

# Florida Power

CORPORATION  
Crystal River Unit 3  
Docket No. 50-302

May 31, 1995  
3F0595-01

Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Subject: Technical Specification Change Request No. 202, Revision 0  
24 Month Fuel Cycle Surveillance Extensions

Reference: NRC Generic Letter 91-04, dated April 2, 1991

Dear Sir:

Florida Power Corporation (FPC) hereby submits Technical Specification Change Request No. 202 requesting amendment to Appendix A of Operating License No. DPR-72. As part of this request, the proposed replacement pages for Appendix A are provided. This submittal was discussed with the NRC Staff at a meeting on April 17, 1995.

This submittal proposes changes to the Technical Specifications to allow continuous operation for up to a 24 month period (one full operating cycle). This is consistent with the current and planned core designs. The attachment provides justification to support the proposed change request. The guidance contained in Enclosure 2 to the reference Generic Letter has been utilized in the studies supporting this request. In addition, the methodologies described in EPRI document TR-103335, "Guidelines for Instrument Calibration Extension/Reduction Programs," Project 2409-21, final Report dated March 1994, have been used to enhance the process by which the studies were conducted. FPC is aware of the fact that the NRC has not had the opportunity to formally review and approve the EPRI document, and is not asking the NRC to do so as part of this request. The details of the process used by FPC are described in the attachment to this letter in FPC's response to Action 2 from the Generic Letter. Three sample drift studies are included as attachments to this letter for information.

Although extending the surveillance interval for most systems affected, this request also maintains unchanged the current specified surveillance interval for some equipment and systems which were not re-evaluated or which could not be justified by the evaluation process. This equipment and system is also described in the attachment to this letter for completeness.

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P PDR

CRYSTAL RIVER ENERGY COMPLEX • 15760 W. Power Line Street • Crystal River • Florida 34428-6708 • (904) 795-6486  
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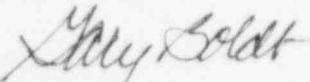
FPC is revising calculations to additionally incorporate the setpoints and "As-Left" and "As-Found" tolerances for bistables controlled by Technical Specifications into the Surveillance Procedures used to perform both the CHANNEL FUNCTIONAL TESTS and the CHANNEL CALIBRATIONS on the affected equipment. Following implementation of these changes, equipment included in the CHANNEL FUNCTIONAL TEST which does not meet the "As-Left" tolerance will be recalibrated to within the "As-Left" tolerance specified by the revised procedure. The calculations will be completed and the applicable Surveillance Procedures will be updated prior to exceeding the applicable 18 month surveillance deadline plus 25%. Two sample calculations are included as attachments to this letter for information.

Enclosure 1 to the reference Generic Letter suggests four additional changes to address the conversion from 18 month to 24 month fuel cycles. The first two of these recommended changes have already been addressed with the NRC Staff for Crystal River 3 (CR-3) during the Technical Specification Improvement Program. The third and fourth recommended changes are more appropriately addressed as part of the dialogue with the NRC Staff associated with Technical Specification Change Request Number 203. They deal with the broader aspects of steam generator inspection.

This change also relocates the quantitative limits for determining the operational status of the reactor coolant pumps, the main feedwater pumps, and the main turbine from the Technical Specifications to the FSAR. The change also proposes removal of the "Allowable Value" designation from the control complex high radiation isolation setpoint.

Draft Bases changes for these changes are included for information. FPC requests an amendment for this change request be issued by August 24, 1995 when the first 18 month interval will expire, or prior to January 8, 1996 when the allowed 25% extensions will begin to expire.

Sincerely,



G. L. Boldt  
Vice President  
Nuclear Production

Attachments

GLB/AEF:ff

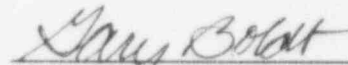
xc: Regional Administrator, Region II  
Senior Resident Inspector  
NRR Project Manager

ATTACHMENT TO LETTER NO. 3F0595-01

STATE OF FLORIDA

COUNTY OF CITRUS

G. L. Boldt states that he is the Vice President, Nuclear Production for Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information, and belief.



G. L. Boldt  
Vice President  
Nuclear Production

G. L. Boldt, personally known to me. Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 31st day of May, 1995.

LYNNE J. SMITH

Notary Public (print)



Notary Public

Notary Public, State of Florida at Large,  
Notary Public, State of Florida at Large  
My Commission Expires Dec. 18, 1995  
~~Bonded thru Agent's Notary Brokerage~~

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

IN THE MATTER )  
 ) DOCKET NO. 50-302  
FLORIDA POWER CORPORATION )

CERTIFICATE OF SERVICE

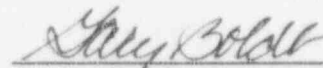
G. L. Boldt deposes and says that the following has been served on the Designated State Representative and Chief Executive of Citrus County, Florida, by deposit in the United States mail, addressed as follows:

Chairman,  
Board of County Commissioners  
of Citrus County  
Citrus County Courthouse  
Inverness, FL 34450


Administrator,  
Radiological Health Services  
Department of Health and  
Rehabilitative Services  
1323 Winewood Blvd.  
Tallahassee, FL 32301

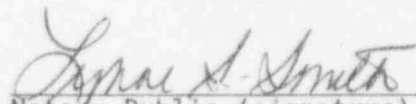
A copy of Technical Specification Change Request No. 202, Revision 0

FLORIDA POWER CORPORATION

  
\_\_\_\_\_  
G. L. Boldt  
Vice President  
Nuclear Production

G. L. BOLDT, PERSONALLY KNOWN TO ME. SWORN TO AND SUBSCRIBED BEFORE ME THIS  
31st DAY OF MAY, 1995

  
\_\_\_\_\_  
Notary Public (print)

  
\_\_\_\_\_  
Notary Public (signature)

Notary Public, State of Florida at Large  
My Commission Expires:

Notary Public, State of Florida at Large  
My Commission Expires Dec. 18, 1995  
Bonded thru Agent's Notary Brokerage

FLORIDA POWER CORPORATION  
CRYSTAL RIVER UNIT 3  
DOCKET NO. 50-302/LICENSE NO. DPR-72  
REQUEST NO. 202, REVISION 0  
REFUELING INTERVAL SURVEILLANCE EXTENSION

**LICENSEE DOCUMENT INVOLVED:** Technical Specifications

**PORTIONS:**

Surveillance Requirements (SR) 3.3.1.6 The frequency is changed from 18 to 24 months.

SR 3.3.5.3 The frequency is changed from 18 to 24 months.

SR 3.3.6.1 The frequency is changed from 18 to 24 months.

SR 3.3.9.2 The frequency is changed from 18 to 24 months.

SR 3.3.10.2 The frequency is changed from 18 to 24 months.

SR 3.3.11.3 The frequency is changed from 18 to 24 months.

SR 3.3.17.2 The frequency is changed from 18 to 24 months. Also, a note is added indicating the frequency for Function 12 is 18 months.

SR 3.3.18.2 The frequency is changed from 18 to 24 months.

SR 3.9.2.2 The frequency is changed from 18 to 24 months.

Table 3.3.1-1 The Function for "Reactor Coolant Pump Power Monitor (RCPPM)" is changed to "Reactor Coolant Pumps," and the Allowable Value for the is changed to "More than one pump tripped."

The Function for "Main Turbine Trip (Control Oil Pressure)" is changed to "Main Turbine," and the Allowable Value is changed to "Turbine Tripped."

The Function for "Loss of Both Main Feedwater Pumps (Control Oil Pressure)" is changed to "Main Feedwater Pumps," and the Allowable Value is changed to "Both Pumps Tripped."

Table 3.3.11-1 Function 1.a is changed from "EFW Initiation - Loss of MFW Pumps (Control Oil Pressure)" to "EFW Initiation - Main Feedwater Pumps," and the Allowable Value is changed to "Both Pumps Tripped."

SR 3.3.16.3 The CHANNEL CALIBRATION setpoint is changed from an allowable value to an approximate setpoint.

Proposed replacement pages for Technical Specifications (Appendix A) are included. Associated draft Bases pages are included for information only.

**REASON FOR REQUEST:** The purpose for this Technical Specification Change Request is to revise the Technical Specifications to facilitate a 24 month operating cycle by changing the surveillance interval for appropriate Technical Specification surveillance requirements that are generally performed during a refueling outage.

The request also corrects the functional description and the Allowable Value for three Reactor Protection System and one Emergency Feedwater Initiation and Control System setpoints. This correction was originally proposed as part of the Technical Specification Improvement Program (TSIP) but was deferred to allow focus on other TSIP required reviews.

This request also eliminates the designation of "Allowable Value" for the high radiation setpoint for control room isolation. This is being done to correct the Technical Specification, thereby eliminating an unnecessary restriction on the determination of the setpoint.

**EVALUATION OF REQUEST:** This evaluation is divided into two sections. The first is an evaluation of the changes in surveillance interval and the second is an evaluation of the other changes contained in this request.



## SURVEILLANCE INTERVAL EXTENSIONS - INSTRUMENTATION CALIBRATION AND DRIFT

### Introduction

NRC Generic Letter 91-04 provides guidance for licensees to follow to gain NRC approval of requests to change surveillance intervals to accommodate a 24 month fuel cycle. Florida Power Corporation (FPC) has followed the guidance provided in Enclosure 2 to that Generic Letter in the preparation of this change request.

FPC is revising calculations to additionally incorporate the setpoints and "As-Left" tolerances for bistables controlled by Technical Specifications. These calculations will also include "As-Found" tolerances based on measurement and test equipment (M&TE) accuracy, instrument drift, and "As-Left" tolerances. These setpoints and tolerances will be incorporated into the Surveillance Procedures used to perform both the CHANNEL FUNCTIONAL TESTS and the CHANNEL CALIBRATIONS on the affected equipment. Following implementation of these changes, any equipment included in the CHANNEL FUNCTIONAL TEST which does not meet the "As-Left" tolerance will be recalibrated to within the "As-Left" tolerance specified by the revised procedure. The calculations will be completed and the applicable Surveillance Procedures will be updated prior to exceeding the applicable 18 month surveillance deadline plus 25%.

### Generic Letter 91-04 Analysis

Enclosure 2 to the Generic Letter provides guidance, including seven actions, for licensees to address the effect of increased surveillance intervals on instrument drift and safety analysis assumptions. This guidance was expanded upon and enhanced by EPRI document TR-103335, "Guidelines for Instrument Calibration Extension/Reduction Programs," Project 2409-21, Final Report dated March 1994. FPC has performed the drift studies requested by the Generic Letter for each of the instruments which will be subject to the increased surveillance interval. These drift studies were discussed with the NRC Staff in a meeting on April 17, 1995. At the request of the NRC Staff expressed at that meeting, the details of each of the individual drift studies are not included in this submittal. A correlation of the historical drift data to the projected 30 month drift is provided for each instrument string along with three sample drift studies and two instrument string calculations, included for information. The general conclusions reached as a result of the drift studies and other requests of the Generic Letter are documented below.

1. *"Confirm that instrument drift as determined by "As-Found" and "As-Left" calibration data from surveillance and maintenance records has not, except on rare occasions, exceeded acceptable limits for a calibration interval."*

The surveillance records for components subject to the surveillance requirements to have intervals extended were reviewed. Instances where components exceeded acceptable "As-Found" surveillance procedure tolerances were documented in the drift study for that string. Where possible, four surveillance intervals were evaluated for each string.

In a few instances, "As-Found" data exceeded the procedural limit more frequently than "on rare occasion." Raw calibration "As-Found" data which exceeds the acceptance criteria of the surveillance procedure is considered to have some type of failure. Consequently, this data was removed. This is conservative since, by definition, failure of this raw calibration data to meet the surveillance procedure acceptance criteria, identifies this drift data and the operation of the instrument as "non-normal." See "Outlier Treatment" in the discussion of action 2, below.

In the future, failures of instruments calibrated at 24 month intervals to meet procedural acceptance criteria will be trended to allow early identification of possible design or hardware problems. The failure of the instrument to meet the "As-Found" acceptance criteria will be investigated and appropriate problem reporting and corrective actions will be taken as required.

A few of the instruments' drift analysis does not support extending the calibration interval. These instruments are noted later in this document.

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 data."*

#### **Discussion of Drift Study**

The drift study utilizes historical surveillance calibration data to predict present and future instrument drift performance.

"Drift data," for the purposes of the drift study, was defined as the difference between the raw "As-Found" and "As-Left" calibration data divided by the calibrated span of the instrument expressed in percent of span. All of the Technical Specification 18 month instrument surveillance requirements were identified and the associated 18 month CHANNEL CALIBRATION surveillance procedures were obtained. In addition, applicable CHANNEL CHECK and CHANNEL FUNCTIONAL TESTS were identified.

#### **Identification of Requirements and Collection of Information**

As part of this effort, FPC has thoroughly researched and reconciled various sources of relevant design information. Applicable instrument information was obtained from the FPC Configuration Management Information System, instrument error calculations, instrument data sheet drawings, instrument calibration data sheets, vendor manuals, etc. In addition, the associated instrument loop diagram or vendor drawing was obtained to ensure all applicable devices were identified.

For each Technical Specification requirement, the associated instrument calibration data ("As-Found" and "As-Left") was obtained from four intervals



(i.e., five completed procedures) of the appropriate refueling interval surveillance procedure. The number of intervals investigated was smaller if, for instance, the instruments had been recently replaced with a different make, model or type, or other similar factors arose. Copies of the completed surveillance procedures were obtained from the microfilm system.

The surveillance procedure "As-Found" instrument data was examined to ensure that the instruments were being properly calibrated and that the devices were properly meeting the calibration tolerance acceptance criteria. The "As-Found" data was compared to the "As-Found" limit in the surveillance procedure. Raw calibration "As-Found" data which exceeds the acceptance criteria of the surveillance procedure is considered to have some type of failure. Because failures are not representative of normal drift, these values were removed from the data base.

## Description of the Statistical Analysis of the Drift Data

### Introduction

Drift values were derived as the difference between "As-Left" and "As-Found" calibration data, expressed as a percentage of span. The mean and standard deviation of the drift values were calculated. A 2-sigma or 95%/95% tolerance value is utilized for the statistical calculation performed in this drift study. This indicates a 95% level of confidence, that 95% of the instrument drift data still be bounded by the tolerance interval. The selection of 2 sigma confidence intervals is endorsed by Regulatory Guide 1.105-1986 and is discussed in national standards such as Instrument Society of America (ISA) 67.04-1994.

### Outlier Treatment

Once the drift data had been calculated and the values which did not meet the "As-Found" tolerance had been removed, an "outlier test" was performed on each remaining point. The outliers were identified by performing a statistical "critical values of T" test. A discussion of a "T-test" is contained in American Society of Testing and Materials (ASTM) standard E178-1980, (re-approved 1989), "Standard Practice for Dealing With Outlying Observations." The outlier criteria value was determined based on the number of total drift data points. Outliers may result from raw calibration data which has exceeded the surveillance procedure "As-Found" tolerance, procedural or personnel errors, M&TE problems, or other deficiencies or failures. A conservative approach was utilized for dealing with outliers that were not failures in that they remained in the drift data analysis.

### Verifying the Assumption of Normality

The drift data was tested to verify the assumption that the data conforms to a normal distribution (is "normal"). Either a W-test or D'-test was performed. The W-test is utilized for sample sizes of less

than 50 points. The D'-test is utilized for sample sizes of more than 50 points. These tests are discussed in American National Standards Institute (ANSI) N15.15-1974, "Assessment of the Assumption of Normality (Employing Individual Observed Values)."

If the drift data fails the appropriate test described above, then a "coverage analysis" was performed. The coverage analysis requires that drift data be analyzed to determine if the data is bounded by a normal distribution. Utilizing the spreadsheet analysis tools, a "data histogram" is plotted, as well as a comparison table of the actual distribution of the drift data versus the expected probability distribution. It is then possible to show that the drift data is normally bounded.

#### **Verifying Time Independence**

To evaluate time dependency, the drift data is charted versus calibration interval (in months) and also charted versus calibration "As-Found" date. The charts can then be utilized to demonstrate no time dependent trend exists. By visually observing the data scatter versus the historical calibration intervals, the assumption that the data is not calibration interval dependent can be drawn. Likewise, by visually observing the data scatter versus the historical calibration "As-Found" dates, the assumption that the data is not age dependent can also be drawn.

#### **Conclusions and Ongoing Drift Program Validation**

Once the drift data is demonstrated to be (1) normal and (2) not time (age or interval) dependent, then the 95%/95% tolerance values for the instruments are assumed to envelop the 30 month drift values. The projected 30 month drift is set equal to the 95%/95% tolerance values.

FPC has a program in place to review, revise and upgrade the Instrument Accuracy Calculations, as required, to reflect 30 month drift error terms. As a part of this program, the 30 month drift terms predicted by the drift study will be evaluated against the calculated drift terms, the calibration procedure setpoints, and the "As-Left" and "As-Found" procedure tolerances. Adequate setpoint margin must be available to account for any differences between predicted and calculated 30 month drift terms.

The drift program will incorporate future surveillance procedure "As-Found" and "As-Left" data into the drift study spread sheets with the existing drift data. The revised drift data mean, standard deviation, 95%/95% tolerance intervals, etc., will be compared with the existing drift data to ensure the conclusions reached in the drift study remain valid.

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 Technical Specification section that identifies these instrument applications."*

The drift data calculation for each Surveillance Requirement, establishes the 95%/95% tolerance factor. This calculated value indicates a 95% level of confidence, that 95% of the population (instrument drift data) will be within the stated interval.

In general, it was concluded that the drift data is "normal" and does not appear to be time dependent. The 95%/95% tolerance values can be assumed to be the limits of predicted 30 month drift values. Individual instrument string drift data, listed by Technical Specification, is addressed under the Surveillance Interval Changes section below.

4. *"Confirm that a comparison of the projected instrument drift errors has been made with the values of drift used in the setpoint analysis. If this results in revised setpoints to accommodate larger drift errors, provide proposed Technical Specification 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 the safety limits and safety analysis assumptions are not exceeded."*

The FPC program in place to review, revise, and upgrade the instrument accuracy calculations to reflect 30 month drift error terms is in progress. Since the CR-3 Technical Specifications do not contain instrument setpoints, it is assumed that no change will be required for the Technical Specifications due to the revision of any of these calculations. These revised calculation will provide the required surveillance procedure setpoint and "As-Left" and "As-Found" tolerances, which will include any effects due to 30 month drift. The revised calculations will be completed and the affected procedures revised prior to exceeding any of the current surveillance intervals.

5. *"Confirm that the projected instrument errors caused by drift are acceptable for control of plant parameters to effect a safe shutdown. Licensees must confirm that the instrument errors caused by drift will not affect the capability to achieve safe shutdown."*

Control of plant parameters was assessed for each of the instrument strings affected. Most of the instrument strings were not associated with any control functions. In each case where the string was used for control, it was concluded that a larger 30 month drift value will not affect the capability to achieve safe shutdown.

6. *"Confirm that all conditions and assumptions of the setpoint and safety analysis have been checked and are appropriately reflected in the acceptance*

*criteria of plant surveillance procedures for CHANNEL CHECKS, CHANNEL FUNCTIONAL TESTS and CHANNEL CALIBRATIONS."*

FPC has a program in place to review, revise, and upgrade the Instrument Accuracy Calculations to reflect 30 month drift error terms. When the revised calculations are issued to reflect a 30 month calibration interval, "As-Left"/"As-Found" calibration tolerances and setpoints will be incorporated into the appropriate CHANNEL FUNCTIONAL TEST and CHANNEL CALIBRATION surveillance procedures. These activities will be completed prior to exceeding any of the current surveillance intervals plus 25%.

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 Instrument Drift Program is an ongoing program which will monitor future surveillance procedure "As-Found" and "As-Left" data, and will incorporate new data into the drift study spread sheets with the existing drift data. The revised drift data mean, standard deviation, 95%/95% tolerance intervals, etc., will be compared with the existing drift data, to ensure the conclusions reached in the drift study remain valid.

#### Surveillance Interval Changes

For completeness, this section also assesses 18 month CHANNEL CALIBRATION frequencies which are not being extended to 24 months.

#### Reactor Protection System (RPS) Instrumentation - SR 3.3.1.6

ITS Table 3.3.1-1 lists 11 trip functions of the RPS which originate from 9 different instrument strings. Each trip function is evaluated by instrument string.

The RPS is subject to the performance of a CHANNEL FUNCTIONAL TEST on a 45 day staggered basis. Since the calibration of equipment that is included in the CHANNEL FUNCTIONAL TEST will be included as part of that test, only equipment not tested will be subject to the 24 month calibration interval. The remainder of the equipment will be evaluated for recalibration every 180 days (4 channels X 45 days).

##### 1. Nuclear Overpower

The requirement to perform a CHANNEL CALIBRATION is not applicable to this trip function.

##### 2. Reactor Coolant System (RCS) High Outlet Temperature

RCS outlet temperature ( $T_{hot}$ ) is monitored by Resistance Temperature Detectors (RTD's). These are fixed devices which can not be adjusted. Curves of resistance versus temperature are provided by the manufacturer

which are used to calibrate the linear bridge/signal converter which provides the signal to the RPS. There are four RTD's (two in each RCS hot leg) providing signals to the four RPS channels. During each refueling outage, one of these RTD's is replaced. The other three linear bridges are then cross calibrated to the output of the new detector. The procedure is performed during plant heatup with four reactor coolant pumps operating. Isothermal (constant temperature) conditions are established in the primary plant.

This change extends the RTD replacement interval from 18 to 24 months and extends the nominal service period of a single RTD from 6 to 8 years. The impact of this change on safety is negligible because studies performed by industry groups have shown that RTD drift is minimal and random. RTD performance is more directly affected by physical jarring than by temperature or cycling. In addition to the CHANNEL CHECK performed in accordance with SR 3.3.1.1 every 12 hours, primary plant RTD's are frequently compared against each other, using a more rigorous methodology, as a check for unacceptable channel drift.

The projected 30 month drift terms for the linear bridge/signal converter have only been exceeded in 1 of 75 drift data points, or 1.3% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

- 3. RCS High Pressure
- 4. RCS Low Pressure
- 11. Shutdown Bypass RCS High Pressure

The components for these three trip functions are all common to each other except for the trip bistables.

Only the pressure transmitters and buffer amplifiers will have their surveillance interval increased. The calibration of the bistables will be evaluated as part of the CHANNEL FUNCTIONAL TEST. Changing the CHANNEL CALIBRATION frequency from 18 to 24 months for these devices will cause no increase in the probability of adverse drift.

The projected 30 month drift terms for the pressure transmitters and buffer/amplifiers have only been exceeded in 1 of 80 drift data points, or 1.3% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

- 5. RCS Variable Low Pressure



Only the pressure transmitters, buffer amplifiers, RTD'S, and linear bridge/signal converters will have their surveillance interval increased. The affect of the surveillance interval extension on these devices is evaluated above. The calibration of the bistables will be evaluated as part of the CHANNEL FUNCTIONAL TEST. Changing the CHANNEL CALIBRATION frequency from 18 to 24 months for these devices will cause no increase in the probability of adverse drift.

6. Reactor Building High Pressure

The projected 30 month drift terms for the pressure switches have never been exceeded in the intervals investigated. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

7. Reactor Coolant Pump Power Monitor

The projected 30 month drift terms for the watt transducers have only been exceeded in 9 of 184 drift data points, or 4.9% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

8. Nuclear Overpower Based on RCS Flow and Measured Axial Power Imbalance

The projected 30 month drift terms for the "A" RCS loop flow transmitters have only been exceeded in 1 of 77 drift data points, or 1.3% of the total drift data points. The projected 30 month drift terms for the "B" RCS loop flow transmitters have only been exceeded in 3 of 72 drift data points, or 4.2% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

9. Main Turbine Trip

The projected 30 month drift term has not been exceeded by any of the 20 "As-Found" data points. The 30 month drift term was determined to be  $\pm 5.24$  psig, which is greater than the "As-Found" tolerance of  $\pm 4$  psig used in the calibration procedures. The instruments have not exceeded their present "As-Found" tolerance of  $\pm 4$  psig during the evaluation period of the drift study. Nuclear Engineering Design is upgrading the RPS Instrumentation Accuracy Calculation and will consider the historical drift derived in this evaluation. CHANNEL CALIBRATIONS and CHANNEL FUNCTIONAL TESTS will be revised to incorporate "As-Found"



tolerances, "As-Left" tolerances and Setpoints specified in the calculation.

If approved, this Technical Specification Change Request will revise the Allowable Value of Function "Main Turbine Trip (Control Oil Pressure)" from " $\geq 45$  psig" to "Turbine Tripped". Refer to the section titled "Other Changes" for additional justification of this proposed change. Since instrument performance has been within the projected 30 month drift term and the Technical Specifications will not require a specific setpoint, extending the calibration interval from 18 to 24 months will have no adverse consequences.

#### 10. Loss of Both Main Feedwater Pumps

The projected 30 month drift term has only been exceeded in 1 of 40 data points, or 2.5% of the total drift data points. The 30 month drift term was determined to be  $\pm 4.95$  psig, which is greater than the "As-Found" tolerance of  $\pm 4$  psig used in the calibration procedures. The instruments have exceeded their present "As-Found" tolerance of  $\pm 4$  psig in 3 of 40 data points, or 7.5% of the total drift data points. It should be noted that at no time was the ITS Allowable Value violated. Nuclear Engineering Design is upgrading the RPS Instrumentation Accuracy Calculation and will consider the historical drift derived in this evaluation. CHANNEL CALIBRATIONS and CHANNEL FUNCTIONAL TESTS will be revised to incorporate "As-Found" tolerances, "As-Left" tolerances and Setpoints specified in the calculation.

If approved, this Technical Specification Change Request will revise the Allowable Value of Function "Loss of Both Main Feedwater Pumps (Control Oil Pressure)" from " $\geq 55$  psig" to "Both Pumps Tripped". Refer to the section titled "Other Changes" for additional justification of this proposed change. Since instrument performance has been within the projected 30 month drift term  $>95\%$  of the time and the Technical Specifications will not require a specific pressure setpoint, extending the calibration interval from 18 to 24 months will have no adverse consequences.

#### Engineered Safeguards Actuation System (ESAS) Instrumentation - SR 3.3.5.3

ITS Table 3.3.5-1 lists 4 trip functions of the ESAS which originate from 3 different instrument strings. Each trip function is evaluated by instrument string.

The ESAS is currently subject to the performance of a CHANNEL FUNCTIONAL TEST every 31 days. Since the calibration of equipment tested during the CHANNEL FUNCTIONAL TEST will be included as part of that test, only the remainder of the equipment will have their surveillance interval increased. The tested equipment will be evaluated for recalibration every 31 days.

1. Reactor Coolant System Pressure - Low

Only the pressure transmitters and buffer amplifiers will have their surveillance interval increased. The calibration of the buffer amplifiers and bistables will be evaluated as part of the CHANNEL FUNCTIONAL TEST. Changing the CHANNEL CALIBRATION frequency from 18 to 24 months for these devices will cause no increase in the probability of adverse drift.

The projected 30 month drift terms for the pressure transmitter and buffer/amplifiers have only been exceeded in 2 of 72 drift data points, or 2.8% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

2. Reactor Coolant System Pressure - Low Low

Only the pressure transmitters and buffer amplifiers will have their surveillance interval increased. The calibration of the bistables will be evaluated as part of the CHANNEL FUNCTIONAL TEST. Changing the CHANNEL CALIBRATION frequency from 18 to 24 months for these devices will cause no increase in the probability of adverse drift.

The projected 30 month drift terms for the pressure transmitter and buffer/amplifiers have only been exceeded in 3 of 72 drift data points, or 4.2% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

3. Reactor Building Pressure - High

4. Reactor Building Pressure - High High

The projected 30 month drift terms for the pressure switches have never been exceeded in the intervals investigated. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

Engineered Safeguards Actuation System Manual Initiation - SR 3.3.6.1

The surveillance of the ESAS manual initiation is being extended from 18 to 24 months to be consistent with other refueling interval surveillances. Since this is simply a test of the manual initiation push button, associated relays, and

circuitry, the safety significance of the extension is minimal. The recommendations of Generic Letter 91-04 are not applicable.

#### Source Range Neutron Flux - SR 3.3.9.2

Since no CHANNEL FUNCTIONAL TEST is performed on these instruments, both strings will be subject to the extended surveillance interval.

The projected 30 month drift terms for the indicator loop have been exceeded in 1 of 32 drift data points, or 3.1% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that most of the future drift data will be contained within the projected tolerance interval.

#### Intermediate Range Neutron Flux - SR 3.3.10.2

Since no CHANNEL FUNCTIONAL TEST is performed on these instruments, both strings will be subject to the extended surveillance interval.

The projected 30 month drift terms for the indicator loop have been exceeded in 3 of 40 drift data points, or 7.5% of the total drift data points. The "As-Found" raw calibration data was within the tolerance specified in the calibration procedure for all drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the existing "As-Found" tolerance interval.

#### Emergency Feedwater Initiation and Control (EFIC) System Instrumentation - SR 3.3.11.3

ITS Table 3.3.11-1 lists 4 functions of EFIC which originate from 4 different instrument strings. Each function is evaluated by instrument string.

EFIC is subject to the performance of a CHANNEL FUNCTIONAL TEST every 31 days. Since the calibration of equipment tested during the CHANNEL FUNCTIONAL TEST will be assessed as part of that test, only the remaining equipment will be subject to the 24 month calibration interval. The tested equipment will be evaluated for recalibration every 31 days.

1. Emergency Feedwater (EFW) Initiation
  - a. Loss of Main Feedwater (MFW) Pumps

The signals that initiate Emergency Feedwater on loss of main feedwater pumps originate from the RPS. The drift of the pressure switches associated with this function is discussed under RPS Trip Function 10.

1. EFW Initiation
  - b. OTSG Level - Low

Only the level transmitters and compensation modules will be subjected to the increased surveillance interval. The calibration of the other loop devices will be evaluated as part of the CHANNEL FUNCTIONAL TEST. Changing the CHANNEL CALIBRATION frequency from 18 to 24 months for these devices will cause no increase in the probability of adverse drift.

The projected 30 month drift terms for the level transmitters and compensation modules have only been exceeded in 9 of 252 drift data points, or 3.6% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

1. EFW Initiation
  - c. OTSG Pressure - Low
2. EFW Vector Valve Control
  - a. OTSG Pressure - Low
  - b. OTSG Differential Pressure - High
3. Main Steam Line Isolation
  - a. OTSG Pressure - Low
4. Main Feedwater Isolation
  - a. OTSG Pressure - Low

Only the pressure transmitters and compensation modules will be subjected to the increased surveillance interval. The calibration of the other loop devices will be evaluated as part of the CHANNEL FUNCTIONAL TEST. Changing the CHANNEL CALIBRATION frequency from 18 to 24 months for these devices will cause no increase in the probability of adverse drift.

The projected 30 month drift terms for the pressure transmitters and compensation modules have only been exceeded in 3 of 78 drift data points, or 3.8% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

1. EFW Initiation
  - d. RCP Status

The surveillance of the EFIC initiation on loss of all four reactor coolant pumps is being extended from 18 to 24 months to be consistent with other refueling interval surveillances. This initiate signal is generated from the reactor coolant pump power monitors in the RPS. The

drift of the watt transducers associated with this function is discussed under RPS Trip Function 7.

Post-Accident Monitoring Instrumentation - SR 3.3.17.2

ITS Table 3.3.17-1 lists 19 parameters monitored by post-accident monitoring instrumentation. Each string was evaluated individually for surveillance extension against the recommendations of Generic Letter 91-04. Since no CHANNEL FUNCTIONAL TEST is performed on these instruments, each string will be subject to the extended surveillance interval.

1. Wide Range Neutron Flux

The projected 30 month drift terms for the indicators and recorders is zero percent. The projected 30 month drift terms for the amplifiers have only been exceeded in 1 of 29 drift data points, or 3.4% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

2. RCS Hot Leg Temperature

The projected 30 month drift terms for the indicators have only been exceeded in 1 of 20 drift data points, or 5% of the total drift data points. The projected 30 month drift terms for the recorder has never been exceeded in the intervals investigated. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, and we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

3. RCS Pressure (Wide Range)

The projected 30 month drift terms for the recorder has never been exceeded in the intervals investigated. The projected 30 month drift terms for the indicators have only been exceeded in 3 of 40 drift data points, or 7.5% of the total drift data points. Note that these three drift data points were identified as outliers, but were not removed from the drift data because the points did not exceed allowable "As-Found" tolerances. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, and we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

4. Reactor Coolant Inventory

The projected 30 month drift terms for the RCS hot leg level recorders have only been exceeded in 1 of 78 drift data points, or 1.3% of the



total drift data points. The projected 30 month drift terms for the reactor vessel head level recorders have only been exceeded in 5 of 119 drift data points, or 4.2% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

5. Borated Water Storage Tank Level

The projected 30 month drift terms for the indicators have only been exceeded in 2 of 40 drift data points, or 5% of the total drift data points. The projected 30 month drift terms for the recorders have never been exceeded in the intervals investigated, except for the outliers, which have been removed from the data set. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

6. High Pressure Injection Flow

HIGH RANGE (0 - 500 GPM) LOOPS: The projected 30 month drift terms for the indicators have only been exceeded in 1 of 40 drift data points, or 2.5% of the total drift data points.

LOW RANGE (0 - 200 GPM) LOOPS: The projected 30 month drift terms for the indicators have only been exceeded in 2 of 40 drift data points, or 5% of the total drift data points.

During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent and we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

7. Containment Sump Water Level (Flood Level)

The projected 30 month drift terms for the indicators have been exceeded in 6 of 47 drift data points, or 12.8% of the total drift data points. However, only 1 of the drift data points exceeded the "As-Found" tolerance of the calibration procedure, or 2%. The projected 30 month drift terms for the recorders have never been exceeded in the intervals investigated, except for the outliers which have been removed from the data set. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the existing "As-Found" tolerance interval.

8. Containment Pressure (Narrow Range)



The projected 30 month drift terms for the indicators have only been exceeded in 2 of 37 drift data points, or 5.4% of the total drift data points. None of the calibration data included in the data set have exceeded the "As-Found" tolerance of the calibration procedure. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, and we have a high level of confidence that future drift data will be contained within the existing "As-Found" tolerance interval.

9. Containment Pressure (Wide Range)

The projected 30 month drift terms for the indicators have only been exceeded in 2 of 30 drift data points, or 6.7% of the total drift data points. None of the calibration data have exceeded the "As-Found" tolerance of the calibration procedure. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the existing "As-Found" tolerance interval.

10. Containment Isolation Valve Position

The surveillance of the containment isolation valve position indication is being extended from 18 to 24 months to be consistent with other refueling interval surveillances. Since this surveillance tests valve limit switches, associated relays, and circuitry, the safety significance of the extension is minimal. This surveillance interval is consistent with the recommendation in American Society of Mechanical Engineers (ASME) OM Code - 1995, Code for Operation and Maintenance of Nuclear Power Plants, Subsection ISTC 4.1. The recommendations of Generic Letter 91-04 are not applicable.

11. Containment Area Radiation (High Range)

The projected 30 month drift terms for the indicators have only been exceeded in 1 of 35 drift data points, or 2.9% of the total drift data points. The projected 30 month drift terms for the recorders is 0%. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

12. Containment Hydrogen Concentration

The frequency for the Containment Hydrogen Monitors is being maintained at 18 months (+25%) because the drift data analysis determined that an extension to 30 months was not justified. This instrumentation is located outside containment and can be calibrated while the plant is in operation.

13. Pressurizer Level

The projected 30 month drift terms for the recorders have never been exceeded in the intervals investigated. The projected 30 month drift terms for the voltage to the recorders have only been exceeded in 7 of 88 drift data points, or 8% of the total drift data points. However, the drift data points for the voltage to the recorders have only exceeded the calibration procedure's "As-Found" tolerance 2 times, or 2%. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the existing "As-Found" tolerance interval.

14. Steam Generator Water Level (Start-up Range)

The projected 30 month drift terms for the indicators have only been exceeded in 4 of 136 drift data points, or 3% of the total drift data points. The projected 30 month drift terms for the recorders have only been exceeded in 1 of 66 drift data points, or 1.5% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

15. Steam Generator Level (Operating Range)

The projected 30 month drift terms for the indicators have only been exceeded in 3 of 85 drift data points, or 3.5% of the total drift data points. The projected 30 month drift terms for the recorders have only been exceeded in 1 of 45 drift data points, or 2% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

16. Steam Generator Pressure

The projected 30 month drift terms for the recorders have only been exceeded in 4 of 66 drift data points, or 6.1% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

17. Emergency Feedwater Tank Level

The projected 30 month drift terms for the indicators have only been exceeded in 4 of 40 drift data points, or 10% of the total drift data points. However, none of the drift data points were found to be outside of the calibration procedure "As-Found" tolerance. During the

evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the existing "As-Found" tolerance interval.

18. Core Exit Temperature (Backup)

The projected 30 month drift terms for the indicators have only been exceeded in 17 of 298 drift data points, or 6% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

19. Emergency Feedwater Flow

The projected 30 month drift terms for the indicators have only been exceeded in 6 of 100 drift data points, or 6% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

Remote Shutdown System - SR 3.3.18

ITS Table 3.3.18-1 lists 10 parameters monitored in the Remote Shutdown Instrumentation System. Each string was evaluated individually for surveillance extension against the recommendations of Generic Letter 91-04. Since no CHANNEL FUNCTIONAL TEST is performed on these instruments, each string will be subject to the extended surveillance interval.

1. Reactivity Control

a. Reactor Trip Breaker (RTB) Position

Since this is not an "instrumentation system," SR 3.3.18.2 is not applicable to this equipment.

2. Reactor Coolant System (RCS) Pressure Control

a. RCS Wide Range Pressure

The projected 30 month drift terms for the indicators have only been exceeded in 1 of 40 drift data points, or 2.5% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

3. Decay Heat Removal via Steam Generators (OTSGs)

a. Reactor Coolant Hot Leg Temperature

The projected 30 month drift terms for the indicators have only been exceeded in 2 of 45 drift data points, or 4.4% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

3. Decay Heat Removal via Steam Generators (OTSGs)  
b. Decay Heat Removal Temperature

The projected 30 month drift terms for the indicators have only been exceeded in 1 of 16 drift data points, or 6.3% of the total drift data points. However this data point was not outside of the calibration procedure "As-Found" tolerance. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the existing "As-Found" tolerance interval.

3. Decay Heat Removal via Steam Generators (OTSGs)  
c. OTSG Pressure

The projected 30 month drift terms for the indicators have only been exceeded in 3 of 78 drift data points, or 3.8% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

3. Decay Heat Removal via Steam Generators (OTSGs)  
d. OTSG Level

Start-Up Range: The projected 30 month drift terms for the indicators have only been exceeded in 7 of 138 drift data points, or 5.1% of the total drift data points. However, only two of the drift data points exceeded the calibration procedure "As-Found" Tolerance, or 1.4%.

Operate Range: The projected 30 month drift terms for the indicators have only been exceeded in 3 of 84 drift data points, or 3.6% of the total drift data points.

During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the "As-Found" tolerance interval.

3. Decay Heat Removal via Steam Generators (OTSGs)  
e. Motor-driven EFW Pump Discharge Pressure

The projected 30 month drift terms for the indicator has never been exceeded. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

3. Decay Heat Removal via Steam Generators (OTSGs)  
f. SW Cooler Outlet Temperature

The projected 30 month drift terms for the indicators have never been exceeded in the intervals investigated. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

3. Decay Heat Removal via Steam Generators (OTSGS)  
g. SW Pump Discharge Pressure

The projected 30 month drift terms for the indicator has never been exceeded. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

4. RCS Inventory  
a. Pressurizer Level

The projected 30 month drift terms for the indicators have only been exceeded in 2 of 40 drift data points, or 5% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that future drift data will be contained within the projected tolerance interval.

Nuclear Instrumentation - SR 3.9.2

Since no CHANNEL FUNCTIONAL TEST is performed on these instruments, all components will have their surveillance interval extended.

The projected 30 month drift terms for the indicator loop have been exceeded in 1 of 32 drift data points, or 3.1% of the total drift data points. During the evaluation of the drift data, it was determined that instrument drift is not time dependent. Since drift data is not time dependent, we have a high level of confidence that most of the future drift data will be contained within the projected tolerance interval.



ADDITIONAL SURVEILLANCES NOT BEING EXTENDED

Emergency Diesel Generator (EDG) Loss of Power Start (LOPS) - SR 3.3.8.2

The frequency for the EDG undervoltage relay calibration is being maintained at 18 months (+25%). This instrumentation is located outside containment and can be calibrated while the plant is in operation.

RB Purge Isolation - High Radiation - SR 3.3.15.3

SR 3.3.15.3 requires a CHANNEL CALIBRATION of the Reactor Building (RB) purge isolation on high radiation function every 18 months. The frequency for this surveillance is being maintained at 18 months. This equipment is located outside containment and the surveillances can be safely performed while the plant is in operation.

Control Room Isolation - High Radiation - SR 3.3.16.3

SR 3.3.16.3 requires a CHANNEL CALIBRATION of the control room isolation on high radiation function every 18 months. The frequency for this surveillance is being maintained at 18 months. This equipment is located outside containment and the surveillances can be safely performed while the plant is in operation.

RCS Leakage Detection Instrumentation - SR 3.4.14.3 and SR 3.4.14.4

SR 3.4.14.3 requires a CHANNEL CALIBRATION of the containment sump monitor (level instrumentation) every 18 months. This surveillance interval is not being extended at this time because the drift data does not support an extension. FPC is evaluating a modification to the present instrumentation which will allow an extended surveillance interval. In the interim, FPC will continue to recalibrate the Reactor Building sump level instrumentation string at least once every 18 months. This will be done during any forced outage that might occur or through a containment entry at power.

SR 3.4.14.4 requires a CHANNEL CALIBRATION of the containment atmosphere radioactivity monitor every 18 months. This surveillance interval is not being extended at this time to maintain consistency with SR 3.4.14.3. This instrumentation is located outside containment and can be calibrated while the plant is in operation.

DC Sources - Operating - SR 3.8.4.3, SR 3.8.4.4, SR 3.8.4.5, and SR 3.8.4.6

SR 3.8.4.3 requires verification that the battery cells, cell plates, and racks show no visual indication of physical damage or abnormal deterioration. SR 3.8.4.4 requires verification that battery cell to cell and terminal connections are coated with anti-corrosion material. SR 3.8.4.5 requires verification that battery connection resistance is maintained such that the voltage drop at the maximum expected service discharge current is within limits. SR 3.8.4.6 requires verification that each battery charger can supply the required current and voltage for 8 hours.



U. S. Nuclear Regulatory Commission  
3F0595-01  
Page 23

The frequency for these surveillances is being maintained at 18 months because the guidance of Generic Letter 91-04 is not applicable. Further, experience has shown that extension may not be prudent. This equipment is located outside containment and the surveillances can be safely performed while the plant is in operation.

## OTHER CHANGES

### Reactor Protection System (RPS) Instrumentation - SR 3.3.1.6

#### 7. Reactor Coolant Pump Power Monitor (RCPPM)

This change replaces the present Function with "Reactor Coolant Pumps" and replaces the motor power consumption values with "More Than One Pump Tripped." The watt transducers are not a part of the Reactor Protection System. The inputs to the RPS are simply a tripped/not tripped status indication. Any method of reliably developing this tripped/not tripped status would serve the function for input to the RPS. This change limits the scope of the specification to the function actually performed by the RPS.

#### 9. Main Turbine Trip

This change replaces the present Function with "Main Turbine" and replaces the control the oil pressure values with "Turbine Tripped." The pressure switches that monitor auto-stop oil pressure are not a part of the RPS. The inputs to the RPS are simply a tripped/not tripped status developed by pressure switches at the main turbine pedestal. Any method of reliably developing this tripped/not tripped status would serve the function for input to the RPS. This change limits the scope of the specification to the function actually performed by the RPS.

#### 10. Loss of Both Main Feedwater Pumps

This change replaces the present Function with "Main Feedwater Pumps" and replaces the control the oil pressure values with "Both Pumps Tripped." The pressure switches that monitor feedwater pump control oil pressure are not a part of the RPS. The inputs to the RPS are simply tripped/not tripped status indication developed by pressure switches on the feedwater pump turbines. Any method of reliably developing this tripped/not tripped status would serve the function for input to the RPS. This change limits the scope of the specification to the function actually performed by the RPS.

### Emergency Feedwater Initiation and Control (EFIC) System Instrumentation - SR 3.3.11.1

#### 1. Emergency Feedwater (EFW) Initiation

##### a. Loss of Main Feedwater (MFW) Pumps

This change replaces the Function with "EFW Initiation - Main Feedwater Pumps" and replaces the control the oil pressure values with "Both Pumps Tripped." The pressure switches that monitor feedwater pump control oil pressure are not a part of EFIC. The inputs to the EFIC are simply tripped/not tripped status indication developed by pressure switches on the feedwater pump turbines. Any method of reliably developing this tripped/not tripped status would serve the function for input to the RPS. This change limits the scope of the specification to the function actually performed by the EFIC.

Control Room Isolation - SR 3.3.16.3

This change removes the designation of "Allowable Value" from the high radiation setpoint for the control room ventilation system isolation. This setpoint is derived by engineering judgement and is not an input to any safety analysis or a limiting parameter to control dose to within safety analysis limits. As such, the setpoint is not an "Allowable Value" in the sense of a limiting safety system setting, as discussed in the Background section of the Bases for ITS 3.3.1. The setpoint at two times background provides a large margin to protect the assumptions in the dose analysis. A small increase in control room dose rates will be easily identified with a setpoint established at two times the short term background peak.

During a sample observation period of approximately five minutes, the background count rate indication varied between 15 and 40 counts per minute. Because of this variability, a precise measurement of background is not possible with the installed instrumentation. Too low a setpoint can result in spurious actuations, creating a distraction for control room operators. A setting in the range of two times the short term observed peak would provide greater assurance that spurious actuations would be avoided, while still assuring isolation would occur prior to challenging the assumptions of the control room dose analysis. Changing the wording to read "... with a setpoint of approximately two times background" instead of "Allowable Value" will allow that flexibility.

SHOLLY EVALUATION OF REQUEST:

Florida Power Corporation has reviewed the generic guidance from NRC Generic Letter 91-04 and accepted industry standards including Instrument Society of America (ISA) standard 67.04-1994, American Society of Testing and Materials (ASTM) standard E178-1980, American National Standards Institute (ANSI) standard N15.15-1974, American Society of Mechanical Engineers (ASME) OM Code - 1990, and NRC Regulatory Guide 1.105-1986. Thus, the methodologies used in this request are bounded by the evaluations done to produce this generic guidance. FPC has also reviewed the requirements of 10 CFR 50.92 as they relate to the proposed change to the refueling interval surveillance requirements and considers the proposed change not to involve a significant hazards consideration. In support of this conclusion, the following analysis is provided:

1. Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability of occurrence or the consequences of an accident previously evaluated. The proposed amendment extends the interval between successive refueling outage based surveillances to once every 24 months for those surveillances evaluated herein and, maintains the existing surveillance interval restriction for those systems and equipment not evaluated for extension. The reliability of systems and components relied upon to prevent or mitigate the consequences of accidents previously evaluated is not degraded beyond that obtained from the currently defined refueling outage interval. Assurance of system and equipment availability is maintained. This change does not involve any change to system or equipment configuration. Therefore, this change does not increase the probability of occurrence or the consequences of an accident previously evaluated.
2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed amendment extends the interval between successive refueling outage based surveillances to once every 24 months for those surveillances evaluated herein and maintains the existing surveillance interval restriction for those systems and equipment not evaluated for extension. This change does not involve any change to system or equipment configuration. Therefore, this change is unrelated to the possibility of creating a new or different kind of accident from any previously evaluated.
3. Operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety. The proposed amendment extends the interval between successive refueling outage based surveillances to once every 24 months for the surveillances evaluated herein, and maintains the existing surveillance interval restriction for those systems and equipment not evaluated for extension. The reliability of systems and components is not degraded beyond that obtained from the currently defined refueling outage interval. Assurance of system and equipment availability is maintained. Therefore, it is concluded that operation of the facility in accordance with the proposed amendment does not

involve a significant reduction in a margin of safety. The proposed extension of the refueling outage interval surveillances to once every 24 months does not degrade the reliability of systems and components beyond that obtained from the currently defined refueling outage interval. Reliable performance of the systems and equipment effected by this change has been demonstrated. Implementation of the proposed amendment will maintain the required level of assurance of system and equipment availability. The surveillance interval for systems and equipment that have not been evaluated for extension are excluded from this request. Thus, operation of the facility in accordance with the proposed amendment involves no significant hazards considerations.