ENCLOSURE 1

PROPOSED TECHNICAL SPECIFICATIONS REVISIONS

BROWNS FERRY NUCLEAR PLANT

UNITS 1, 2, AND 3

(TVA BFN TS 236)

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UNIT 1

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1.0-3 through 1.0-4	1.0-3 through 1.0-4
3.7/4.7-17 through 3.7/4.7-18	3.7/4.7-17 through 3.7/4.7-18

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O. Primary Containment Integrity - Primary containment integrity means that the drywell and pressure suppression chamber are intact and all of the following conditions are satisfied:

1. All nonautomatic containment isolation valves on lines connected to the reactor coolant systems or containment which are not required to be open during accident conditions are closed. These valves may be opened to perform necessary operational activities.

2. At least one door in each airlock is closed and sealed.

3. All automatic containment isolation valves are operable or ~~deactivated in the isolated position.~~

4. All blind flanges and manways are closed.

each line which contains an inoperable isolation valve is isolated as required by specification 3.7.D.2.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.C. Secondary Containment	
4. If refueling zone secondary containment cannot be maintained the following conditions shall be met:	
a. Handling of spent fuel and all operations over spent fuel pools and open reactor wells containing fuel shall be prohibited.	
b. The standby gas treatment system suction to the refueling zone will be blocked except for a controlled leakage area sized to assure the achieving of a vacuum of at least 1/4-inch of water and not over 3 inches of water in all three reactor zones.	
D. Primary Containment Isolation Valves	D. Primary Containment Isolation Valves
1. ~~During reactor power operation~~, all isolation valves listed in Table 3.7.A and all reactor coolant system instrument line flow check valves shall be OPERABLE except as specified in 3.7.D.2.	1. The primary containment isolation valves surveillance shall be performed as follows:
When Primary Containment Integrity is required	a. At least once per operating cycle the OPERABLE isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and closure times.
	b. At least once per quarter:
	(1) All normally open power operated isolation valves (except for the main steam line power-operated isolation valves) shall be fully closed and reopened.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.D. Primary Containment Isolation Valves	4.7.D. Primary Containment Isolation Valves
	4.7.D.1.b (Cont'd) (2) With the reactor power less than 75%, trip main steam isolation valves individually and verify closure time. c. At least twice per week the main steam line power-operated isolation valves shall be exercised one at a time by partial closure and subsequent reopening. d. At least once per operating cycle the operability of the reactor coolant system instrument line flow check valves shall be verified.
2. In the event any isolation valve specified in Table 3.7.A becomes INOPERABLE, reactor power operation may continue provided at least one valve, in each line having an INOPERABLE valve, is ~~in the mode corresponding to the isolated condition.~~	2. Whenever an isolation valve listed in Table 3.7.A is INOPERABLE, the position of at least one other valve in each line having an INOPERABLE valve shall be recorded daily.
3. If Specification 3.7.D.1 and 3.7.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the Cold Shutdown condition within 24 hours.	

OPERABLE and within 4 hours either:

a. The INOPERABLE valve is restored to OPERABLE status, or

b. Each affected line is isolated by use of at least one deactivated containment isolation valve secured in the isolated position.

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1. All nonautomatic containment isolation valves on lines connected to the reactor coolant systems or containment which are not required to be open during accident conditions are closed. These valves may be opened to perform necessary operational activities.

2. At least one door in each airlock is closed and sealed.

3. All automatic containment isolation valves are operable or ~~deactivated in the isolated position.~~ each line which contains an inoperable isolation valve is isolated as required by specification 3.7.D.2.

4. All blind flanges and manways are closed.

P. Secondary Containment Integrity

1. Secondary containment integrity means that the reactor building is intact and the following conditions are met:

a) At least one door in each access opening to the turbine building, control bay and out-of-doors is closed.

b) The Standby Gas Treatment System is operable and can maintain 0.25 inches of water negative pressure in those areas where secondary containment integrity is stated to exist.

c) All secondary containment penetrations required to be closed during accident conditions are either:

1. Capable of being closed by an operable secondary containment automatic isolation system, or

2. Closed by at least one secondary containment automatic isolation valve deactivated in the isolated position.

2. Reactor zone secondary containment integrity means the unit reactor building is intact and the following conditions are met:

a) At least one door between any opening to the turbine building, control bay and out-of-doors is closed.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.C. Secondary Containment	
4. If refueling zone secondary containment cannot be maintained the following conditions shall be met:	
a. Handling of spent fuel and all operations over spent fuel pools and open reactor wells containing fuel shall be prohibited.	
b. The standby gas treatment system suction to the refueling zone will be blocked except for a controlled leakage area sized to assure the achieving of a vacuum of at least 1/4-inch of water and not over 3 inches of water in all three reactor zones.	
D. Primary Containment Isolation Valves	D. Primary Containment Isolation Valves
1. ~~During reactor power operation,~~ all isolation valves listed in Table 3.7.A and all reactor coolant system instrument line flow check valves shall be OPERABLE except as specified in 3.7.D.2.	1. The primary containment isolation valves surveillance shall be performed as follows:
When Primary Containment Integrity is required	a. At least once per operating cycle the OPERABLE isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and closure times.
	b. At least once per quarter:
	(1) All normally open power-operated isolation valves (except for the main steam line power-operated isolation valves) shall be fully closed and reopened.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.D. Primary Containment Isolation Valves	4.7.D. Primary Containment Isolation Valves
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2. In the event any isolation valve specified in Table 3.7.A becomes INOPERABLE, reactor power operation may continue provided at least one valve, in each line having an INOPERABLE valve, is ~~in the mode corresponding to the isolated condition.~~	2. Whenever an isolation valve listed in Table 3.7.A is INOPERABLE, the position of at least one other valve in each line having an INOPERABLE valve shall be recorded daily.
3. If Specification 3.7.D.1 and 3.7.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the Cold Shutdown condition within 24 hours.	

OPERABLE and within 4 hours either:

a. The INOPERABLE valve is restored to OPERABLE status, or

b. Each affected line is isolated by use of at least one deactivated containme. isolation valve secured in the isolated position.

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1. All nonautomatic containment isolation valves on lines connected to the reactor coolant system or containment which are not required to be open during accident conditions are closed. These valves may be opened to perform necessary operational activities.

2. At least one door in each airlock is closed and sealed.

3. All automatic containment isolation valves are operable or ~~deactivated in the isolated position.~~ each line which contains an inoperable isolation valve is isolated as required by specification 3.7.D.2.

4. All blind flanges and manways are closed.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.C. Secondary Containment	
4. If refueling zone secondary containment cannot be maintained the following conditions shall be met:	
a. Handling of spent fuel and all operations over spent fuel pools and open reactor wells containing fuel shall be prohibited.	
b. The standby gas treatment system suction to the refueling zone will be blocked except for a controlled leakage area sized to assure the achieving of a vacuum of at least 1/4-inch of water and not over 3 inches of water in all three reactor zones.	
D. Primary Containment Isolation Valves	D. Primary Containment Isolation Valves
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When Primary Containment Integrity is required	a. At least once per operating cycle the OPERABLE isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and closure times.
	b. At least once per quarter:
	(1) All normally open power-operated isolation valves (except for the main steam line power-operated isolation valves) shall be fully closed and reopened.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.D. Primary Containment Isolation Valves	4.7.D. Primary Containment Isolation Valves
	4.7.D.1.b (Cont'd) (2) With the reactor power less than 75%, trip main steam isolation valves individually and verify closure time. c. At least twice per week the main steam line power-operated isolation valves shall be exercised one at a time by partial closure and subsequent reopening. d. At least once per operating cycle the operability of the reactor coolant system instrument line flow check valves shall be verified.
2. In the event any isolation valve specified in Table 3.7.A becomes INOPERABLE, reactor power operation may continue provided at least one valve in each line having an INOPERABLE valve is ~~in the mode corresponding to the isolated condition.~~	2. Whenever an isolation valve listed in Table 3.7.A is INOPERABLE, the position of at least one other valve in each line having an INOPERABLE valve shall be recorded daily.
3. If Specification 3.7.D.1 and 3.7.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the Cold Shutdown condition within 24 hours.	

OPERABLE and within 4 hours either:

a. The INOPERABLE valve is restored to OPERABLE status, or

b. Each affected line is isolated by use of at least one deactivated containment isolation valve secured in the isolated position.

Enclosure 2
Description and Justification
Browns Ferry Nuclear Plant (BFN)

Description of Change

The Technical Specifications of Browns Ferry Nuclear Plant are changed to revise:

A. Limiting Condition for Operation (LCO) 3.7.D.1, to require primary containment isolation valves be operable when primary containment integrity is required. Primary containment integrity is required by LCO 3.7.A.2.a when the reactor is critical or when the reactor water temperature is above 212°F. Currently, LCO 3.7.D.1 required primary containment isolation valves be operable only during reactor power operations.

B. LCO 3.7.D.2, to permit reactor operation to continue for up to 4 hours with an inoperable primary containment isolation valve, without requiring a redundant valve be placed in the isolated position, and provided that at least one isolation valve in the line having an inoperable isolation valve is operable, and

C. Definition 1.0.0.3, Primary Containment Integrity, to reference specification 3.7.D.2 which defines under what conditions reactor operation is acceptable with an inoperable primary containment isolation valve.

Reason for Changes

A. LCO 3.7.D.1 requires primary containment isolation valves to be operable only during reactor power operation. This is inconsistent with LCO 3.7.A.2.a which requires primary containment integrity be maintained when the reactor is critical or when the reactor water temperature is above 212°F. Therefore, LCO 3.7.D.1 is being revised to be consistent with LCO 3.7.A.2 by requiring the primary containment isolation valves be operable when primary containment integrity is required.

B. LCO 3.7.D.2 action does not specify a time period for isolating the line which contains an inoperable primary containment isolation valve. The revised LCO 3.7.D.2 specifies a time period for completing this action and provides increased operational flexibility by allowing the repair of an inoperable valve as an alternative to isolating the affected line.

C. Definition 1.0.0.3 is being revised to be consistent with revised LCO 3.7.D.2 action.

Justification for Changes

A. LCO 3.7.D.1 requires primary containment isolation valves be operable only during reactor power operations. Reactor power operation is defined as any operation with the mode switch in the "Startup" or "Run" position with the reactor critical and above 1 percent rated power. This revision will require primary containment isolation valves be operable whenever primary containment integrity is required. LCO 3.7.A.2.a requires primary containment integrity when the reactor is critical or when the reactor water temperature is above 212°F. Therefore, this change will additionally require the primary containment isolation valves be operable when the reactor is in hot shutdown or a hot standby condition. Hot shutdown is when the reactor is in the shutdown mode with control rods fully inserted and the reactor coolant temperature greater than 212°F. Hot Standby condition means operation with coolant temperature greater than 212°F, system pressure less than 1055 psig, the main steam isolation valves closed and the mode switch in the Startup/Hot Standby position. Since this change will require the primary containment isolation valves be operable over a broader range of operating conditions, it constitutes additional operating restrictions and is therefore conservative.

B. The change to LCO 3.7.D.2 action permits reactor operation to continue for a short period of time (4 hours) when a primary containment isolation valve is inoperable, without requiring a redundant valve be placed in the isolated position, provided that at least one isolation valve in the same line is operable. The BFN primary containment isolation valve system is designed to provide the capability for rapid isolation of lines which penetrate the primary containment. The primary containment isolation valves are designed to limit leakage of primary containment atmosphere to the environment after an accident and, in the case of lines connected to the reactor coolant system, to limit loss of reactor coolant due to a line break outside containment. The probability of such an accident and a single failure of the operable primary containment isolation valve occurring during the four hour time period is negligible. This change is consistent with other Browns Ferry Technical Specification requirements as demonstrated by Table 3.2.A, Note 11, which allows a channel of the primary containment isolation instrumentation to be placed in an inoperable status for up to four hours for surveillance without placing the channel in the tripped condition. This change is also consistent with recently approved Technical Specifications for other facilities as demonstrated by 3.6.3.a of the Hope Creek Generating Station Technical Specifications (NUREG-1202, July 1986) which allows four hours to restore the inoperable primary containment isolation valve or isolate the affected penetration.

Justification for Changes

C. Definition 1.0.0.3 must be consistent with revised LCO 3.7.D.2 action so as to satisfy the definition of primary containment integrity during the four hours that a line penetrating the primary containment is permitted to remain open when an isolation valve is inoperable. This change is purely administrative and does not affect nuclear safety.

Enclosure 3
Determination of No Significant Hazards Consideration
Browns Ferry Nuclear Plant
Units 1, 2, and 3

Description of Amendment

The proposed amendment would modify the Technical Specification (TS) of BFN units 1, 2 and 3 to:

A. Require that primary containment isolation valves be operable whenever primary containment integrity is required to be maintained.

B. Permit a primary containment isolation valve(s) to be inoperable for up to four hours without placing a redundant valve in the isolated position provided that at least one operable isolation valve in the same line is operable.

C. Revise the definition 1.0.0.3, Primary Containment Integrity, to be consistent with Item B.

Basis for Proposed No Significant Hazards Consideration Determination

The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards considerations if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated, or (2) create the possibility of a new or different kind of accident from an accident previously evaluated, or (3) involve a significant reduction in a margin of safety.

1. This proposed amendment does not involve an increase in the probability or consequences of an accident previously evaluated. A) The change to increase the requirements for having the primary containment isolation valves operable for all the operating conditions when primary containment integrity is required, rather than just during reactor power operation, is an upgrade in required valve operability which does not influence the probability of any accident initiating events. The consequences of any accident previously evaluated would not be increased since the primary containment isolation valves would still be operable for isolating any previously analyzed release pathway. B) The action to specify a time period (four hours) for a primary containment isolation valve(s) to be inoperable without placing a redundant isolation valve in the isolated position, provided that a redundant isolation valve is operable, would not involve a significant increase in the probability or consequences of an accident previously evaluated. This change does not influence the probability of any accident initiating event. In order for the change to result in adverse consequences to the plant, all of the following events would have to occur sequentially within a four hour time period:

   a) A primary containment isolation valve would have to be declared inoperable and be in an unisolated state.

Basis for Proposed No Significant Hazards Consideration Determination (Cont'd)

b) An accident would have to occur which would require the isolation of the primary containment.

c) The second primary containment isolation valve in the affected line would have to suffer a failure which would leave it in an unisolated state.

This sequence of events is considered to be highly improbable. The probability of an accident and a single failure of the operable primary containment isolation valve occurring during the four hour time period is negligible. This change is consistent with Technical Specifications recently approved for other facilities. C) The change to the definition of primary containment integrity has no impact on the probability or consequences of an accident as described in B above.

2. (A) The possibility of a new or different kind of accident from an accident previously evaluated is not created by conservatively requiring the primary containment isolation valves be operable over a broader range of operating conditions.

(B) and (C) This Technical Specification change will still r operable primary containment isolation valve be available to consequences of an accident. Reliance on a single operable i valve for a short (four hour) time frame is sufficient to ass affected line will isolate as previously analyzed. Allowing containment isolation valve to be inoperable for four hours d create the possibility of a new or different kind of accident accident previously evaluated.

3. (A) The TS revision will broaden the operating conditions under which primary containment isolation valves are required to be operable. This change does not affect any margin of safety.

(B) and (C) The change to allow a primary containment isolation valve to be inoperable for four hours deals only with the reliability of the affected line to isolate. A safety margin is not affected if isolation of the affected line is assumed to occur as in Item 2 above.

Since the application for amendment involves a proposed change that is encompassed by the criteria for which no significant hazards consideration exists, TVA has made a proposed determination that the application involves no significant hazards consideration.

ENCLOSURE 1

PROPOSED TECHNICAL SPECIFICATIONS REVISIONS

BROWNS FERRY NUCLEAR PLANT

UNITS 1, 2, AND 3

(TVA BFN TS 236)

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2. At least one door in each airlock is closed and sealed.

3. All automatic containment isolation valves are operable or ~~deactivated in the isolated position.~~

4. All blind flanges and manways are closed.

each line which contains an inoperable isolation valve is isolated as required by specification 3.7.D.2.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.C. Secondary Containment	
4. If refueling zone secondary containment cannot be maintained the following conditions shall be met:	
a. Handling of spent fuel and all operations over spent fuel pools and open reactor wells containing fuel shall be prohibited.	
b. The standby gas treatment system suction to the refueling zone will be blocked except for a controlled leakage area sized to assure the achieving of a vacuum of at least 1/4-inch of water and not over 3 inches of water in all three reactor zones.	
D. Primary Containment Isolation Valves	D. Primary Containment Isolation Valves
1. ~~During reactor power operation,~~ all isolation valves listed in Table 3.7.A and all reactor coolant system instrument line flow check valves shall be OPERABLE except as specified in 3.7.D.2.	1. The primary containment isolation valves surveillance shall be performed as follows:
When Primary Containment Integrity is required	a. At least once per operating cycle the OPERABLE isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and closure times.
	b. At least once per quarter:
	(1) All normally open power operated isolation valves (except for the main steam line power-operated isolation valves) shall be fully closed and reopened.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.D. Primary Containment Isolation Valves	4.7.D. Primary Containment Isolation Valves
	4.7.D.1.b (Cont'd) (2) With the reactor power less than 75%, trip main steam isolation valves individually and verify closure time. c. At least twice per week the main steam line power-operated isolation valves shall be exercised one at a time by partial closure and subsequent reopening. d. At least once per operating cycle the operability of the reactor coolant system instrument line flow check valves shall be verified.
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OPERABLE and within 4 hours either:

a. The INOPERABLE valve is restored to OPERABLE status, or

b. Each affected line is isolated by use of at least one deactivated containment isolation valve secured in the isolated position.

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4. All blind flanges and manways are closed.

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1. Secondary containment integrity means that the reactor building is intact and the following conditions are met:

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b) The Standby Gas Treatment System is operable and can maintain 0.25 inches of water negative pressure in those areas where secondary containment integrity is stated to exist.

c) All secondary containment penetrations required to be closed during accident conditions are either:

1. Capable of being closed by an operable secondary containment automatic isolation system, or

2. Closed by at least one secondary containment automatic isolation valve deactivated in the isolated position.

2. Reactor zone secondary containment integrity means the unit reactor building is intact and the following conditions are met:

a) At least one door between any opening to the turbine building, control bay and out-of-doors is closed.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.C. Secondary Containment	
4. If refueling zone secondary containment cannot be maintained the following conditions shall be met:	
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O. Primary Containment Integrity - Primary containment integrity means that the drywell and pressure suppression chamber are intact and all of the following conditions are satisfied:

1. All nonautomatic containment isolation valves on lines connected to the reactor coolant system or containment which are not required to be open during accident conditions are closed. These valves may be opened to perform necessary operational activities.

2. At least one door in each airlock is closed and sealed.

3. All automatic containment isolation valves are operable or ~~deactivated in the isolated position.~~ each line which contains an inoperable isolation valve is isolated as required by specification 3.7.D.2.

4. All blind flanges and manways are closed.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.C. Secondary Containment	
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b. The standby gas treatment system suction to the refueling zone will be blocked except for a controlled leakage area sized to assure the achieving of a vacuum of at least 1/4-inch of water and not over 3 inches of water in all three reactor zones.	
D. Primary Containment Isolation Valves	D. Primary Containment Isolation Valves
1. ~~During reactor power operation,~~ all isolation valves listed in Table 3.7.A and all reactor coolant system instrument line flow check valves shall be OPERABLE except as specified in 3.7.D.2.	1. The primary containment isolation valves surveillance shall be performed as follows:
When Primary Containment Integrity is required	a. At least once per operating cycle the OPERABLE isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and closure times.
	b. At least once per quarter:
	(1) All normally open power-operated isolation valves (except for the main steam line power-operated isolation valves) shall be fully closed and reopened.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.D. Primary Containment Isolation Valves	4.7.D. Primary Containment Isolation Valves
	4.7.D.1.b (Cont'd)
	(2) With the reactor power less than 75%, trip main steam isolation valves individually and verify closure time.
	c. At least twice per week the main steam line power-operated isolation valves shall be exercised one at a time by partial closure and subsequent reopening.
	d. At least once per operating cycle the operability of the reactor coolant system instrument line flow check valves shall be verified.
2. In the event any isolation valve specified in Table 3.7.A becomes INOPERABLE, reactor power operation may continue provided at least one valve in each line having an INOPERABLE valve is ~~in the mode corresponding to the isolated condition.~~	2. Whenever an isolation valve listed in Table 3.7.A is INOPERABLE, the position of at least one other valve in each line having an INOPERABLE valve shall be recorded daily.
3. If Specification 3.7.D.1 and 3.7.D.2 cannot be met, an orderly shutdown shall be initiated and the reactor shall be in the Cold Shutdown condition within 24 hours.	

OPERABLE and within 4 hours either:

a. The INOPERABLE valve is restored to OPERABLE status, or

b. Each affected line is isolated by use of at least one deactivated containment isolation valve secured in the isolated position;

Enclosure 2
Description and Justification
Browns Ferry Nuclear Plant (BFN)

Description of Change

The Technical Specifications of Browns Ferry Nuclear Plant are changed to revise:

A. Limiting Condition for Operation (LCO) 3.7.D.1, to require primary containment isolation valves be operable when primary containment integrity is required. Primary containment integrity is required by LCO 3.7.A.2.a when the reactor is critical or when the reactor water temperature is above 212°F. Currently, LCO 3.7.D.1 required primary containment isolation valves be operable only during reactor power operations.

B. LCO 3.7.D.2, to permit reactor operation to continue for up to 4 hours with an inoperable primary containment isolation valve, without requiring a redundant valve be placed in the isolated position, and provided that at least one isolation valve in the line having an inoperable isolation valve is operable, and

C. Definition 1.0.0.3, Primary Containment Integrity, to reference specification 3.7.D.2 which defines under what conditions reactor operation is acceptable with an inoperable primary containment isolation valve.

Reason for Changes

A. LCO 3.7.D.1 requires primary containment isolation valves to be operable only during reactor power operation. This is inconsistent with LCO 3.7.A.2.a which requires primary containment integrity be maintained when the reactor is critical or when the reactor water temperature is above 212°F. Therefore, LCO 3.7.D.1 is being revised to be consistent with LCO 3.7.A.2 by requiring the primary containment isolation valves be operable when primary containment integrity is required.

B. LCO 3.7.D.2 action does not specify a time period for isolating the line which contains an inoperable primary containment isolation valve. The revised LCO 3.7.D.2 specifies a time period for completing this action and provides increased operational flexibility by allowing the repair of an inoperable valve as an alternative to isolating the affected line.

C. Definition 1.0.0.3 is being revised to be consistent with revised LCO 3.7.D.2 action.

Justification for Changes

A. LCO 3.7.D.1 requires primary containment isolation valves be operable only during reactor power operations. Reactor power operation is defined as any operation with the mode switch in the "Startup" or "Run" position with the reactor critical and above 1 percent rated power. This revision will require primary containment isolation valves be operable whenever primary containment integrity is required. LCO 3.7.A.2.a requires primary containment integrity when the reactor is critical or when the reactor water temperature is above 212°F. Therefore, this change will additionally require the primary containment isolation valves be operable when the reactor is in hot shutdown or a hot standby condition. Hot shutdown is when the reactor is in the shutdown mode with control rods fully inserted and the reactor coolant temperature greater than 212°F. Hot Standby condition means operation with coolant temperature greater than 212°F, system pressure less than 1055 psig, the main steam isolation valves closed and the mode switch in the Startup/Hot Standby position. Since this change will require the primary containment isolation valves be operable over a broader range of operating conditions, it constitutes additional operating restrictions and is therefore conservative.

B. The change to LCO 3.7.D.2 action permits reactor operation to continue for a short period of time (4 hours) when a primary containment isolation valve is inoperable, without requiring a redundant valve be placed in the isolated position, provided that at least one isolation valve in the same line is operable. The BFN primary containment isolation valve system is designed to provide the capability for rapid isolation of lines which penetrate the primary containment. The primary containment isolation valves are designed to limit leakage of primary containment atmosphere to the environment after an accident and, in the case of lines connected to the reactor coolant system, to limit loss of reactor coolant due to a line break outside containment. The probability of such an accident and a single failure of the operable primary containment isolation valve occurring during the four hour time period is negligible. This change is consistent with other Browns Ferry Technical Specification requirements as demonstrated by Table 3.2.A, Note 11, which allows a channel of the primary containment isolation instrumentation to be placed in an inoperable status for up to four hours for surveillance without placing the channel in the tripped condition. This change is also consistent with recently approved Technical Specifications for other facilities as demonstrated by 3.6.3.a of the Hope Creek Generating Station Technical Specifications (NUREG-1202, July 1986) which allows four hours to restore the inoperable primary containment isolation valve or isolate the affected penetration.

Justification for Changes

C. Definition 1.0.0.3 must be consistent with revised LCO 3.7.D.2 action so as to satisfy the definition of primary containment integrity during the four hours that a line penetrating the primary containment is permitted to remain open when an isolation valve is inoperable. This change is purely administrative and does not affect nuclear safety.

Enclosure 3
Determination of No Significant Hazards Consideration
Browns Ferry Nuclear Plant
Units 1, 2, and 3

Description of Amendment

The proposed amendment would modify the Technical Specification (TS) of BFN units 1, 2 and 3 to:

A. Require that primary containment isolation valves be operable whenever primary containment integrity is required to be maintained.

B. Permit a primary containment isolation valve(s) to be inoperable for up to four hours without placing a redundant valve in the isolated position provided that at least one operable isolation valve in the same line is operable.

C. Revise the definition 1.0.0.3, Primary Containment Integrity, to be consistent with Item B.

Basis for Proposed No Significant Hazards Consideration Determination

The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards considerations if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated, or (2) create the possibility of a new or different kind of accident from an accident previously evaluated, or (3) involve a significant reduction in a margin of safety.

1. This proposed amendment does not involve an increase in the probability or consequences of an accident previously evaluated. A) The change to increase the requirements for having the primary containment isolation valves operable for all the operating conditions when primary containment integrity is required, rather than just during reactor power operation, is an upgrade in required valve operability which does not influence the probability of any accident initiating events. The consequences of any accident previously evaluated would not be increased since the primary containment isolation valves would still be operable for isolating any previously analyzed release pathway. B) The action to specify a time period (four hours) for a primary containment isolation valve(s) to be inoperable without placing a redundant isolation valve in the isolated position, provided that a redundant isolation valve is operable, would not involve a significant increase in the probability or consequences of an accident previously evaluated. This change does not influence the probability of any accident initiating event. In order for the change to result in adverse consequences to the plant, all of the following events would have to occur sequentially within a four hour time period:

   a) A primary containment isolation valve would have to be declared inoperable and be in an unisolated state.

Basis for Proposed No Significant Hazards Consideration Determination (Cont'd)

b) An accident would have to occur which would require the isolation of the primary containment.

c) The second primary containment isolation valve in the affected line would have to suffer a failure which would leave it in an unisolated state.

This sequence of events is considered to be highly improbable. The probability of an accident and a single failure of the operable primary containment isolation valve occurring during the four hour time period is negligible. This change is consistent with Technical Specifications recently approved for other facilities. C) The change to the definition of primary containment integrity has no impact on the probability or consequences of an accident as described in B above.

2. (A) The possibility of a new or different kind of accident from an accident previously evaluated is not created by conservatively requiring the primary containment isolation valves be operable over a broader range of operating conditions.

(B) and (C) This Technical Specification change will still require one operable primary containment isolation valve be available to mitigate the consequences of an accident. Reliance on a single operable isolation valve for a short (four hour) time frame is sufficient to assure the affected line will isolate as previously analyzed. Allowing a primary containment isolation valve to be inoperable for four hours does not create the possibility of a new or different kind of accident from an accident previously evaluated.

3. (A) The TS revision will broaden the operating conditions under which primary containment isolation valves are required to be operable. This change does not affect any margin of safety.

(B) and (C) The change to allow a primary containment isolation valve to be inoperable for four hours deals only with the reliability of the affected line to isolate. A safety margin is not affected if isolation of the affected line is assumed to occur as in Item 2 above.

Since the application for amendment involves a proposed change that is encompassed by the criteria for which no significant hazards consideration exists, TVA has made a proposed determination that the application involves no significant hazards consideration.

CCM 10-9-87

10/14

LICENSING TRANSMITTAL TO NRC
SUMMARY AND CONCURRENCE SHEET

DATE 9/2/87 DATE DUE NRC _____ ACTION NO. _____

SUBMITTAL PREPARED BY S. M. Kane FEES REQUIRED YES X NO ____

PROJECT/DOCUMENT I.D. Request for Browns Ferry Nuclear Plant - Technical Specification (TS) Amendment - BFN TS 236

PURPOSE/SUMMARY The purpose of the amendment is to provide appropriate and consistent operability requirements for primary containment and to specify actions and time limits when an isolation valve is inoperable.

RESPONSE TO _____ (RIMS NO.) COMPLETE RESPONSE YES ___ NO ___

PROBLEM OR DEFICIENCY DESCRIPTION The current TS are inconsistent concerning when primary containment integrity is required. The current TS also do not specify a time period for isolating a line with an inoperable isolation valve. TVA has agreed to provide the proposed TS prior to any unit startup.

CORRECTIVE ACTION/COMMITMENT No new commitments are involved.

CONCURRENCE

NAME	ORGANIZATION	SIGNATURE OR LETTER REFERENCE	DATE
R. L. Lewis	BFN-Plant Manager	SDSP 15.8 Attachment 1	7/31/87
W. H. Hannum	NSRB	L42 870921 803	9/21/87
M. J. May	BFN-Licensing Manager		
P. J. Speidel	DNE	B22 870902 009	9/2/87

CCTS Coordinator _____

APPROVED _____ DATE Sept 28 1987
DNBL MANAGER

1072y

Waived 9/28/87 Verified Time