

February 13, 1991

Docket No. 50-333

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Mr. John C. Brons  
Executive Vice President - Nuclear Generation  
Power Authority of the State of New York  
123 Main Street  
White Plains, New York 10601

Dear Mr. Brons:

SUBJECT: ISSUANCE OF AMENDMENT FOR FITZPATRICK (TAC NO. 76466)

The Commission has issued the enclosed Amendment No. 168 to Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated April 2, 1990.

The amendment clarifies and defines Emergency Core Cooling System requirements when the plant is in the cold shutdown condition.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular bi-weekly Federal Register notice.

Sincerely,  
ORIGINAL SIGNED BY:

David E. LaBarge, Project Manager  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 168 to DPR-59
2. Safety Evaluation

cc: w/enclosures  
See next page

PDI-1:LA  
CVogan  
1/23/91 2/11/91

PDI-1:PM *DL*  
DLaBarge:rsc  
1/23/91

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RCJones  
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RACapra  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D. C. 20555

February 13, 1991

Docket No. 50-333

Mr. John C. Brons  
Executive Vice President - Nuclear Generation  
Power Authority of the State of New York  
123 Main Street  
White Plains, New York 10601

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Sincerely,

A handwritten signature in cursive script, appearing to read "De LaBarge".

David E. LaBarge, Project Manager  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 168 to DPR-59
2. Safety Evaluation

cc: w/enclosures  
See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 168  
License No. DPR-59

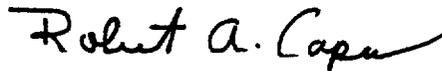
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Power Authority of the State of New York (the licensee) dated April 2, 1990, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-59 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 168, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Capra, Director  
Project Directorate I-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: February 13, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 168

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A as follows:

<u>Remove Pages</u>	<u>Insert Pages</u>
ii	ii
122	122
122a	122a
129	129
130	130
133	133
165	165
188	188

TABLE OF CONTENTS (Cont'd)

F.	ECCS-Cold Condition	F.	122
G.	Maintenance of Filled Discharge Pipe	G.	122a
H.	Average Planar Linear Heat Generation Rate (APLHGR)	H.	123
I.	Linear Heat Generation Rate (LHGR)	I.	124
J.	Thermal Hydraulic Stability	J.	124a

LIMITING CONDITIONS FOR OPERATION

SURVEILLANCE REQUIREMENTS

3.6	Reactor Coolant System	4.6	136
A.	Pressurization and Thermal Limits	A.	136
B.	DELETED		
C.	Coolant Chemistry	C.	139
D.	Coolant Leakage	D.	141
E.	Safety and Safety/Relief Valves	E.	142a
F.	Structural integrity	F.	144
G.	Jet Pumps	G.	144
H.	DELETED		
I.	Shock Suppressors (Snubbers)	I.	145b
3.7	Containment Systems	4.7	165
A.	Primary Containment	A.	165
B.	Standby Gas Treatment System	B.	181
C.	Secondary Containment	C.	184
D.	Primary Containment Isolation Valves	D.	185
3.8	Miscellaneous Radioactive Material Sources	4.8	214
3.9	Auxiliary Electrical Systems	4.9	215
A.	Normal and Reserve AC Power Systems	A.	215
B.	Emergency AC Power System	B.	216
C.	Diesel Fuel	C.	218
D.	Diesel-Generator Operability	D.	220
E.	Station Batteries	E.	221
F.	LPCI MOV Independent Power Supplies	F.	222a
G.	Reactor Protection System Electrical Protection Assemblies	G.	222c
3.10	Core Alterations	4.10	227
A.	Refueling Interlocks	A.	227
B.	Core Monitoring	B.	230
C.	Spent Fuel Storage Pool Water Level	C.	231
D.	Control Rod and Control Rod Drive Maintenance	D.	231
3.11	Additional Safety Related Plant Capabilities	4.11	237
A.	Main Control Room Ventilation	A.	237
B.	Crescent Area Ventilation	B.	239
C.	Battery Room Ventilation	C.	239

JAFNPP

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.

**JAFNPP**

**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  $< 212^{\circ}\text{F}$  and coolant pressure  $< 150$  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  $212^{\circ}\text{F}$  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 uncover 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 + 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 specified in the Core Operating Limits Report. During Single Loop Operation a multiplier is applied to these values. 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.

## JAFNPP

### 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.<sup>3</sup>. 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 from 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.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 168 TO FACILITY OPERATING LICENSE NO. DPR-59

POWER AUTHORITY OF THE STATE OF NEW YORK

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

INTRODUCTION

By letter dated April 2, 1990, the Power Authority of the State of New York (the licensee) proposed changes to the technical specifications (TS) for the operating license of the FitzPatrick Nuclear Power Plant. The proposed TS changes would delete the present 3.5.F.1 Specification and replace it with new operability requirements for minimum Emergency Core Cooling System (ECCS) availability when the plant is in the cold shutdown condition, add new ECCS surveillance requirements to be performed when the plant is in the cold shutdown condition, and add changes to the corresponding Bases sections and Table of Contents. In addition, the licensee proposed related changes to Specification 3.7.A.1 which would substitute the reference to TS Section 3.5.F.2 with a statement to indicate the conditions under which the statement would be applicable.

DISCUSSION

Currently TS Section 3.5.F.1 states that, "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 function." The licensee has proposed deleting this statement since it is redundant to Specifications 3.5.A and 3.5.B, which specify the minimum operability requirements for the ECCS systems. It is the purpose of Specifications 3.5.A and 3.5.B to ensure that any combination of inoperable components do not prevent the ECCS and Containment Cooling Systems from performing their intended safety functions and are, consequently, operable. Therefore, Specification 3.5.F.1 is, by design, built into Specifications 3.5.A and 3.5.B and into the Emergency Core and Containment Cooling Systems operability requirements.

During the January 1988 maintenance outage inspection at the plant, the NRC raised concerns about the emergency core cooling requirements when in the cold shutdown condition (see Inspection Report No. 50-333/88-01, dated March 29, 1988). The present TS allow all Low Pressure Coolant Injection (LPCI), Core Spray (CS), and containment cooling subsystems to be inoperable whenever

irradiated fuel is in the reactor, the reactor is in the cold condition, and no work is being performed which has the potential for draining the reactor vessel. However, as noted in the inspection report, this does not address ECCS operability requirements for refueling outage work which does have the potential for draining the reactor vessel. The inspection report concluded that the ECCS requirements while in the cold shutdown condition should be more clearly defined.

The licensee agreed with the observation and proposed that the limiting conditions for operation (LCOs) be defined by changes to TS Section 3.5.F and that the corresponding surveillance requirements be specified by changes to TS Section 4.5.F. The proposed LCOs would: (1) require that at least two low pressure ECCS 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) require that at least one low pressure ECCS 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) allow all ECCS to be inoperable provided that the reactor vessel head is removed, the cavity is flooded, the spent fuel pool gates are removed, and the minimum spent fuel pool water level requirements presently stated in the TS are satisfied; and (4) specify that if at least one of these three conditions are not satisfied, core alterations and operations with the potential for draining the reactor vessel be suspended and restore operability of at least one system within 4 hours or establish Secondary Containment integrity within the next 8 hours.

In addition the proposed changes to the surveillance test requirements when the plant is in the cold shutdown condition consist of: (1) performance of flow and differential pressure tests of the Core Spray pumps and the Residual Heat Removal pumps every 3 months with specified acceptance values; (2) monthly motor operated valve tests for the Core Spray and Residual Heat Removal (RHR) Systems; (3) once per shift verification that the suppression pool water level is at least 10.33 feet whenever the low pressure ECCS subsystems are aligned to it; and (4) once per shift verification that the level in the condensate storage tanks is at least 324 inches whenever the Core Spray system(s) is aligned to them.

#### EVALUATION

The proposed change to delete the present LCO defined in Specification 3.5.F.1 does not involve a modification to any existing equipment, systems, or components; nor does it relax any administrative controls or limitations applicable to existing plant equipment. The limitations which are the subject of this specification are adequately addressed in other specifications. For these reasons, the licensee request to remove this specification from the TS is acceptable.

The proposed LCOs for operability of the ECCS pumps when in the cold shutdown condition establishes that the CS and the LPCI mode of the RHR system are the primary sources of emergency core cooling in the event of an inadvertent draindown of the reactor vessel. If an inadvertent draindown should occur, the consequences are bounded by the loss-of-coolant accident (LOCA) analysis. This analysis, as shown in the Final Safety Analysis Report and the LOCA analysis report prepared for the plant, shows that only one low pressure ECCS subsystem is required post-LOCA to satisfy the long term cooling criteria. This analysis evaluated the entire spectrum of LOCA break sizes and determined that the most limiting break size is the double-ended guillotine break of the recirculation system suction line. This is a larger opening than any opening associated with an inadvertent draindown of the reactor vessel.

Therefore, the proposed TS change to require that two ECCS pumps be operable whenever work is being performed which has the potential for inadvertent draindown, satisfies the single-failure criteria. Should the operability requirements not be met, the TS would require the suspension of all operations with the potential for draining the reactor vessel. In addition, since only one RHR pump in the RHR subsystem would be necessary to satisfy the reactor vessel flooding capability due to its high flow rate, a proposed change to the Bases indicates that for the cold shutdown condition, an RHR "subsystem" consists of one RHR pump (rather than the usual two-pump requirement).

One low pressure ECCS subsystem provides sufficient reactor 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, the proposed TS change would not allow activities which have the potential for draining the reactor vessel when only one ECCS is available.

However, the proposed change would allow all ECCS systems to be inoperable, and the performance of core alterations with the potential for draining the reactor vessel, if certain specified plant conditions exist. These plant conditions ensure that a sufficient inventory of water exists over the top of the reactor vessel flange and allows for timely operator action to terminate an inadvertent draindown prior to fuel uncovering.

In the event that no low pressure ECCS subsystems are operable and the spent fuel pool water level requirements are not met, the proposed TS change would require immediate suspension of core alterations and operations with the potential to drain the reactor vessel. The proposed change would then require timely restoration of ECCS or establishment of secondary containment integrity. These actions are designed to prevent the potential release of radioactivity in the event of an inadvertent draindown.

To ensure availability of the ECCS while in the cold shutdown condition, the proposed TS change includes many surveillance tests. The operability tests for the pumps and valves have the same acceptance criteria and frequency that is presently specified for normal plant operation. In addition, when the source of water for the ECCS pumps is the suppression chamber, the proposed TS change

would require that a minimum level of 10.33 feet be maintained and checked each shift. This level is equivalent to 800,000 gallons of water and ensures that a sufficient inventory of water is available for reactor vessel flooding and that adequate net positive suction head for the pumps is maintained.

Also, in the event that the suppression chamber is not available as a source of water, the Core Spray pumps could be aligned so that their source of water is the condensate storage tanks. In this event, the proposed TS change would require that a minimum level of 324 inches be maintained and checked once per shift. This level corresponds to 183,000 gallons in each of the two tanks and is sufficient inventory for adequate core flooding should it be needed.

These proposed changes consist of new LCOs and surveillance requirements and corresponding Bases. They address safety equipment requirements for plant conditions which are not presently included in the TS. They more clearly define the requirements for the ECCS when the reactor is in the cold shutdown condition and they result in an enhancement of the system requirements. They do not require modifications to any plant systems, equipment, or components; nor do they allow plant operation in an unanalyzed configuration. The proposed changes do not relax any administrative controls or limitations imposed on existing plant equipment and are consistent with the current Boiling Water Reactor Standard Technical Specifications. Based on this analysis, the proposed changes are acceptable.

Another related proposed change included in the submittal would change Specification 3.7.A.1, Primary Containment, by substituting the reference to TS Section 3.5.F.2 with a statement to indicate the conditions under which the volume and temperature limits of the primary containment are applicable (rather than a statement indicating when they are not applicable). The present reference to TS Section 3.5.F.2 indicates that, with the plant in the cold shutdown condition, the volume and temperature limits are in effect when there is irradiated fuel in the reactor vessel except when no work is being done which has the potential for draining the reactor vessel. The proposed change would require that the limits be in effect whenever the reactor is critical or whenever the reactor coolant temperature is greater than 212 F and irradiated fuel is in the reactor vessel. This change is consistent with the primary containment integrity requirements. It does not result in any change to present limitations or requirements. Based on this analysis it is acceptable.

#### ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes to the surveillance requirements. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: February 13, 1991

PRINCIPAL CONTRIBUTORS:

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