

Mr. Robert A. Stratman
 Vice President Nuclear - Perry
 Centerior Service Company
 P. O. Box 97, A200
 Perry, OH 44081

January 24, 1995

SUBJECT: CORRECTIONS TO AMENDMENT NO. 67 TO FACILITY OPERATING LICENSE NO. NPF-58 - PERRY NUCLEAR POWER PLANT, UNIT NO. 1 (TAC NO. M84057)

Dear Mr. Stratman:

The Commission issued Amendment No. 67 to Facility Operating License No. NPF-58 for the Perry Nuclear Power Plant, Unit No. 1 on November 22, 1994. This amendment revises the Technical Specifications (TS) in response to your application dated June 29, 1992, as supplemented on February 22, 1994.

The following corrections were made to the TS:

1. Table 4.3.2.1-1, the ## designating the Main Steam Line Radiation Monitor as an instrument common to the RPS instrumentation should not have been included. Additionally the ## footnote should not have referenced 2b. These changes were made as a result of Amendment 58.
2. Table 4.3.3.1-1, the footnote * should have referenced Specification 3.5.2 and 3.5.3 rather than 3.5.1 and 3.5.3. This was a typographical error introduced when the page was retyped.
3. The page numbers for 3/4 3-102 and 3/4 3-100 were interchanged as a result of an assembly error.
4. The safety evaluation issued was slightly incorrect as a result of a computer file maintenance error. Additionally, since internal distribution copies were missing two pages, the safety evaluation is being transmitted in its entirety.

The corrected TS pages and the safety evaluation are enclosed.

Sincerely,
 Original signed by Jon B. Hopkins
 Jon B. Hopkins, Sr. Project Manager
 Project Directorate III-3
 Division of Reactor Projects III/IV
 Office of Nuclear Reactor Regulation

Docket No. 50-440

Enclosures: 1. TS pages
 2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

January 24, 1995

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Copies of the corrected TS pages and the safety evaluation are enclosed.

Sincerely,

A handwritten signature in cursive script that reads "Jon B. Hopkins, Sr.".

Jon B. Hopkins, Sr. Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-440

Enclosures: 1. TS pages
2. Safety Evaluation

cc w/encls: See next page

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ATTACHMENT TO CORRECTION LETTER FOR AMENDMENT NO. 67

FACILITY OPERATING LICENSE NO. NPF-58

DOCKET NO. 50-440

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages.

Remove

3/4 3-26
3/4 3-39
3/4 3-100
3/4 3-102

Insert

3/4 3-26
3/4 3-39
3/4 3-100
3/4 3-102

TABLE 4.3.2.1-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
6. <u>RHR SYSTEM ISOLATION</u>				
a. RHR Equipment Area Ambient Temperature - High	S	Q	R	1, 2, 3
b. RHR Equipment Area Δ Temperature - High	S	Q	R	1, 2, 3
c. RHR/RCIC Steam Line Flow - High	S	Q	R ^(b)	1, 2, 3
d. Reactor Vessel Water Level - Low, Level 3 ##	S	Q	R ^(b)	1, 2, 3
e. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	S	Q	R ^(b)	1, 2, 3
f. Drywell Pressure - High ##	S	Q	R ^(b)	1, 2, 3
g. Manual Initiation	NA	R	NA	1, 2, 3

* When handling irradiated fuel in the primary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

** When any turbine stop valve is greater than 90% open and/or the key locked bypass switch is in the normal position.

*** OPERATIONAL CONDITION 1 or 2 when the mechanical vacuum pump lines are not isolated.

During CORE ALTERATION and operations with a potential for draining the reactor vessel.

(a) Each train or logic channel shall be tested at least every other 92 days.

(b) Calibrate trip unit setpoint at least once per 92 days.

These Trip Functions (1b, 3b, 6d, and 6f) utilize instruments which are common to RPS instrumentation.

TABLE 4.3.3.1-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
C. <u>DIVISION 3 TRIP SYSTEM</u>				
1. <u>HPCS SYSTEM</u>				
a. Reactor Vessel Water Level - Low, Level 2	S	Q	R ^(a)	1, 2, 3, 4*, 5*
b. Drywell Pressure-High ##	S	Q	R ^(a)	1, 2, 3
c. Reactor Vessel Water Level - High, Level 8	S	Q	R ^(a)	1, 2, 3, 4*, 5*
d. Condensate Storage Tank Level - Low	S	Q	R ^(a)	1, 2, 3, 4*, 5*
e. Suppression Pool Water Level - High	S	Q	R ^(a)	1, 2, 3, 4*, 5*
f. HPCS Pump Discharge Pressure - High	S	Q	R ^(a)	1, 2, 3, 4*, 5*
g. HPCS System Flow Rate - Low	S	Q	R ^(a)	1, 2, 3, 4*, 5*
h. Manual Initiation##	NA	R	NA	1, 2, 3, 4*, 5*
D. <u>LOSS OF POWER</u>				
1. 4.16 kV Emergency Bus Under-voltage (Loss of Voltage)	NA	NA	R	1, 2, 3, 4**, 5**
2. 4.16 kv Emergency Bus Under-voltage (Degraded Voltage)	S	M	R	1, 2, 3, 4**, 5**

Not required to be OPERABLE when reactor steam dome pressure is less than or equal to 100 psig.
 ## The injection function of Drywell Pressure - High and Manual Initiation are not required to be OPERABLE with indicated reactor vessel water level on the wide range instrument greater than the Level 8 setpoint coincident with reactor pressure less than 450 psig.
 * When the system is required to be OPERABLE per Specification 3.5.2 or 3.5.3.
 ** Required when ESF equipment is required to be OPERABLE.
 (a) Calibrate trip unit setpoint at least once per 92 days.

TABLE 3.3.9-1

PLANT SYSTEMS ACTUATION INSTRUMENTATION

<u>TRIP FUNCTION</u>	<u>MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM (a)</u>	<u>APPLICABLE OPERATIONAL CONDITIONS</u>	<u>ACTION</u>
1. <u>CONTAINMENT SPRAY SYSTEM</u>			
a. Drywell Pressure - High	2	1, 2, 3	130
b. Containment Pressure - High	2	1, 2, 3	131
c. Reactor Vessel Water Level - Low, Level 1	2	1, 2, 3	130
d. Timers			
(1) Subsystem A and B (10 minute timer)	1	1, 2, 3	131
(2) Subsystem B (1.5 minute timer)	1	1, 2, 3	131
e. Manual Initiation	1	1, 2, 3	133
2. <u>FEEDWATER SYSTEM/MAIN TURBINE TRIP SYSTEM</u>			
a. Reactor Vessel Water Level - High, Level 8	3	1	132
3. <u>SUPPRESSION POOL MAKEUP SYSTEM</u>			
a. Drywell Pressure - High	2	1, 2, 3	130
b. Reactor Vessel Water Level - Low, Level 1	2	1, 2, 3	130
c. Suppression Pool Water Level - Low	2	1, 2, 3	131
d. Suppression Pool Makeup Timer	1	1, 2, 3	131
e. SPMU Manual Initiation	1	1, 2, 3	133

(a) When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated ACTIONS may be delayed as follows: (a) for up to 6 hours for Trip Function 1.d.(2); and (b) for up to 6 hours for Trip Functions other than 1.d.(2) provided the associated Trip Function maintains Plant Systems actuation capability.

TABLE 4.3.9.1-1

PLANT SYSTEMS ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS IN WHICH SURVEILLANCE REQUIRED</u>
1. <u>CONTAINMENT SPRAY SYSTEM</u>				
a. Drywell Pressure - High	S	Q	R*	1, 2, 3
b. Containment Pressure - High	S	Q	R*	1, 2, 3
c. Reactor Vessel Water Level - Low, Level 1	S	Q	R*	1, 2, 3
d. Timers				
(1) Subsystem A and B	NA	Q	R	1, 2, 3
(2) Subsystem B	NA	Q	R	1, 2, 3
e. Manual Initiation	NA	R	NA	1, 2, 3
2. <u>FEEDWATER SYSTEM/MAIN TURBINE TRIP SYSTEM</u>				
a. Reactor Vessel Water Level - High, Level 8	S	Q	R*	1
3. <u>SUPPRESSION POOL MAKEUP SYSTEM</u>				
a. Drywell Pressure - High	S	Q	R*	1, 2, 3
b. Reactor Vessel Water Level - Low, Level 1	S	Q	R*	1, 2, 3
c. Suppression Pool Water Level - Low	S	Q	R*	1, 2, 3
d. Suppression Pool Makeup Timer	NA	Q	Q	1, 2, 3
e. SPMU Manual Initiation	NA	R	NA	1, 2, 3

*Calibrate trip unit setpoint at least once per 92 days.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 67 TO FACILITY OPERATING LICENSE NO. NPF-58
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, ET AL.
PERRY NUCLEAR POWER PLANT, UNIT NO. 1
DOCKET NO. 50-440

1.0 INTRODUCTION

By letter dated June 29, 1992, and supplemented on February 22, 1994, the Cleveland Electric Illuminating Company, et al. (licensees), proposed changes to the Technical Specifications (TSs) for the Perry Nuclear Power Plant (PNPP), Unit No. 1. The requested changes would revise TS Sections 3/4.3, "Instrumentation," and 3/4.4.2, "Safety/Relief Valves," and their associated Bases to increase the surveillance test intervals (STIs) and allowed outage times (AOTs). The changes to TS 3/4.3 affect actuation instrumentation for the following: Reactor Protection System, Emergency Core Cooling System, Control Rod Block System, Containment and Reactor Vessel Isolation System, Recirculation Pump Trip, Reactor Core Isolation Cooling Systems, and Plant Systems. In addition, several minor changes were required to correct apparent typographical errors included in the proposed TS. The licensee stated in its request that the proposed changes are consistent with the NRC staff's previous approvals of several General Electric Company (GE) Licensing Topical Reports (LTRs) and with the guidance provided in NUREG-1434 (Reference 1).

2.0 EVALUATION

The licensee proposed changes to TS Sections 3/4.3 and 3/4.4.2 to increase AOTs and STIs for various instrumentation TSs based on several GE LTRs (References 2 through 8). The specific changes involved increasing STIs from monthly to quarterly, and increasing AOTs from 2 to 6 hours for testing and generally changing the repair AOTs from either 1 to 12 hours or from 1 to 24 hours. As discussed in the applicable evaluation section, repair AOTs can be less than 12 hours for some instrumentation and can be longer than 24 hours if diversity of actuation capability exists.

The proposed changes also incorporate more recent guidance contained in Reference 1 concerning "loss-of-function" conditions. During the development of Reference 1, the NRC staff identified concerns that the AOTs provided in the approved LTRs could allow certain combinations of inoperable instruments to exist for up to 24 hours which would not provide the capability for automatic actuation of certain systems. Clarifying language addressing these loss-of-function conditions was developed by the BWR Owners Group and the NRC

staff and included in Reference 1. The licensee incorporated the Reference 1 clarifications to eliminate the potential for such loss-of-function conditions to exist.

The referenced LTRs provide an evaluation of the impact on safety system failure frequencies caused by these changes. The LTRs concluded that, while the changes would cause small increases in safety system failure frequencies, the increase in total risk would be insignificant, because the increased risk due to safety system failure is substantially offset by the reduction in risk due to the decreased frequency of testing-induced safety system actuations, equipment wear, and TS imposed shutdown transients.

The NRC staff reviewed these LTRs and issued safety evaluations (References 9 through 15) approving the proposed changes on a generic basis. Each of the staff safety evaluations contains requirements for individual licensees to perform plant-specific evaluations to demonstrate that the LTRs are applicable to their facility. Each of the staff safety evaluations indicated that, provided the LTR is demonstrated to be applicable to the licensee's facility, proposals which are consistent with the approved LTRs would be considered acceptable to the staff. The licensee's evaluations regarding the applicability of the LTRs to PNPP are discussed below:

1. A BWR-6 RPS relay model plant was used for the generic analysis of the Reactor Protection System instrumentation (Reference 2). PNPP is a BWR-6 with a standard RPS relay system. Furthermore, the licensee's June 29, 1992, submittal included a copy of GE Report MDE-86-0485 (Reference 16), which concludes that the generic analysis in Reference 2 is applicable to PNPP.
2. A generic BWR 5/6 relay plant was modeled in Reference 3 for the Emergency Core Cooling System (ECCS) actuation instrumentation. In addition, Section 5.5 of Reference 3 documented the analyses of three enveloping cases to model known differences in instrumentation logic or support system configuration. The licensee's June 29, 1992, submittal, included a copy of GE Report RE-028 (Reference 17), which indicated that there are four differences between the Reference 3 generic model and PNPP. Reference 17 indicated that one of the enveloping cases in Section 5.5 of Reference 3 bounds these differences and concluded that the generic analyses in Reference 3 are applicable to PNPP.
3. The licensee has confirmed that the control rod block instrumentation configuration described in Reference 4 is identical to that at PNPP.
4. The licensee stated that the PNPP configuration for isolation actuation instrumentation common to the RPS and ECCS is essentially the same as the generic configuration modeled in Reference 5. Any differences are bounded by those differences, specifically analyzed in Section 3.2 of Reference 5.
5. The licensee stated that Section 5.5 and Appendix C of Reference 6 address PNPP plant specific requirements for the remaining isolation actuation instrumentation. The licensee verified the applicability of the information contained in the LTR.

6. The licensee stated that the specification changes proposed in accordance with References 7 and 8 for other Technical Specification actuation instrumentation and the safety/relief valve function pressure actuation instrumentation are bounded by the analyses presented in References 2 through 6.

Based on the above information, the staff concludes that the licensee has satisfactorily demonstrated that the LTRs are applicable to PNPP, and may be referenced to support proposed changes which are consistent with the approved LTRs.

In addition to the above required verifications, the staff's safety evaluation approving Reference 2 requires licensees to confirm that the differences between the parts of the Reactor Protection System (RPS) that perform trip functions in their plants and those of the base case plant were evaluated in a plant-specific analysis using the procedures of Appendix K of Reference 2. The PNPP plant-specific analysis was documented in Reference 16. This report utilized the procedures of Appendix K of Reference 2 to identify and evaluate the RPS differences. The results of this analysis indicated, that while the PNPP and base case RPS configurations have several differences, the differences do not have a significant impact on the generic conclusions. The staff concludes that the licensee has satisfied the requirement of the staff's safety evaluation approving Reference 2 to evaluate RPS configuration differences.

The staff safety evaluations approving the LTRs also contain requirements for licensees to demonstrate that the drift characteristics for the applicable instrumentation are bounded by the assumptions used in the LTRs when the functional test interval is extended from monthly to quarterly. The licensee has reviewed current drift information provided by the equipment vendors, and the applicable setpoint calculations for PNPP instruments in response to these requirements.

The licensee stated that the PNPP setpoint calculation methodology assumed 18-month trip unit calibration intervals, and therefore is not affected by the proposed changes. In addition, sensor calibration intervals for instrumentation affected by the proposed changes were verified by the licensee to be equal to or longer than once per quarter, and are therefore unaffected by the proposed changes. Therefore, the licensee concluded that the drift characteristics of the affected instrumentation are bounded by the assumptions used in the LTRs. The staff agrees with this licensee conclusion, since it is consistent with the clarification regarding instrument drift allowances provided in a letter from the NRC to the BWR Owners Group (Reference 18).

The staff concludes that the licensee has satisfied the requirements to demonstrate that the LTRs are applicable to PNPP and verify that existing instrumentation drift characteristics are bounded by the LTR analyses. The changes proposed by the licensee are consistent with the approved LTRs, as modified by the staff's guidance contained in Reference 1 regarding loss-of-function conditions. The affected instrumentation will continue to be able to perform its intended safety function with the revised TS requirements in effect. Therefore, the proposed changes are acceptable to the staff. The licensee's specific proposed changes are presented below.

2.1 PROPOSED TECHNICAL SPECIFICATION CHANGES

TS 3/4.3.1 - Reactor Protection System (RPS) Instrumentation

ACTIONS a. and b. for TS 3.3.1 specify actions to be taken in the event that the number of operable RPS instrumentation channels is less than required by TS Table 3.3.1-1. The licensee proposed changes to ACTIONS a. and b. to increase the allowed outage times for inoperable RPS instrumentation. The proposed changes, would revise ACTIONS a. and b. to read:

- a. With one channel required by Table 3.3.1-1 inoperable in one or more Functional Units, place the inoperable channel and/or that trip system in the tripped condition* within 12 hours.
- b. With two or more channels required by Table 3.3.1-1 inoperable in one or more Functional Units;
 1. Within one hour, verify sufficient channels remain OPERABLE or are in the tripped condition* to maintain trip capability in the Functional Unit, and
 2. Within 6 hours, place the inoperable channel(s) in one trip system and/or that trip system** in the tripped condition*, and
 3. Within 12 hours, restore the inoperable channels in the other trip system to an OPERABLE status or place them in the tripped condition*.

Otherwise, take the ACTION required by Table 3.3.1-1 for the Functional Unit.

* An inoperable channel or trip system need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, if the inoperable channel is not restored to OPERABLE status within the required time, the ACTION required by Table 3.3.1-1 for the Functional Unit shall be taken.

** This ACTION applies to that trip system with the most inoperable channels; if both trip systems have the same number of inoperable channels, the ACTION can be applied to either trip system.

The proposed changes to ACTIONS a. and b. for TS 3.3.1 would increase and clarify the time permitted to place an inoperable RPS instrumentation channel in the tripped condition when the number of OPERABLE channels is less than required. These changes are acceptable, since they are consistent with Reference 2 and with current NRC staff positions and related guidance provided in Reference 1 to ensure that a loss-of-function will not exist, if two or more channels are inoperable.

The proposed change to Note (a) of TS Table 3.3.1-1 would revise the note to read:

- (a) When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated ACTIONS

may be delayed for up to 6 hours provided the associated Functional Unit maintains RPS trip capability.

The change to Note (a) on TS Table 3.3.1-1 would increase the time permitted for an RPS instrumentation channel to be declared inoperable for surveillance purposes without placing the channel in the tripped condition from 2 hours to 6 hours. This proposed change is consistent with the provisions of Reference 2 and is, therefore, acceptable.

The proposed changes to TS Table 4.3.1.1-1 would decrease the channel functional test interval requirement for Functional Unit 13, Manual Scram, from monthly to weekly and would increase the channel functional test interval requirement from weekly or monthly to quarterly, for the following Functional Units:

2. Average Power Range Monitor
 - b. Flow-Biased Simulated Thermal Power - High
 - c. Neutron Flux - High
 - d. Inoperative
3. Reactor Vessel Steam Dome Pressure - High
4. Reactor Vessel Water Level - Low, Level 3
5. Reactor Vessel Water Level - High, Level 8
6. Main Steam Line Isolation Valve - Closure
8. Drywell Pressure - High
9. Scram Discharge Volume Water Level - High
 - a. Level Transmitter
 - b. Float Switches
10. Turbine Stop Valve - Closure
11. Turbine Control Valve Fast Closure, Trip Oil Pressure - Low

The proposed change to footnote (g) of TS Table 4.3.1.1-1 would revise the frequency of certain trip unit setpoint calibrations from at least once per 31 days to at least once per 92 days. This footnote is applicable to the following Functional Units:

3. Reactor Vessel Steam Dome Pressure - High
4. Reactor Vessel Water Level - Low, Level 3
5. Reactor Vessel Water Level - High, Level 8
8. Drywell Pressure - High
9. Scram Discharge Volume Water Level - High
 - a. Level Transmitter

The proposed changes to footnote (g) and to TS Table 4.3.1.1-1 are consistent with References 2 and 16 and are, therefore, acceptable.

TS 3/4.3.2 - Isolation Actuation Instrumentation

ACTIONS b. and c. for TS 3.3.2 specify actions to be taken in the event that the number of operable isolation actuation instrumentation channels is less than the minimum required by Table 3.3.2-1. The proposed changes would revise ACTIONS b. and c. to read:

- b. With one channel required by Table 3.3.2-1 inoperable in one or more Trip Functions, place the inoperable channel and/or that trip system in the tripped condition* within:
 1. 12 hours for Trip Functions common to RPS instrumentation, and
 2. 24 hours for Trip Functions not common to RPS instrumentation.
- c. With two or more channels required by Table 3.3.2-1 inoperable in one or more Trip Functions;
 1. Within one hour, verify for automatic Trip Functions that sufficient channels remain OPERABLE or are in the tripped condition* to maintain isolation capability for the Trip Function, and
 2. Within 12 hours for Trip Functions common to RPS instrumentation, and within 24 hours for Trip Functions not common to RPS instrumentation, place the inoperable channel(s) in the tripped condition*.

Otherwise, take the ACTION required by Table 3.3.2-1 for the Trip Function.

* An inoperable channel or trip system need not be placed in the tripped condition where this would cause the Trip Function to occur. In these cases, if the inoperable channel is not restored to OPERABLE status within the required time, the ACTION required by Table 3.3.2-1 for the Trip Function shall be taken.

The proposed changes to Actions b. and c. for TS 3.3.2 would increase and clarify the time permitted to place an inoperable channel in the tripped condition when the number of OPERABLE channels is less than required. These changes are acceptable since they are consistent with References 5 and 6 and with current NRC staff positions and related guidance provided in Reference 1.

The proposed change to Note (a) of TS Table 3.3.2-1 would revise the note to read:

- (a) When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated ACTIONS may be delayed as follows: (a) for up to 6 hours for Trip Functions 1.e and 5.m; and (b) for up to 6 hours for Trip Functions other than 1.e and 5.m provided the associated Trip Function maintains isolation capability.

The change to Note (a) on TS Table 3.3.2-1 would increase the time permitted for an isolation actuation instrumentation channel to be declared inoperable for surveillance purposes without placing the channel in the tripped condition from 2 hours to 6 hours. The licensee's submittal referenced Trip Function 1h for Primary Containment Isolation, Manual Initiation. This was the correct Trip Function designation for Table 3.3.2-1, but not the corresponding Trip Function for Table 4.3.2-1. Therefore, the licensee requested that Table

3.3.2-1 be renumbered to minimize potential misinterpretations and Note (a) changed to reflect i.e. No technical changes were made to Table 3.3.2-1 (page 3/4 3-11). These proposed changes are consistent with the provisions of References 5 and 6 and are, therefore, acceptable. At the request of the licensee, the staff made an additional change which was made to note (f) to add the word "vacuum" in the phrase "mechanical vacuum pump" and to change the "IN62" system designator to "IN62."

The proposed changes to TS Table 4.3.2.1-1 would increase the channel functional test interval requirement for the following isolation actuation Trip Functions (except Manual Initiation) from monthly to quarterly:

1. Primary Containment Isolation
2. Main Steam Line Isolation
3. Secondary Containment Isolation
4. Reactor Water Cleanup (RWCU) System Isolation
5. Reactor Core Isolation Cooling (RCIC) System Isolation
6. Residual Heat Removal (RHR) System Isolation

The proposed change to footnote (a) of TS Table 4.3.2.1-1 would revise the frequency of channel functional testing on circuitry associated with the RWCU isolation on standby liquid control system (SLCS) initiation from at least once every other 31 days per logic channel to at least once every other 92 days per logic channel.

The proposed change to footnote (b) of TS Table 4.3.2.1-1 would revise the frequency of certain trip unit setpoint calibrations from at least once per 31 days to at least once per 92 days. This footnote is applicable to the following isolation signals:

1. Primary Containment Isolation
 - a. Reactor Vessel Water Level - Low, Level 2
 - b. Drywell Pressure - High
 - d. Reactor Vessel Water Level - Low, Level 1
2. Main Steam Line Isolation
 - a. Reactor Vessel Water Level - Low, Level 1
 - c. Main Steam Line Pressure - Low
 - d. Main Steam Line Flow - High
 - e. Condenser Vacuum - Low
3. Secondary Containment Isolation
 - a. Reactor Vessel Water Level - Low, Level 2
 - b. Drywell Pressure - High
4. RWCU System Isolation
 - e. Reactor Vessel Water Level - Low, Level 2

5. RCIC System Isolation
 - a. RCIC Steam Line Flow - High
 - b. RCIC Steam Supply Pressure - Low
 - c. RCIC Turbine Exhaust Diaphragm Pressure - High
 1. Drywell Pressure - High
6. RHR System Isolation
 - c. RHR/RCIC Steam Line Flow - High
 - d. Reactor Vessel Water Level - Low, Level 3
 - e. Reactor Vessel (RHR Cut-in Permissive) Pressure - High
 - f. Drywell Pressure - High

Footnote ## designates Trip Function 1b, 3b, 6d, and 6f as utilizing instruments which are common to RPS instrumentation. |

The proposed changes to TS Table 4.3.2.1-1 and footnotes (a), (b), and ## are consistent with References 5 and 6 and are, therefore, acceptable.

TS 3/4.3.3 - Emergency Core Cooling System Actuation Instrumentation

The proposed change to footnote (a) of TS Table 3.3.3-1 would increase the time permitted for an ECCS channel to be placed in an inoperable status for surveillance purposes without placing the trip system in the tripped condition from 2 to 6 hours. This proposed change is consistent with the provisions of Reference 4 and is, therefore, acceptable.

The licensee proposed several changes to the Table 3.3.3-1 ACTION statements to increase allowed outage times and address potential loss-of-function conditions. The specific changes are discussed below.

ACTION 30 currently applies to the following ECCS actuation instrumentation channels:

- Reactor Vessel Water Level - Low, Level 1
- Drywell Pressure - High

ACTION 30 currently requires that if one channel is inoperable and the number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip Function requirement, the inoperable channel must be placed in the tripped condition within one-hour or the associated system must be declared inoperable. If more than one channel is inoperable, the associated system must be declared inoperable. The proposed change to ACTION 30 would require verification within one-hour that a sufficient number of channels remain OPERABLE or in the tripped condition to maintain automatic actuation capability of either Division 1 or Division 2 ECCS and either ADS Trip System A or Trip System B. The inoperable channel(s) must be placed in the tripped condition within 24 hours. Otherwise, the associated system must be declared inoperable. If a loss-of-function condition exists, or if it is not desirable to place the inoperable channel(s) in the tripped condition, the associated systems would be declared inoperable. |

ACTION 31 currently applies to the following ECCS actuation instrumentation channels:

- Reactor Vessel Pressure - Low (LPCS [Low-Pressure Core Spray] Injection Valve Permissive) for OPERATIONAL CONDITIONS 1, 2, and 3
- Reactor Vessel Pressure - Low (LPCI [Low-Pressure Coolant Injection] Injection Valve Permissive) for OPERATIONAL CONDITIONS 1, 2, and 3
- LPCI Pump Start Time Delay Relay
- Manual Inhibit
- ADS Timer
- LPCS Pump Start Time Delay Relay
- LPCS Pump Discharge Pressure - High (Permissive) for OPERATIONAL CONDITIONS 1, 2, and 3
- LPCI Pump Discharge Pressure - High (Permissive) for OPERATIONAL CONDITIONS 1, 2, and 3
- Reactor Vessel Water Level - Low, Level 3 (Permissive)

Action 31 currently requires that if the number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip Function requirement, the associated ADS trip system or ECCS must be declared inoperable.

The proposed ACTION 31 requires that with the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip Function requirement, verify within one-hour that a sufficient number of channels remain OPERABLE to maintain automatic actuation capability of either Division 1 or Division 2 ECCS and either ADS Trip System A or Trip System B, and restore the inoperable channel(s) to OPERABLE status within 24 hours. Otherwise, declare the associated ADS trip system(s) or ECCS inoperable.

The licensee proposed to revise the ACTION requirement for the Reactor Vessel Water Level - Low, Level 3 (Permissive) ECCS actuation instrumentation from ACTION 31 to ACTION 30. As noted above, ACTION 30 provides the option of placing an inoperable channel in the tripped condition. The licensee stated that this should be an acceptable alternative to declaring the associated ADS trip system inoperable for this instrumentation trip function. Placing the inoperable channel in the tripped condition would still enable automatic initiation of ADS, upon receipt of a Reactor Vessel Water Level, - Low, Level 1 signal.

ACTION 32 applies to the Reactor Vessel Pressure - Low (LPCS/LPCI Injection Valve Permissive) actuation instrumentation channels in Operational Conditions 4 and 5 when the LPCS/LPCI systems are required to be OPERABLE. ACTION 32 currently requires that if the number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip Function requirement, the inoperable channel must be placed in the tripped condition within one-hour.

The proposed change to ACTION 32 would provide a period of 24 hours before the associated channel must be placed in the tripped condition.

ACTION 33 currently applies to the following ECCS actuation instrumentation channels:

- A. Division 1
 - 1. RHR-A (LPCI Mode) and LPCS System
 - h. Manual Initiation
 - 2. ADS Trip System "A"
 - g. Manual Initiation
- B. Division 2
 - 1. RHR-B and C (LPCI Mode)
 - f. Manual Initiation
 - 2. ADS Trip System "B"
 - f. Manual Initiation

ACTION 33 currently requires that if the number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip Function requirement, the inoperable channel must be restored to OPERABLE status within 8 hours or the associated ADS trip system or ECCS must be declared inoperable. The proposed change to ACTION 33 would provide a period of 24 hours to restore an inoperable channel.

ACTION 34 currently applies to the Reactor Vessel Water Level - Low, Level 2, Drywell Pressure - High, and Reactor Vessel Water Level - High, Level 8 actuation instrumentation channels that actuate HPCS. ACTION 34 currently requires that if the number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip Function requirement place the inoperable channel(s) in the tripped condition within one-hour or the HPCS system must be declared inoperable. The proposed change to ACTION 34 would apply only to the Reactor Vessel Water Level - Low, Level 2 and the Drywell Pressure - High and would require verification within one-hour that a sufficient number of channels remain OPERABLE, or are in the tripped condition to maintain automatic HPCS actuation capability, and would require that the inoperable channel(s) be placed in the tripped condition within 24 hours. If a loss-of-function condition exists, or it is not desirable to place the inoperable channel(s) in the tripped condition, the HPCS system would be declared inoperable.

The licensee proposed to revise the ACTION requirement for the Reactor Vessel Water Level - High Level 8 ECCS actuation instrumentation from ACTION 34 to ACTION 33. A loss-of-function check is not required for this actuation instrumentation. A loss-of-function was considered during the development of NUREG-1434, Reference 1, and 24 hours was determined to be acceptable. Therefore, the 24 hours allowed by the proposed revision to ACTION 33 is considered acceptable.

ACTION 35 applies to the Condensate Storage Tank Level - Low and Suppression Pool Water Level - High channels. The current ACTION 35 requires that if the number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip Function requirement, at least one inoperable channel must be placed in the tripped condition within one-hour, or align the HPCS system to take suction from the suppression pool, or the HPCS system must be declared inoperable. The proposed change to ACTION 35 would require verification

within one-hour that the HPCS pump suction is either aligned or is capable of automatically realigning to the suppression pool and would require that the inoperable channel(s) be placed in the tripped condition within 24 hours. If a loss-of-function condition exists, or it is not desirable to place the inoperable channel(s) in the tripped condition (or to realign the HPCS pump suction to the suppression pool), the HPCS system would be declared inoperable.

Verification of sufficient OPERABLE or tripped instrumentation channels ensures that appropriate actions are taken if multiple, inoperable, untripped channels result in redundant automatic initiation capability being lost for the affected feature(s). Provided that sufficient instrumentation is OPERABLE or tripped, Reference 3 demonstrated that an allowable out-of-service time of 24 hours is acceptable to permit restoration of an inoperable channel to OPERABLE status.

ACTION 36 currently applies to the HPCS Manual Initiation Function versus Action 33 used for the other Manual Initiation Functions. Action 36 currently allows for the operator to choose between two options when the HPCS Manual Initiation logic becomes inoperable; either place the channel in the tripped condition or declare the HPCS System inoperable. NUREG-1434 does not provide for the option of placing the channel in trip; to be consistent with the NUREG, it is proposed to change the ACTION for the HPCS Manual Initiation from ACTION 36 to ACTION 33. Therefore, ACTION 36 was deleted.

ACTIONS 37 and 38 did not change.

ACTION 39 applies to the LPCS and LPCI Pumps Discharge Flow - Low (Bypass); HPCS Pump Discharge Pressure - High (Bypass); and HPCS System Flow Rate - Low (Bypass). The licensee proposed applying ACTION 39 to only the LPCS and LPCI Pumps Discharge Flow - Low (Bypass). Additionally, the licensee proposed changing the ACTION 39 to require verification within one-hour that a sufficient number of channels remain OPERABLE to maintain automatic actuation capability of either Division 1 or Division 2 ECCS, and to restore the inoperable channel(s) to OPERABLE status within 7 days or otherwise, declare the associated system(s) inoperable.

The licensee proposed to revise the ACTION requirement for the HPCS Pump Discharge Pressure - High (Bypass) and the HPCS System Flow Rate - Low (Bypass) ECCS actuation instrumentation from ACTION 39 to new ACTION 40. ACTION 40 would provide a period of 7 days to restore an inoperable channel to OPERABLE status, before requiring that the HPCS system be declared inoperable.

The 7-day AOT of ACTIONS 39 and 40 is longer than the approved 24-hour AOT contained in Reference 6, but is consistent with the AOT provided in Reference 1. The 7-day AOT proposed for these instrumentation trip functions is acceptable, based on the remaining capability of the associated ECCS subsystems, the redundancy available in the ECCS design, and the low probability of a design basis accident occurring during this longer allowed out-of-service time.

The proposed changes to TS Table 3.3.3-1 are acceptable, since they are consistent with References 3 and 17, and with current NRC staff positions and

related guidance provided in Reference 1 to ensure that a loss-of-function condition will not exist, if two or more channels are inoperable.

The proposed changes to TS Table 4.3.3.1-1 would extend the channel functional test interval requirement from monthly to quarterly for the Division I, Division II, and Division III Trip Systems, except for the Manual Initiation Trip Function for each trip system, which would remain at a frequency of once per cycle.

The proposed change to footnote (a) on Table 4.3.3.1-1 would revise the frequency of certain trip unit setpoint calibrations from at least once per 31 days to at least once per 92 days. This footnote is applicable to the following ECCS actuation instrumentation:

- A.1. RHR-A (LPCI Mode) and LPCS System
 - a. Reactor Vessel Water Level - Low, Level 1
 - b. Drywell Pressure - High
 - c. LPCS Pump Discharge Flow - Low (Bypass)
 - d. Reactor Vessel Pressure - Low (LPCS Injection Valve Permissive)
 - e. Reactor Vessel Pressure - Low (LPCI Injection Valve Permissive)
 - g. LPCI Pump A Flow - Low (Bypass)
- A.2. Automatic Depressurization System Trip System "A"
 - a. Reactor Vessel Water Level - Low, Level 1
 - d. Reactor Vessel Water Level - Low, Level 3 (Permissive)
 - e. LPCS Pump Discharge Pressure - High
 - f. LPCI Pump A Discharge Pressure - High (Permissive)
- B.1. RHR-B and C (LPCI Mode)
 - a. Reactor Vessel Water Level - Low, Level 1
 - b. Drywell Pressure - High
 - c. Reactor Vessel Pressure - Low (LPCI Injection Valve Permissive)
 - e. LPCI Pump Discharge Flow - Low (Bypass)
- B.2. Automatic Depressurization System Trip System "B"
 - a. Reactor Vessel Water Level - Low, Level 1
 - d. Reactor Vessel Water Level - Low, Level 3 (Permissive)
 - e. LPCI Pump B and C Discharge Pressure - High (Permissive)
- C.1. HPCS System
 - a. Reactor Vessel Water Level - Low, Level 2
 - b. Drywell Pressure - High
 - c. Reactor Vessel Water Level - High, Level 8
 - d. Condensate Storage Tank Level - Low
 - e. Suppression Pool Water Level - High
 - f. HPCS Pump Discharge Pressure - High
 - g. HPCS System Flow Rate - Low

The proposed changes to TS Table 4.3.3.1-1 are consistent with References 3 and 17 and are, therefore, acceptable.

TS 3/4.3.4 Recirculation Pump Trip Actuation Instrumentation

The footnote on Table 3.3.4.1-1 currently states that one anticipated transient without scram recirculation pump trip (ATWS-RPT) trip channel may be placed in an inoperable status for up to two hours for required surveillance provided the other channel is OPERABLE. The proposed change to this footnote would increase the allowable time for surveillance from two hours to six hours.

The proposed revisions to TS Table 4.3.4.1-1 would change the channel functional test interval requirement from monthly to quarterly for the Reactor Vessel Water Level - Low, Level 2 and the Reactor Vessel Pressure - High Trip Functions.

The proposed revision to footnote (*) to Table 4.3.4.1-1 would clarify that the trip unit setpoint calibration should be performed at an interval of at least once per 92 days. This ensures consistency with other related changes proposed in this submittal.

Action b. for TS 3.3.4.1 currently requires that if the number of OPERABLE channels are one less than required by the Minimum OPERABLE Channels per Trip System requirement for one or both ATWS-RPT trip systems, then the inoperable channel shall be placed in the tripped condition within one-hour. Action c addresses the actions to take if two or more channels are inoperable. Action d requires restoring an inoperable ATWS-RPT trip system within 72 hours. Action e states that if both ATWS-RPT trip systems are inoperable, one trip system must be restored within one-hour or the unit placed in STARTUP within the next six hours. The proposed TS states:

- b. With the number of OPERABLE channels less than required by the Minimum OPERABLE channels per Trip System requirement.
 - 1. Verify that a sufficient number of channels remain OPERABLE or are in the tripped condition to maintain ATWS-RPT trip capability for:
 - a) either the low reactor vessel water level or the high reactor vessel pressure Trip Function within one-hour, and
 - b) both the low reactor vessel water level and the high reactor vessel pressure Trip Functions within 72 hours, and
 - 2. Place the inoperable channel(s) in the tripped condition within 14 days.

Otherwise, either remove the associated recirculation pump from service or be in at least STARTUP within the next six hours.

The licensee's markup indicated item b should read "both...or" rather than "both...and." Per discussions with the licensee and review of the logic implications, the correct terminology is "both...and." The licensee requested

that the terminology remain "both...and."

Action c.1 for TS 3.3.4.1 currently has an associated footnote that is no longer consistent with the proposed changes. The footnote was eliminated even though it was not specifically marked for removal in the licensee's submittal.

The proposed changes to TS 3/4.3.4.1 and Tables 3.3.4.1-1 and 4.3.4.1-1 are acceptable since they are consistent with Reference 7 and with current NRC staff positions and related guidance provided in Reference 1.

ACTION b. for TS 3.3.4.2 currently requires that the inoperable end-of-cycle recirculation pump trip (EOC-RPT) instrumentation channel(s) be placed in the tripped condition within one-hour if the number of OPERABLE channels is one less than required by the Minimum OPERABLE Channels per Trip System requirement for one or both trip systems. ACTION c. requires that with two or more channels less than required by the Minimum OPERABLE Channels per Trip System Requirement for one trip system either place the channels in trip or declare the trip system inoperable. Action d. requires that with one trip system inoperable, restore the inoperable trip system to OPERABLE status within 72 hours or reduce THERMAL POWER to less than 40% of RATED THERMAL POWER within the next 6 hours. Action e. requires that with both trip systems inoperable, at least one trip system must be restored to OPERABLE status within one-hour or THERMAL POWER must be reduced to less than 40% of RATED THERMAL POWER within the next 6 hours.

The proposed change to ACTION b. would replace current ACTIONs b., c., d., and e. The proposed change would extend the one-hour for placing the inoperable channel(s) in the tripped condition to 72 hours, but would require a channel verification within 2 hours to ensure a sufficient number of channels are OPERABLE or tripped to maintain EOC-RPT trip capability. If the sufficient channels are not available, and placing a channel in the tripped condition could result in actuation, then either remove the associated recirculation pump fast speed breaker from service or reduce the THERMAL POWER to less than 40% of RATED THERMAL POWER within the next four hours. A typographical error (six hours rather than four hours) occurred in the markup for page 3/4 3-44. As discussed in Attachment 1, Page 10 of 17 of the licensee's February 22, 1994, letter, the appropriate duration is 4 hours.

The proposed 72-hour AOT for ACTION b. is longer than the approved 12-hour AOT contained in Reference 7, but is consistent with the AOT provided in Reference 1. The longer AOT is acceptable because of the diversity of sensors available to provide trip signals, the low probability of multiple inoperabilities affecting all diverse instrumentation trip functions, and the low probability of an event requiring the initiation of an EOC-RPT.

The proposed change to footnote (a) on Table 3.3.4.2-1 would revise the amount of time that an EOC-RPT trip system may be placed in an inoperable status for required surveillance from 2 hours to 6 hours. This proposed change is consistent with Reference 7 and is, therefore, acceptable.

The proposed changes to TS Table 4.3.4.2.1-1 would revise the channel functional test interval requirement for the Turbine Stop Valve - Closure and the Turbine Control Valve - Fast Closure trip functions from monthly to quarterly.

The proposed changes to TS Table 4.3.4.2.1-1 are consistent with Reference 7 and are, therefore, acceptable.

TS 3/4.3.5 Reactor Core Isolation Cooling System Actuation Instrumentation

Footnote (a) on TS Table 3.3.5-1 currently permits a RCIC system actuation instrument channel to be placed in an inoperable status for up to 2 hours for required surveillance. The proposed change to footnote (a) would extend the 2 hours to 6 hours.

The licensee proposed several changes to Table 3.3.5-1 ACTION statements to increase allowed outage times and address potential loss-of-function conditions. The specific changes are discussed below.

Action 50 applies to the Reactor Vessel Water Level - Low, Level 2 RCIC actuation instrumentation functional unit. ACTION 50 currently requires that if the number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip System requirement for one trip system, then the trip system must be placed in the tripped condition within one-hour or the RCIC system must be declared inoperable. If the number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip System requirement for both trip systems, the RCIC system must be declared inoperable. The proposed change to ACTION 50 would require that within one-hour verification is performed to ensure that a sufficient number of channels remain OPERABLE or are in the tripped condition to maintain automatic RCIC actuation capability, and would require that the inoperable channel(s) be placed in the tripped condition within 24 hours. If a loss-of-function condition exists, or it is not desirable to place the inoperable channel(s) in the tripped condition, the RCIC system would be declared inoperable.

Action 51 applies to the Reactor Vessel Water Level - High, Level 8 RCIC actuation instrumentation functional unit. ACTION 51 currently requires that if the number of OPERABLE Channels is less than required by the Minimum OPERABLE Channels per Trip System requirement, the RCIC system must be declared inoperable. The proposed change to ACTION 51 would provide an allowed outage time of 24 hours before requiring the RCIC system to be declared inoperable. A loss-of-function check is not required for this actuation instrumentation. A loss-of-function was considered during the development of NUREG-1434, Reference 1, and 24 hours was determined to be acceptable. Therefore, the 24 hours allowed by the proposed revision to ACTION 51 is considered acceptable.

Action 52 applies to the Condensate Storage Tank Water Level - Low and Suppression Pool Water Level - High RCIC actuation instrumentation functional units. The current ACTION 52 requires that if the number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip System requirement, at least one inoperable channel must be placed in the tripped condition within one-hour or the RCIC system aligned to take suction from the suppression pool, or the RCIC system must be declared inoperable. The proposed change to ACTION 52 would require that within one-hour verification is made that either the RCIC pump suction is aligned to, or is capable of

automatically realigning to the suppression pool and would require that at least one inoperable channel be placed in the tripped condition within 24 hours. If a loss-of-function condition exists, or it is not desirable to place the inoperable channel(s) in the tripped condition (or to realign the RCIC pump suction to the suppression pool), the RCIC system would be declared inoperable.

Action 53 applies to the Manual Initiation RCIC instrumentation functional unit. Action 53 currently specifies that the inoperable channel must be restored to OPERABLE status within 8 hours, or the RCIC system must be declared inoperable if the number of OPERABLE channels is one less than required by the Minimum OPERABLE Channels per trip system requirement. The proposed change to Action 53 would extend the 8 hours to 24 hours. NUREG-1434 does not require a loss-of-function check to be performed when this trip function becomes inoperable. If the inoperable channel cannot be restored to OPERABLE status within 24 hours, the RCIC System must be declared inoperable.

Verification of sufficient OPERABLE or tripped instrumentation channels ensures that appropriate actions are taken if multiple, inoperable, untripped channels result in redundant automatic RCIC initiation capability being lost. Provided that sufficient instrumentation is OPERABLE or tripped, Reference 3 demonstrated that an allowable out-of-service time of 24 hours is acceptable to permit restoration of an inoperable channel to OPERABLE status.

The proposed changes to TS Table 3.3.5-1 are consistent with Reference 8, and with current NRC staff positions and related guidance provided in Reference 1 and are, therefore, acceptable.

The proposed changes to TS Table 4.3.5.1-1 would revise the channel functional test interval requirement for the following RCIC trip functions from monthly to quarterly:

- a. Reactor Vessel Water Level - Low, Level 2
- b. Reactor Vessel Water Level - High, Level 8
- c. Condensate Storage Tank Level - Low
- d. Suppression Pool Water Level - High

The proposed change to footnote (a) on Table 4.3.5.1-1 would revise the frequency of certain trip unit setpoint calibrations from at least once per 31 days to at least once per 92 days. This footnote is applicable to the same RCIC actuation instrumentation identified as trip functions a. through d. above.

The proposed changes to TS Table 4.3.5.1-1 are consistent with Reference 8 and are, therefore, acceptable.

TS 3/4.3.6 Control Rod Block Instrumentation

The licensee has proposed to add footnote (e) to TS Table 3.3.6-1 to allow a control rod block instrumentation channel to be placed in an inoperable status for up to six hours for required surveillance, without placing the trip system in the tripped condition, provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.

ACTION 62 on TS Table 3.3.6-1 is currently applicable to the Scram Discharge Volume Water Level - High and the Reactor Coolant System Recirculation Flow Upscale Trip Functions. This ACTION currently specifies that an inoperable channel must be placed in the tripped condition within one-hour, if the minimum number of OPERABLE channels is less than required by the Minimum OPERABLE Channels per Trip Function requirement. The proposed revision would change ACTION 62 to require verification within one-hour, that sufficient channels remain OPERABLE to initiate a rod block by the associated Trip Function and would require that at least one inoperable channel be placed in the tripped condition within 24 hours. Per discussions with the licensee, the 24-hour period should have been 12 hours. If a loss-of-function condition exists, or it is not desirable to place the inoperable channel(s) in the tripped condition, ACTION 62 would require that a rod block be initiated.

The proposed changes to TS Table 3.3.6-1 are consistent with Reference 7 and with current NRC staff positions and related guidance provided in Reference 1 and are, therefore, acceptable.

The proposed changes to TS Table 4.3.6-1 would modify the channel functional test interval requirement for the following control rod block trip functions from monthly to quarterly:

1. Rod Pattern Control System
2. Average Power Range Monitor
5. Scram Discharge Volume
6. Reactor Coolant System Recirculation Flow

The proposed change to footnote # on Table 4.3.6-1 would revise the frequency of certain trip unit setpoint calibrations from once per 31 days to once per 92 days. This footnote is applicable to the Rod Pattern Control System and the Scram Discharge Volume control rod block instrumentation.

The proposed changes to TS Table 4.3.6-1 are consistent with Reference 4 and are, therefore, acceptable.

TS 3/4.3.9 Plant Systems Actuation Instrumentation

Currently TS 3.3.9 has four ACTION statements a, b, c, and d. ACTION a states the following general requirement. If a plant system actuation instrumentation channel trip setpoint is less conservative than the value shown in the Allowable Values column of Table 3.3.9-2, declare the channel inoperable and either place the inoperable channel in the tripped condition until the channel is restored to OPERABLE status with its trip setpoint adjusted consistent with the Trip Setpoint value, or declare the associated system inoperable. ACTIONS b, c, and d provide specific actions for the containment spray system, the feedwater system/main turbine trip system, and for the suppression pool makeup (SPMU) system. The licensee proposes to revise ACTION a, to eliminate the discussion on when to place a channel in trip or declare the system inoperable and replace ACTIONS b, c, and d with a revised ACTION b, that states with one or more plant systems actuation instrumentation channels inoperable, take the ACTION required by Table 3.3.9-1. The licensee proposes to add ACTIONS 130, 131, 132 and 133 to Table 3.3.9-1.

Currently, footnote (a) to TS Table 3.3.9-1 states that a channel may be placed in an inoperable status for up to 2 hours for required surveillance without placing the trip system in the tripped condition, provided at least one other OPERABLE channel in the same trip system is monitoring that parameter. The licensee has proposed to revise footnote (a) to permit a single channel to be placed in an inoperable status for up to 6 hours for required surveillance without placing the trip system in the tripped condition for Trip Function 1.d.(2) and for all trip functions other than 1.d.(2) provided the associated Trip Function maintains Plant Systems actuation capability.

The licensee proposes to change the designation of the Containment Spray Timers from System A and B (10-minute timer) and System B (1.5-minute timer) to Subsystem A and B (10-minute timer) and Subsystem B (1.5-minute timer).

ACTION 130 applies to the Drywell Pressure - High and Reactor Vessel Water Level - Low, Level 1 plant systems actuation instrumentation channels. The new ACTION 130 would require verification within one-hour that a sufficient number of channels remain OPERABLE or are in the tripped condition to maintain automatic actuation capability of either subsystem A or subsystem B, and place the inoperable channel(s) in the tripped condition within 24 hours. Otherwise, the associated subsystem(s) must be declared inoperable.

The proposed ACTION 131 would apply to the Containment Pressure - High and the Timers for the Containment Spray System Trip Function and the Suppression Pool Water Level - Low, Level 1, and the SPMU Timer for the SPMU Trip Function. The proposed ACTION would require that with the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement, verify within one-hour that a sufficient number of channels remain OPERABLE to maintain automatic actuation capability of either subsystem A or subsystem B, and restore the inoperable channel(s) within 24 hours. Otherwise, declare the associated subsystem(s) inoperable.

The proposed ACTION 132 applies to the feedwater system/main turbine trip system. The action statement requires that with the number of OPERABLE Channels one less than required by the Minimum OPERABLE Channels per Trip System requirement, restore the inoperable channel to OPERABLE status within seven days or be in at least STARTUP within the next six hours. With the number of OPERABLE channels two less than required by the Minimum OPERABLE Channels per Trip System requirement, restore at least one of the inoperable channels to OPERABLE status within 72 hours or be in at least STARTUP within the next six hours.

The proposed ACTION 133 is applicable to the Manual Initiation Trip Function for the Containment Spray System and the SPMU System. The proposed ACTION 133 requires that with the number of OPERABLE channels less than required by the Minimum OPERABLE Channels per Trip System requirement, restore the inoperable channel(s) to OPERABLE status within 24 hours. Otherwise, declare the associated subsystem(s) inoperable.

The proposed change to TS Table 4.3.9.1-1 would revise the channel functional test interval requirement for all trip functions except Containment Spray System Manual Initiation and SPMU Manual Initiation trip functions from monthly to quarterly.

Currently, footnote * on Table 4.3.9.1-1 is applicable to the following systems and actuation instrumentation:

1. Containment Spray System
 - a. Drywell Pressure - High
 - b. Containment Pressure - High
 - c. Reactor Vessel Water Level - Low, Level 1
2. Feedwater System/Main Turbine Trip System
 - a. Reactor Vessel Water Level - High, Level 8
3. Suppression Pool Makeup System
 - a. Drywell Pressure - High
 - b. Reactor Vessel Water Level - Low, level 1
 - c. Suppression Pool Water Level - Low

The proposed change to footnote * on Table 4.3.9.1-1 would revise the frequency of certain trip unit setpoint calibrations from once per 31 days to once per 92 days.

The proposed changes to TS Tables 3.3.9-1 and 4.3.9.1-1 are acceptable since they are consistent with Reference 7 and with current NRC staff positions and related guidance provided in Reference 1.

TS 3/4.4.2 Safety/Relief Valves

The proposed change would revise TS 4.4.2.1.1 and TS 4.4.2.1.2 to change the channel functional test interval for the safety/relief valve tail-pipe pressure switch and the relief valve function pressure actuation instrumentation from at least once per 31 days to at least once per 92 days. The proposed change would also add a footnote for TS 4.4.2.1.2 that would permit placing a pressure actuation instrumentation channel in an inoperable status for up to six hours for required surveillance without placing the trip system in the tripped condition. The licensee's submittal also indicated the # footnote was applicable to TS 4.4.2.1.1, however, discussions with the licensee verified that the footnote was not applicable to TS 4.4.2.1.1.

The proposed changes to TS 4.4.2.1.1 and TS 4.4.2.1.2 are consistent with Reference 7 and are, therefore, acceptable.

The proposed change would revise TS 4.4.2.2.1 to change the channel functional test interval for the Safety/Relief Valve Low-Low Set Function pressure actuation instrumentation from at least once per 31 days to at least once per 92 days. The proposed change would also add a footnote to TS 4.4.2.2.1 that would permit a Safety/Relief Valve Low-Low Set Function instrumentation channel to be placed in an inoperable status for up to six hours for required surveillance without placing the trip system in the tripped condition provided all the associated function maintains Low-Low Set initiation capability.

The proposed changes to TS 4.4.2.2.1 are consistent with Reference 7 and are, therefore, acceptable.

The proposed changes would also modify the Bases for TS 3/4.3.1, 3/4.3.2, 3/4.3.3, 3/4.3.4, 3/4.3.5, 3/4.3.6, 3/4.3.9, and 3/4.4.2 to reference the GE LTRs which justify the above proposed changes and provide the bases for

operator actions during surveillance and repair of instrument channels. The NRC staff offers no objection to the proposed changes to the Bases.

The proposed changes would also modify TS Index pages xviii and xix to reflect the changes to the Bases. The conforming, administrative changes to the TS Index pages are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Ohio State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 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 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 effluent 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 (59 FR 17605). Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

5.0 CONCLUSION

The staff has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: R. Schaaf
L. Gundrum

Date: November 22, 1994

Attachment: Reference List

REFERENCES

1. NUREG-1434, "Standard Technical Specifications - GE BWR/6 Plants," September 1992.
2. NEDC-30851P, "Technical Specification Improvement Analyses for BWR Reactor Protection System," dated May 31, 1985.
3. NEDC-30936P, "BWR Owner's Group Technical Specification Improvement Methodology (With Demonstration for BWR ECCS Actuation Instrumentation) Parts 1 and 2," dated July 23, 1987.
4. NEDC-30851P (Supplement 1), "Technical Specification Improvement Analysis for BWR Control Rod Block Instrumentation," dated June 23, 1986.
5. NEDC-30851P (Supplement 2), "Technical Specification Improvement Analysis for BWR Isolation Instrumentation Common to RPS and ECCS Instrumentation," dated August 29, 1986.
6. NEDC-31677P, "Technical Specification Improvement Analysis for BWR Isolation Actuation Instrumentation," dated June 27, 1989.
7. GENE-770-06-01, "Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications," dated February 19, 1991.
8. GENE-770-06-02, "Addendum to Bases for Changes to Surveillance Test Intervals and Allowed Out-of-Service Times for Selected Instrumentation Technical Specifications," dated February 19, 1991.
9. Letter and enclosed safety evaluation approving NEDC-30851P dated July 15, 1987, from A. C. Thadani (NRC) to T. A. Pickens (BWR Owners Group).
10. Letter and enclosed safety evaluation approving NEDC-30851P (Supplement 2) dated January 6, 1989, from C. E. Rossi (NRC) to D. N. Grace (BWR Owners Group).
11. Letter and enclosed safety evaluation approving NEDC-30851P (Supplement 1) dated September 22, 1988, from C. E. Rossi (NRC) to D. N. Grace (BWR Owners Group).
12. Letter and enclosed safety evaluation approving NEDC-31677P dated June 18, 1990, from C. E. Rossi (NRC) to S. D. Floyd (BWR Owners Group).
13. Letter and enclosed safety evaluation approving NEDC-30936P dated December 9, 1988, from C. E. Rossi (NRC) to D. N. Grace (BWR Owners Group).

14. Letter and enclosed safety evaluation approving GENE-770-06-01 dated July 21, 1992, from C. E. Rossi (NRC) to R. D. Bing IV (BWR Owners Group).
15. Letter and enclosed safety evaluation approving GENE-770-06-02 dated September 13, 1991, from C. E. Rossi (NRC) to G. J. Beck (BWR Owners Group).
16. GE Report MDE-86-0485 DRF A00-02119-D, April 1985 (Proprietary), "Technical Specification Improvement Analysis for the Reactor Protection System for Perry Nuclear Power Plant, Units 1 and 2."
17. GE Report RE-028 Revision 1, December 1991 (Proprietary), "Technical Specification Improvement Analysis for the Emergency Core Cooling System Actuation Instrumentation for Perry Nuclear Power Plant, Units 1 and 2."
18. Letter dated April 27, 1988, from C. E. Rossi (NRC) to R. F. Janecek (BWR Owners Group).