October 21, 2005

Mr. Christopher M. Crane, President
and Chief Executive Officer
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: CLINTON POWER STATION, UNIT 1 - ISSUANCE OF AN AMENDMENT - RE: CHANGES TO TECHNICAL SPECIFICATIONS TO ACCOMMODATE 24-MONTH FUEL CYCLES (TAC NO. MC3295)

Dear Mr. Crane:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 169 to Facility Operating License No. NPF-62 for the Clinton Power Station, Unit 1, in response to your application dated May 20, 2004, as supplemented May 23 and September 30, 2005. The amendment revises the Technical Specifications to support 24-month fuel cycles in accordance with the guidance of Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," dated April 2, 1991.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA

Kahtan N. Jabbour, Senior Project Manager, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-461

Enclosures: 1. Amendment No. 169 to NPF-62
2. Safety Evaluation

cc w/encls: See next page

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AmerGen Energy Company, LLC
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ADAMS ACCESSION NUMBER: **ML053010153**
ADAMS ACCESSION NUMBER: **ML052940480**
ADAMS ACCESSION NUMBER: **ML052980008**

OFFICE	PM:PD3-2	LA:PD3-2	SC:EEIB	SC:EEIB	SC:SPLB(A)
NAME	KJabbour	PCoates	AHowe	RJenkins	SJones
DATE	10/12/05	10/19/05	10/18/05	9/1/05	10/18/05

OFFICE	SC:IROB	SC: SPSB(A)	SC:SRXB	OGC:NLO	SC: PD3-2
NAME	TBoyce	MKotzales	FAkstulewicz	APH	LRaghavan for GSuh
DATE	10/19/05	10/19/05	3/1/05	10/17/05	10/ 21 /05

OFFICIAL RECORD COPY

Clinton Power Station, Unit 1

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AMERGEN ENERGY COMPANY, LLC

DOCKET NO. 50-461

CLINTON POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 169
License No. NPF-62

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by AmerGen Energy Company, LLC (the licensee), dated May 20, 2004, as supplemented May 23 and September 30, 2005, 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 contained in Appendix B, as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-62 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. are hereby incorporated into this license. AmerGen Energy Company, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Gene Y. Suh, Chief, Section 2
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: October 21, 2005

ATTACHMENT TO LICENSE AMENDMENT NO. 169

FACILITY OPERATING LICENSE NO. NPF-62

DOCKET NO. 50-461

Replace the following pages of Appendix A, Technical Specifications, with the enclosed pages. The revised pages are identified by an amendment number and contain marginal lines indicating the areas of change.

Remove Pages	Insert Pages
3.0-4	3.0-4
3.0-6	-----
3.0-7	-----
3.0-8	-----
3.0-9	-----
3.0-10	-----
3.1-22	3.1-22
3.1-25	3.1-25
3.3-5	3.3-5
3.3-6	3.3-6
3.3-13	3.3-13
3.3-17	3.3-17
3.3-21	3.3-21
3.3-24	3.3-24
3.3-27	3.3-27
3.3-29	3.3-29
3.3-38	3.3-38
3.3-39	3.3-39
3.3-40	3.3-40
3.3-41	3.3-41
3.3-42	3.3-42
3.3-43	3.3-43
3.3-46	3.3-46
3.3-47	3.3-47
3.3-54	3.3-54
3.3-55	3.3-55
3.3-56	3.3-56
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3.3-58	3.3-58
3.3-59	3.3-59
3.3-60	3.3-60
3.3-63	3.3-63
3.3-64	3.3-64
3.3-67	3.3-67
3.3-68	3.3-68
3.3-71	3.3-71
3.3-72	3.3-72
3.3-74	3.3-74
3.3-76	3.3-76

Remove Pages	Insert Pages
3.3-79	3.3-79
3.3-80	3.3-80
3.3-82	3.3-82
3.4-6	3.4-6
3.4-11	3.4-11
3.4-19	3.4-19
3.5-5	3.5-5
3.5-9	3.5-9
3.5-11	3.5-11
3.5-12	3.5-12
3.6-18	3.6-18
3.6-19a	3.6-19a
3.6-23	3.6-23
3.6-25	3.6-25
3.6-27	*
3.6-27a	3.6-27a
3.6-35	3.6-35
3.6-37	*
3.6-39	3.6-39
3.6-40	3.6-40
3.6-42	3.6-42
3.6-45	3.6-45
3.6-50	3.6-50
3.6-53	3.6-53
3.6-65	3.6-65
3.6-70	3.6-70
3.7-2	3.7-2
3.7-3	3.7-3
3.7-7	3.7-7
3.7-10	3.7-10
3.7-13	3.7-13
3.8-6	3.8-6
3.8-6a	3.8-6a
3.8-7	3.8-7
3.8-8	3.8-8
3.8-9	3.8-9
3.8-10	3.8-10
3.8-10a	3.8-10a
3.8-11	3.8-11
3.8-12	3.8-12
3.8-13	3.8-13
3.8-25	3.8-25
3.8-45	3.8-45
5.0-12	5.0-12

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* TS pages 3.6-27 and 3.6-37 were revised (i.e., pages intentionally left blank) by amendments Nos. 167 and 164 issued on September 19 and April 28, 2005, respectively.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 169 TO FACILITY OPERATING LICENSE NO. NPF-62

AMERGEN ENERGY COMPANY, LLC

CLINTON POWER STATION, UNIT 1

DOCKET NO. 50-461

1.0 INTRODUCTION

By application dated May 20, 2004, as supplemented May 23 and September 30, 2005, AmerGen Energy Company, LLC (AmerGen or the licensee), requested changes to the Technical Specifications (TSs) for Clinton Power Station (CPS), Unit 1. The proposed changes would support the extension of the operating cycles from 18 months to 24 months. The supplements dated May 23 and September 30, 2005, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on July 6, 2004.

In its submittals, the licensee has:

1. Proposed revisions to extend Surveillance Requirement (SR) intervals from 18 months to 24 months on the basis of the CPS performance history review and CPS instrument drift study.

2. Proposed allowable value (AV) revisions on the basis of CPS instrument drift study and CPS instrument setpoint methodology.

3. Proposed renumbering the 18-month SRs for the channel calibration requirements that remain at the 18-month frequency.

4. Proposed two administrative changes.

Specifically, the licensee has proposed to extend the SR interval from 18 to 24 months for SRs 3.1.7.8, 3.1.7.9, 3.1.8.3, 3.3.1.1.12, 3.3.1.1.13, 3.3.1.1.14, 3.3.1.1.15, 3.3.1.1.16, 3.3.1.1.17, 3.3.1.2.6, 3.3.2.1.7, 3.3.2.1.8, 3.3.3.1.3, 3.3.3.2.2, 3.3.3.2.3, 3.3.4.1.2, 3.3.4.1.3, 3.3.4.1.4, 3.3.4.1.5, 3.3.4.2.4, 3.3.4.2.5, 3.3.5.1.4, 3.3.5.1.5, 3.3.5.2.4, 3.3.5.2.5, 3.3.6.1.5, 3.3.6.1.6, 3.3.6.1.7, 3.3.6.2.4, 3.3.6.2.5, 3.3.6.3.4, 3.3.6.3.5, 3.3.6.4.6, 3.3.6.4.7, 3.3.6.5.3, 3.3.6.5.4, 3.3.7.1.3, 3.3.8.1.3, 3.3.8.1.4, 3.3.8.2.2, 3.3.8.2.3, 3.4.2.1, 3.4.4.2, 3.4.4.3, 3.4.7.3, 3.5.1.5, 3.5.1.6, 3.5.1.7, 3.5.1.8, 3.5.2.6, 3.5.3.4, 3.5.3.5, 3.6.1.3.7, 3.6.1.3.12, 3.6.1.6.1, 3.6.1.6.2, 3.6.1.7.3, 3.6.1.8.3, 3.6.1.9.1, 3.6.2.4.4, 3.6.3.1.1, 3.6.3.1.2, 3.6.3.1.3, 3.6.3.2.3, 3.6.3.2.4, 3.6.3.3.2, 3.6.4.1.4, 3.6.4.1.5, 3.6.4.2.3, 3.6.4.3.3, 3.6.4.3.4, 3.6.5.3.5, 3.6.5.6.3, 3.7.1.3, 3.7.2.2, 3.7.3.4, 3.7.3.5, 3.7.3.6, 3.7.4.1, 3.7.6.2, 3.7.6.3, 3.8.1.8, 3.8.1.9, 3.8.1.10, 3.8.1.11, 3.8.1.12, 3.8.1.13, 3.8.1.14, 3.8.1.15, 3.8.1.16, 3.8.1.17, 3.8.1.18, 3.8.1.19, 3.8.4.2, 3.8.4.3, and 3.8.11.2. In addition, the licensee has proposed to revise TS 5.5.7 to take exception to the

18-month testing intervals discussed in Regulatory Guide (RG) 1.52, Revision 2, "Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Featured Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants," by implementing a 24-month testing intervals for the Engineered Safety Features (ESF) filter ventilation systems.

2.0 REGULATORY EVALUATION

Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," dated April 2, 1991, provides generic guidance for evaluating a 24-month surveillance test interval for TS SRs.

Section 50.36(c)(3) of Title 10 of the *Code of Federal Regulation* (10 CFR), "Technical Specifications," requires that TSs establish requirements relating to test, calibration, or inspection to assure that the necessary quality of the systems and components is maintained, that the facility will be within safety limits (SLs), and that the limiting conditions for operation (LCOs) will be met.

10 CFR Part 50, Section 50.36(c)(1)(ii)(A) requires, in part, that, where a limiting safety system setting (LSSS) is specified for a variable on which an SL has been placed, the setting be so chosen that automatic protective action will correct the abnormal situation before an SL is exceeded.

RG 1.52, Revision 2, provides guidance on testing requirement for filtrations systems.

General Design Criterion (GDC) 17, "Electric power systems," of Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR Part 50 requires, in part, that nuclear power plants have onsite and offsite electric power systems to permit the functioning of structures, systems, and components that are important to safety. The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system is required to be supplied by two physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of their simultaneous failures under operating and postulated accident and environmental conditions. In addition, this criterion requires provisions to minimize the probability of losing electric power from the remaining electric power supplies as a result of loss of power from the unit, the offsite transmission network, or the onsite power supplies.

GDC-18, "Inspection and testing of electric power systems," requires that electric power systems that are important to safety must be designed to permit appropriate periodic inspection and testing.

10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," requires that preventive maintenance activities must not reduce the overall availability of the systems, structures and components.

RG 1.177, "An Approach for Plant-Specific, Risk-Informed Decision making: Technical Specifications," states, in part, that "the change may be requested to reduce the unnecessary burdens in complying with current TS requirements, based on the operating history of the plant or industry in general."

RG 1.105, "Instrument Setpoints," Revision 1, dated November 1976.

Instrument Society of America (ISA) Standard 67.04, “Setpoints for Nuclear Safety-Related Instrumentation," Part 1, and ISA RPA67.04, "Methodologies for the Determination of Setpoints for Nuclear Safety-Related Instrumentation," Part II, 1994.

Electric Power Research Institute (EPRI) Technical Report (TR) -103335-R1, "Guidelines for Instrument Calibration Extension/Reduction - Revision 1: Statistical Analysis of Instrument Calibration Data," dated October 1998.

3.0 TECHNICAL EVALUATION

3.1 Instrumentation TS Changes from 18 Months to 24 Months

The licensee has requested the following TS changes in the instrumentation area.

TS 3.3.1.1 Reactor Protection System (RPS) Instrumentation
TS 3.3.1.2 Source Range Monitor (SRM) Instrumentation
TS 3.3.2.1 Control Rod Block Instrumentation
TS 3.3.3.1 Post Accident Monitoring (PAM) Instrumentation
TS 3.3.3.2 Remote Shutdown System
TS 3.3.4.1 End of Cycle Recirculation Pump Trip (EOC-RPT) Instrumentation
TS 3.3.4.2 Anticipated Transient Without Scram Recirculation Pump Trip (ATWS-RPT) Instrumentation
TS 3.3.5.1 Emergency Core Cooling System (ECCS) Instrumentation
TS 3.3.5.2 Reactor Core Isolation Cooling (RCIC) System Instrumentation
TS 3.3.6.2 Secondary Containment Isolation Instrumentation
TS 3.3.6.4 Suppression Pool Makeup (SPMU) System Instrumentation
TS 3.3.6.5 Relief and Low-Low Set (LLS) Instrumentation
TS 3.3.7.1 Control Room Ventilation System Instrumentation
TS 3.3.8.1 Loss of Power (LOP) Instrumentation
TS 3.3.8.2 Reactor Protection System (RPS) Electric Power Monitoring

These TSs include the following SRs:

SR 3.3.1.1.12 Perform CHANNEL FUNCTIONAL TEST
SR 3.3.1.1.13 Perform CHANNEL CALIBRATION
SR 3.3.1.1.14 Verify the APRM Flow Biased Simulated Thermal Power-High time constant is within the limits specified in the COLR
SR 3.3.1.1.15 Perform LOGIC SYSTEM FUNCTIONAL TEST
SR 3.3.1.1.16 Verify Turbine Stop Valve Closure and Turbine Control Valve Fast Closure Trip Oil Pressure $ Low Functions are not bypassed when THERMAL POWER is $ 33.3 percent RTP
SR 3.3.1.1.17 Verify the RPS RESPONSE TIME is within limits
SR 3.3.1.2.6 Perform CHANNEL CALIBRATION
SR 3.3.2.1.7 Perform CHANNEL CALIBRATION
SR 3.3.2.1.8 Perform CHANNEL FUNCTIONAL TEST
SR 3.3.3.1.3 Perform CHANNEL CALIBRATION

SR 3.3.3.2.2 Verify each required control circuit and transfer switch is capable of performing the intended functions
SR 3.3.3.2.3 Perform CHANNEL CALIBRATION for each required instrument channel
SR 3.3.4.1.2 Perform CHANNEL CALIBRATION
SR 3.3.4.1.3 Perform LOGIC SYSTEM FUNCTIONAL TEST, including breaker actuation
SR 3.3.4.1.4 Verify TSV Closure and TCV Fast Closure, Trip Oil Pressure-Low Functions are not bypassed when THERMAL POWER is $ 33.3 percent RTP
SR 3.3.4.1.5 Verify the EOC-RPT SYSTEM RESPONSE TIME is within limits
SR 3.3.4.2.4 Perform CHANNEL CALIBRATION
SR 3.3.4.2.5 Perform LOGIC SYSTEM FUNCTIONAL TEST, including breaker actuation
SR 3.3.5.1.4 Perform CHANNEL CALIBRATION
SR 3.3.5.1.5 Perform LOGIC SYSTEM FUNCTIONAL TEST
SR 3.3.5.2.4 Perform CHANNEL CALIBRATION
SR 3.3.5.2.5 Perform LOGIC SYSTEM FUNCTIONAL TEST
SR 3.3.6.1.5 Perform CHANNEL CALIBRATION
SR 3.3.6.1.6 Perform LOGIC SYSTEM FUNCTIONAL TEST
SR 3.3.6.1.7 Verify the ISOLATION SYSTEM RESPONSE TIME for the main steam isolation valves is within limits
SR 3.3.6.2.4 Perform CHANNEL CALIBRATION
SR 3.3.6.2.5 Perform LOGIC SYSTEM FUNCTIONAL TEST
SR 3.3.6.3.4 Perform CHANNEL CALIBRATION
SR 3.3.6.3.5 Perform LOGIC SYSTEM FUNCTIONAL TEST
SR 3.3.6.4.6 Perform CHANNEL CALIBRATION
SR 3.3.6.4.7 Perform LOGIC SYSTEM FUNCTIONAL TEST
SR 3.3.6.5.3 Perform CHANNEL CALIBRATION
SR 3.3.6.5.4 Perform LOGIC SYSTEM FUNCTIONAL TEST
SR 3.3.7.1.3 Perform CHANNEL CALIBRATION
SR 3.3.8.1.3 Perform CHANNEL CALIBRATION
SR 3.3.8.1.4 Perform LOGIC SYSTEM FUNCTIONAL TEST
SR 3.3.8.2.2 Perform CHANNEL CALIBRATION
SR 3.3.8.2.3 Perform a system functional test

Improved reactor fuels allow licensees to consider an increase in the duration of the fuel cycle for their facilities. The staff has reviewed requests for individual plants to modify TS surveillance intervals to be compatible with a 24-month fuel cycles. The staff issued GL91-04 to provide generic guidance to licensees for preparing such license amendment requests. In accordance with GL 91-04, the licensee should provide the following information to provide an acceptable basis for increasing the calibration interval for instruments that are used to perform safety functions:

(1) Confirm that instrument drift as determined by as-found and as-left calibration data from surveillance and maintenance records have not, except on rare occasions, exceeded acceptable limits for a calibration interval.

(2) Confirm that the values of drift for each instrument type (make, model, and range) and application have been determined with a high probability and a high degree of

confidence. Provide a summary of the methodology and assumptions used to determine the rate of instrument drift with time based upon historical plant calibration data.

(3) Confirm that the magnitude of instrument drift has been determined with a high probability and a high degree of confidence for a bounding calibration interval of 30 months for each instrument type (make, model number, and range) and application that performs a safety function. Provide a list of the channels by TS section that identifies these instrument applications.

(4) Confirm that a comparison of the projected instrument drift errors had been made with the values of drift used in the setpoint analysis. If this results in revised setpoints to accommodate large drift errors, provide proposed TS changes to update trip setpoints. If the drift errors result in a revised safety analysis to support existing setpoints, provide a summary of the updated analysis conclusions to confirm that safety limits and safety analysis assumptions are not exceeded.

(5) Confirm that the projected instrument errors caused by drift are acceptable for control of plant parameters to effect a safe shutdown with the associated instrumentation.

(6) Confirm that all conditions and assumptions of the setpoint and safety analyses have been checked and are appropriately reflected in the acceptance criteria of plant surveillance procedures for channel checks, channel functional tests, and channel calibrations.

(7) Provide a summary description of the program for monitoring and assessing the effects of increased calibration surveillance intervals on instrument drift and its effect on safety.

The licensee has performed a safety assessment for the proposed changes to the surveillance test intervals in accordance with the GL 91-04 guidance stated above. The licensee performed analyses of drift for all affected instrument loops in order to establish the effect of a 30-month (i.e., 24 months in addition to 25 percent allowable tolerance) calibration frequency on instrument performance using an Exelon-specific Instrument Drift Analysis Methodology. This methodology is based on the EPRI TR-103335-R1 document. However, EPRI TR-103335-R1 has not been approved by the staff. By letter dated December 1, 1997, from T. H. Essig, NRC, to R. W. James, EPRI, the staff issued a status report documenting its concerns with respect to TR-103335-R1. A summary of the licensee's positions regarding the NRC status report is included in its submittal dated May 23, 2005, Attachment 8. The paragraphs below provide some of the licensee's pertinent information included in Attachment 8.

A. The drift analysis addressed the time to magnitude relationship using several different statistical and non-statistical methods. The data was grouped for the same or similar manufacturer, model number, and application combinations. After the standard deviation and other simple statistics were calculated, the data was evaluated for the time to magnitude relationship. Two separate regression type analyses were performed. The first regression analysis used a simple calculation based on the scatter of the raw drift values and the absolute value drift regression. The second regression analysis of the calculated standard deviation and mean for the drift calibration frequencies was performed if sufficient samples were available. Additionally, if these analyses did not

contain sufficient samples for the regression of standard deviations, then different analyses may have been used or the samples may have been conservatively assumed to have a time dependent relationship and the drift value extrapolated based on a time-dependent relationship.

B. A separate surveillance test failure evaluation was performed which identified calibration-related and non-calibration-related failures for single instruments, and group of instruments supporting a specific function. After all relevant devices and multiple device failures were identified, a cross-check of failures across manufacturer make and model number was performed to determine if common mode failure could present problem for fuel cycle extension. The evaluation confirmed that almost all instruments in the group performed reliably, and most failures were detected by more frequent testing.

Microsoft Excel spreadsheets were used to calculate the basic statistics surrounding the drift data and the results of the regression analysis. The basic instrumentation drift analysis spreadsheet was developed and used for the LaSalle drift analysis, license Amendment Nos. 147 and 133. Also, the Microsoft Excel spreadsheet was used for the D. C. Cook 24-month SR extensions, approved by letter dated June 1, 2005.

In general, the licensee used available surveillance test results and associated maintenance records for at least five cycles of operation prior to and including the spring 2002 refueling outage. A minimum of 30 calibration points for statistical analysis of the as-found and as-left drift values was used. The methodology outlined above allows for removal of up to 5 percent of the population as outliers. However, for this amendment request, the licensee has limited outlier removal to no more than one data point within the data set being evaluated. In response to the staff request for additional information, by letter dated May 23, 2005, a drift analysis table, which justifies the above statement, was provided.

The licensee also stated that the final data set has a confidence level of 95/95. The licensing basis for functions associated with each TS revision was reviewed to ensure the licensing basis was not invalidated. Based on the results of these reviews, the licensee concluded that there was no adverse effect on plant safety. The licensee's review of surveillance failure history and drift evaluation confirmed that the impact, if any, on system availability because of the extension of the surveillance frequency will be minimal. In addition, many of the functions included in the proposed amendment are verified to be operating properly by the performance of more frequent channel checks, channel functional tests, trip module calibration, and visual monitoring, which ensure that a major portion of the circuitry will be operating properly and will detect significant failures within the instrument loop prior to the refueling outage.

In Attachment 5 of the May 20, 2004, submittal, the licensee provided the details of the SR test failures. The performance of the SRs extended for a 24-month fuel cycle will be treated as a part of the Maintenance Rule Program. Any degradation in performance will be evaluated to verify that the degradation is not due to the extension of surveillance interval or maintenance activities.

The May 23, 2005, submittal addressed the staff concerns with respect to the sample data, outlier determinations, time dependency, and other miscellaneous items. The staff finds that the licensee complies with the guidance outlined in GL 91-04, has used the NRC-approved methodology, and has established that the proposed TS SR extensions from 18 months to 24

months will have minimal effect on CPS safety and will not invalidate any assumption in plant licensing.

3.2 AV Changes

To support the 24-month channel calibration the licensee performed setpoint analyses which resulted in the following TS AV changes.

TS 3.3.6.1 Primary Containment and Drywell Isolation Instrumentation

TS Table 3.3.6.1-1, Function 1.b, Main Steam Line Pressure-Low, SR 3.3.6.1.1. The AV changed from $ 837 psig to $ 841 psig.

TS Table 3.3.6.1-1, Function 5.e, Reactor Vessel Pressure-High, SR 3.3.6.1.1. The AV changed from # 110 psig to # 113 psig.

TS 3.3.6.3 RHR Containment Spray System Instrumentation Timers

TS Table 3.3.6.3-1, Function 4, System A and System B, SR 3.3.6.3.2 and SR 3.3.6.3.4: AV changed from "$10.10 minutes and #10.23 minutes" to "$ 606 seconds and # 614 seconds" respectively.

TS 3.3.8.1 Loss of Power (LOP) Instrumentation

TS Table 3.3.8.1-1, Function 1.b, Division 1 and 2 - 4.16 kV Emergency Bus Undervoltage, Loss of Voltage - Time Delay, SR 3.3.8.1.3: AV from #10 seconds to # 5.0 seconds.

TS Table 3.3.8.1-1, Function 1.c, Division 1 and 2 - 4.16 kV Emergency Bus Undervoltage, Degraded Voltage Reset - 4.16 kV basis, SR 3.3.8.1.2: AV from "$ 4090 V and # 4111 V" to "$ 4102.2 V and # 4109.3 V."

TS Table 3.3.8.1-1, Function 1.d, Division 1 and 2 - 4.16 kV Emergency Bus Undervoltage, Degraded Voltage Drop-out - 4.16 kV basis, SR 3.3.8.1.2: from "$ 4051 V and # 4092 V" to "$ 4051 V."

TS Table 3.3.8.1-1, Function 2.c, Division 3 - 4.16 kV Emergency Bus Undervoltage, Degraded Voltage Reset - 4.16 kV basis, SR 3.3.8.1.2. The AV changed from "$ 4090 V and # 4111 V" to "$ 4102.2 V and # 4109.3 V."

TS Table 3.3.8.1-1, Function 2.d, Division 3 - 4.16 kV Emergency Bus Undervoltage, Degraded Voltage Drop-out - 4.16 kV basis, SR 3.3.8.1.2: AV changed from "$ 4051 V and # 4092 V" to "$ 4051 V."

TS Table 3.3.8.1-1, Function 2.e, Division 3 - 4.16 kV Emergency Bus Undervoltage, Degraded Voltage Time Delay, SR 3.3.8.1.2: AV changed from "$ 14 seconds and # 16 seconds" to "$ 13.2 seconds and # 16.8 seconds."

In Attachment 1 of the May 20, 2004, submittal, the licensee stated that new AVs have been calculated in accordance with the guidance provided in RG 1.105. By letter dated May 23, 2005, the licensee stated that it used setpoint methodology provided in its Nuclear Engineering Standard CI-01.00, Revision 3, "Instrument Setpoint Calculation Methodology" for those setpoints that do not have a safety analysis analytical limit and Method 1 of ISA RP67.04, Part II, for all other setpoint calculations. However, there are two existing setpoint calculations based on Method 3 of ISA RP67.04, Part II, that support current AVs. The licensee's review of these two calculations determined that changes to the calculated AVs were not necessary to support change in calibration frequency to 24 months. The licensee provided a copy of its Method 3 calculation, IP-C-0059, "Setpoint Calculation for RPV Level 3 and Level 8 (NR); Transmitter 1B21N095A, B," and a copy of its Method 1 calculation, IP-C-0067, "Setpoint Calculation for Main Steam Line Pressure - Low; Transmitters 1B21N076A, B, C, D." Based on its review of the calculation packages, the NRC staff finds the methodologies used to calculate the nominal trip setpoint (NTSP), and the As-Left Tolerance (ALT) for these calculations acceptable.

In the attachment to the letter dated May 23, 2005, the licensee stated, "Regardless of the calculation method used, after the as-found readings are taken the setpoint is always calibrated to be within the ALT limits." Also, the licensee stated that its generic procedure ER-AA-520, "Instrument Performance Trending" and specific SR procedures addressed this requirement. The licensee provided a copy of a typical SR procedure, CPS Procedure 9431.04, "RPS Reactor Water Level B21-N080 (A, B, C, D) Channel Calibration." The staff finds that this SR procedure ensures that the setpoints are calibrated within ALTs during these calibrations. Furthermore, the licensee stated that all AV changes requested in this proposed amendment will be tracked for potential impact and all necessary changes will be addressed adequately.

The licensee committed that all instruments with TS calibration surveillance frequencies extended to 24 months will be monitored and trended for three 24-month calibration intervals. During this trending program as-found and as-left calibration data will be recorded and for each as-found value outside the AV an evaluation will be performed in accordance with the plant corrective action program to determine if the assumptions made to extend the calibration frequency are still valid and to evaluate the effect on plant safety.

By letters dated September 7, 2005, August 23, 2005, and March 31, 2005, the NRC staff documented some concerns regarding the use of the AVs in TSs. The staff is working with the Nuclear Energy Institute's (NEI) Setpoint Methods Task Force to address these concerns. The staff has specific concerns for Limiting Safety System Settings (LSSSs) for variables upon which a safety limit (SL) has been placed, as discussed in 10 CFR 50.36(c)(ii)(A).

In the letter dated September 30, 2005, the licensee stated, "Based on definition of an LSSS as provided in 10 CFR 50.36, the settings that are to be classified as an LSSS in TS shall protect the safety limits contained in TS Section 2.1. The trip setpoint values for these parameters must be directly associated with a Safety Limit for the parameter to be an LSSS." The licensee's evaluation determined that only the Reactor Core SL, Reactor Coolant System Pressure SL, and Reactor Vessel Water Level SL are to be considered in determining LSSSs. In this regard, TS notes were added to ensure the functions will correct the abnormal situations before the SLs are exceeded, and TS limits are in place to ensure the automatic safety systems will function as required.

The TS SLs are not directly associated with any loss of power (LOP) instrumentation in TS 3.3.8.1 Functions listed above. Therefore, the licensee concluded that the LOP settings do not belong to LSSS category specified in 10 CFR 50.36.

By letter dated September 21, 2005, regarding the instrument setpoint methodology amendment issued on September 27, 2005, the licensee committed to evaluate the final Technical Specification Task Force (TSTF) TS changes for implementation at CPS upon approval by the NRC. The NRC finds the licensee's commitment to evaluate the TSTF's TS changes acceptable.

The staff has reviewed the licensee's analysis and the calculation methodology used to evaluate the SR frequency change from 18 months to 24 months and the related AV changes. The staff finds that the proposed changes conform to GL 91-04 and RG 1.105. Also, by letter dated September 27, 2005, the NRC staff has approved the instrument setpoint methodology used for CPS AV calculations. The licensee's evaluations also conform to ISA RPA 67.04 and EPRI TR-103335-R1. The licensee has established plant procedures to calibrate the trip setpoints within as-left tolerances during surveillance tests. Furthermore, the licensee committed to monitor all instruments with TS calibration surveillance intervals extended to 24 months for three 24-month calibration intervals. The licensee stated that the setpoint calculation methodology used for this amendment request is the same as the one approved by the NRC for CPS by letter dated September 27, 2005. Based on the above discussion, the staff concludes that the proposed TS changes are acceptable.

3.3 TS 3.1.7 Standby Liquid Control (SLC) System

SR 3.1.7.8 Verify flow through one SLC subsystem from pump into reactor pressure vessel.

SR 3.1.7.9 Verify all piping between storage tank and pump suction is unblocked.

The surveillance test interval of these SRs is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. The flow path through one SLC subsystem is verified per SR 3.1.7.8 during every refueling outage. This test could inadvertently cause a reactor transient. Therefore, to decrease the potential impact of the test, it is performed during outage conditions. The SLC pumps are tested in accordance with the (IST) program per SR 3.1.7.7 to verify operability. Similarly, the temperature of the sodium pentaborate solution in the storage tank and the temperature of the pump suction piping are verified every 24 hours per SR 3.1.7.2 and SR 3.1.7.3 to preclude precipitation of the boron solution. If the temperature in the pump suction piping drops below 70 EF, then the flow path through one SLC subsystem must be verified per SR 3.1.7.9 within 24 hours of the temperature being restored. A review of the surveillance history demonstrated that this subsystem has had no failures.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.4 TS 3.1.8 Scram Discharge Volume (SDV) Vent and Drain Valves

SR 3.1.8.3 Verify each SDV vent and drain valve:
a. Closes in # 30 seconds after receipt of an actual or simulated scram signal; and
b. Opens when the actual or simulated scram signal is reset

The surveillance test interval of this SR is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. This SR confirms that the SDV vent and drain valves close in less than or equal to 30 seconds after the scram initiation, and open when the scram signal is reset. The valves are manually cycled fully closed and fully open every 92 days per SR 3.1.8.2. Additionally, it has been previously accepted that the failure rate of the components is dominated by the mechanical components, not by the logic systems. A review of the surveillance history demonstrated that the logic subsystem has had no failures.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.5 TS 3.4.2 Flow Control Valves (FCVs)

SR 3.4.2.1 Verify each FCV fails "as is" on loss of hydraulic pressure at the hydraulic unit.

The surveillance test interval of this SR is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. Hydraulic power unit pilot operated lock out valves are required to close on a loss of recirculation FCV hydraulic pressure. This SR verifies the FCV "as-is" on a loss of hydraulic pressure. Due to the nature of the check valve function, there are no definable drift components or any time-based conditions that could appreciably change during the operating cycle. A review of the surveillance history demonstrated that the hydraulic power unit pilot operated lock out valves have had no failures.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.6 TS 3.4.4 Safety/Relief Valves (S/RVs)

SR 3.4.4.2 Verify each required relief function S/RV actuates on an actual or simulated automatic initiation signal.
SR 3.4.4.3 Verify each required S/RV actuator strokes when manually actuated.

The surveillance test interval for these SRs is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. The relief function S/RVs are required to actuate automatically upon receipt of specific

initiation signals. A system functional test is performed to verify that the mechanical portions of the automatic relief function operate as designed. A manual actuation of each S/RV is performed to verify that the valve is functioning properly. The valves are normally tested prior to or soon after startup. A review of the surveillance history demonstrated that the S/RVs have had no failures.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.7 TS 3.4.7 RCS Leakage Detection Instrumentation

SR 3.4.7.3 Perform CHANNEL CALIBRATION of required leakage detection instrumentation.

Leakage detection systems for the RCS are provided to alert the operators when leakage rates above normal background levels are detected and to supply quantitative measurement of rates. For this function, no revision to the TS AVs or safety analyses results from the required evaluations. Drift evaluations were not performed for these instruments. No AV is applicable to these functions. The leakage detection instrumentation differs from other TS instruments in that it is not associated with a function trip, but provides indication only to the control room operator. The drywell floor drain sump flow monitoring system is required to quantify the unidentified leakage from the RCS. This monitoring system consists of either the sump level rate of change or the sump pump discharge flow monitoring portion of the system. The other monitoring systems provide qualitative indication to the operators so that closer examination of other detection systems will be made to determine the extent of any corrective action that may be required. More frequent verification of the instrument functions are accomplished by SR 3.4.7.1 (Channel Check of the required drywell atmospheric monitoring system) once every 12 hours and SR 3.4.7.2 (Channel Functional Tests of the required leakage detection instrumentation) once every 31 days.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.8 TS 3.5.1/3.5.2 Emergency Core Cooling System (ECCS)-Operating/ECCS-Shutdown

SR 3.5.1.5 Verify each ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.

SR 3.5.1.6 Verify the ADS actuates on an actual or simulated automatic initiation signal.

SR 3.5.1.7 Verify each ADS valve actuator strokes when manually actuated.

SR 3.5.1.8 Verify the ECCS RESPONSE TIME for each ECCS injection/spray subsystem is within limits.

SR 3.5.2.6 Verify each required ECCS injection/spray subsystem actuates on an actual or simulated automatic initiation signal.

The surveillance test interval for these SRs is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. These ECCS and Automatic Depressurization System (ADS) functional tests ensure that a system initiation signal will cause the systems or subsystems to operate as designed. The ECCS network has built-in redundancy so that no single failure could prevent the safety function of the ECCS. The pumps and valves are tested quarterly in accordance with the IST program per SR 3.5.1.4 to verify operability. The tests proposed to be extended need to be performed during outage conditions since they have the potential to initiate an unplanned transient. A review of the applicable surveillance history showed that ECCS has had no failures.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.9 TS 3.5.3 Reactor Core Isolation Cooling (RCIC) System

SR 3.5.3.4 Verify, with RCIC steam supply pressure # 150 psig and $ 135 psig, the RCIC pump can develop a flow rate $ 600 gpm against a system head corresponding to reactor pressure.

SR 3.5.3.5 Verify the RCIC System actuates on an actual or simulated automatic initiation signal.

The surveillance test interval of these SRs is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. These RCIC functional tests ensure the system will operate as designed. The pumps and valves are tested quarterly in accordance with the IST program to verify operability. The testing ensures that the major components of the systems are capable of performing their design function. A review of the applicable surveillance history showed that RCIC has had no failures.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.10 TS 3.6.1.3 Primary Containment Isolation Valves (PCIVs)

SR 3.6.1.3.7 Verify each automatic PCIV actuates to the isolation position on an actual or simulated isolation signal.

SR 3.6.1.3.12 Verify each instrumentation line excess flow check primary containment isolation valve actuates within the required range.

The licensee conducted a review of the applicable CPS surveillance history, which demonstrated that the five failures of the TS functions would have been detected solely by the periodic performance of other SRs, that the failures involve only the excess flow check valves (EFCVs), and that no other PCIV failure that would have been detected solely by the periodic performance of this SR was discovered.

The licensee notes that improvements have been made in the methods used to test EFCVs, and that the associated acceptance criteria have been revised to more appropriately monitor EFCV performance. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.11 TS 3.6.1.6 Low-Low Set (LLS) Valves

SR 3.6.1.6.1 Verify each LLS valve actuator strokes when manually actuated.

SR 3.6.1.6.2 Verify the LLS System actuates on an actual or simulated automatic initiation signal.

The surveillance test interval of these SRs is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. The LLS valves are designed to meet applicable reliability, redundancy, single failure, and qualification standards and regulations. The frequent testing of the system ensures that a major portion of the circuitry is operating properly and will be able to detect significant failures within the instrument loop. A review of the surveillance history demonstrated that the LLS valves had no previous failures.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.12 TS 3.6.1.7 Residual Heat Removal (RHR) Containment Spray System

SR 3.6.1.7.3 Verify each RHR containment spray subsystem automatic valve in the flow path actuates to its correct position on an actual or simulated initiation signal.

The surveillance test interval of this SR is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. The licensee stated that the containment spray system has built-in redundancy so that no single active failure prevents the containment spray function. The pumps and valves associated with this system are tested more frequently in accordance with the IST program to ensure that the major components of the systems are capable of performing their design function. Since most

of the components and associated circuits are tested on a more frequent basis, this testing would indicate any degradation to the containment spray system.

The licensee also conducted a review of the applicable CPS surveillance history which demonstrated that the containment spray system has had no failures of the TS function that would have been detected solely by the periodic performance of this SR. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, system design and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.13 TS 3.6.1.8, Main Steam Isolation Valve (MSIV) Leakage Control System (LCS)

SR 3.6.1.8.3 Perform a system functional test of each MSIV LCS subsystem.

The licensee states that a system functional test is performed to ensure that the MSIV LCS will operate through its operating sequence. This includes verifying that the automatic positioning of the valves and the operation of each interlock and timer are correct, that the blowers start and develop the required flow rate and the necessary vacuum, and the upstream heaters meet current draw requirements.

SR 3.6.1.8.1 verifies blower operation every 31 days. SR 3.6.1.8.2 verifies heater element electrical continuity every 31 days. MSIV LCS valves are stroke tested quarterly in accordance with the IST program (some valves may have independent relief justifying less frequent testing). This more frequent testing ensures that the major components of the systems are capable of performing their design function. Since most of the components and associated circuits are tested on a more frequent basis, this testing would indicate any degradation to the MSIV LCS. Additionally, the MSIV LCS subsystems, including the associated actuating logic, are designed to perform the safety function in the event of any single active failure, and therefore, are highly reliable.

The licensee has reviewed the applicable CPS surveillance history, which demonstrated that the MSIV LCS has had only one failure of the TS function that would have been detected solely by the periodic performance of this SR. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, system design, and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.14 TS 3.6.1.9 Feedwater Leakage Control System (FWLCS)

SR 3.6.1.9.1 Perform a system functional test of each FWLCS subsystem.

The surveillance test interval of this SR is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. A system functional test of each FWLCS subsystem is performed to ensure that it will operate through its operating sequence. This includes verifying automatic positioning of valves and operation of each interlock, and that the necessary check valves open. Periodic verification of the capabilities of the RHR pumps is performed more frequently in accordance with the IST program and as required by SR 3.5.1.4. This more frequent testing ensures that the major components of the systems are capable of performing their design function. This testing would indicate degradation to the FWLCS. The test proposed to be extended needs to be performed during outage conditions since it has the potential to initiate an unplanned transient if performed during operating conditions. Additionally, the FWLCS subsystems are designed to perform the safety function in the event of any single active failure and, therefore, are highly reliable.

Furthermore, a review of the applicable CPS surveillance history demonstrated that the FWLCS has had no failures of the TS function that would have been detected solely by the periodic performance of this SR. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.15 3.6.2.4 Suppression Pool Makeup (SPMU) System

SR 3.6.2.4.4 Verify each SPMU subsystem automatic valve actuates to the correct position on an actual or simulated automatic initiation signal.

The surveillance test interval of this SR is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. This SR requires a verification that each SPMU subsystem automatic valve actuates to its correct position on receipt of an actual or simulated automatic initiation signal. This includes verification of the correct automatic positioning of the valves and of the operation of each interlock and timer. The SPMU system has built-in redundancy so that no single failure prevents system operation. The valves associated with the SPMU system are tested quarterly in accordance with the IST program (some valves may have independent relief justifying less frequent testing). Additionally, SPMU functions are verified to be operating properly by the performance of more frequent Channel Checks (i.e., SR 3.3.6.4.1), functional tests (i.e., SR 3.3.6.4.2), and various calibrations (i.e., SRs 3.3.6.4.3, 4, and 5). This more frequent testing ensures that a major portion of the circuitry is operating properly and will detect significant failures within the instrument loop. This more frequent testing would detect major degradation that could impact system operation. Additionally, the test proposed to be extended needs to be performed during outage conditions since it has the potential to initiate an unplanned transient if performed during operating conditions.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.16 TS 3.6.3.1 Primary Containment Hydrogen Recombiners

SR 3.6.3.1.1 Perform a system functional test for each primary containment hydrogen recombiner.

SR 3.6.3.1.2 Visually examine each primary containment hydrogen recombiner enclosure and verify there is no evidence of abnormal conditions.

SR 3.6.3.1.3 Perform a resistance to ground test for each heater.

The licensee states that extending the surveillance interval for this verification of recombiner operability is acceptable based on the redundancy of the recombiner system and the availability of alternate hydrogen control systems. Two 100 percent capacity independent primary containment hydrogen recombiner subsystems are provided. A single recombiner subsystem, in conjunction with the Containment Drywell Hydrogen Mixing System, is capable of maintaining the hydrogen concentration in the drywell and primary containment below the 4.0 volume percent flammability limit. The alternate hydrogen control capabilities are provided by one or more divisions of hydrogen igniters.

The licensee conducted a review of the applicable CPS surveillance history, which demonstrated that the hydrogen recombiners have had no failures of the TS functions that would have been detected solely by the periodic performance of these SRs. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on system design and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.17 TS 3.6.3.2 Primary Containment and Drywell Hydrogen Igniters

SR 3.6.3.2.3 Verify each required igniter in inaccessible areas develops sufficient current draw for a $ 1700E F surface temperature.

SR 3.6.3.2.4 Verify each required igniter in accessible areas develops a surface temperature of $ 1700E F.

The licensee states that the igniters are mechanically passive and are not subject to mechanical failure. Extending the surveillance test interval for these tests is acceptable because the functions are verified to be operating properly by the performance of more frequent current versus voltage measurements every 184 days or 92 days per SR 3.6.3.2.1 or SR 3.6.3.2.2, respectively. These SRs verify there are no physical problems that could affect

the igniter operation. The only credible failures are loss of power or burnout. The verification that each required igniter is energized is performed by circuit current versus voltage measurement.

The licensee conducted a review of the applicable CPS surveillance history which demonstrated that the Hydrogen Igniter System has had no failures of the TS functions that would have been detected solely by the periodic performance of these SRs. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, and the history of system performance, the impact of this change on safety, if any, is small. The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.18 TS 3.6.3.3 Containment/Drywell Hydrogen Mixing Systems

SR 3.6.3.3.2 Verify each Containment Drywell Hydrogen Mixing System flow rate is $ 800 scfm.

SR 3.6.3.3.2 requires verification of each subsystem's flow rate. In addition, SR 3.6.3.3.1 ensures that blockage, compressor failure, or excessive vibration can be detected for corrective action. However, SR 3.6.3.3.1 ensures that each system is operable and that all associated controls are functioning properly on a more frequent basis (i.e., 92 days). an be detected for corrective action. While SR 3.6.3.3.1 does not verify that system flow rate is acceptable, the test would indicate significant system problems or failures. Furthermore, the containment/drywell hydrogen mixing system has built-in redundancy so that no single-failure prevents system operation.

The licensee reviewed the applicable CPS surveillance history which demonstrated that the Containment/Drywell Hydrogen Mixing System has had no failures of the TS function that would have been detected solely by the periodic performance of this SR. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, system design, and the history of system performance, the impact of this change on safety, if any, is small. The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.19 TS 3.6.4.1 Secondary Containment

SR 3.6.4.1.4 Verify each standby gas treatment (SGT) subsystem will draw down the secondary containment to $ 0.25 inch of vacuum water gauge within the time required.

SR 3.6.4.1.5 Verify each SGT subsystem can maintain $ 0.25 inch of vacuum water gauge in the secondary containment for 1 hour at a flow rate # 4400 cfm.

The licensee states that to ensure that all fission products are treated, the tests required per SR 3.6.4.1.4 and SR 3.6.4.1.5 are performed utilizing one SGT subsystem (on a staggered test basis) to ensure secondary containment boundary integrity. SRs 3.6.4.1.1 (every 24 hours), 3.6.4.1.2 (every 31 days), and 3.6.4.1.3 (every 31 days) provide more frequent assurance that no significant boundary degradation has occurred.

The licensee conducted a review of the applicable CPS surveillance history which demonstrated that the secondary containment has had only one failure of the TS functions that would have been detected solely by the periodic performance of these SRs. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, and the history of system performance, the impact of this change on safety, if any, is small. The staff concurs with the conclusions of the licensee's review and finds that the proposed change meet the guidance of GL 91-04 and, therefore, it is acceptable.

3.20 TS 3.6.4.2 Secondary Containment Isolation Dampers (SCIDs)

SR 3.6.4.2.3 Verify each automatic SCID actuates to the isolation position on an actual or simulated automatic isolation signal.

The licensee states that during the operating cycle, SR 3.6.4.2.2 requires power-operated and automatic SCID isolation times to be tested (i.e., stroke timed to the closed position) quarterly. The stroke testing of these SCIDs tests a portion of the circuitry and the mechanical function, and provides more frequent testing to detect failures.

The licensee conducted a review of the applicable CPS surveillance history, which verified that SCIDs have had no failures of the TS function that would have been detected solely by the periodic performance of this SR. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, and the history of system performance, the impact of this change on safety, if any, is small. The staff concurs with the conclusions of the licensee's review and finds the proposed change meets the guidance of GL 91-04 and is, therefore, acceptable.

3.21 TS 3.6.4.3 Standby Gas Treatment (SGT) System

SR 3.6.4.3.3 Verify each SGT subsystem actuates on an actual or simulated initiation signal.

SR 3.6.4.3.4 Verify each SGT filter cooling bypass damper can be opened and the fan started.

The licensee states that these SGT functional tests ensure that subsystems operate as designed. The SGT subsystems are redundant so that no single-failure prevents accomplishing the safety function of filtering the discharge from secondary containment, and are therefore reliable. More frequent verification of portions of the SGT function are accomplished by operating each SGT subsystem and heaters every 31 days (i.e., SR 3.6.4.3.1) and by SGT filter testing required by the Ventilation Filter Testing Program (i.e., SR 3.6.4.3.2).

The licensee conducted a review of the applicable CPS surveillance history, which demonstrated that the SGT System has had only one failure of the TS functions that would have been detected solely by the periodic performance of these SRs. The failure is unique in that the surveillance test history indicates that the failure is not repetitive and not related to a time-based mechanism. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, system design, and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concluded that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.22 TS 3.6.5.3 Drywell Isolation Valves

SR 3.6.5.3.5 Verify each required automatic drywell isolation valve actuates to the isolation position on an actual or simulated isolation signal.

The licensee states during the operating cycle automatic drywell isolation valve isolation times are tested per SR 3.6.5.3.4 in accordance with the IST program. Stroke testing of drywell isolation valves tests a significant portion of the circuitry as well as the mechanical function, and detects failures of this circuitry or failures with valve movement. The frequency of this testing is typically quarterly, unless approved relief has been granted justifying less frequent testing.

The licensee conducted a review of the applicable CPS surveillance history, which demonstrated that the drywell isolation valves have had no failures of the TS function that would have been detected solely by the periodic performance of this SR. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concludes that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.23 TS 3.6.5.6 Drywell Post-LOCA Vacuum Relief System

SR 3.6.5.6.3 Verify the opening pressure differential of each drywell post-LOCA vacuum relief valve is # 0.2 psid.

The licensee states the four drywell post-LOCA vacuum relief subsystems use separate 10-inch lines penetrating the drywell, and each subsystem consists of a series arrangement of two check valves. During the operating cycle, each drywell post-LOCA vacuum relief valve is tested more frequently by being stroked open and closed every 31 days (i.e., SR 3.6.5.6.2). The stroke testing of these drywell post-LOCA vacuum relief valves will detect failures with valve movement. This provides assurance that the safety analysis assumptions are valid. The licensee conducted a review of the applicable CPS surveillance history, which demonstrated

that drywell post-LOCA vacuum relief valves have had only one failure of the TS function that would have been detected solely by the periodic performance of this SR. There is no evidence of repetitive or time-based failures among similar plant components. Therefore, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concludes that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.24 3.7.1 Division 1 and 2 Shutdown Service Water (SX) Subsystems and Ultimate Heat Sink (UHS)

SR 3.7.1.3 Verify each SX subsystem actuates on an actual or simulated initiation signal.

The surveillance test interval of this SR is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. This SR verifies that the automatic isolation valves of the Division 1 and 2 SX subsystems will automatically switch to the safety or emergency position to provide cooling water exclusively to the safety related equipment during an accident event. This SR also verifies the automatic start capability of the SX pump in each subsystem. The SX subsystems are redundant so that no single failure prevents accomplishing the safety function of providing the required cooling. The SX system pumps and valves are tested quarterly in accordance with the IST program (some valves may have independent relief justifying less frequent testing). This testing ensures that the major components of the systems are capable of performing their design function. Additionally, valves in the flow path are verified to be in the correct position monthly (i.e., SR 3.7.1.2). Most of the components and associated circuits are tested on a more frequent basis and this testing would indicate any degradation to the SX System that would result in an inability to start based on a demand signal.

A review of the applicable CPS surveillance history demonstrated that the SX subsystems have had only one failure of the TS function that would have been detected solely by the periodic performance of this SR. On October 16, 1996, Shutdown Service Water pump 1SX01PA failed to start due to a bad control switch (which was replaced). This Shutdown Service Water pump 1SX01PA control switch is an Electroswitch type 20K. One additional control switch failure was identified for all surveillances over the evaluation period. This failure involved a different switch type. On October 1, 2000, the remote shutdown panel Shutdown Service Water isolation valve 1SX014B control switch failed, which is a GE type CR2940 switch. Since the switch types are different and only two failures were identified in a large population of control switches over the evaluation period, these failures are not indicative of a repetitive or time-based failure problem. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, system design, and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concludes that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.25 TS 3.7.2 Division 3 Shutdown Service Water (SX) Subsystem

SR 3.7.2.2 Verify the Division 3 SX subsystem actuates on an actual or simulated initiation signal.

The surveillance test interval of this SR is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. This SR verifies that the automatic isolation valves of the Division 3 SX subsystem will automatically switch to the safety or emergency position to provide cooling water exclusively to the safety related equipment during an accident event. This SR also verifies the automatic start capability of the Division 3 SX pump. The Division 3 SX subsystem supplies cooling to components of Division 3 only, so that no single failure prevents accomplishing the safety function of providing the required cooling for any design basis event. The SX system pumps and valves are tested quarterly in accordance with the IST program (some valves may have independent relief justifying less frequent testing). This testing ensures that the major components of the systems are capable of performing their design function. Additionally, valves in the flow path are verified to be in the correct position monthly (i.e., SR 3.7.2.1). Since most of the components and associated circuits are tested on a more frequent basis, this testing would indicate any degradation to the SX System that would result in an inability to start on an initiation signal.

A review of the applicable CPS surveillance history demonstrated that the Division 3 SX subsystem has had no failures of the TS function that would have been detected solely by the periodic performance of this SR. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, system design, and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concludes that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.26 TS 3.7.3 Control Room Ventilation System

SR 3.7.3.4 Verify each Control Room Ventilation subsystem actuates on an actual or simulated initiation signal.

SR 3.7.3.5 Verify the air in-leakage rate of the negative pressure portions of the Control Room Ventilation System is # 650 cfm.

SR 3.7.3.6 Verify each Control Room Ventilation subsystem can maintain a positive pressure of $ 1/8 inch water gauge relative to adjacent areas during the high radiation mode of operation at a flow rate of # 3000 cfm.

The licensee states that to verify the automatic operation of the Control Room Ventilation System on a high radiation signal, SR 3.7.3.4 is performed. To ensure that recirculated and outside supply air is filtered to reduce control room radiation exposure, the tests required by SR 3.7.3.5 and SR 3.7.3.6 are performed to verify the integrity of the negative pressure portions of the Control Room Ventilation System duct work and to verify acceptable control room boundary integrity, respectively. The Control Room Ventilation subsystems are redundant so that no single failure prevents accomplishing the safety function. More frequent verification of portions of the Control Room Ventilation System function is accomplished by operating each Control Room Ventilation subsystem and heaters every 31 days (i.e., SR 3.7.3.1 and SR 3.7.3.2). The licensee conducted a review of the applicable CPS surveillance history, which demonstrated that the Control Room Ventilation System has had four failures of the SR 3.7.3.5 verification of in-leakage that would have been detected solely by the periodic performance of these SRs. In each case, repairing excessive damper leakage resulted in satisfactory performance of the SR. No failures of this SR were identified during the most recent refueling outage.

The licensee also states that in support of the proposed extension of the negative pressure test to 24 months, the frequency of inspection of dampers OVC03YA and OVC03YB, which is performed as part of a regularly scheduled preventive maintenance activity, will be increased from every 6 years to an annual inspection. Successful completion of this preventive maintenance activity should minimize the amount of leakage observed when performing the negative duct pressure test (i.e., SR 3.7.3.5).

As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, more frequent preventive maintenance, system design, and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concludes that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.27 TS 3.7.4 Control Room Air Conditioning (AC) System

SR 3.7.4.1 Verify each control room AC subsystem has the capability to remove the assumed heat load.

This SR verifies that the heat removal capability of the system is sufficient to remove the control room heat load assumed in the safety analysis. The SR consists of a combination of testing and calculation. The system is normally operating; thus, malfunctions of the cooling units can be detected by Operations personnel and corrected. The active components and power supplies of the control room AC system are designed with redundancy to ensure that a single failure will not prevent system operability.

The licensee conducted a review of the applicable CPS surveillance history, which demonstrated that the Control Room Air Conditioning System has had no failures of the TS function that would have been detected solely by the periodic performance of this SR. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month

testing frequency. Based on other more frequent observation of the system performance, system design, and the history of performance testing, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concludes that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.28 TS 3.7.6 Main Turbine Bypass System

SR 3.7.6.2 Perform a system functional test.

SR 3.7.6.3 Verify the TURBINE BYPASS SYSTEM RESPONSE TIME is within limits.

The surveillance test interval of these SRs is being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period. These tests ensure that in increasing main steam line pressure events, the main turbine bypass system will operate as designed within required response times. More frequent verification of portions of the main turbine bypass system is accomplished by SR 3.7.6.1, which requires that each main turbine bypass valve be completely cycled once every 31 days. This test demonstrates that the valves are mechanically operable and detects significant failures affecting system operation.

A review of the applicable CPS surveillance history demonstrated that the main turbine bypass system has had no failures of the TS functions that would have been detected solely by the periodic performance of these SRs. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concludes that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.29 TS Section 3.8.1 AC Sources - Operating
TS Section 3.8.4 DC Sources - Operating
TS Section 3.8.11 Static VAR Compensator (SVC) Protection System

These TSs include the following SRs:

SR 3.8.1.8 Verify automatic and manual transfer of unit power supply from the normal offsite circuit to the alternate offsite circuit.

SR 3.8.1.9 Verify each DG rejects a load greater than or equal to its associated single largest post accident load and following load rejection, the engine speed is maintained less than nominal plus 75 percent of the difference

between nominal speed and the overspeed trip setpoint or 15 percent above nominal, whichever is lower.

SR 3.8.1.10 Verify each DG operating at a power factor # 0.9 does not trip and voltage is maintained # 5000 V for DG 1A and DG 1B and # 5824 V for DG 1C during and following a load rejection of a load $ 3482 kW for DG 1A, $ 3488 kW for DG 1B, and $ 1980 kW for DG 1C.

SR 3.8.1.11 Verify on an actual or simulated loss of offsite power signal:
a. De-energization of emergency buses;
b. Load shedding from emergency buses for Divisions 1 and 2; and
c. DG auto-starts from standby condition and:
   1. energizes permanently connected loads in # 12 seconds,
   2. energizes auto-connected shutdown loads,
   3. maintains steady state voltage $ 4084 V and # 4580 V,
   4. maintains steady state frequency $ 58.8 Hz and # 61.2 Hz, and
   5. supplies permanently connected and auto-connected shutdown loads for $ 5 minutes.

SR 3.8.1.12 Verify on an actual or simulated Emergency Core Cooling System (ECCS) initiation signal each DG auto-starts from standby condition and:
a. In # 12 seconds after auto-start and during tests, achieves voltage $ 4084 V and frequency $ 58.8 Hz;
b. Achieves steady state voltage $ 4084 V and # 4580 V and frequency $ 58.8 Hz and # 61.2 Hz; and
c. Operates for $ 5 minutes.

SR 3.8.1.13 Verify each DG's automatic trips are bypassed on an actual or simulated ECCS initiation signal except:
a. Engine overspeed;
b. Generator differential current; and
c. Overcrank for DG 1A and DG 1B.

SR 3.8.1.14 Verify each DG operating at a power factor # 0.9 operates for $ 24 hours:
a. For $ 2 hours loaded $ 4062 kW for DG 1A, $ 4069 kW for DG 1B, and $ 2310 kW for DG 1C; and
b. For the remaining hours of the test loaded $ 3482 kW for DG 1A, $ 3488 kW for DG 1B, and $ 1980 kW for DG 1C.

SR 3.8.1.15 Verify each DG starts and achieves:
a. in # 12 seconds, voltage $ 4084 V and frequency $ 58.8 Hz and
b. Steady state voltage $ 4084 V and # 4580 V and frequency $ 58.8 Hz and # 61.2 Hz.

SR 3.8.1.16 Verify each DG:
a. Synchronizes with offsite power source while loaded with emergency loads upon a simulated restoration of offsite power;
b. Transfers loads to offsite power source; and

c. Returns to ready-to-load operation.

SR 3.8.1.17 Verify, with a DG operating in test mode and connected to its bus, an actual or simulated ECCS initiation signal overrides the test mode by:
a. Returning DG to ready-to-load operation; and
b. Automatically energizing the emergency loads from offsite power.

SR 3.8.1.18 Verify the sequence time is within ± 10% of design for each load sequence timer.

SR 3.8.1.19 Verify, on an actual or simulated loss of offsite power signal in conjunction with an actual or simulated ECCS initiation signal:
a. De-energization of emergency buses;
b. Load shedding from emergency buses for Divisions 1 and 2; and
c. DG auto-starts from standby condition and:
1. energizes permanently connected loads in # 12 seconds,
2. energizes auto-connected emergency loads,
3. achieves steady state voltage $ 4084 V and # 4580 V,
4. achieves steady state frequency $ 58.8 Hz and # 61.2 Hz, and
5. supplies permanently connected and auto-connected emergency loads for $ 5 minutes.

SR 3.8.4.2 Verify each Division 1 and 2 battery charger supplies $ 300 amps at greater than or equal to the minimum established float voltage for $ 4 hours and each Division 3 and 4 battery charger supplies $ 100 amps at greater than or equal to the minimum established float voltage for $ 4 hours.

OR

Verify each battery charger can recharge the battery to the fully charged stated within 12 hours while supplying the largest combined demands of the various continuous steady state loads, after a battery discharge to the bounding design basis event discharge state.

SR 3.8.4.3 Verify battery capacity is adequate to supply, and maintain in OPERABLE status, the required emergency loads for the design duty cycle when subjected to a battery service test.

SR 3.8.11.2 Perform a system functional test of each SVC protection subsystem, including breaker actuation.

The onsite power system for Clinton includes Class 1E AC and DC power supply capability for equipment used to achieve and maintain a cold shutdown of the plant and to mitigate the consequences of a design basis accident. With regard to Class 1E AC and DC, each of the two Class 1E load groups powers Class 1E controls, instrumentation and power.

The offsite AC system includes static Volt-Ampere Reactive compensators (SVC) to control the voltage of the offsite power supply from both the reserve auxiliary transformer (RAT) and

emergency reserve auxiliary transformer (ERAT). This voltage control is at the 4160 V non-safety related bus duct. Two series-connected power circuit breakers connect the non-safety-related SVCs to the non-segregated/non-safety related bus duct feeding the Class 1E ac system. Each SVC Protection System circuit contains a backup solid state protection system to trip upon detection of a malfunction of the SVC. The backup protection system is monitored by TS SRs. CPS's operability requirements for the onsite AC and DC power sources during plant operation (MODES 1, 2, 3, and 4) are specified in TS 3.8.1, TS 3.8.4, and TS 3.8.11.

The proposed changes would allow selected diesel generator, battery, battery charger and SVC protection circuit testing to be performed on a 24-month frequency during the refueling outage. The testing in these SRs are considered non-calibration changes in GL 91-04.

The Clinton Updated Safety Analysis Report (USAR) contains commitments related to RG 1.32, "Criteria for Safety-Related Electric Power Systems for Nuclear Power Plants," RG 1.129, "Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," and to IEEE-450, "Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications," to perform the battery service test (i.e., SR 3.8.4.3) during refueling outages, or at some other outage, with intervals between tests "not to exceed 18 months." Upon approval of this amendment request, those commitments will be revised to reflect intervals between tests "not to exceed 30 months."

For extension of all non-calibration SRs, the GL 91-04 states:

1. "Licensees should evaluate the effect on safety of the changes in surveillance intervals to accommodate a 24-month fuel cycle. This evaluation should support a conclusion that the effect on safety is small.

2. Licensees should confirm that historical maintenance and surveillance data do not invalidate this conclusion.

3. Licensees should confirm that the performance of surveillances at the bounding surveillance interval limit provided to accommodate a 24-month fuel cycle would not invalidate any assumption in the plant licensing basis."

The licensee stated that it had evaluated each associated SR by evaluating all failed SRs from surveillance test history equivalent to three 30-month intervals. The licensee also stated that other more frequent testing of the system, system design and the history of system performance ensure that the effect of the SR extension up to 30 months on safety, if any, is small.

The licensee has stated that CPS's historical maintenance and surveillance data do not invalidate the conclusion that the subject surveillances can accommodate the 24-month fuel cycle. The licensee has conducted a review of the surveillance test history for each of these SRs. This review confirms that the performance of the subject surveillances at the bounding surveillance internal limit provided to accommodate a 24-month fuel cycle would not invalidate any assumption in the plant licensing basis. The licensee has also stated that the test results for all the surveillances will continue to be trended under the maintenance rule.

The NRC staff has reviewed the information presented by the licensee and concludes that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.30 TS 5.5.7 Ventilation Filter Testing Program (VFTP)

Section 5.5.7, which states that "A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2," is being changed to state that "A program shall be established to implement the following required testing of Engineered Safety Feature (ESF) filter ventilation systems at the frequencies specified in RG 1.52, Revision 2, except that testing specified at a frequency of 18 months is required at a frequency of 24 months."

The licensee states that while the specified frequency of testing ESF filter ventilation systems does not explicitly state "18 months," TS Section 5.5.7 requires testing frequencies in accordance with RG 1.52, "Design, Testing and Maintenance Criteria for Post Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Adsorption Units of Light-Water-Cooled Nuclear Power Plants," which does reference an explicit "18 month" test interval for various performance characteristics. With this change, these performance test intervals are being increased from once every 18 months to once every 24 months, for a maximum interval of 30 months including the 25 percent grace period.

The licensee is requesting that this exception to the RG 1.52 interval be explicitly addressed in the change to CPS TS 5.5.7 and states that this revision to the CPS commitment to RG 1.52 will be reflected in a revision to the USAR and provided in accordance with 10 CFR50.71, 'Maintenance of records, making of reports," paragraph (e). The licensee also states that in addition to the 24-month testing interval, ventilation filter (HEPA and charcoal) testing will continue to be performed in accordance with the other frequencies specified in RG 1.52 and that this proposed amendment request will not change the commitment to perform these required tests.

The licensee conducted a review of the applicable CPS surveillance history, which demonstrated that the ESF ventilation systems have had five failures of the TS functions that would have been detected solely by the periodic performance of SRs that reference performance of the VFTP of Specification 5.5.7.

All of these historical failures were associated with different components or the same component on different trains. There is no indication the failures reflect a repetitive failure problem. Improved performance trending minimizes the potential for time-based failure problems. As such, the impact, if any, on system availability is minimal from the proposed change to a 24-month testing frequency. Based on other more frequent testing of the system, and the history of system performance, the impact of this change on safety, if any, is small.

The NRC staff has reviewed the information presented by the licensee and concludes that, based on the review of history of the surveillance testing, the proposed changes follow the guidance of GL 91-04, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.31 Renumbering of 18-Month Channel Calibration SRs

The licensee stated that for several channel calibration requirements remaining at 18-month frequency, the applicable SR is administratively renumbered. The following lists these SRs.

TS 3.3.5.1 Emergency Core Cooling System (ECCS) Instrumentation (SR 3.3.5.1.6)

TS 3.3.5.2 Reactor Core Isolation Cooling (RCIC) System Instrumentation (SR 3.3.5.2.6)

TS 3.3.6.1 Primary Containment and Drywell Isolation Instrumentation (SR 3.3.6.1.8)

TS 3.3.6.2 Secondary Containment Isolation Instrumentation (SR 3.3.6.2.6)

TS 3.3.6.3 RHR Containment Spray System Instrumentation Timers (SR 3.3.6.3.6)

TS3.3.6.4 Suppression Pool Makeup (SPMU) System Instrumentation(SR 3.3.6.4.8)

The NRC staff has reviewed the information presented by the licensee and concludes that the proposed changes do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.32 Administrative Changes

The licensee requested two administrative changes. The first change removes Table 3.0.2-1 and the reference to it from SR 3.0.2. This table reflects a previously issued one-time surveillance interval extension that expired on November 30, 2000. The second change removes footnotes (a) and (b) from Table 3.3.8.1-1 that applied temporary AVs until completion of modifications to tap settings and degraded voltage setpoints. The modification was completed and the temporary AVs no longer apply.

The NRC staff has reviewed the information presented by the licensee and concludes that the proposed changes are administrative in nature, and do not have a significant impact on public health and safety. Therefore, the proposed changes to the TSs are acceptable.

3.33 Regulatory Commitments

The licensee, in its submittal dated May 20, 2004, Attachment 4, for this license amendment, has volunteered the following commitments. These commitments are listed and recognized here as contributing to the justification for approval of this license amendment but are not considered to be a license condition. Following are the licensee's voluntary commitments that will be implemented along with the implementation of this license amendment:

1. Any necessary revisions to setpoint calculations, calibration and functional test procedures, to incorporate drift evaluation results will be prepared prior to implementation of this amendment request.

2. The ongoing drift trending program will monitor future as-found and as-left results for three 24-month cycles.
3. When insufficient data points are available to apply a statistical drift value, the ongoing drift trending program will validate the drift assumptions or cause re-analysis when sufficient data points are available.

4. SR 3.3.1.1.13 for Function10, Turbine control Valve Fast Closure, Trip Oil Pressure-Low, will conservatively establish the procedural as-found tolerance to monitor these channels until adequate assurance that 30-month drift remains within the assumption of the analyses.

5. Revise preventive maintenance requirements PMRQ # 157451 and PMRQ # 157487 to the frequency from once every 6 years to annually for dampers 0VC03YA and 0VC03YB.

The licensee has also committed to complete by the spring of 2006, refueling outage, the replacement of one turbine control valve control oil pressure switch (1C71N005A) (Work Order # 631766)

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

This amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes a surveillance requirement. The NRC 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 the amendment involves no significant hazards consideration and there has been no public comment on such finding (69 FR 40669). Accordingly, the 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 the amendment.

6.0 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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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