daily. In addition, the position of the other closed valve located in the high pressure piping shall be recorded daily.

b. Deleted

TABLE TS 4.2-2
STEAM GENERATOR TUBE INSPECTION

TS Table 4.2-2 has been deleted

b. Unique Reporting Requirements

1. Annual Radiological Environmental Monitoring Report

- A. Routine Radiological Environmental Monitoring Reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the OFF-SITE DOSE CALCULATION MANUAL (ODCM) and Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

2. Radioactive Effluent Release Report

Routine Radioactive Effluent Release Reports covering the operation of the unit for the previous calendar year shall be submitted by May 1 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODCM and the PCP, and in conformance with 10 CFR 50.36a and Section IV.B.1 of Appendix I to 10 CFR Part 50.

3. Special Reports

- A. Special reports may be required covering inspections, test and maintenance activities. These special reports are determined on an individual basis for each unit and their preparation and submittal are designated in the Technical Specifications.

(1) Special reports shall be submitted to the Director of the NRC Regional Office listed in Appendix D, 10 CFR Part 20, with a copy to the Director, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 within the time period specified for each report.

4. Steam Generator Tube Inspection Report

A report shall be submitted within 180 days after the initial entry into INTERMEDIATE SHUTDOWN following completion of an inspection performed in accordance with the Specification 6.22, Steam Generator (SG) Program. The report shall include:

- a. The scope of inspections performed on each SG,
- b. Active degradation mechanisms found,
- c. Nondestructive examination techniques utilized for each degradation mechanism,

- d. Location, orientation (if linear), and measured sizes (if available) of service induced indications,
- e. Number of tubes plugged during the inspection outage for each active degradation mechanism,
- f. Total number and percentage of tubes plugged to date,
- g. The results of condition monitoring, including the results of tube pulls and in-situ testing,
- h. The effective plugging percentage for all plugging in each SG.

6.22 STEAM GENERATOR (SG) PROGRAM

A Steam Generator Program shall be established and implemented to ensure that SG tube integrity is maintained. In addition, the Steam Generator Program shall include the following provisions:

- a. Provisions for condition monitoring assessments. Condition monitoring assessment means an evaluation of the "as found" condition of the tubing with respect to the performance criteria for structural integrity and accident induced leakage. The "as found" condition refers to the condition of the tubing during an SG inspection outage, as determined from the inservice inspection results or by other means, prior to the plugging of tubes. Condition monitoring assessments shall be conducted during each outage during which the SG tubes are inspected or plugged to confirm that the performance criteria are being met.
- b. Performance criteria for SG tube integrity. SG tube integrity shall be maintained by meeting the performance criteria for tube structural integrity, accident induced leakage, and operational LEAKAGE.
 1. Structural integrity performance criterion: All in-service steam generator tubes shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, and cool down and all anticipated transients included in the design specification) and design basis accidents. This includes retaining a safety factor of 3.0 against burst under normal steady state full power operation primary-to-secondary pressure differential and a safety factor of 1.4 against burst applied to the design basis accident primary-to-secondary pressure differentials. Apart from the above requirements, additional loading conditions associated with the design basis accidents, or combination of accidents in accordance with the design and licensing basis, shall also be evaluated to determine if the associated loads contribute significantly to burst or collapse. In the assessment of tube integrity, those loads that do significantly affect burst or collapse shall be determined and assessed in combination with the loads due to pressure with a safety factor of 1.2 on the combined primary loads and 1.0 on axial secondary loads.
 2. Accident induced leakage performance criterion: The primary to secondary accident induced leakage rate for any design basis accident, other than a SG tube rupture, shall not exceed the leakage rate assumed in the accident analysis in terms of total leakage rate for all SGs and leakage rate for an individual SG. Leakage is not to exceed 150 gpd per SG.
 3. The operational LEAKAGE performance criterion is specified in TS 3.1.d, "RCS Operational LEAKAGE."
- c. Provisions for SG tube repair criteria. Tubes found by inservice inspection to contain flaws with a depth equal to or exceeding 40% of the nominal tube wall thickness shall be plugged.

- d. Provisions for SG tube inspections. Periodic SG tube inspections shall be performed. The number and portions of the tubes inspected and methods of inspection shall be performed with the objective of detecting flaws of any type (e.g., volumetric flaws, axial and circumferential cracks) that may be present along the length of the tube, from the tube-to-tubesheet weld at the tube inlet to the tube-to-tubesheet weld at the tube outlet, and that may satisfy the applicable tube repair criteria. The tube-to-tubesheet weld is not part of the tube. In addition to meeting the requirements of d.1, d.2, and d.3 below, the inspection scope, inspection methods, and inspection intervals shall be such as to ensure that SG tube integrity is maintained until the next SG inspection. An assessment of degradation shall be performed to determine the type and location of flaws to which the tubes may be susceptible and, based on this assessment, to determine which inspection methods need to be employed and at what locations.
1. Inspect 100% of the tubes in each SG during the first refueling outage following SG replacement.
 2. Inspect 100% of the tubes at sequential periods of 144, 108, 72, and, thereafter, 60 effective full power months. The first sequential period shall be considered to begin after the first inservice inspection of the SGs. In addition, inspect 50% of the tubes by the refueling outage nearest the midpoint of the period and the remaining 50% by the refueling outage nearest the end of the period. No SG shall operate for more than 72 effective full power months or three refueling outages (whichever is less) without being inspected.
 3. If crack indications are found in any SG tube, then the next inspection for each SG for the degradation mechanism that caused the crack indication shall not exceed 24 effective full power months or one refueling outage (whichever is less). If definitive information, such as from examination of a pulled tube, diagnostic non-destructive testing, or engineering evaluation indicates that a crack-like indication is not associated with a crack(s), then the indication need not be treated as a crack.
- e. Provisions for monitoring operational primary to secondary LEAKAGE.