

ATTACHMENT 1

TECHNICAL SPECIFICATION

Remove Page

4.1-7
4.1-8a
4.5-4
4.5-5

Insert Page

4.1-7
4.1-8a
4.5-4
4.5-5

9801260145 980115
PDR ADOCK 05000269
P PDR

Table 4.1-1 (CONTINUED)

| <u>Channel Description</u> | <u>Check</u> | <u>Test</u> | <u>Calibrate</u> | <u>Remarks</u> |
|---|--------------|-------------|------------------|--|
| 41. Engineered Safeguards Channel 1 HP Injection & Reactor Building Isolation Manual Trip | NA | RF | NA | Includes Reactor Building isolation of non-essential systems only. |
| 42. Engineered Safeguards Channel 2 HP Injection & Reactor Building Isolation Manual Trip | NA | RF | NA | Includes Reactor Building isolation of non-essential systems only. |
| 43. Engineered Safeguards Channel 3 LP Injection Manual Trip | NA | RF | NA | |
| 44. Engineered Safeguards Channel 4 LP Injection Manual Trip | NA | RF | NA | |
| 45. Engineered Safeguards Channel 5 RB Isolation & Cooling Manual Trip | NA | RF(1) | NA | Includes Reactor Building isolation of essential systems only. (1) A one-time extension of the test frequency to a maximum of 23 months is allowed for Oconee Unit 2 during operating cycle 16. |
| 46. Engineered Safeguards Channel 6 RB Isolation & Cooling Manual Trip | NA | RF(1) | NA | Includes Reactor Building isolation of essential systems only. (1) A one-time extension of the test frequency to a maximum of 23 months is allowed for Oconee Unit 2 during operating cycle 16. |
| 47. Engineered Safeguards Channel 7 Spray Manual Trip | NA | RF | NA | |
| 48. Engineered Safeguards Channel 8 Spray Manual Trip | NA | RF | NA | |

Oconee 1, 2, and 3

4.1-7

Amendment No. (Unit 1)
 Amendment No. (Unit 2)
 Amendment No. (Unit 3)

Table 4.1-1 (CONTINUED)

| <u>Channel Description</u> | <u>Check</u> | <u>Test</u> | <u>Calibrate</u> | <u>Remarks</u> |
|---|--------------|-------------|------------------|--|
| 55. Containment Pressure Monitor (PT-230, 231) | MO | NA | AN | TMI Item II.F.1.4 |
| 56. Containment Water Level Monitor-Wide Range (LT-90, -91) | MO | NA | RF | TMI Item II.F.1.5 |
| 57. Containment Hydrogen Monitor (MT-80,-81) | NA | MO | AN | TMI Item II.F.1.6 |
| 58. Wide Range Hot Leg Level | NA | RF(1) | RF(1) | (1) A one-time extension of the channel test and calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16. |
| 59. Reactor Vessel Head Level | NA | RF(1) | RF(1) | (1) A one-time extension of the channel test and calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16. |
| 60. Core Exit Thermocouples | MO | NA | RF(1) | (1) A one-time extension of the calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16. |
| 61. Subcooling Monitors | MO | RF(1) | RF(1) | (1) A one-time extension of the channel test and calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16. |

ES - Each Shift
 DA - Daily
 WE - Weekly
 MO - Monthly

QU - Quarterly
 AN - Annually
 PS - Prior to startup, if not performed previous week
 NA - Not Applicable
 RF - Refueling Outage
 STB - STAGGERED TEST BASIS

4.5.2 Reactor Building Cooling Systems

Applicability

Applies to testing of the Reactor Building Cooling Systems.

Objective

To verify that the Reactor Building Cooling Systems are operable.

Specification

4.5.2.1 System Tests

4.5.2.1.1 Reactor Building Spray System

- a.
 - (1) During each refueling outage, a system test shall be conducted to demonstrate proper operation of the system. A test signal will be applied to demonstrate actuation of the Reactor Building Spray System.
 - (2) The test will be considered satisfactory if visual observation and control board indication verifies that all components have responded to the actuation signal properly; the appropriate pump breakers shall have closed, and all valves shall have completed their travel.
- b. Station compressed air will be introduced into the spray headers to verify the availability of the headers and spray nozzles at least every ten years.

4.5.2.1.2 Reactor Building Cooling System

- a. During each refueling outage¹, a system test shall be conducted to demonstrate proper operation of the system. The test shall be performed in accordance with the procedure summarized below:
 - (1) A test signal will be applied to actuate the Reactor Building Cooling System for reactor building cooling operation.
 - (2) Verification of the engineered safety features function of the Low Pressure Service Water System which supplies coolant to the reactor building coolers shall be made to demonstrate operability of the coolers.
- b. The test will be considered satisfactory if control board indication verifies that all components have responded to the actuation signal properly, the appropriate valves have completed their travel, and fans are running at half speed.

Oconee 1, 2, and 3

4.5-4

Amendment No. (Unit 1)

Amendment No. (Unit 2)

Amendment No. (Unit 3)

¹A one-time extension of the Reactor Building Cooling system test frequency to a maximum of 23 months is allowed for Oconee Unit 2 during operating cycle 16.

Bases

The Reactor Building Coolant System and Reactor Building Spray System are designed to remove heat in the containment atmosphere to control the rate of depressurization in the containment. The peak transient pressure in the containment is not affected by the two heat removal systems.

The delivery capability of one reactor building spray pump at a time can be tested by opening the valve in the line from the borated water storage tank, opening the corresponding valve in the test line, and starting the corresponding pump. Pump discharge pressure and flow indication demonstrate performance.

With the pumps shut down and the borated water storage tank outlet closed, the reactor building spray injection valves can each be opened and closed by operator action. With the reactor building spray inlet valves closed, low pressure air or fog can be blown through the test connections of the reactor building spray nozzles to demonstrate that the flow paths are open.

The RB Spray system test required by Specification 4.5.2.1.1 verifies that the RB Spray pumps and valves respond as required to actuation of ES channels 7 and 8. In addition, this test verifies that LP-21, and LP-22 (BWST supply to the RB Spray pumps) respond as required to actuation of ES channels 7 and 8. The test required by Specification 4.5.3 verifies the containment heat removal capability of the RB Spray system (in conjunction with the LPI coolers and RBCUs).

The equipment, piping, valves, and instrumentation of the Reactor Building Cooling System are arranged so that they can be visually inspected. The cooling units and associated piping are located outside the secondary concrete shield. Personnel can enter the Reactor Building during power operations to inspect and maintain this equipment. The service water piping and valves out-side the Reactor Building are inspectable at all times. The reactor building fans are normally operated periodically, constituting the test that these fans are operable.

The RBCU system test required by Specification 4.5.2.1.2 verifies that the RBCU fans respond as required to actuation of ES channels 5 and 6. In addition, this test verifies that LPSW-18 (LPSW for "A" RBCU), LPSW-21, LPSW-565, and LPSW-566 (LPSW for "B" RBCU), and LPSW-24 (LPSW for "C" RBCU) respond as required to actuation of ES channels 5 and 6. The LPI system test required by Specification 4.5.1.1.2 verifies that the LPSW pumps respond as required to actuation of ES channels 3 and 4. The test required by Specification 4.5.3 verifies the containment heat removal capability of the RBCUs (in conjunction with the LPI coolers and RB Spray system).

REFERENCE

- (1) FSAR, Section 6

Oconee 1, 2, and 3

4.5-5

Amendment No. (Unit 1)
Amendment No. (Unit 2)
Amendment No. (Unit 3)

ATTACHMENT 2

TECHNICAL SPECIFICATION MARKUP

Table 4.1-1 (CONTINUED)

| <u>Channel Description</u> | <u>Check</u> | <u>Test</u> | <u>Calibrate</u> | <u>Remarks</u> |
|---|--------------|-------------|------------------|--|
| 41. Engineered Safeguards Channel 1 HP Injection & Reactor Building Isolation Manual Trip | NA | RF | NA | Includes Reactor Building isolation of non-essential systems only |
| 42. Engineered Safeguards Channel 2 HP Injection & Reactor Building Isolation Manual Trip | NA | RF | NA | Includes Reactor Building isolation of non-essential systems only |
| 43. Engineered Safeguards Channel 3 LP Injection Manual Trip | NA | RF | NA | |
| 44. Engineered Safeguards Channel 4 LP Injection Manual Trip | NA | RF | NA | |
| 45. Engineered Safeguards Channel 5 RB Isolation & Cooling Manual Trip | NA | RF(1) | NA | Includes Reactor Building isolation of essential systems only * Insert information on attached page |
| 46. Engineered Safeguards Channel 6 RB Isolation & Cooling Manual Trip | NA | RF(1) | NA | Includes Reactor Building isolation of essential systems only * Insert information on attached page |
| 47. Engineered Safeguards Channel 7 Spray Manual Trip | NA | RF | NA | |
| 48. Engineered Safeguards Channel 8 Spray Manual Trip | NA | RF | NA | |

4-1-7

A 92/92/89
1/28/81

Insert for Page 4.1-7

- (1) A one-time extension of the test frequency to a maximum of 23 months is allowed for Oconee Unit 2 during operating cycle 16.

Table 4.1-1 (CONTINUED)

| <u>Channel Description</u> | <u>Check</u> | <u>Test</u> | <u>Calibrate</u> | <u>Remarks</u> |
|---|--------------|-------------|------------------|--|
| 55. Containment Pressure Monitor (PT-230,231) | MO | NA | AN | TMI Item II.F.1.4 |
| 56. Containment Water Level Monitor-Wide Range (LT-90, -91) | MO | NA | RF | TMI Item II.F.1.5 |
| 57. Containment Hydrogen Monitor (MT-80, -81) | NA | MO | AN | TMI Item II.F.1.6 |
| 58. Wide Range Hot Leg Level | NA | RF(i) | RF(i) | Insert info in NOTE A on attached page Insert info in NOTE A on attached page Insert info in NOTE B on attached page Insert info in NOTE A on attached page |
| 59. Reactor Vessel Head Level | NA | RF(i) | RF(i) | |
| 60. Core Exit Thermocouples | MO | NA | RF(i) | |
| 61. Subcooling Monitors | MO | RF(i) | RF(i) | |

ES - Each Shift
 DA - Daily
 WE - Weekly
 MO - Monthly

QU - Quarterly
 AN - Annually
 PS - Prior to startup, if not performed previous week
 NA - Not applicable
 RF - Refueling Outage
 STB - STAGGERED TEST BASIS

Oconee Units 1, 2, and 3

4.1-8a

Amendment No. 199 (Unit 1)
 Amendment No. 199 (Unit 2)
 Amendment No. 196 (Unit 3)

Insert for Page 4.1-8a

NOTE A

- (1) A one-time extension of the channel test and calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.

NOTE B

- (1) A one-time extension of the calibration frequency to a maximum of 24 months is allowed for Oconee Unit 2 during operating cycle 16.

4.5.2 Reactor Building Cooling Systems

Applicability

Applies to testing of the Reactor Building Cooling Systems.

Objective

To verify that the Reactor Building Cooling Systems are operable.

Specification

4.5.2.1 System Tests

4.5.2.1.1 Reactor Building Spray System

- a. (1) During each refueling outage, a system test shall be conducted to demonstrate proper operation of the system. A test signal will be applied to demonstrate actuation of the Reactor Building Spray System.
- (2) The test will be considered satisfactory if visual observation and control board indication verifies that all components have responded to the actuation signal properly; the appropriate pump breakers shall have closed, and all valves shall have completed their travel.
- b. Station compressed air will be introduced into the spray headers to verify the availability of the headers and spray nozzles at least every ten years.

4.5.2.1.2 Reactor Building Cooling System

- a. During each refueling outage, a system test shall be conducted to demonstrate proper operation of the system. The test shall be performed in accordance with the procedure summarized below:
 - (1) A test signal will be applied to actuate the Reactor Building Cooling System for reactor building cooling operation.
 - (2) Verification of the engineered safety features function of the Low Pressure Service Water System which supplies coolant to the reactor building coolers shall be made to demonstrate operability of the coolers.
- b. The test will be considered satisfactory if control board indication verifies that all components have responded to the actuation signal properly, the appropriate valves have completed their travel, and fans are running at half speed.

Insert information on attached page
Bases

The Reactor Building Cooling System and Reactor Building Spray System are designed to remove heat in the containment atmosphere to control the rate of depressurization in the containment. The peak transient pressure in the containment is not affected by the two heat removal systems.

The delivery capability of one reactor building spray pump at a time can be tested

Insert for Page 4.5-4

¹A one-time extension of the Reactor Building Cooling system test frequency to a maximum of 23 months is allowed for Oconee Unit 2 during operating cycle 16.

by opening the valve in the line from the borated water storage tank, opening the corresponding valve in the test line, and starting the corresponding pump. Pump discharge pressure and flow indication demonstrate performance.

With the pumps shut down and the borated water storage tank outlet closed, the reactor building spray injection valves can each be opened and closed by operator action. With the reactor building spray inlet valves closed, low pressure air or fog can be blown through the test connections of the reactor building spray nozzles to demonstrate that the flow paths are open.

The RB Spray system test required by Specification 4.5.2.1.1 verifies that the RB Spray pumps and valves respond as required to actuation of ES channels 7 and 8. In addition, this test verifies that LP-21, and LP-22 (BWST supply to the RB Spray pumps) respond as required to actuation of ES channels 7 and 8. The test required by Specification 4.5.3 verifies the containment heat removal capability of the RB Spray system (in conjunction with the LPI coolers and RBCUs).

The equipment, piping, valves, and instrumentation of the Reactor Building Cooling System are arranged so that they can be visually inspected. The cooling units and associated piping are located outside the secondary concrete shield. Personnel can enter the Reactor Building during power operations to inspect and maintain this equipment. The service water piping and valves out-side the Reactor Building are inspectable at all times. The reactor building fans are normally operated periodically, constituting the test that these fans are operable.

The RBCU system test required by Specification 4.5.2.1.2 verifies that the RBCU fans respond as required to actuation of ES channels 5 and 6. In addition, this test verifies that LPSW-18 (LPSW for "A" RBCU), LPSW-21, LPSW-565, and LPSW-566 (LPSW for "B" RBCU), and LPSW-24 (LPSW for "C" RBCU) respond as required to actuation of ES channels 5 and 6. The LPI system test required by Specification 4.5.1.1.2 verifies that the LPSW pumps respond as required to actuation of ES channels 3 and 4. The test required by Specification 4.5.3 verifies the containment heat removal capability of the RBCUs (in conjunction with the LPI coolers and RB Spray system).

REFERENCE

- (1) FSAR, Section 6

No changes. For information only.

TECHNICAL JUSTIFICATION

Background

In preparation for the upcoming Oconee Unit 2 refueling outage, the testing and calibration requirements were reviewed to ensure compliance with the Technical Specifications. This review indicated that three instrument channel tests and four instrument calibrations were required to be completed prior to the upcoming Oconee Unit 2 refueling outage. In addition, the review indicated that the ES channels 5 and 6 test and the Reactor Building Cooling system test must be performed prior to the upcoming Oconee Unit 2 refueling outage.

An earlier review during the Oconee Unit 2 forced outage in May of 1997 resulted in the performance of numerous surveillances which had due dates prior to the projected Oconee Unit 2 refueling outage. However, the ICCM related instruments were coded incorrectly in the work management system and were not identified as needing to be performed during the May 1997 forced outage. A complete review of the work management system data is in progress to ensure that all other surveillance requirements are coded properly.

In the case of the ES channels 5 and 6 test and Reactor Building Cooling test, the earlier review of the surveillances that needed to be performed during the Oconee Unit 2 forced outage in May 1997 used a projected Oconee Unit 2 refueling outage date of March 10, 1998. At a later date, the Oconee Unit 2 refueling outage date was moved to March 13, 1998. This resulted in the need for an extension of the ES channels 5 and 6 test and Reactor Building Cooling test.

The additional background information for this amendment request is broken into two parts to address the Inadequate Core Cooling Monitor (ICCM) related instruments and the ES channels 5 and 6 test separately.

ICCM instruments

The Westinghouse Electric Corporation Inadequate Core Cooling Monitor (ICCM) is a redundant monitoring device. ICCM is designed to be used during a small break loss of coolant accident (LOCA), steam line break, and/or steam

ATTACHMENT 3

TECHNICAL JUSTIFICATION

generator tube failure when the operator has time to react to the event. ICCM is composed of three interrelated monitoring systems; Reactor Vessel Level Instrumentation System (RVLIS), Subcooling Margin Monitor (SMM), and Core Exit Thermocouple Monitor (CETC).

ICCM also serves as the processor for various Regulatory Guide 1.97 instruments. These instruments are used to determine Borated Water Storage Tank (BWST) level, Upper Surge Tank (UST) level, Pressurizer level/temperature, High Pressure Injection (HPI) flow, Low Pressure Injection (LPI) flow, Reactor Building Spray (RBS) flow, and Once Thru Steam Generator (OTSG) pressure. ICCM receives an input signal for each of these variables and provides an output signal to indicators, computer points, statalarms, and chart recorders.

Technical Specification Table 4.1-1 specifies the frequency and type of surveillance required for items related to safety. Technical Specification Table 4.1-1 items #58 (Wide Range Hot Leg Level), #59 (Reactor Vessel Head Level), and #61 (Subcooling Monitors) have a specified refueling outage channel test frequency. In addition, Technical Specification Table 4.1-1 items #58 (Wide Range Hot Leg Level), #59 (Reactor Vessel Head Level), #60 (Core Exit Thermocouples), and #61 (Subcooling Monitors) have a specified refueling outage calibration frequency. The maximum allowable interval for a refueling outage frequency is defined in Technical Specification 4.0.2 as 22 months and 15 days.

Several instrument procedures are utilized to satisfy the channel test and calibrate surveillance requirements of Technical Specification Table 4.1-1 items #58, #59, #60, and #61. The procedures which are used to test and calibrate the instruments are listed below:

| | | |
|---------------------------|---------------------|-------------------------|
| Wide Range Hot Leg Level | IP/0/A/0200/041A | Calibration Train A |
| | IP/0/A/0200/041B | Calibration Train B |
| | IP/1,2,3/A/0200/042 | Transmitter Calibration |
| Reactor Vessel Head Level | IP/0/A/0200/041A | Calibration Train A |
| | IP/0/A/0200/041B | Calibration Train B |
| | IP/1,2,3/A/0200/042 | Transmitter Calibration |
| Core Exit Thermocouple | IP/0/A/0200/041A | Calibration Train A |
| | IP/0/A/0200/041B | Calibration Train B |
| | IP/0/A/0200/041D | T/C Calibration |

ATTACHMENT 3

TECHNICAL JUSTIFICATION

| | | |
|------------|------------------|---------------------|
| Subcooling | IP/0/A/0200/041A | Calibration Train A |
| Monitor | IP/0/A/0200/041B | Calibration Train B |

In order to determine when the Technical Specification requirements must be performed, the previous performance date of the test or calibration is used to determine the refueling frequency date and associated grace period. This scheduling method results in an 18 month schedule that can be extended to 22 months and 15 days. Of the procedures listed above, the Technical Specification performance due dates are February 23, 1998 for IP/0/A/0200/041A, February 24, 1998 for IP/0/A/0200/041B, and February 27, 1998 for IP/0/A/0200/041D. The performance due dates, which are listed above, include the Technical Specification allowed grace period of up to 22 months and 15 days. All of these Technical Specification performance due dates are prior to the Unit 2 refueling outage start date which is tentatively scheduled to start on March 13, 1998.

ES channels 5 and 6

The Engineered Safeguards (ES) System is designed to function under accident conditions to reduce the severity of a serious loss of coolant accident (LOCA). When the system detects signals which possibly indicate a LOCA, the ES system automatically initiates action to: (1) provide emergency cooling to assure structural integrity of the core, (2) maintain the integrity of the reactor building, and (3) collect and filter any potential reactor building penetration leakage.

The ES system is divided into parts called sub-systems. The analog sub-system determines if the process variables and signals are not within normal values. Also, the analog sub-system allows the operator to bypass the parameter check when the process variables and signals will not meet the setpoint criteria, such as during start-up and shutdown. The digital sub-system receives the process decisions from the analog sub-system and provides the logic to be used for actuation of the plant systems. The digital sub-system provides for manual and automatic control of the components as well as automatic actuation in response to the analog sub-system.

There are three identical analog channels that monitor reactor coolant pressure, narrow range reactor building

ATTACHMENT 3

TECHNICAL JUSTIFICATION

pressure and wide range reactor building pressure. Each analog output is fed to the digital sub-system which is composed of eight digital channels. The eight digital channels are paired to form two digital groups, an odd and an even channel, with four functional channels. The paired odd and even channels are identical in function, but not identical in circuitry as each channel of the pair will accomplish the same function through different component paths. The eight digital channels function independently to accomplish their function. Each digital channel receives an input from all three analog channels. Any channel receiving 2 out of 3 trip signals on its analog input will actuate and activate the components for the ES function.

Technical Specification Table 4.1-1 specifies the frequency and type of surveillance required for items related to safety. Technical Specification Table 4.1-1 item #45 (Engineered Safeguards Channel 5 Reactor Building Isolation and Cooling Manual Trip), Table 4.1-1 item #46 (Engineered Safeguards Channel 6 Reactor Building Isolation and Cooling Manual Trip) and 4.5.2.1.2a Reactor Building Cooling System have a specified refueling outage test frequency. The maximum allowable interval between tests for a refueling outage frequency is defined in Technical Specification 4.0.2 as 22 months and 15 days.

Test procedure PT/2/A/0160/03 Component Test of ES Channels 5 and 6 is utilized to satisfy the test surveillance requirements of Technical Specification Table 4.1-1 item #45, Table 4.1-1 item #46, and 4.5.2.1.2a.

In order to determine when the Technical Specification testing must be performed, the previous performance date of the procedure is used to determine the refueling frequency date and associated grace period. This scheduling method results in an 18 month schedule that can be extended to 22 months and 15 days. The Technical Specification performance due date including the grace period for PT/2/A/0160/03 is March 12, 1998. This date is prior to the Unit 2 refueling outage start date which is tentatively scheduled to start on March 13, 1998.

TECHNICAL JUSTIFICATION

Description of Technical Specification Change

This Technical Specification amendment request involves changes to the ICCM instrument channel test and calibration frequency, to the ES channel 5 and 6 manual trip test frequency, and to the Reactor Building Cooling system test frequency. Additional information about the individual changes is provided in the following paragraphs.

In order to support the operation of Oconee Unit 2 to the scheduled refueling outage, a one-time extension of the channel tests for Technical Specification Table 4.1-1 items #58, #59, and #61 to a maximum of 24 months is necessary. In addition, a one-time extension of the calibration frequencies of Technical Specification Table 4.1-1 items #58, #59, #60, and #61 to a maximum of 24 months is necessary. This would be an extension of 1 month and 15 days to the current maximum Technical Specification frequency.

Additional changes to support the operation of Oconee Unit 2 to the scheduled refueling outage involve a one-time extension of the test frequencies of Technical Specification Table 4.1.1 item #45, Table 4.1.1 item #46, and 4.5.2.1.2a to a maximum of 23 months is necessary. This would be an extension of 15 days to the current Technical Specification test frequency.

Technical Justification

The Technical Justification for this amendment request is broken into two parts to address the ICCM related instruments and the ES channels 5 and 6 tests separately.

ICCM instruments

Procedure IP/0/A/0200/041A is used to calibrate and verify proper operation of the ICCM Train A wide range hot leg resistance temperature detectors (RTD), subcooling chart recorders, pump status digital inputs, analog card inputs, and power supplies. A review of the previous two performances of procedure IP/0/A/0200/041A did not indicate any adverse trends nor excessive drift. In fact, the as found data were well within the specified tolerance of the

ATTACHMENT 3

TECHNICAL JUSTIFICATION

procedure. Thus, a one-time extension of the channel test and calibration frequency to a maximum of 24 months should not result in any instrument drift outside of the allowed tolerance.

Procedure IP/0/A/0200/041B is used to calibrate and verify proper operation of the ICCM Train B wide range hot leg RTD, pump status digital inputs, analog card inputs, and power supplies. A review of the previous two performances of procedure IP/0/A/0200/041B did not indicate any adverse trends nor excessive drift. In fact, the as found data were well within the specified tolerance of the procedure. Thus, a one-time extension of the channel test and calibration frequency to a maximum of 24 months should not result in any instrument drift outside of the allowed tolerance.

Procedure IP/0/A/0200/041D is used to reduce the uncertainty in the core exit thermocouples. Unlike the wide range hot leg RTD, the core exit thermocouples are not precision temperature measuring devices. Thermocouples are generic devices whose response to temperature is characterized by a universal set of polynomial coefficients established by the National Bureau of Standards. In order to improve the accuracy of these devices, the core exit thermocouples temperature indications are compared against the wide range hot leg RTD temperature indication at different temperature plateaus during unit startup operations. The difference between the thermocouple temperature indication and hot leg RTD temperature indication is typically less than 3F (0.13%). The difference in temperature indications is used to calculate new polynomial coefficients that improve the accuracy of the core exit thermocouples. A review of the previous two performances of procedure IP/0/A/0200/041D did not indicate any adverse trends nor excessive adjustment to the core exit thermocouples coefficients. Thus, a one-time extension of the calibration frequency to a maximum of 24 months should not result in any instrument drift outside of the allowed tolerance.

In addition to the review of the previous test and calibration results, the manufacturer's documents related to the ICCM instrumentation were reviewed to determine the affects of increasing the calibration interval. During the review, no significant increase in the instrumentation drift was identified due to a one-time extension of the calibration frequency to 24 months.

ATTACHMENT 3

TECHNICAL JUSTIFICATION

Another item which was reviewed as part of the surveillance extension was the RVLIS uncertainty calculation. The calculation indicates that the RVLIS uncertainty is within the design criteria of +/- 6.0 percent of span. Instrumentation drift in the calculation assumes an 18 month calibration interval and is based on manufacturer data, vendor testing, and Westinghouse operating experience. Based on the operating characteristics of the RVLIS instrumentation, the one-time extension of the calibration interval to a maximum of 24 months is bounded by the design criteria.

As part of the review to determine the acceptability of this amendment request, operating experience was reviewed to verify that no drift concerns or adverse effects would result from the one-time extension. This review indicated that the one-time extension requested for the ICCM related instruments should not result in any adverse effects or drift concerns for the ICCM.

In summary, the Oconee Unit 2 ICCM has demonstrated reliable and accurate operation during the previous two performances of the channel tests and calibrations. There are no indications that would suggest a potential failure with any component associated with the ICCM. Based on the ICCM past performance and the short duration of the extension it is reasonable to conclude that no adverse effects in ICCM operation should occur as a result of this extension.

ES channels 5 and 6

Procedure PT/2/A/0160/03 is used to demonstrate operability of ES digital channels 5 and 6 and to verify Low Pressure Service Water (LPSW) flow to the Reactor Building Cooling Units (RBCU) on ES actuation. The ES system testing does not involve testing of any instrumentation or calibration of any instrumentation. Thus, instrumentation drift is not a concern that is related to this one-time extension of the ES channel 5 and 6 testing frequency. The procedure criteria require verification that the proper ES system indication is received and the ES channel 5 and 6 components move to their ES position.

A review of the previous three performances of procedure PT/2/A/0160/03 did not indicate any adverse trends. All testing criteria were met without corrective measures of any

ATTACHMENT 3

TECHNICAL JUSTIFICATION

type being necessary. Therefore, a one-time extension of the testing frequency to a maximum of 23 months should not result in any adverse situations.

Procedure PT/2/A/0160/03 was revised to incorporate procedures IP/0/A/0310/007C and IP/0/A/0310/008C which demonstrated operability of ES digital channels 5 and 6, respectively. Procedure PT/2/A/0160/03 has only been performed once since that revision. For this reason, the last two PMs for procedures IP/0/A/0310/007C and IP/0/A/0310/008C were also reviewed to ensure that all acceptance criteria were met and no adverse trends were indicated. All testing criteria were met without event which also supports a one-time extension of the testing frequency to a maximum of 23 months for procedure PT/2/A/0160/03.

In summary, Oconee Unit 2 ES channels 5 and 6 and the Reactor Building Cooling system have demonstrated reliable and accurate operation during the previous three performances of the testing surveillances. If the surveillance frequency was extended to a maximum of 23 months, there are no indications in the previous tests that would suggest a potential failure would occur with any component involved with the test. Based on past performance and the short duration of the extension, it is reasonable to conclude that no adverse affects in the ES system and Reactor Building Cooling system operation should occur as a result of this extension.

Based on the information provided in this attachment and the Bases of the Technical Specifications, Duke Energy Corporation concludes that the proposed amendment will not present an undue risk to public health and safety.

ATTACHMENT 4

NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

This proposed change has been evaluated against the standards in 10 CFR 50.92 and has been determined to involve no significant hazards, in that operation of the facility in accordance with the proposed amendment would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated?

No. A review of the previous two instrument channel tests and calibrations for the instruments discussed in the amendment request concluded that no adverse effects should occur as a result of the one-time extension. The ICCM should be available to perform its intended function during the requested extension period. Thus, the probability and consequences of an accident previously evaluated will not be significantly increased.

In addition, a review of the previous ES channel 5 and 6 manual trip test and Reactor Building Cooling system test that are discussed in the amendment request concluded that no adverse effects should occur as a result of the one-time extension. ES channels 5 and 6 and the Reactor Building Cooling system should be available to perform their intended function during the requested extension period. Thus, the probability and consequences of an accident previously evaluated will not be significantly increased.

2. Create the possibility of a new or different kind of accident from the accidents previously evaluated?

No. Since the one-time extension should not cause any adverse effects on the ICCM, ES channels 5 and 6, or Reactor Building Spray system, a new or different kind of accident from the accidents which were previously evaluated will not occur. The ICCM, ES channels 5 and 6, and Reactor Building Cooling system, should be available to perform their intended function during the requested extension period.

3. Involve a significant reduction in a margin of safety?

No. The margin of safety will not be significantly reduced by this amendment request because the ICCM, ES channels 5 and 6, and Reactor Building Cooling system, should be available to perform their intended function during the requested extension period. In addition, the review of the previous tests and calibrations which are discussed in the amendment request concluded that

ATTACHMENT 4

NO SIGNIFICANT HAZARDS CONSIDERATION EVALUATION

no adverse affects should occur as a result of the one-time extension.

Duke has concluded based on the above information that there are no significant hazards involved in this amendment request.

ATTACHMENT 5

ENVIRONMENTAL IMPACT ANALYSIS

Pursuant to 10 CFR 51.22 (b), an evaluation of the proposed amendment has been performed to determine whether or not it meets the criteria for categorical exclusion set forth in 10 CFR 51.22 (c) 9 of the regulations. The proposed amendment does not involve:

- 1) A significant hazards consideration.

This conclusion is supported by the determination of no significant hazards.

- 2) A significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

This amendment will not change the types or amounts of any effluents that may be released offsite.

- 3) A significant increase in the individual or cumulative occupational radiation exposure.

This amendment will not increase the individual or cumulative occupational radiation exposure.

In summary, this amendment request meets the criteria set forth in 10 CFR 51.22 (c) 9 of the regulations for categorical exclusion from an environmental impact statement.