The Light company
Houston Lighting & Power South Texas Project Electric Generating Station P. O. Box 289 Wadsworth, Texas 77483

May 25, 1995
ST-HL-AE-5091
File No.:G21.02
10CFR50.12
10CFR50 App.J
10CFR50.90
10CFR50.92
10CFR51

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Request for Exemption to 10CFR50 Appendix J and Proposed Change
to South Texas Project Technical Specifications 3.6.1.1, 3.6.1.2 and 3.6.1.3

References:

1. Letter from Houston Lighting and Power Company to the Document Control Desk, dated March 16, 1995 (ST-HL-AE-5046), "Application for Exemption from 10CFR Part 50, Appendix J and Proposed Amendment to Technical Specification 4.6.1.2."

South Texas Project, Unit 2, is scheduled for its fourth refueling outage to begin in October, 1995, and Houston Lighting & Power can reduce the amount of work to be done in the outage by performing some of the Appendix J required local leak rate testing at power prior to the outage. Houston Lighting & Power Co. requests that the Nuclear Regulatory Commission exempt South Texas Project, Units 1 and 2, from the requirement of Appendix J of 10CFR50, III.D.3 to perform Type C testing (Local Leak Rate Test) during shutdown. Houston Lighting & Power also requests that the Nuclear Regulatory Commission approve the associated proposed changes to the South Texas Project Technical Specifications 3.6.1.1, 3.6.1.2, and 3.6.1.3.

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Houston Lighting & Power Co. has reviewed the proposed exemption in accordance with the criteria of 10CFR50.12 and 10CFR50.92, and believes the proposed change is acceptable. The Plant Operations Review Committee and the Nuclear Safety Review Board have considered and concur with the application. Houston Lighting & Power has determined that the proposed amendment satisfies the criteria of 10CFR51.22(c)(9) for categorical exclusion from the requirement for an environmental assessment. The State of Texas has been apprised of the proposed change.

Prompt Nuclear Regulatory Commission action to review this application is requested in order for appropriate planning for the South Texas Project, Unit 2 refueling outage planned to start in October, 1995.

If you have any questions, please call me at 512-972-8664, or call M. A. McBurnett at 512-972-7206.

J. F Groth
Vice President,
Nuclear Generation

AWH/lf

Attachment:
1. Affidavit
2. Description of Proposed Changes
3. Evaluation in Accordance with 10CFR50.12
4. Safety Evaluation and No Significant Hazards Considerations Determination
5. Proposed Technical Specification Changes
6. Copy of Current Technical Specifications with Proposed Changes

c:

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ATTACHMENT 1

AFFIDAVIT

AFFIDAVIT

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Houston Lighting & Power	)	Docket Nos. 50-498
Company, et al.,	)	50-499
	)	
South Texas Project	)	
Units 1 and 2	)	

AFFIDAVIT

I, J. F. Groth, being duly sworn, hereby depose and say that I am Vice President, Nuclear Generation, of Houston Lighting & Power Company; that I am duly authorized to sign and file with the Nuclear Regulatory Commission the attached Request for Exemption to 10CFR50, Appendix J, and proposed changes to Technical Specifications 3.6.1.1, 3.6.1.2, and 3.6.1.3; that I am familiar with the content thereof; and that the matters set forth therein are true and correct to the best of my knowledge and belief.

John Groth

J. F. Groth
Vice President,
Nuclear Generation

STATE OF TEXAS)
)
)

Subscribed and sworn to before me, a Notary Public in and for the State of Texas, this 24th day of May, 1995.

NOTARY PUBLIC STATE OF TEXAS
LINDA RITTENBERRY
Notary Public, State of Texas
My Commission Expires 10/9/97

Linda Rittenberry

Notary Public in and for the
State of Texas

TSC-95\95-135.002

ATTACHMENT 2

DESCRIPTION OF PROPOSED CHANGES

Description of Proposed Changes

Houston Lighting & Power proposes to exempt the South Texas Project, Units 1 and 2, from the limitation of 10CFR50, Appendix J, which requires performance of the required periodic Type C tests at shutdown. The proposed exemption will allow the required periodic tests to be performed during power operation for credit for the surveillance required by Appendix J and Surveillance Requirement 4.6.1.2. Associated changes to the South Texas Project Technical Specifications are also proposed consistent with the proposed exemption.

Presently, Houston Lighting & Power can perform Type C tests during power operation for the purpose of post maintenance testing. Under the existing provisions of 10CFR50, Appendix J, the testing would have to be reperformed at the next shutdown, regardless of how recently it had been done. The existing provisions of Appendix J for performing the Type C testing at shutdown also preclude the option of performing these periodic tests at other times. This forces activities which can be safely accomplished with the plant at power into the scope of outages when resources are most at a premium. The proposed exemption will allow the option to perform the testing at power.

Changes to the Technical Specifications are proposed for consistency with the exemption. The present South Texas Project Technical Specification 3.6.1.2, "Containment Leakage" contains an ACTION statement that is not consistent with the need to perform Type C testing at power, and Houston Lighting & Power intends to replace it with reference to Technical Specification 3.6.1.1 ACTION statement for Containment Integrity. The existing surveillance requirements for the Containment Leakage would be replaced with a single requirement to apply the requirements of Appendix J as modified by approved exemptions. Houston Lighting & Power has concluded that there is no change in the technical requirements of the Technical Specifications and therefore, no significant safety impact.

An additional administrative change to the Technical Specifications is proposed that will eliminate the numerical value of P_a. The numerical value of P_a itself is not being changed. The definition of P_a is not affected and is specified in 10CFR50, Appendix J.

Attachment 5, "Proposed Technical Specification Changes", Surveillance Requirements for Specification 4.6.1.2a., page 3/4 6-2 is as it was submitted in reference 1 on March 16, 1995 and has been marked up to reflect the changes as addressed in this submittal.

ATTACHMENT 3

EVALUATION IN ACCORDANCE WITH 10CFR50.12

Evaluation in Accordance with 10CFR50.12

The Nuclear Regulatory Commission allows for exemption from provisions of its regulations if it can be shown that the proposed exemption meets appropriate criteria established in 10CFR50.12.

Houston Lighting & Power has evaluated the proposed exemption against Criterion (1) of 10CFR50.12 and concluded that it is authorized by law upon approval by the Commission in accordance with 10CFR50.12. Moving the local leak rate testing from shutdown to power does not result in an undue risk to the public health and safety because containment integrity does not depend on when the testing is performed. The probability or consequences of accidents are not increased by changing the testing schedule. The exemption is consistent with the common defense and security because no changes are proposed that affect the common defense or security. Additional justification for there being no undue risk to the public health and safety is provided in the safety evaluation, Attachment 4.

Houston Lighting & Power believes the proposed exemption meets Criteria (2)(ii) and (2)(iii), as described below.

Conformance to Criterion (2)(ii):

Criterion (2)(ii) states: *Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.*

Houston Lighting & Power believes the proposed exemption meets Criterion (2)(ii) because the underlying purpose of the subject portion of 10CFR50, Appendix J is to assure that adequate testing is done to assure containment integrity. From the standpoint of testing adequacy, when the testing is performed is not relevant because the conditions of testing are the same regardless of when it is performed; i.e., the same test pressure is applied, and the same procedure is used. Taking credit for testing performed during power operation provides the same degree of assurance of containment integrity as taking credit for testing performed during shutdown. Therefore, requiring the testing be performed during shutdown is not necessary to achieve the underlying purpose of the rule.

Conformance to Criterion (2)(iii):

Criterion (2)(iii) states: *Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated.*

Houston Lighting & Power believes this criterion applies because the South Texas Project would incur significant and unnecessary costs by not being able to apply the requested exemption. Application of the exemption will allow substantial work to be eliminated from the scope of the upcoming Unit 2 refueling outage and subsequent Unit 1 and 2 outages. If the requested exemption is approved, Houston Lighting & Power expects to be able to perform a number of Type C tests at power prior to the Unit 2 refueling outage. This reduction in the number of Type C tests that would otherwise be performed in the outage represents a significant amount of resources and time in the outage.

It is likely that the disadvantages of requiring the Type C tests to be performed at shutdown were not thoroughly considered at the time the regulation was issued. It is also possible that the effects of literal compliance with the wording of the regulation, which can require unnecessarily redundant tests, were not anticipated.

ATTACHMENT 4

SAFETY EVALUATION AND NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Safety Evaluation and No Significant Hazards Considerations Determination

Safety Evaluation:

10CFR50 Appendix J III.D.3 states:

> *Type C tests shall be performed during each reactor shutdown for refueling but in no case at intervals greater than 2 years.*

The exemption requested by Houston Lighting & Power is from the requirement to perform the Type C tests at shutdown. Houston Lighting & Power proposes to perform some of the required Type C tests while the plant is at power instead of during shutdown.

The proposed changes to Technical Specification 3.6.1.2 are administrative in nature, and are necessary to support implementation of the exemption.

Houston Lighting & Power proposes to change the ACTION statement of Technical Specification 3.6.1.2 to replace the phrase regarding not exceeding 200° F with an unacceptable leakage rate, with the shutdown action statement associated with Technical Specification 3.6.1.1, "Containment Integrity". This proposed change has no material impact on the requirements of the Technical Specifications because the leakage rates specified in 3.6.1.2 are incorporated by reference in the definition of CONTAINMENT INTEGRITY, which is required to be maintained by Technical Specification 3.6.1.1. Since Specification 3.0.4 applies to Technical Specification 3.6.1.2, a MODE change to MODE 4 could not be made with leakage rates in excess of those specified. Therefore, the existing limitation of 200°F is preserved when testing is performed during shutdown conditions. Because the proposed change does not affect the actual requirements to maintain containment integrity, there is no adverse safety impact.

Houston Lighting & Power intends to replace the existing surveillance requirements of 4.6.1.2, which duplicate the requirements of 10CFR50, Appendix J, with a reference to Appendix J, as modified by approved exemptions. There are no changes to the technical requirements, so there is no safety impact.

Houston Lighting & Power also proposes to delete the numerical value of 41.2 psig for P_a in Technical Specifications 3.6.1.1, 3.6.1.2, and 3.6.1.3. This change is also administrative, since P_a is defined in 10CFR50, Appendix J, and deleting the value from the Technical Specifications will have no effect on the test pressures. Consequently, there is no safety impact from this change.

The proposed exemption would increase the number of Type C tests performed during power operations. Houston Lighting & Power's evaluation indicates that this potential increase in component unavailability is enveloped by the probabilistic assessments done for the existing South Texas Project maintenance schedule in which specific safety trains are removed from service on a rotating basis. The South Texas Project Technical Specifications control the Limiting Conditions for Operation when other safety trains are also out of service. Furthermore, removing these tests from the scope of the outage will increase the availability of the affected systems during shutdown conditions, which is a safety benefit. Consequently, it can be concluded that there is no increase in risk from performing the Type C tests at power.

It can be concluded from the review above that the requested exemption is primarily administrative to eliminate the need to perform unnecessarily redundant testing and that there is no significant safety impact.

No Significant Hazards Considerations Determination:

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

The change to the action statement of Technical Specification 3.6.1.2 does not significantly increase the probability of an accident because leakage rate testing is not an accident initiator. The consequences of an accident previously evaluated are not increased by changing the ACTION statement of Technical Specification 3.6.1.2 because the requirements for CONTAINMENT INTEGRITY are not reduced. The consequences of an accident previously evaluated are not increased by the change in the surveillance wording because no technical changes are proposed. The underlying purpose of the proposed change to the Technical Specifications and requested exemption to Appendix J, to allow surveillance credit for at-power Type C testing, will not increase the consequences of an accident because there are no reductions in the requirements to maintain containment integrity.

The proposed change to delete the numeric value of P_a is purely administrative, and has no potential effect on accident initiation or consequences.

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

Nothing associated with the requested changes will physically change the configuration of the plant or impose new operating configurations not previously considered. Leakage rate testing will remove components and trains from service; however, this is not operationally different from other testing and maintenance evolutions that remove components or trains from service, and which were previously considered. Consequently, the possibility of a new or different kind of accident from any accident previously evaluated is not created.

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

The margin of safety is not significantly reduced by changing the ACTION statement of Technical Specification 3.6.1.2 because the requirements for CONTAINMENT INTEGRITY are not reduced. The margin of safety is not reduced by the change in the surveillance wording because no technical changes are proposed. The underlying purpose of the proposed change to the Technical Specifications and requested exemption to Appendix J, to allow surveillance credit for at-power Type C testing, will not reduce the margin of safety because there are no reductions in the requirements to maintain containment integrity.

The proposed change to delete the numeric value of P_a is purely administrative, and has no potential effect on the margin of safety because the value itself is unchanged.

Summary

Based on the assessments above, Houston Lighting & Power has concluded that the requested exemption and proposed Technical Specification changes are safe and justified in accordance with the criteria of 10CFR50.12 and 10CFR50.92. Houston Lighting & Power requests that the Nuclear Regulatory Commission act on the request as soon as possible so that planning for leak rate tests for the South Texas Project, Unit 2 outage can proceed. The outage is scheduled to begin on October 7, 1995.

ATTACHMENT 5

PROPOSED TECHNICAL SPECIFICATION CHANGES

PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except as provided in Specification 3.6.3;

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3; and

c. After each closing of each penetration subject to Type B testing, except the containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at a pressure not less than Pa~~, 41.2 psig~~, and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2~~d~~. for all other Type B and C penetrations, the combined leakage rate is less than 0.60 La.

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

a. An overall integrated leakage rate of less than or equal to La, 0.30% by weight of the containment air per 24 hours at Pa, ~~41.2 psig~~.

b. A combined leakage rate of less than 0.60 La for all penetrations and valves subject to Type B and C tests, when pressurized to Pa.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With either the measured overall integrated containment leakage rate exceeding 0.75 La or the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding 0.60 La, restore the overall integrated leakage rate to less than 0.75 La and the combined leakage rate for all penetrations subject to Type B and C tests to less than 0.60 La ~~prior to increasing the Reactor Coolant System temperature above 200°F~~.or perform the ACTION in Specification 3.6.1.1.

SURVEILLANCE REQUIREMENTS

4.6.1.2 ~~The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria, methods and provisions specified or endorsed in Appendix J of 10 CFR Part 50:~~

Perform required visual examinations and leakage rate testing, except for containment air lock testing, in accordance with 10CFR50, Appendix J, as modified by approved exemptions.

~~a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be ar Regulatory Commission approved exemptions at a pressure not less than Pa, 41.2conducted at 40 ± 10 month intervals during shutdown at intervals as specified by Appendix J or 10 CFR Part 50 or as permitted by Nuclear psig,during each 10 year service period. The third test of each set shall be conducted during the shutdown for the 10 year plant inservice inspection;~~

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

~~b. If any periodic Type A test fails to meet 0.75 L_a, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet 0.75 L_a, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet 0.75 L_a at which time the above test schedule may be resumed;~~

~~c. 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 supplemental test result, L_c, is in accordance with the following equation:~~

$$\cancel{|L_c - (L_{am} + L_o)| \leq 0.25\ L_a}$$

~~where L_{am} is the measured Type A test leakage and L_o is the superimposed leak;~~

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

~~3) Requires that the rate at which gas is injected into the containment or bled from the containment during the supplemental test is between 0.75 L_a and 1.25 L_a.~~

~~d. Type B and C tests shall be conducted with gas at a pressure not less than P_a, **41.2** psig, at intervals no greater than 24 months except for tests involving:~~

~~1) Air locks,~~

~~2) Purge supply and exhaust isolation valves with resilient material seals and~~

~~3) Penetrations using continuous Leakage Monitoring Systems.~~

~~e. Air locks shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.3;~~

~~f. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.7.2 or 4.6.1.7.3, as applicable;~~

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

~~g. Leakage from isolation valves that are sealed with fluid from a Seal System may be excluded, subject to the provisions of Appendix J, Section III.C.3, when determining the combined leakage rate provided the Seal System and valves are pressurized to at least 1.10 P_a and the seal system capacity is adequate to maintain system pressure for at least 30 days;~~

[1] ~~h. Type B tests for penetrations employing a continuous Leakage Monitoring System shall be conducted at P_a, **41.2** psig, at intervals no greater than once per 3 years; and~~

~~i.~~ The provisions of Specification 4.0.2 are not applicable.

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CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE with:

a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and

b. An overall air lock leakage rate of less than or equal to 0.05 La at Pa~~, 41.2 psig~~.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one containment air lock door inoperable:

1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed;

2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days;

3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and

4. The provisions of Specification 3.0.4 are not applicable.

b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

a. Within 72 hours following each closing, except when the air lock is being used for multiple entries, then at least once per 72 hours, by verifying seal leakage is less than 0.01 La as determined by precision flow measurements when measured for at least 30 seconds with the volume between the seals at a constant pressure not less than Pa;

b. By conducting overall air lock leakage tests at not less than Pa~~, 41.2 psig~~, and verifying the overall air lock leakage rate is within its limit:

1) At least once per 6 months,* and

2) Prior to establishing CONTAINMENT INTEGRITY when maintenance has been performed on the air lock that could affect the air lock sealing capability.**

c. At least once per 6 months by verifying that only one door in each air lock can be opened at a time.

d. By verifying at least once per 7 days that the instrument air pressure in the header to the personnel airlock seals is > 90 psig.

e. By verifying the door seal pneumatic system OPERABLE at least once per 18 months by conducting a seal pneumatic system leak test and verifying one of the following:

1) That system pressure does not decay more than 1.5 psi from 90 psig minimum within 24 hours, or

2) That system pressure does not decay more than .50 psi from 90 psig minimum within 8 hours

*The provisions of Specification 4.0.2 are not applicable.
**This represents an exemption to Appendix J, paragraph III.D.2 of 10 CFR Part 50.

ATTACHMENT 6
COPY OF CURRENT TECHNICAL SPECIFICATIONS
WITH PROPOSED CHANGES

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ATTACHMENT 6

3/4.6 CONTAINMENT SYSTEMS

3/4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that all penetrations* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions, except as provided in Specification 3.6.3;

b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3; and

c. After each closing of each penetration subject to Type B testing, except the containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at a pressure not less than P_a, ~~41.2 psig,~~ and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2~~d.~~ for all other Type B and C penetrations, the combined leakage rate is less than 0.60 L_a.

*Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

CONTAINMENT SYSTEMS

ATTACHMENT 6

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

a. An overall integrated leakage rate of less than or equal to L_a, 0.30% by weight of the containment air per 24 hours at P_a, ~~41.2 psig.~~

b. A combined leakage rate of less than 0.60 L_a for all penetrations and valves subject to Type B and C tests, when pressurized to P_a.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With either the measured overall integrated containment leakage rate exceeding 0.75 L_a or the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding 0.60 L_a, restore the overall integrated leakage rate to less than 0.75 L_a and the combined leakage rate for all penetrations subject to Type B and C tests to less than 0.60 L_a ~~prior to increasing the Reactor Coolant System temperature above 200°F.~~ or perform the ACTION in Specification 3.6.1.1.

SURVEILLANCE REQUIREMENTS

4.6.1.2 ~~The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria, methods and provisions specified or endorsed in Appendix J or 10 CFR Part 50:~~

~~a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at a pressure not less than P_a, 41.2 psig, during each 10 year service period. The third test of each set shall be conducted during the shutdown for the 10 year plant inservice inspection;~~

Perform required visual examinations and leakage rate testing, except for containment air lock testing, in accordance with 10 CFR50, Appendix J, as modified by approved exemptions.

CONTAINMENT SYSTEMS

ATTACHMENT 6

SURVEILLANCE REQUIREMENTS (Continued)

~~b. If any periodic Type A test fails to meet 0.75 L_a, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet 0.75 L_a, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet 0.75 L_a at which time the above test schedule may be resumed;~~

~~c. 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 supplemental test result, L_c, is in accordance with the following equation:~~

$$|L_c - (L_{am} + L_o)| \leq 0.25\ L_a$$

~~where L_{am} is the measured Type A test leakage and L_o is the superimposed leak;~~

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

~~3) Requires that the rate at which gas is injected into the containment or bled from the containment during the supplemental test is between 0.75 L_a and 1.25 L_a.~~

~~d. Type B and C tests shall be conducted with gas at a pressure not less than P_a, 41.2 psig, at intervals no greater than 24 months except for tests involving:~~

~~1) Air locks,~~

~~2) Purge supply and exhaust isolation valves with resilient material seals, and~~

~~3) Penetrations using continuous Leakage Monitoring Systems.~~

~~e. Air locks shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.3;~~

~~f. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE by the requirements of Specification 4.6.1.7.2 or 4.6.1.7.3, as applicable;~~

SURVEILLANCE REQUIREMENTS (Continued)

~~g. Leakage from isolation valves that are sealed with fluid from a Seal System may be excluded, subject to the provisions of Appendix J, Section III.C.3, when determining the combined leakage rate provided the Seal System and valves are pressurized to at least 1.10 P_a and the seal system capacity is adequate to maintain system pressure for at least 30 days;~~

~~h. Type B tests for penetrations employing a continuous Leakage Monitoring System shall be conducted at P_a, 41.2 psig, at intervals no greater than once per 3 years; and~~

~~i.~~ The provisions of Specification 4.0.2 are not applicable.

CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE with:

a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and

b. An overall air lock leakage rate of less than or equal to 0.05 L_a at P_a, ~~41.2 psig.~~

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one containment air lock door inoperable:

1. Maintain at least the OPERABLE air lock door closed and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed;

2. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days;

3. Otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours; and

4. The provisions of Specification 3.0.4 are not applicable.

b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

a. Within 72 hours following each closing, except when the air lock is being used for multiple entries, then at least once per 72 hours, by verifying seal leakage is less than 0.01 L_a as determined by precision flow measurements when measured for at least 30 seconds with the volume between the seals at a constant pressure not less than P_a;

b. By conducting overall air lock leakage tests at not less than P_a, ~~41.2 psig,~~ and verifying the overall air lock leakage rate is within its limit:

   1) At least once per 6 months,* and

   2) Prior to establishing CONTAINMENT INTEGRITY when maintenance has been performed on the air lock that could affect the air lock sealing capability.**

c. At least once per 6 months by verifying that only one door in each air lock can be opened at a time.

d. By verifying at least once per 7 days that the instrument air pressure in the header to the personnel airlock seals is ≥ 90 psig.

e. By verifying the door seal pneumatic system OPERABLE at least once per 18 months by conducting a seal pneumatic system leak test and verifying one of the following:

   1) That system pressure does not decay more than 1.5 psi from 90 psig minimum within 24 hours, or

   2) That system pressure does not decay more than .50 psi from 90 psig minimum within 8 hours.

* The provisions of Specification 4.0.2 are not applicable.

**This represents an exemption to Appendix J, paragraph III.D.2 of 10 CFR Part 50.