Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37384-2000

June 5, 2003

TVA-SQN-TS-03-07 10 CFR 50.90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop: OFWN P1-35
Washington, D. C. 20555-0001

Gentlemen:

In the Matter of	)	Docket Nos. 50-327
Tennessee Valley Authority	)	50-328

SEQUOYAH NUCLEAR PLANT (SQN) - UNITS 1 AND 2 - TECHNICAL SPECIFICATIONS (TS) CHANGE 03-07 - "REVISED REQUIREMENTS FOR CONTAINMENT VENTILATION SYSTEM PURGE AND EXHAUST ISOLATION VALVES"

Pursuant to 10 CFR 50.90, TVA is submitting a request for a TS change (TS 03-07) to Licenses DPR-77, and DPR-79 for SQN Units 1 and 2. The proposed TS change revises the required actions in Specification 3.6.1.9 when a containment purge or exhaust isolation valve is found to be inoperable as a result of leakage in excess of the limit. The proposed changes allow alternate methods to ensure flow path isolation to the environment consistent with the methods allowed for containment isolation valves in Specification 3.6.3. If the alternate methods for ensuring isolation are not achievable, shutdown of the affected unit will continue to be required. The proposed changes are consistent with the recommendations of the latest improved standard TSs (NUREG-1431, Revision 2).

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TVA has determined that there are no significant hazards considerations associated with the proposed change and that the TS change qualifies for categorical exclusion from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter and enclosures to the Tennessee State Department of Public Health.

TVA does not have specific schedule needs for this proposed change and processing can be pursued as appropriate. TVA requests that the implementation of the revised TS be within 45 days of NRC approval.

There are no commitments contained in this submittal. This letter is being sent in accordance with NRC RIS 2001-05, "Guidance on Submitting Documents to the NRC by Electronic Information Exchange, CD-ROM, or Hard Copy."

If you have any questions about this change, please contact me at (423) 843-7170 or Jim Smith at (423) 843-6672.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 5 day of June 2003.

Sincerely,

Pedro Salas
Manager of Licensing
and Industry Affairs

Enclosures:
1. TVA Evaluation of the Proposed Changes
2. Proposed Technical Specifications Changes (mark-up)

cc: See page 3

Enclosures
cc (Enclosures):
Framatome ANP, Inc.
P. O. Box 10935
Lynchburg, Virginia 24506-0935
ATTN: Mr. Frank Masseth

Mr. Michael L. Marshall, Jr., Senior Project Manager
U.S. Nuclear Regulatory Commission
Mail Stop O-8G9A
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852-2739

Mr. Lawrence E. Nanney, Director
Division of Radiological Health
Third Floor
L&C Annex
401 Church Street
Nashville, Tennessee 37243-1532

ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT (SQN)
UNITS 1 AND 2

1.0 DESCRIPTION

This letter is a request to amend Operating License(s) DPR-77 and DPR-79 for SQN Units 1 and 2. The proposed change would revise Action b of Specification 3.6.1.9, "Containment Ventilation System" to allow an alternative to returning the inoperable containment purge supply or exhaust valve to operable conditions for continued operation. The alternative ensures isolation of the affected flow path such that potential release paths to the environment are sufficiently restricted to meet regulatory limits. This change will minimize the need to initiate a unit shutdown or delay start-up when acceptable means are available to ensure the required safety function. Additional exceptions for the verification of isolation devices are proposed to minimize the exposure of plant personnel to radiation when administrative means can provide a reasonable level of assurance. The proposed changes are consistent with the latest version of the standard technical specifications (TSs) (NUREG-1431, Revision 2) for isolation functions associated with containment isolation valves.

2.0 PROPOSED CHANGE

The proposed change would revise Action b of Specification 3.6.1.9, "Containment Ventilation System" to allow an alternative to returning the inoperable containment purge supply or exhaust valve to operable conditions for continued operation. The proposed wording for Action b is as follows (bold text are additions and line through text deletions):

> *With a containment purge supply and/or exhaust isolation valve having a measured leakage rate in excess of 0.05 La, restore the inoperable valve to OPERABLE status* ***or isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange*** *within 24 hours*~~,~~*.* ***Verify** the affected penetration flow path is isolated once per 31 days for isolation devices outside containment and prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days for isolation devices inside containment.*** *O*~~*-*~~*therwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the*

following 30 hours. ***The provisions of Specification 3.0.4 do not apply.***

The proposed alternative ensures isolation of the affected flow path such that potential release paths to the environment are sufficiently restricted to meet regulatory limits. The proposed change also incorporates provisions for periodically verifying the isolation action and takes into consideration the location of the device. If inside containment the verification is required prior to startup and if outside containment, every 31 days. The exception to Specification 3.0.4 allows mode changes after performing these verifications for the devices inside containment.

Additional exceptions for the verification of isolation devices are proposed to minimize the exposure of plant personnel to radiation when administrative means can provide a reasonable level of assurance. These provisions are included in a footnote to Action b and are proposed as follows:

** *Isolation devices in high radiation areas may be verified by use of administrative means.*

Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.

In summary, the proposed change will add to the current actions for an inoperable containment purge supply or exhaust valve, an allowance to isolate the affected flow path associated with the valve that exceeds the leakage limits. This action would be in lieu of a required unit shutdown or a delay in start-up activities when viable isolation means can provide an equivalent safety function. Provisions are also included to minimize actions that would create unnecessary radiation exposure for plant personnel when administrative means will provide an acceptable level of assurance that the isolation devices are in place.

3.0 BACKGROUND

System Design Bases and Description

The Reactor Building Purge Ventilating (RBPV) system is designed to maintain the environment in the primary and secondary containment within acceptable limits for equipment operation and for personnel access during inspection, testing, maintenance, and refueling operations, and to limit the release of radioactivity to the environment. The RBPV system is described in Section 9.4.7 of the Updated Final Safety Analysis Report (UFSAR).

The design bases include the provisions to:

1. Supply fresh air for breathing and contamination control when the primary or annulus secondary containment is or will be occupied.

2. Exhaust primary or annulus secondary containment air to the outdoors whenever the purge air supply system is operated.

3. Cleanup containment exhaust by routing the air through HEPA-charcoal filter trains before release to the atmosphere.

4. Provide a reduced quantity of ventilating air to permit occupancy of the instrument room during reactor operation. The provisions for 1, 2, and 3 above will apply.

5. Ensure an unimpeded closure of the containment isolation valves installed in the system penetrations on a containment ventilation isolation (CVI) signal.

One complete and independent RBPV system is provided for each unit. The RBPV system provides for mechanical ventilation of the primary containment, the instrument room located within the containment, and the annulus secondary containment located between the Containment and Shield Building. The system is designed to supply fresh air for breathing, and contamination control to allow personnel access for maintenance and refueling operations. The exhaust air is filtered to limit the release of radioactivity to the environment.

Each purge system containment penetration is provided with both inboard and outboard air-operated isolation butterfly valves designed for minimum leakage in their closed position. A similar type of valve is mounted in each purge supply and exhaust air opening for the annulus, and in each of the systems main supply and exhaust duct located exterior to the Shield Building. Each of the above butterfly valves is designed to fail closed and to be normally closed during purge system shutdown.

The containment purge penetrations are safety-related in that they must not jeopardize the integrity of the containment boundary. These penetrations are designed to withstand (with essentially zero leakage) the forces produced by a loss-of-coolant accident (LOCA), or a main steam line break (MSLB). The penetrations are provided with an isolation mechanism which is activated by the initiation of the CVI signal. The isolation mechanism has 100 percent redundancy in both

equipment and power sources. The system is also isolated upon detection of high radiation in the purge exhaust.

Containment Isolation Valve Performance

The containment purge supply and exhaust valves at SQN have consistently performed well within the leakage limits required by TSs. Leakage values are determined on a frequency of at least once per three months in accordance with Surveillance Requirement 4.6.1.9.3. On February 27, 2003, SQN identified leakage of a purge system flow path in excess of the TS 4.6.1.9.3 limit. The leakage identified did not exceed the required values for containment isolation valves in TS 6.8.4.h, "Containment Leakage Rate Testing Program." TVA verbally requested and received approval from NRC to exceed the shutdown requirements of Specification 3.6.1.9, Action b, for a period of 144 hours to implement repairs to the flow path on February 28, 2003. This action was followed by a letter to NRC dated March 4, 2003, and NRC responded in a letter dated March 6, 2003. The cause of the excessive leakage was the failure of the valve operator key to fully close the valve disk. Repair of the valve operator returned the valve to acceptable leakage limits.

TVA evaluated the provisions in the latest version of the standard TSs (NUREG-1431, Revision 2) as a result of this event and determined that an option to unit shutdown was recommended. This option was the isolation of the affected flow path by means consistent with containment isolation valve requirements. This allowance provides an acceptable measure of safety because it completes the isolation function that the valves are intended to perform for accident mitigation. The proposed change is being pursued to provide the flexibility to continue plant operation or start-up activities when acceptable isolation capabilities can be implemented. This change will also minimize the need for enforcement discretion should similar events occur in the future.

4.0 TECHNICAL ANALYSIS

The proposed change revises the action to take for a containment purge supply or exhaust valve exceeding the allowed leakage limit. The safety function that is affected is the containment ventilation system as it applies to allowed cumulative purging or venting of the containment. The limit for purging or venting is not altered by this change. Also, the actions retain the current requirements with the addition of an option to mitigate a valve having leakage values in excess of the limit. The shutdown requirement for an inoperable valve that cannot provide acceptable isolation will still apply if alternate means to isolate the flow path cannot be established. The alternate

means that are proposed are the same as those considered to be acceptable for containment isolation valves, which the purge supply and exhaust valves are included. The valve leakage limits for the containment isolation valves are less restrictive than this function but are considered to be equivalent. In fact, the containment ventilation system specification does not appear in NUREG-1431 as the provisions in the containment isolation valve specification provide adequate limits to ensure the isolation functions.

Allowing a purge supply or exhaust valve to be inoperable while the associated flow path is isolated does not reduce the effectiveness of the mitigation function. The proposed change allows the isolation of the flow path by at least one closed and de-activated automatic valve, closed manual valve, or a blind flange. Each of these methods ensure that the flow path is isolated such that releases to the atmosphere cannot exceed the established limits. In each case, inadvertent operation of the valve that would reduce the isolation effectiveness is minimized to a reasonable extent. The proposed option provides a condition that already satisfies the safety function without the need for actuations that could experience an active failure. Therefore, the proposed option for a containment purge supply or exhaust valve is as conservative or more than a fully operable valve.

The proposed change also includes a verification of the isolation of the flow path on a 31 day basis as recommended in NUREG-1431 and consistent with the containment isolation valve requirements. This verification has conditional requirements based on the location of the isolation device. If the device is outside containment and is not in a high radiation area, it will be verified to be performing its isolation function every 31 days while the purge supply or exhaust valve is inoperable. If the device is inside containment, verifications will be made prior to entering Mode 4 operation unless it has been verified within the previous 92 days. This allowance is acceptable because of the limited access to the containment and the unlikelihood that the device would be altered from its isolation function. This exception also supports the as low as reasonably achievable (ALARA) philosophy to minimize exposure of plant personnel to radiation. The proposed footnote also supports the ALARA position by further allowing the use of administrative means to verify isolation devices in high radiation areas or those devices that are locked, sealed, or otherwise secured. These secured devices are unlikely to be operated with such features in place and therefore, the isolation function is assured.

TS 3.6.1.9 does not currently contain actions that provide indefinite provisions for continued operation. Because of this, TS 3.6.1.9 has not been a candidate for an exclusion to

the provisions of Specification 3.0.4. Specification 3.0.4 requires limiting conditions for operation to be met without reliance on the action provisions prior to changing operating modes. Exceptions to this requirement are generally acceptable when the required action provides an acceptable substitution of the safety function to allow indefinite operation of the unit. The NUREG and the similar actions in SQN TS 3.6.3 include this exclusion to Specification 3.0.4 and this provision is proposed for addition to Action b of TS 3.6.1.9 for consistency. This addition is also necessary to allow the continuation of start-up activities when acceptable isolation methods are in place. Without this exclusion the provision to only verify the isolation devices inside containment prior to Mode 4 entry would be unnecessary because unit start-up activities could not be performed.

These proposed changes are consistent with NUREG-1431 and the provisions for containment isolation valves as required in Specification 3.6.3. As previously discussed, the containment ventilation system specification (TS 3.6.1.9) does not appear in NUREG-1431 but will be retained as part of SQN's current licensing basis. The proposed changes are consistent with the equivalent provisions in the containment isolation valve portion of the NUREG for the containment purge supply and exhaust valves. One difference pertains to a provision that increases the surveillance frequency for valve leakage to once per 92 days if the isolation device is a containment purge supply or exhaust valve. This provision is not necessary for SQN as the current licensing basis requires all containment purge supply and exhaust valves to be verified to be within leakage limits every 3 months. The NUREG-1431 allowance to perform the leakage surveillance on a 184 day basis has not been incorporated into SQN's TSs and is not proposed in this request.

NUREG-1431 includes a reviewers note in the Bases for containment purge supply and exhaust valves. This note supports the use of the proposed TS provisions for a purge valve that has exceeded the allowed leakage limits when leak testing of the two required containment isolation valves can be performed on each valve separately. SQN normally test each pair of containment purge valves simultaneously by pressurizing the test volume between the two valves. However, the system can be manually configured to test the valves separately should the leakage exceed the allowed limit. This will provide the ability to verify which valve is creating the excessive leakage condition and identify a device with acceptable isolation capability that can be closed to achieve the required action. If these manual actions cannot be achieved within the 24-hour action completion time, the subsequent actions to initiate unit shutdown will be performed in accordance with the TSs. The proposed use of the revised action meets the provisions

outlined in the reviewers note of NUREG-1431 regarding the testing capability of the containment purge supply and exhaust valves.

In summary, the proposed changes provide an option to a required unit shutdown or delay in start-up for a containment purge supply or exhaust valve that exceeds the leakage limit. This change results in a condition as good as or better than the functions provided by a fully operational containment ventilation system. Necessary provisions are included to ensure the alternative isolation function is in place and effective at reasonable intervals. The proposed option results in a lower risk to the plant than the performance of an unnecessary unit shutdown. Therefore, the proposed changes to Action b of Specification 3.6.1.9 will result in a more conservative requirement with a lower safety risk for dealing with a containment purge supply or exhaust valve that has exceeded its allowed leakage limit.

5.0 REGULATORY SAFETY ANALYSIS

This letter is a request to amend Operating License(s) DPR-77 and DPR-79 for Sequoyah Nuclear Plant (SQN) Units 1 and 2. The proposed change would revise Action b of Specification 3.6.1.9, "Containment Ventilation System" to allow an alternative to returning the inoperable containment purge supply or exhaust valve to operable conditions for continued operation. The alternative ensures isolation of the affected flow path such that potential release paths to the environment are sufficiently restricted to meet regulatory limits. This change will minimize the need to initiate a unit shutdown or delay start-up activities when acceptable means are available to ensure the required safety function. Additional exceptions for the verification of isolation devices are proposed to minimize the exposure of plant personnel to radiation when administrative means can provide a reasonable level of assurance. The proposed changes are consistent with the latest version of the standard technical specifications (TSs) (NUREG-1431, Revision 2) for isolation functions associated with containment isolation valves.

5.1 No Significant Hazards Consideration

TVA has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

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

Response: No.

The proposed change does not alter any plant system or operating practice. This change will allow the isolation of the affected flow path such that the safety function is completed when the associated automatic isolation valve is inoperable because of leakage. The containment purge supply and exhaust valves are not considered to be the source of an accident as their function is to isolate containment from the outside environs in the event of an accident. Accident generation probability is not affected by providing alternative isolation methods that continue to satisfy the required safety function. Therefore, the proposed change does not involve an increase in the probability of an accident previously evaluated.

The proposed addition for the isolation of the affect flow path in place of a required shutdown of the unit, provides an equivalent safety function without the risk associated with a unit shutdown. Using a feature that has minimal potential for inadvertent loss of function and a more frequent surveillance to ensure that the isolation function is maintained, is as good or better than the automatic system that is required by the TSs. This is because the proposed action utilizes a passive feature in place of an active system and ensures offsite dose consequences within required limits. Additionally, the overall plant safety is enhanced by not requiring a unit shutdown when acceptable measure can be taken to preserve the safety function of the containment purge supply and exhaust valves. Therefore, the proposed change does not involve an increase in the consequences of an accident previously evaluated.

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

Response: No.

The proposed change does not involve a change to plant systems, components, or operating practices that could result in a change in accident generation potential. In addition, the purge and exhaust valves are utilized for the isolation of flow paths to the environs and are not a feature that could generate a postulated accident. Use of

the proposed action for inoperable purge and exhaust valves will not impact the potential for accidents. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No.

   The proposed changes do not alter plant systems or their setpoints that are used to maintain the margin of safety. Additionally, the proposed change provides a method to ensure the safety function of the containment ventilation and isolation systems are retain for accident mitigation purposes. The proposed change will improve the margin of safety by not requiring a unit shutdown when acceptable methods for maintaining plant safety functions can be achieved. Therefore, the proposed change does not involve a reduction in a margin of safety.

Based on the above, TVA concludes that the proposed amendment(s) present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Applicable Regulatory Requirements/Criteria

Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to include technical specifications (TSs) as part of the license. The Commission's regulatory requirements related to the content of the TS are contained in Title 10, Code of Federal Regulations (10 CFR), Section 50.36. The TS requirements in 10 CFR 50.36 include the following categories: (1) safety limits, limiting safety systems settings and control settings, (2) limiting conditions for operation (LCO), (3) surveillance requirements, (4) design features, and (5) administrative controls. The isolation requirements for the containment purge supply and exhaust valves are included in the TS in accordance with 10 CFR 50.36(c)(2), "Limiting Conditions for Operation."

As stated in 10 CFR 50.59(c)(1)(i), a licensee is required to submit a license amendment pursuant to 10 CFR 50.90 if a change to the TS is required. Furthermore, the requirements of 10 CFR 50.59 necessitate that U.S. Nuclear Regulatory Commission

(NRC) approve the TS changes before the TS changes are implemented. TVA's submittal meets the requirements of 10 CFR 50.59(c)(1)(i) and 10 CFR 50.90.

NUREG-1431, Revision 2, "Standard Technical Specifications Westinghouse Plants," provides generic recommendations for requirements associated with the operation of Westinghouse Electric Company design nuclear power plants. NUREG-1431 does not contain a specification for the containment ventilation system but does include the operability of the containment purge supply and exhaust valves in the requirements for the containment isolation valves. The proposed changes to the SQN TSs are consistent with the action provisions for these valves in the NUREG and provide the same assurance for availability of the associated isolation function. The proposed change is consistent with and meets the intent in NUREG-1431 for operability and actions for inoperable containment isolation valves.

Title 10, "Energy," of the Code of Federal Regulations (CFR), Part 100, "Reactor Site Criteria," establishes approval requirements for proposed sites for stationary power and testing reactors. Within this part, the limits for total radiation dose to the whole body and the total radiation dose to the thyroid from iodine exposure is contained. The proposed change to the SQN TSs proposes an alternative method to address a containment purge supply or exhaust valve that has leakage above the established limit. This alternative requires the flow path to be isolated by a method that does not have the potential to be operated inadvertently. Since the purpose of the leakage limit for these valves is to ensure the ability to maintain the 10 CFR 100 limits during accident conditions, placing an affected flow path in an isolated state meets this intent.

The proposed change to the action requirements could be seen as a more conservative condition than an operable containment purge supply or exhaust valve since a passive failure would have to occur to impact the valve's safety function and dose limits. Since the proposed change provides an action that meets the safety function for containment isolation, the requirements of 10 CFR 100 will continue to be met and offsite dose limits will not be impacted.

Appendix A of 10 CFR 50, "General Design Criteria for Nuclear Power Plants," Criteria V, "Reactor Containment," contains several items that can apply to the proposed change. General Design Criteria (GDC) 50,

"Containment Design Basis," discusses the containment structure and the need for this structure and associated penetrations to be able to withstand the pressures of a loss-of-coolant accident and not exceed allowable leakage limits. The proposed change will allow a penetration that does not meet the leakage limits to be replaced by an isolation method that ensures an acceptable restriction to leakage. Since leakage limits will continue to be met with the proposed change, the GDC 50 criteria will continue to be satisfied.

GDC 52, "Capability for Containment Leakage Rate Testing," and GDC 53, "Provisions for Containment Testing and Inspection," discuss the need for the containment design to allow testing at design pressures and for periodic testing. The proposed change will not alter the containment design and only provides an alternative to unit shutdown for a purge supply or exhaust valve having excessive leakage. This alternative provides an isolation method that meets the leakage requirements for the penetration flow path by means that are only susceptible to passive failures. Therefore, the testability of the containment is not affected and the criteria of GDC 52 and GDC 53 continue to be satisfied.

GDC 56, "Primary Containment Isolation," discusses the attributes necessary to ensure that containment penetrations are capable of being properly isolated to minimize the release of radioactive material. The design of the SQN containment penetrations are not being altered and automatic functions will not be affected. Only in situations that the automatic purge supply or exhaust valve cannot meet the allowed leakage limits will the proposed change allow the use of other isolation means. While utilizing these alternate methods that provide an equivalent isolation function, the unaffected isolation valve in the associated flow path will be operable and capable of satisfying this criterion. The defective valve will be replaced with an isolation device that meets the intent of this criterion on a temporary basis in response to the inoperability. The proposed change also includes isolation verification attributes that compensate for the locked provision in GDC 56. Therefore, the isolation function is not degraded and the criterion of GDC 56 continues to be satisfied.

In conclusion, based on the considerations discussed above, (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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 50.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

7.0 REFERENCE

NUREG-1431, Revision 2, "Standard Technical Specifications Westinghouse Plants," April 2001

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT (SQN)
UNITS 1 AND 2

Proposed Technical Specification Changes (mark-up)

I. AFFECTED PAGE LIST

Unit 1

3/4 6-15

Unit 2

3/4 6-15

II. MARKED PAGES

See attached.

CONTAINMENT SYSTEMS

CONTAINMENT VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.1.9 One pair (one purge supply line and one purge exhaust line) of containment purge system lines may be open; the containment purge supply and exhaust isolation valves in all other containment purge lines shall be closed. Operation with purge supply or exhaust isolation valves open for either purging or venting shall be limited to less than or equal to 1000 hours per 365 days. The 365 day cumulative time period will begin every January 1.

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

ACTION:

a. With a purge supply or exhaust isolation valve open in excess of the above cumulative limit, or with more than one pair of containment purge system lines open, close the isolation valve(s) in the purge line(s) within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With a containment purge supply and/or exhaust isolation valve having a measured leakage rate in excess of 0.05 L_a, restore the inoperable valve to OPERABLE status within 24 hours~~, otherwise~~ be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Insert 1

Insert 2

Insert 3

SURVEILLANCE REQUIREMENTS

4.6.1.9.1 The position of the containment purge supply and exhaust isolation valves shall be determined at least once per 31 days.

4.6.1.9.2 The cumulative time that the purge supply and exhaust isolation valves are open over a 365 day period shall be determined at least once per 7 days.

4.6.1.9.3 At least once per 3 months, each containment purge supply and exhaust isolation valve shall be demonstrated OPERABLE by verifying that the measured leakage rate is less than or equal to 0.05 L_a.*

* Enter the ACTION of LCO 3.6.1.1, "Primary Containment" when purge valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

Insert 4

CONTAINMENT SYSTEMS

CONTAINMENT VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.1.9 One pair (one purge supply line and one purge exhaust line) of containment purge system lines may be open; the containment purge supply and exhaust isolation valves in all other containment purge lines shall be closed. Operation with purge supply or exhaust isolation valves open for either purging or venting shall be limited to less than or equal to 1000 hours per 365 days. The 365 day cumulative time period will begin every January 1.

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

ACTION:

a. With a purge supply or exhaust isolation valve open in excess of the above cumulative limit, or with more than one pair of containment purge system lines open, close the isolation valve(s) in the purge line(s) within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With a containment purge supply and/or exhaust isolation valve having a measured leakage rate in excess of 0.05 L_a, restore the inoperable valve to OPERABLE status within 24 hours, ~~otherwise~~ be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Insert 1

Insert 3

Insert 2

SURVEILLANCE REQUIREMENTS

4.6.1.9.1 The position of the containment purge supply and exhaust isolation valves shall be determined at least once per 31 days.

4.6.1.9.2 The cumulative time that the purge supply and exhaust isolation valves are open over a 365 day period shall be determined at least once per 7 days.

4.6.1.9.3 At least once per 3 months, each containment purge supply and exhaust isolation valve shall be demonstrated OPERABLE by verifying that the measured leakage rate is less than or equal to 0.05 L_a.*

* Enter the ACTION of LCO 3.6.1.1, "Primary Containment" when purge valve leakage results in exceeding the overall containment leakage rate acceptance criteria.

Insert 4

Insert 1

or isolate the affected penetration flow path by use of at least one closed and de-activated automatic valve, closed manual valve, or blind flange

Insert 2

. Verify** the affected penetration flow path is isolated once per 31 days for isolation devices outside containment and prior to entering Mode 4 from Mode 5 if not performed within the previous 92 days for isolation devices inside containment. Otherwise

Insert 3

The provisions of Specification 3.0.4 do not apply.

Insert 4

** Isolation devices in high radiation areas may be verified by use of administrative means.

Isolation devices that are locked, sealed, or otherwise secured may be verified by use of administrative means.