Attachment A

Dresden Station Unit 2
Proposed Amendment to DPR-19
Technical Specifications

Revised Pages: 108a
109
110
111-115
130

Note: Pages 111 through 115 are now intentionally blank.

3.7 LIMITING CONDITION FOR OPERATION	4.7 SURVEILLANCE REQUIREMENTS
above. In connection with such testing, the pool temperature must be reduced to below the normal power operation limit specified in (1) above within 24 hours. (3) The reactor shall be scrammed from any operating condition if the pool temperature reaches 110°F. Power operation shall not be resumed until the pool temperature is reduced below the normal power operation limit specified in (1) above. (4) During reactor isolation conditions, the reactor pressure vessel shall be depressurized to less than 150 psig at normal cooldown rates if the pool temperature reaches 120 F. d. Maximum downcomer submergence is 4.00 ft. e. Minimum downcomer submergence is 3.67 ft.	d. A visual inspection of the suppression chamber interior, including water line regions, shall be made at each major refueling outage.

3.7 LIMITING CONDITION FOR OPERATION	4.7 SURVEILLANCE REQUIREMENTS
2. Primary containment integrity shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel except while performing low power physics tests at atmospheric pressure at power levels not to exceed 5 Mw(t).	2. The primary containment integrity shall be demonstrated by conducting Primary Containment Leak Tests and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and references therein.
a. Primary containment leakage rates are defined from:	a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at approximately equal intervals during each 10 year plant in-service inspection interval at either P_a or P_t with the last being done during the 10-year in-service inspection shutdown.
(1) The calculated peak containment internal pressure, P_a, is equal to 48 psig.	b. If any periodic Type A test fails to meet either 75 percent of L_a or 75 percent of L_t, the test schedule for subsequent Type A tests shall be reviewed by the Commission.
(2) The containment vessel reduced test pressure, P_t, is equal to 25 psig.	c. If two consecutive Type A tests fail to meet either 75 percent of L_a or 75 percent of L_t, a Type A test shall be performed at each shutdown for refueling or approximately every 18 months until two consecutive Type A tests meet the above requirements, at which time the normal test schedule may be resumed.
(3) The maximum allowable leakage rate at a pressure of P_a, L_a, is equal to 1.6 percent by weight of the containment air per 24 hours at 48 psig.	d. The accuracy of each Type A test shall be verified by a supplemental test which:
(4) The maximum allowable test leakage rate at a pressure of P_t, L_t, is less than or equal to L_a (L_{tm}/L_{am}). If L_t is greater than 0.7, L_t is (specified as equal to) L_a $(P_t/P_a)^{\frac{1}{2}}$.	(1) Confirms the accuracy of the test by verifying that the difference between the supplemental data and the imposed leakage is within 25 percent of L_a or 25 percent of L_t.
(5) The total measured leakage rates at pressures of P_a and P_t are L_{am} and L_{tm}, respectively.	(2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.
b. When primary containment integrity is required, primary containment leakage rates shall be limited to:	
(1) An overall integrated leakage rate for Type A tests of:	
(a) L_{am} less than or equal to 75 percent of L_a.	
(b) L_{tm} less than or equal to 75 percent of L_t.	

3.7 LIMITING CONDITION FOR OPERATION	4.7 SURVEILLANCE REQUIREMENTS
(2) (a) A combined leakage rate of less than or equal to 60 percent of L_a for all testable penetrations and isolation valves subject to Type B and C tests except for main steam isolation valves.	(3) Requires the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage at P_a or P_t.
(b) A leakage rate of less than or equal to 3.75 percent of L_a for any one air lock when pressurized to 10 psig.	e. Type B and C tests shall be conducted at P_a, at intervals no greater than 24 months except for tests involving:
(c) 11.5 SCF per hour for any main steam isolation valve at a test pressure of 25 psig.	(1) Main steam line isolation valves which shall be tested at a pressure of 25 psig each operating cycle.
	(2) Bolted double-gasketed seals which shall be tested at a pressure of 48 psig whenever the seal is closed after being opened and each operating cycle.
	(3) Air locks which shall be tested at 10 psig each operating cycle.
	f. Continuous Leak Rate Monitor
	(1) When the primary containment is inerted, the containment shall be continuously monitored for gross leakage by review of the inerting system make-up requirements.
	(2) This monitoring system may be taken out of service for the purpose of maintenance or testing but shall be returned to service as soon as practical.
	g. The interior surfaces of the drywell shall be visually inspected each operating cycle for evidence of deterioration.

3.7 LIMITING CONDITION FOR OPERATION	4.7 SURVEILLANCE REQUIREMENTS

Pages 111-115 are intentionally blank.

The maximum allowable test leak rate is 1.6%/day at a pressure of 48 psig. This value for the test condition was derived from the maximum allowable accident leak rate of about 2.0%/day when corrected for the effects of containment environment under accident and test conditions. In the accident case, the containment atmosphere initially would be composed of steam and hot air whereas under test conditions the test medium would be air or nitrogen at ambient conditions. Considering the differences in mixture composition and temperatures, the appropriate correction factor applied was 0.8 and determined from the guide on containment testing(13).

Although the dose calculations suggest that the accident leak rate could be allowed to increase to about 3.2%/day before the guideline thyroid dose value given in 10 CFR 100 would be exceeded, establishing the test limit of 1.6%/day provides an adequate margin of safety to assure the health and safety of the general public. It is further considered that the allowable leak rate should not deviate significantly from the containment design value to take advantage of the design leak-tightness capability of the structure over its service lifetime. Additional margin to maintain the containment in the "as built" condition is achieved by establishing the allowable operational leak rate. The allowable operational leak rate is derived by multiplying the maximum allowable leak rate or the allowable test leak rate by 0.75 thereby providing a 25% margin to allow for leakage deterioration which may occur during the period between leak rate tests.

The primary containment leak rate test frequency is based on maintaining adequate assurance that the leak rate remains within the specification. The leak rate frequency is based on the AEC guide for developing leak rate testing and surveillance of reactor containment vessels(14). Allowing the test intervals to be extended up to 8 months permits some flexibility needed to have the tests coincide with scheduled or unscheduled shutdown periods.

The data reduction methods of the applicable ANSI standard will be applied for the integrated leak rate tests as specified in Appendix J of 10 CFR 50.

The penetration and air purge piping leakage test frequency, along with the containment leak rate tests, is adequate to allow detection of leakage trends. Whenever a double-gasketed penetration (primary containment head equipment hatches and the suppression chamber access hatch) is broken and remade, the space between the gaskets is pressurized to determine that the seals are performing properly. The test pressure of 48 psig is consistent with the accident analyses and the maximum preoperational leak rate test pressure. It is expected that the majority of the leakage from valves, penetrations and seals would be into the reactor building. However, it is possible that leakage into other parts of the facility could occur. Such leakage paths that may affect significantly the consequences of accidents are to be minimized. The personnel air lock is tested at 10 psig, because the inboard door is not designed to shut in the opposite direction.

The results of the loss-of-coolant accident analyses presented in Amendment No. 18 of the

(13) TID 20583, Leakage Characteristics of Steel Containment Vessel and the Analysis of Leakage Rate Determinations.

(14) Technical Safety Guide, "Reactor Containment Leakage Testing and Surveillance Requirements" USAEC, Division of Safety Standards, Revised Draft, December 15, 1966.

Attachment B

Dresden Station Unit 3
Proposed Amendment to DPR-25
Technical Specifications

Revised Pages: 108a
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111-115
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Note: Pages 111-115 are now intentionally blank.

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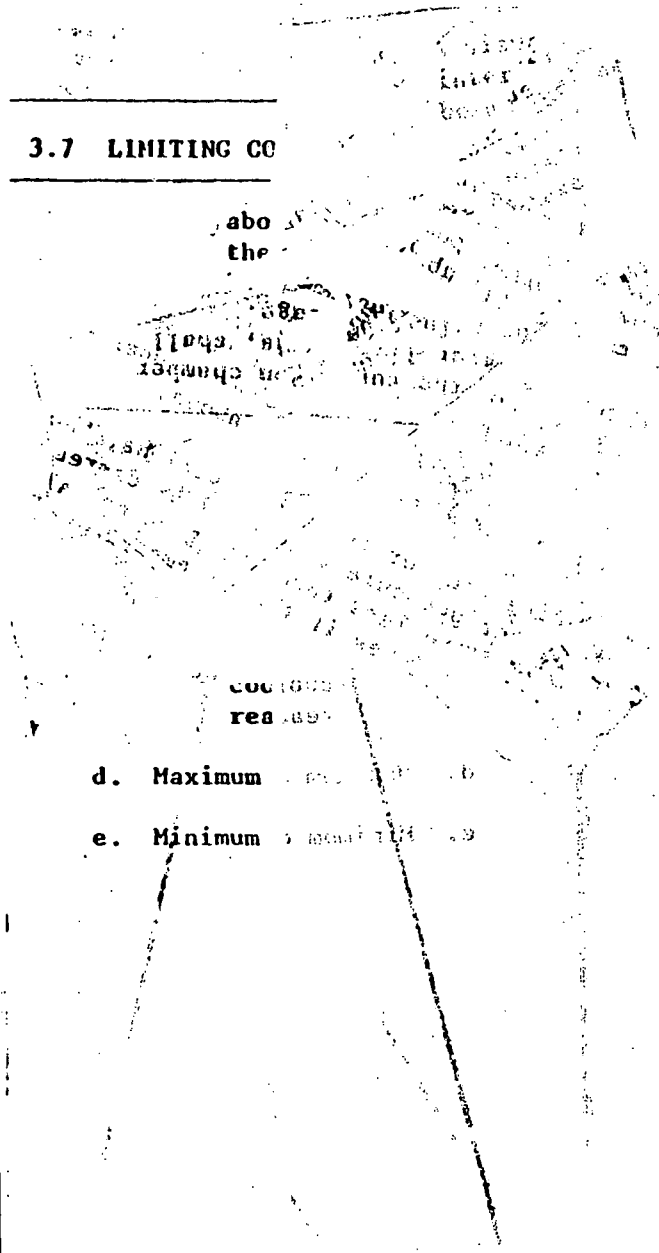

d. Maximum

e. Minimum

3.7 LIMITING CONDITION FOR OPERATION

2. Primary containment integrity shall be maintained at all times when the reactor is critical or when the reactor water temperature is above 212°F and fuel is in the reactor vessel except while performing low power physics tests at atmospheric pressure at power levels not to exceed 5 Mw(t).

   a. Primary containment leakage rates are defined from:

      (1) The calculated peak containment internal pressure, P_a, is equal to 48 psig.

      (2) The containment vessel reduced test pressure, P_t, is equal to 25 psig.

      (3) The maximum allowable leakage rate at a pressure of P_a, L_a, is equal to 1.6 percent by weight of the containment air per 24 hours at 48 psig.

      (4) The maximum allowable test leakage rate at a pressure of P_t, L_t, is less than or equal to L_a (L_{tm}/L_{am}). If L_t is greater than 0.7, L_t is (specified as equal to) L_a $(P_t/P_a)^{\frac{1}{2}}$.

      (5) The total measured leakage rates at pressures of P_a and P_t are L_{am} and L_{tm}, respectively.

   b. When primary containment integrity is required, primary containment leakage rates shall be limited to:

      (1) An overall integrated leakage rate for Type A tests of:

         (a) L_{am} less than or equal to 75 percent of L_a.

         (b) L_{tm} less than or equal to 75 percent of L_t.

4.7 SURVEILLANCE REQUIREMENTS

2. The primary containment integrity shall be demonstrated by conducting Primary Containment Leak Tests and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and references therein.

   a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at approximately equal intervals during each 10 year plant in-service inspection interval at either P_a or P_t with the last being done during the 10-year in-service inspection shutdown.

   b. If any periodic Type A test fails to meet either 75 percent of L_a or 75 percent of L_t, the test schedule for subsequent Type A tests shall be reviewed by the Commission.

   c. If two consecutive Type A tests fail to meet either 75 percent of L_a or 75 percent of L_t, a Type A test shall be performed at each shutdown for refueling or approximately every 18 months until two consecutive Type A tests meet the above requirements, at which time the normal test schedule may be resumed.

   d. The accuracy of each Type A test shall be verified by a supplemental test which:

      (1) Confirms the accuracy of the test by verifying that the difference between the supplemental data and the imposed leakage is within 25 percent of L_a or 25 percent of L_t.

      (2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test.

3.7 LIMITING CONDITION FOR OPERATION	4.7 SURVEILLANCE REQUIREMENTS

(2) (a) A combined leakage rate of less than or equal to 60 percent of L_a for all testable penetrations and isolation valves subject to Type B and C tests except for main steam isolation valves.

(b) A leakage rate of less than or equal to 3.75 percent of L_a for any one air lock when pressurized to 10 psig.

(c) 11.5 SCF per hour for any main steam isolation valve at a test pressure of 25 psig.

(3) Requires the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage at P_a or P_t.

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(2) Bolted double-gasketed seals which shall be tested at a pressure of 48 psig whenever the seal is closed after being opened and each operating cycle.

(3) Air locks which shall be tested at 10 psig each operating cycle.

f. Continuous Leak Rate Monitor

(1) When the primary containment is inerted, the containment shall be continuously monitored for gross leakage by review of the inerting system make-up requirements.

(2) This monitoring system may be taken out of service for the purpose of maintenance or testing but shall be returned to service as soon as practical.

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The primary containment leak rate test frequency is based on maintaining adequate assurance that the leak rate remains within the specification. The leak rate frequency is based on the AEC guide for developing leak rate testing and surveillance of reactor containment vessels(14). Allowing the test intervals to be extended up to 8 months permits some flexibility needed to have the tests coincide with scheduled or unscheduled shutdown periods.

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