ATTACHMENT I

PROPOSED TECHNICAL SPECIFICATION CHANGE REGARDING MINIMUM ECCS COLD SHUTDOWN REQUIREMENTS (JPTS-88-002)

New York Power Authority

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

TABLE OF CONTENTS (Cont'd)

3.5 (cont'd)

F. ECCS-Cold Condition

1. A minimum of two low pressure Emergency Core Cooling subsystems shall be operable whenever irradiated fuel is in the reactor, the reactor is in the cold condition, and work is being performed with the potential for draining the reactor vessel.

2. A minimum of one low pressure Emergency Core Cooling subsystem shall be operable whenever irradiated fuel is in the reactor, the reactor is in the cold condition, and no work is being performed with the potential for draining the reactor vessel.

3 Emergency Core Cooling subsystems are not required to be operable provided that the reactor vessel head is removed, the cavity is flooded, the spent fuel pool gates are removed, and the water level above the fuel is in accordance with Specification 3.10.C.

4. With the requirements of 3.5.F.1, 3.5.F.2, or 3.5.F.3 not satisfied, suspend core alterations and all operations with the potential for draining the reactor vessel. Restore at least one system to operable status within 4 hours or establish Secondary Containment Integrity within the next 8 hours.

4.5 (cont'd)

F. ECCS-Cold Condition

Surveillance of the low pressure ECCS systems required by 3.5.F.1 and 3.5.F.2 shall be as follows:

1. Perform a flowrate test at least once every 3 months on the required Core Spray pump(s) and/or the RHR pump(s). Each Core Spray pump shall deliver at least 4,625 gpm against a system head corresponding to a reactor vessel pressure greater than or equal to 113 psi above primary containment pressure. Each RHR pump shall deliver at least 9900 gpm against a system head corresponding to a reactor vessel to primary containment differential pressure of $\geq$ 20 psid.

2. Perform a monthly operability test on the required Core Spray and/or LPCI motor operated valves.

3. Once each shift verify the suppression pool water level is greater than or equal to 10.33 ft. whenever the low pressure ECCS subsystems are aligned to the suppression pool.

4. Once each shift verify a minimum of 324 inches of water is available in the Condensate Storage Tanks (CST) whenever the Core Spray System(s) is aligned to the tanks.

3.5 (cont'd)

G. Maintenance of Filled Discharge Pipe

Whenever core spray subsystems, LPCI subsystems, HPCI, or RCIC are required to be operable, the discharge piping from the pump discharge of these systems to the last block valve shall be filled.

a. From and after the time that the pump discharge piping of the HPCI, RCIC, LPCI, or Core Spray Systems cannot be maintained in a filled

4.5 (cont'd)

G. Maintenance of Filled Discharge Pipe

The following surveillance requirements shall be adhered to, in order to assure that the discharge piping of the core spray subsystem, LPCI subsystem, HPCI, and RCIC are filled:

1. Every month prior to the testing of the LPCI subsystem and core spray subsystem, the discharge piping of these systems shall be vented from the high point, and water flow observed.

3.5 BASES (cont'd)

vessel head off the LPCI and Core Spray Systems will perform their designed safety function without the help of the ADS.

E. Reactor Core Isolation Cooling (RCIC) System

The RCIC is designed to provide makeup to the Reactor Coolant System as a planned operation for periods when the normal heat sink is unavailable. The RCIC also serves as redundant makeup system on total loss of all offsite power in the event that HPCI is unavailable. In all other postulated accidents and transients, the ADS provides redundancy for the HPCI. Based on this and judgements on the reliability of the HPCI system, an allowable repair time of 7 days is specified. Immediate and daily verifications of HPCI operability during RCIC outage is considered adequate based on judgement and practicality.

Low power physics testing and reactor operator training with inoperable components will be conducted only when the RCIC System is not required, (reactor coolant temperature $\leq$212°F and coolant pressure $\leq$150 psig). If the plant parameters are below the point where the RCIC System is required, physics testing and operator training will not place the plant in an unsafe condition.

Operability of the RCIC System is required only when reactor pressure is greater than 150 psig and reactor coolant temperature is greater than 212°F because core spray and low pressure coolant injection can protect the core for any size pipe break at low pressure.

F. ECCS-Shutdown Mode

Low pressure Emergency Core Cooling Systems (ECCS) are required when the reactor is in a cold condition to ensure adequate coolant inventory makeup in case of an inadvertent draindown of the reactor vessel. Two low pressure ECCS subsystems are required operable to meet the single-failure criterion.

The low pressure ECCS subsystems consist of two CS systems, two LPCI subsystems, or a combination thereof. Each CS system consists of one motor-driven pump, associated piping, and valves. Each CS system is capable of transferring water to the reactor vessel from the suppression pool or, when the suppression pool is unavailable, the condensate storage tank. In the cold condition, each LPCI subsystem consists of one motor-driven pump, associated piping, and valves. Each LPCI subsystem is capable of transferring water from the suppression pool to the reactor vessel. Only one RHR pump is required per LPCI subsystem because of its larger flowrate compared to a Core Spray System. A LPCI subsystem operating in the shutdown cooling mode of RHR is considered operable for the ECCS function if it can be realigned manually (either remote or local) to the LPCI mode and is not otherwise inoperable. In the cold condition, the RHR system cross-tie valves are not required to be closed.

One low pressure ECCS subsystem provides sufficient vessel flooding capability to recover from an inadvertent vessel draindown. However, with only one low pressure system operable, the overall system reliability is reduced because a single-failure could render the ECCS incapable of performing its intended

3.5 BASES (cont'd)

function. Therefore, operation with the potential for draining the reactor vessel is not allowed with only one low pressure ECCS subsystem operable.

ECCS systems are not required to be operable during refueling conditions. Sufficient coolant inventory is available above the fuel to allow operator action to terminate the inventory loss prior to fuel uncovery in case of an inadvertent draindown.

G. Maintenance of Filled Discharge Pipe

If the discharge piping of the core spray, LPCI, RCIC, and HPCI are not filled, a water hammer can develop in this piping when the pump(s) are started. To minimize damage to the discharge piping and to ensure added margin in the operation of these systems, this technical specification requires the discharge lines to be filled whenever the system is required to be operable. If a discharge pipe is not filled, the pumps the supply that line must be assumed to be inoperable for technical specification purposes. However, if a water hammer were to occur, the system would still perform its design function.

H. Average Planar Linear Heat Generation Rate (APLHGR)

This specification assures that the peak cladding temperature following the postulated design basis loss-of-coolant accident will not exceed the limit specified in 10 CFR 50 Appendix K.

The peak cladding temperature following a postulated loss-of-coolant accident is primarily a function of the average heat generation rate of all the rods of a fuel assembly at any axial location and is only dependent secondarily on the rod to rod power distribution within an assembly. Since expected local variations in power distribution within a fuel assembly affect the calculated peak clad temperature by less than $\pm$ 20°F relative to the peak temperature for a typical fuel design, the limit on the average linear heat generation rate is sufficient to assure that calculated temperatures are within the 10 CFR 50 Appendix K limit. The limiting values for APLHGR are given in Figures 3.5-11 through 3.5-14. Approved limiting values of APLHGR as a function of fuel type are given in NEDO-21662-2 (as amended) for Reload 6 fuel. Approved limiting values of APLHGR as a function of fuel and lattice types are given in NEDC-31317P (as amended) for Reload 7 and 8 fuel. These values are multiplied by 0.84 during Single Loop Operation. The derivation of this multiplier can be found in Bases 3.5.K, Reference 1.

I. Linear Heat Generation Rate (LHGR)

This specification assures that the linear heat generation rate in any rod is less than the design linear heat generation.

The LHGR shall be checked daily during reactor operation at 25% rated thermal power to determine if fuel burnup, or control rod movement, has caused changes in power distribution. For LHGR to be a limiting value below 25% rated thermal power, the ratio of local LHGR to average LHGR would have to be greater than 10 which is precluded by a considerable margin when employing any permissible control rod pattern.

4.5 BASES (cont'd)

the line is in a full condition. Between the monthly intervals at which the lines are vented, instrumentation has been provided in the Core Spray System and LPCI System to monitor the presence of water in the discharge piping. This instrumentation will be calibrated on the same frequency as the safety system instrumentation. This period of periodic testing ensures that during the interval between the monthly checks the status of the discharge piping is monitored on a continuous bases.

Normally the low pressure ECCS subsystems required by Specification 3.5.F.1 are demonstrated operable by the surveillance tests in Specifications 4.5.A.1 and 4.5.A.3. Section 4.5.F specifies periodic surveillance tests for the low pressure ECCS subsystems which are applicable when the reactor is in the cold condition. These tests in conjunction with the requirements on filled discharge piping (Specification 3.5.G), and the requirements on ECCS actuation instrumentation (Specification 3.2.B), assure adequate ECCS capability in the cold condition. The water level in the suppression pool, or the Condensate Storage Tanks (CST) when the suppression pool is inoperable, is checked once each shift to ensure that sufficient water is available for core cooling.

3.7 LIMITING CONDITIONS FOR OPERATION

3.7 CONTAINMENT SYSTEMS

Applicability:

Applies to the operating status of the primary and secondary containment systems.

Objective:

To assure the integrity of the primary and secondary containment systems.

Specification:

A. Primary Containment

1. The volume and temperature of the water in the pressure suppression chamber shall be maintained within the following limits whenever the reactor is critical or whenever the reactor coolant temperature is greater than 212°F and irradiated fuel is in the reactor vessel:

   a. Maximum vent submergence level of 53 inches.

   b. Minimum vent submergence level of 51.5 inches.

   The suppression chamber water level may be outside the above limits for a maximum of four (4) hours during required operability testing of HPCI, RCIC, RHR, CS, and the Suppression Chamber - Drywell Vacuum System.

   c. Maximum water temperature

      (1) During normal power operation maximum water temperature shall be 95°F.

4.7 SURVEILLANCE REQUIREMENTS

4.7 CONTAINMENT SYSTEMS

Applicability:

Applies to the primary and secondary containment integrity.

Objective:

To verify the integrity of the primary, and secondary containment systems.

Specification:

A. Primary Containment

1. The pressure suppression chamber water level and temperature shall be checked once per day. The accessible interior surfaces of the drywell and above the water line of the pressure suppression chamber shall be inspected at each refueling outage for evidence of deterioration. Whenever there is indication of relief valve operation or testing which adds heat to the suppression pool, the pool temperature shall be continually monitored and also observed and logged every 5 minutes until the heat addition is terminated. Whenever there is indication of relief valve operation with the temperature of the suppression pool reaching 160°F or more and the primary coolant system pressure greater than 200 psig, an external visual examination of the suppression chamber shall be conducted before resuming power operation.

3.7 BASES (cont'd)

Using the minimum or maximum downcomer submergence levels given in the specification, containment pressure during the design basis accident is approximately 45 psig which is below the design of 56 psig. The minimum downcomer submergence of 51.5 in. results in a minimum suppression chamber water volume of 105,600 ft.^{3}. The majority of the Bodega tests (9) were run with a submerged length of 4 ft. and with complete condensation. Thus, with respect to downcomer submergence, this specification is adequate. Additional JAFNPP specific analyses done in connection with the Mark I Containment-Suppression Chamber Integrity Program indicate the adequacy of the specified range of submergence to ensure that dynamic forces associated with pool swell do not result in overstress of the suppression chamber or associated structures.

The maximum temperature at the end of blowdown tested during the Humboldt Bay (10) and Bodega Bay tests was 170°F, and this is conservatively taken to be the limit for complete condensation of the limit for complete condensation of the reactor coolant, although condensation would occur for temperatures above 170°F.

Using a 40°F rise (Section 5.2 FSAR) in the suppression chamber water temperature and a maximum initial temperature of 95°F, a temperature of 145°F is achieved, which is well below the 170°F temperature which is used for complete condensation.

For an initial maximum suppression chamber water temperature of 95°F and assuming the normal complement of containment cooling pumps (two LPCI pumps and two RHR service water pumps) containment pressure is not required to maintain adequate net positive suction head (HPSH) for the core spray LPCI and HPCI pumps.

Limiting suppression pool temperature to 130°F during RCIC, HPCI, or relief valve operation, when decay heat and stored energy are removed form the primary system by discharging reactor steam directly to the suppression chamber assures adequate margin for a potential blowdown any time during RCIC, HPCI, or relief valve operation.

Experimental data indicates that excessive steam condensing loads can be avoided if the peak temperature of the suppression pool is maintained below 160°F during any period of relief valve operation with sonic conditions at the discharge exit. Specifications have been placed on the envelope of reactor operating conditions so that the reactor can be depressurized in a timely manner to avoid the regime of potentially high suppression chamber loadings.

ATTACHMENT II

SAFETY EVALUATION FOR THE PROPOSED TECHNICAL SPECIFICATION CHANGE REGARDING MINIMUM ECCS COLD SHUTDOWN REQUIREMENTS (JPTS-88-002)

New York Power Authority

JAMES A. FITZPATRICK NUCLEAR POWER PLANT
Docket No. 50-333
DPR-59

I. DESCRIPTION OF THE PROPOSED CHANGE

The proposed changes to the James A. FitzPatrick Technical Specifications revise Sections 3.5.F and 4.5.F, "Minimum Emergency Core and Containment Cooling System Availability," on page 122. Two changes are proposed. The first change deletes Specification 3.5.F.1 because it is redundant to Specifications 3.5.A and 3.5.B. The second change adds new Limiting Conditions for Operation (LCOs) and associated Surveillance Requirements regarding ECCS availability with the reactor in the cold condition.

A. Eliminate Redundant Limiting Condition for Operation

Delete existing Specification 3.5.F.1, on page 122:

> "Any combination of inoperable components in the Core and Containment Cooling Systems shall not defeat the capability of the remaining operable components to fulfill the core and containment cooling functions."

B. New Specifications for ECCS Availability in Cold Condition

1. Replace existing Specification 3.5.F.2, on page 122, with the following:

   3.5.F. ECCS-Shutdown Mode

   1. A minimum of two low pressure Emergency Core Cooling subsystems shall be operable whenever irradiated fuel is in the reactor, the reactor is in the cold condition, and work is being performed with the potential for draining the reactor vessel.

   2. A minimum of one low pressure Emergency Core Cooling subsystem shall be operable whenever irradiated fuel is in the reactor, the reactor is in the cold condition, and no work is being performed with the potential for draining the reactor vessel.

   3. Emergency Core Cooling subsystems are not required to be operable provided that the reactor vessel head is removed, the cavity is flooded, the spent fuel pool gates are removed, and the water level above the fuel is in accordance with Specification 3.10.C.

   4. With the requirements of 3.5.F.1, 3.5.F.2, or 3.5.F.3 not satisfied, suspend core alterations and all operations with the potential for draining the reactor vessel. Restore at least one system to operable status within 4 hours or establish Secondary Containment Integrity within the next 8 hours.

2. Replace existing Specification 4.5.F, on page 122, with the following:

4.5.F ECCS-Shutdown Mode

Surveillance of the low pressure ECCS systems required by 3.5.F.1 and 3.5.F.2 shall be as follows:

1. Perform a flowrate test at least once every 3 months on the required Core Spray pump(s) and/or the RHR pump(s). Each Core Spray pump shall deliver at least 4,625 gpm against a system head corresponding to a reactor vessel pressure greater than or equal to 113 psi above primary containment pressure. Each RHR pump shall deliver at least 9900 gpm against a system head corresponding to a reactor vessel to primary containment differential pressure of $\geq$ 20 psid.

2. Perform a monthly operability test on the required Core Spray and/or LPCI motor operated valves.

3. Once each shift verify the suppression pool water level is greater than or equal to 10.33 ft. whenever the low pressure ECCS subsystems are aligned to the suppression pool.

4. Once each shift verify a minimum of 324 inches of water is available in the Condensate Storage Tanks (CST) whenever the Core Spray System(s) is aligned to the tanks.

3. Shift existing Specification 3.5.G and 4.5.G, Maintenance of Filled Discharge Pipe, to a new page numbered 122a.

4. Replace existing Bases 3.5.F,on pages 129 and 130, with the following:

F. ECCS-Shutdown Mode

Low pressure Emergency Core Cooling Systems (ECCS) are required when the reactor is in a cold condition to ensure adequate coolant inventory makeup in case of an inadvertent draindown of the reactor vessel. Two low pressure ECCS subsystems are required operable to meet the single-failure criterion.

The low pressure ECCS subsystems consist of two CS systems, two LPCI subsystems, or a combination thereof. Each CS system consists of one motor-driven pump, associated piping, and valves. Each CS system is capable of transferring water to the reactor vessel from the suppression pool or, when the suppression pool is unavailable, the condensate storage tank. In the cold condition, each LPCI subsystem consists of one motor-driven pump, associated piping, and valves. Each LPCI subsystem is capable of transferring water from the suppression pool to the reactor vessel. Only one RHR pump is required per LPCI subsystem because of its larger flowrate

compared to a Core Spray System. A LPCI subsystem operating in the shutdown cooling mode of RHR is considered operable for the ECCS function if it can be realigned manually (either remote or local) to the LPCI mode and is not otherwise inoperable. In the cold condition, the RHR system cross-tie valves are not required to be closed.

One low pressure ECCS subsystem provides sufficient vessel flooding capability to recover from an inadvertent vessel draindown. However, with only one low pressure system operable, the overall system reliability is reduced because a single-failure could render the ECCS incapable of performing its intended function. Therefore, operation with the potential for draining the reactor vessel is not allowed with only one low pressure ECCS subsystem operable.

ECCS systems are not required to be operable during refueling conditions. Sufficient coolant inventory is available above the fuel to allow operator action to terminate the inventory loss prior to fuel uncovery in case of an inadvertent draindown.

5. Add the following paragraph to the end of Bases Section 4.5, on page 133:

   Normally the low pressure ECCS subsystems required by Specification 3.5.F.1 are demonstrated operable by the surveillance tests in Specifications 4.5.A.1 and 4.5.A.3. Section 4.5.F specifies periodic surveillance tests for the low pressure ECCS subsystems which are applicable when the reactor is in the cold condition. These tests in conjunction with the requirements on filled discharge piping (Specification 3.5.G), and the requirements on ECCS actuation instrumentation (Specification 3.2.B), assure adequate ECCS capability in the cold condition. The water level in the suppression pool, or the Condensate Storage Tanks (CST) when the suppression pool is inoperable, is checked once each shift to ensure that sufficient water is available for core cooling.

6. Revise Specification 3.7.A.1, "Suppression Chamber," on page 165:

   Delete the cross-reference to Specification 3.5.F.2 and add the phrase "whenever the reactor is critical or whenever the reactor coolant temperature is greater than 212°F and irradiated fuel is in the reactor vessel."

7. Delete the following paragraph from Bases Section 3.7, "Primary Containment", on page 188:

   Should it be necessary to drain the suppression chamber, this should only be done when there is no requirement for Emergency Core Cooling Systems operability as explained in basis 3.5.F.

8. Revise Table of Contents, on page ii:

   The titles of Sections 3.5.F and 4.5.F are changed to "ECCS-Cold Condition."

II. PURPOSE OF THE PROPOSED CHANGE

The purpose of these Technical Specification changes is to delete a duplicate specification on ECCS operability, and to introduce new LCOs and surveillance requirements for ECCS availability when the reactor is in the cold condition.

A. Eliminate Redundant Limiting Condition for Operation

This proposed change deletes Specification 3.5.F.1 which is redundant to Specification 3.5.A and 3.5.B. Amendment 83, which incorporated the definition of "operable," introduced the redundant requirements for ECCS operability. The term "operable" when used in conjunction with Specifications 3.5.A and 3.5.B ensures that inoperable components do not defeat the capability of the ECCS and Containment Cooling Systems to fulfill their functions; thus, duplicating the ECCS operability requirements of Specification 3.5.F.1.

B. New Specification for ECCS Availability in Cold Condition

The issue of technical specification requirements for ECCS systems during outages was raised by the NRC during the January, 1988 maintenance outage inspection at the Fitzpatrick plant (See Inspection Report No. 88-01, Reference 3). The inspector noted:

1. that the Fitzpatrick plant's technical specifications are silent regarding ECCS operability for work which has the potential for draining the vessel;

2. that based on the availability of one core spray system and other non-ECCS systems to inject into the vessel, no technical safety concerns exist;

3. that, administratively, the requirements for ECCS systems during this condition should be defined more clearly.

The Authority agrees with this observation and proposed that these requirements be defined in the Technical Specifications. This proposed amendment revises Specifications 3.5.F and 4.5.F to require two low pressure ECCS systems to be operable whenever irradiated fuel is in the reactor, the reactor is in the cold condition, and work is being performed which has the potential to drain the reactor vessel.

The proposed Limiting Condition for Operation and Surveillance Requirements reflect current plant practices and are similar to the requirements established in the Standard Technical Specifications (Reference 1).

Analysis of ECCS Technical Specification Requirements

The proposed Bases Section establishes that the core spray (CS) system and the low pressure coolant injection mode of the RHR system (LPCI) are the primary sources of emergency core cooling in the event of an inadvertent draindown of the reactor vessel during cold shutdown conditions.

The consequences of an inadvertent draindown of the reactor vessel are bounded by the loss-of-coolant accident (LOCA). The long-term cooling analysis (References 4 and 10) following a design basis LOCA demonstrates that only one low pressure ECCS subsystem is required, post-LOCA, to maintain the peak cladding temperature below the allowable limit. This analysis evaluated the entire spectrum of LOCA pipe break sizes. The limiting break size is the double-ended guillotine break of the recirculation suction line (4.17 ft^2) which is, by definition, a larger opening than any opening associated with an inadvertent draindown of the reactor vessel.

The proposed technical specifications require two low pressure ECCS subsystems to be operable whenever irradiated fuel is in the reactor, the reactor is in the cold condition, and the potential exists for draining the reactor vessel. Two systems are required operable to satisfy single-failure criterion. Only a single RHR pump is required per LPCI subsystem because of its larger flowrate compared with a core spray system's flowrate.

One low pressure ECCS subsystem provides sufficient vessel flooding capability to recover from an inadvertent vessel draindown. However, the overall system reliability is reduced because a single-failure in the system concurrent with a vessel draindown could result in the ECCS not being able to perform its function. Therefore, operation with the potential for draining the reactor vessel and thus uncovering the irradiated fuel are not allowed.

ECCS subsystems are not required during refueling conditions or during other operations when the reactor vessel head is removed, the head cavity is flooded, the spent fuel pool gates are removed, and approximately 23 feet of water is maintained over the top of the reactor pressure vessel flange. The large inventory of water allows timely operator action to terminate an inadvertent draindown event prior to fuel uncovery. Therefore, core alterations and operations with the potential for draining the reactor vessel are permitted.

In the event that no low pressure ECCS subsystems are operable and the water level requirements of Specification 3.10.C are not met, core alterations and operations with the potential for draining the reactor vessel will be suspended immediately. Timely restoration of emergency core cooling is required or Secondary Containment integrity is established to control potential releases of radioactivity.

Normally the low pressure ECCS subsystems required by Specification 3.5.F.1 are demonstrated operable by the surveillance tests in Specifications 4.5.A.1 and 4.5.A.3. The

proposed technical specifications consolidate the surveillance tests which are applicable in the cold condition into one subsection.

In the cold condition, the pressure suppression function of the torus is not required. However, the suppression pool is required to be operable as part of the low pressure ECCS systems. The water level in the suppression pool is checked once each shift to ensure sufficient inventory is available for core cooling. A minimum water level is specified based on NPSH, instrument inaccuracies, and the recirculation volume (i.e., the volume of water required to flood the bottom of the drywell shell up to the height of the vent pipe); plus a safety margin of 25,000 gallons for conservatism. In addition, the proposed technical specifications clarify that the suppression chamber volume and temperature requirements (Specification 3.7.A.1) are not necessary in the cold condition.

Repair work might require making the suppression chamber inoperable (e.g., draining for surface inspections). Specification 4.5.F.5 will permit these repairs to be made and at the same time ensure that the irradiated fuel in the reactor vessel has an adequate cooling water supply.

III. IMPACT OF THE PROPOSED CHANGE

A. Eliminate Redundant Limiting Condition for Operation

The proposed change to delete Specification 3.5.F.1 is purely administrative in nature. It eliminates a redundant requirement for core and containment cooling operability. The proposed change does not involve modification of any existing equipment, systems, or components; nor does it relax any administrative controls or limitations imposed on existing plant equipment.

B. New Specifications for ECCS Availability in Cold Condition

The changes which add new ECCS LCOs and surveillance requirements constitute an additional limitation on plant operations that are not presently included in the technical specifications. The new requirements are administrative in nature because they are consistent with current plant policy and practice.

Operation of the plant in accordance with the proposed amendment is not a safety concern. The conclusions of the plant's accident analyses as documented in the FSAR or the NRC Staff's SER are not altered by these changes to the Technical Specifications.

IV. EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

Operation of the James A. FitzPatrick Nuclear Power Plant in accordance with the proposed amendment would not involve a significant hazards consideration as defined in 10 CFR 50.92, since it would not:

1. involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed change to Specification 3.5.F.1 deletes a duplicate requirement for ECCS and Containment Cooling operability. The proposed change is purely administrative in nature and does not involve modification of any existing equipment,

systems, or components; nor does it relax any administrative controls or limitations imposed on existing plant equipment. The change does not impact previously evaluated accidents; nor does it affect safe plant operations.

The proposed changes which introduce new specifications for ECCS availability in the cold condition constitute an additional limitation beyond what is presently in the technical specifications. The new specifications require two low pressure ECCS subsystems to be operable whenever irradiated fuel is in the reactor, the reactor is in the cold condition, and the potential exists for draining the reactor vessel; thus ensuring adequate coolant inventory makeup in case of an inadvertent draindown of the reactor vessel. The consequences of an inadvertent draindown of the reactor vessel are bounded by the loss-of-coolant accident (LOCA) analysis. The proposed changes do not alter the conclusions of the plant's accident analyses as documented in the FSAR or the NRC's SER.

2. create the possibility of a new or different kind of accident from those previously evaluated. The proposed changes are administrative in nature. They more clearly define the requirements for ECCS operability and ECCS availability. The changes do not involve modification to any of the plant's systems, equipment, or components; nor do they introduce any new failure modes. The proposed changes are consistent with current plant operating practices and do not allow plant operation in an unanalyzed configuration.

3. involve a significant reduction in the margin of safety. The proposed change to Specification 3.5.F.1 deletes a duplicate requirement for ECCS and Containment Cooling operability. The existing limiting conditions for operability (Sections 3.5.A and 3.5.B) and associated surveillance requirements (Sections 4.5.A and 4.5.B) are unchanged by this proposed amendment. The availability and operability requirements imposed on these systems are, thus, unchanged.

   The proposed changes which introduce new specifications for ECCS availability in the cold condition provide a slight increase in the margin of safety. These new specifications, which reflect current plant practices, formally prohibit operations with the potential for draining the reactor vessel when coolant inventory makeup is not available. The changes do not involve any plant modifications, nor do they affect the FSAR information regarding the emergency core cooling systems.

In the April 6, 1983 Federal Register (48FR14870), NRC published examples of license amendments that are not likely to involve a significant hazards consideration. Example (i) and (ii) from this Federal Register are applicable to the proposed changes:

> "A purely administrative change to technical specifications: for example, a change to achieve consistency throughout the technical specifications, correction of an error, or a change in nomenclature."
>
> and
>
> "A change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications: for example, a more stringent surveillance requirement."

The proposed changes can be classified as not likely to involve significant hazards considerations, since the changes are purely administrative in nature and constitute an additional limitation on plant operations. The proposed amendment does not involve hardware changes nor any other changes to the plant's safety related structures, systems, or components

V. IMPLEMENTATION OF THE PROPOSED CHANGE

Implementation of the proposed change will not impact the ALARA or Fire Protection Programs at the FitzPatrick plant, nor will the change impact the environment.

VI. CONCLUSION

The changes, as proposed, do not constitute an unreviewed safety question as defined in 10 CFR 50.59. That is, they:

a. will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report;

b. will not increase the possibility for an accident or malfunction of a type different from any evaluated previously in the safety analysis report;

c. will not reduce the margin of safety as defined in the basis for any technical specification; and

d. involves no significant hazards consideration, as defined in 10 CFR 50.92.

VII. REFERENCES

1. NUREG 0123, Standard Technical Specifications for General Electric Boiling Water Reactors (GE-STS), BWR/4.

2. James A. FitzPatrick Nuclear Power Plant Operating Procedure, F-OP-13, Rev. 46, Residual Heat Removal System.

3. USNRC Letter, dated March 29, 1988, transmitting results of Inspection Report 50-333/88-01.

4. NEDC-31317P, SAFER/GESTR-LOCA, October 1986, Loss-of-Coolant Accident Analysis.

5. James A. FitzPatrick Nuclear Power Plant Updated Final Safety Analysis Report, Section 6.4, 6.5, 14.5.5, and 14.6.1.3.

6. USAEC "Safety Evaluation of the James A. FitzPatrick Nuclear Power Plant" (SER), dated November 20, 1972.

7. USAEC "Supplement 1 to the Safety Evaluation of the James A. FitzPatrick Nuclear Power Plant" (SER), dated February 1, 1973.

8. USAEC "Supplement 2 to the Safety Evaluation of the James A. FitzPatrick Nuclear Power Plant" (SER), dated October 4, 1974.

9. Amendment 83 to the James A. Fitzpatrick Operating License, dated August 28, 1984.

10. James A. FitzPatrick Nuclear Power Plant Updated Final Safety Analysis Report, Section 14.6.1.3 "Loss of Coolant Accident," Table 14.6-1.

11. James A. FitzPatrick Nuclear Power Plant Updated Final Safety Analysis Report, Section 6.4.3 "Core Spray System," Figure 6.4-2.

12. USNRC Letter, dated December 1, 1989, transmitting results of Inspection Report 50-333/89-10.