Entergy

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December 14, 2004

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

SUBJECT: Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
Docket No. 50-293
License No. DPR-35

Technical Specifications Amendment Request to Reflect Surveillance Frequency Improvements

REFERENCE: NUREG 1433, Standard Technical Specifications for General Electric Plants, BWR/4, Revision 3

LETTER NUMBER: 2.04.087

Dear Sir or Madam:

Pursuant to 10CFR50.90, Entergy Nuclear Operations Inc. (Entergy) hereby proposes to amend its Facility Operating License, DPR-35. This proposed license amendment would remove the additional requirement to perform functional testing of the Average Power Range Monitor (APRM) and Anticipated Transient Without Scram (ATWS) Recirculation Pump Trip (RPT) / Alternate Rod Insertion (ARI) instrumentation on each startup, even when the nominally required quarterly testing is current. Additionally, performance of the APRM High Flux heat balance calibration is modified to apply only after 12 hours at $\geq$ 25% power. Additional editorial clarifications related to Table 4.2.A through 4.2.G, Note 2 and associated Table references are also proposed.

These changes are consistent with Standard Technical Specifications (NUREG-1433, Revision 3) and changes previously approved by the NRC for other boiling water reactors. Entergy has reviewed the proposed amendment in accordance with 10CFR50.92 and concludes it does not involve a significant hazards consideration.

Entergy requests approval of the proposed amendment by December 30, 2005. Once approved, the amendment shall be implemented within 60 days. There are no commitments contained in this letter.

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If you have any questions or require additional information, please contact Bryan Ford at (508) 830-8403.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 14th day of December, 2004.

Sincerely,

Michael A. Balduzzi

ES/dm
Enclosure: Evaluation of the proposed change – 6 pages
Attachments: 1. Proposed Technical Specification (mark-up) – 7 pages

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ENCLOSURE

EVALUATION OF THE PROPOSED CHANGE

ENCLOSURE

Evaluation of the Proposed Change

Subject: Surveillance Frequency Improvements

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1. Description

Entergy Nuclear Operations, Inc. (Entergy) is requesting to amend Operating License DPR-35 for Pilgrim Nuclear Power Station (PNPS). The proposed changes would revise the Operating License, Technical Specifications (TS) to improve various surveillance frequency requirements for consistency with the BWR/4 Standard Technical Specifications, NUREG-1433. The proposed changes would remove the additional requirement to perform functional testing of the Average Power Range Monitor (APRM) and Anticipated Transient Without Scram (ATWS) Recirculation Pump Trip (RPT) / Alternate Rod Insertion (ARI) instrumentation on each startup, even when the nominally required quarterly testing is current. Additionally, the applicability of the APRM High Flux heat balance calibration is modified to apply only after 12 hours at $\geq$ 25% power. Editorial clarifications related to Table 4.2.A through 4.2.G, Note 2 and associated Table references are also proposed.

In conjunction with providing greater consistency with the BWR/4 Standard Technical Specifications, these changes will eliminate unnecessary testing that could potentially delay unit startup or return to full power. As such, Entergy considers these changes to be cost-beneficial licensing actions, and requests approval of the proposed amendment by December 30, 2005.

2. Proposed Changes

2.1 TS Table 4.1.1, page 3/4.1-5, APRM High Flux, Minimum Frequency, delete reference to Note "(7)" and delete Note 7 in the Notes for Table 4.1.1, page 3/4.1-6. Table 4.1.1 presentation of "Deleted" Note 6 is also editorially removed.

2.2 TS Table 4.1.2, page 3/4.1-7, APRM High Flux Output Signal, Calibration Test, "Heat Balance," add a reference to Note "(8)" and in the Notes for Table 4.1.2, page 3/4.1-8, add Note 8 stating: "Not required to be performed until 12 hours after thermal power is $\geq$ 25% rated thermal power."

2.3 TS Table 4.2.D, page 3/4.2-36, Instrument Check, delete reference to Note "(2)."

2.4 TS Table 4.2.G, page 3/4.2-39, delete each of three references to Note "(2)."

2.5 Notes for Tables 4.2.A Through 4.2.G, page 3/4.2-41, delete the first two sentences and the last sentence of Note 2, such that Note 2 reads: "Calibration of IRMs and SRMs shall be performed during each startup or during controlled shutdowns with a frequency not to exceed once per week."

3. Background

For several years, NRC and industry representatives have sought to develop guidelines for improving the content and quality of nuclear power plant TS. On February 6, 1987, the Commission issued an interim policy statement on TS improvements, "Interim Policy Statement on Technical Specification Improvements for Nuclear Power Reactors" (52 FR 3788). During the period from 1989 to 1992, the utility owners groups and the NRC staff developed improved Standard TS (e.g., NUREG-1433) that established models of the Commission's policy for TS content. In addition, the NRC staff, licensees, and owners groups developed generic administrative and editorial guidelines in the form of a "Writer's Guide" for preparing TS, which gives greater consideration to human factors principles and was used throughout the development of licensee-specific ITS. In September 1992, the Commission issued NUREG-1433, Revision 0, which was developed using the guidance and criteria contained in the Commission's Interim Policy Statement. The Standard TS in NUREG-1433 were

established as a model for developing BWR/4 TS. NUREG-1433 reflects the results of a detailed review of the application of the interim policy statement criteria to generic system functions, which were published in a "Split Report" issued to the nuclear steam system supplier owners groups in May 1988. NUREG-1433 also reflect the results of extensive discussions concerning various drafts of STS, so that the application of the TS criteria and the Writer's Guide would consistently reflect detailed system configurations and operating characteristics for BWR/4 reactor designs. As such, the generic Bases presented in NUREG-1433 provide an abundance of information regarding the extent to which the STS present requirements that are necessary to protect public health and safety.

On July 22, 1993, the Commission issued its Final Policy Statement, expressing the view that satisfying the guidance in the policy statement also satisfies Section 182a of the Act and 10 CFR 50.36 (58 FR 39132). The Final Policy Statement described the safety benefits of the Standard TS, and encouraged licensees to use the Standard TS as the basis for plant-specific TS amendments, and for complete conversions to ITS based on the STS. Further, the Final Policy Statement gave guidance for evaluating the required scope of the TS and defined the guidance criteria to be used in determining which of the Specifications and associated surveillance requirements should remain in the TS.

Many generic improvements are promulgated in NUREG-1433. For example, NUREG-1433 reflects the elimination of requirements that surveillances be completed at an interval shorter than the normal surveillance interval just prior to or during plant startup. The normal (e.g., weekly or quarterly) surveillance frequency provides reasonable assurance that the affected equipment is functioning properly. The NRC has determined that the removal of the situational surveillance frequencies in these cases will have a negligible impact on safety.

Additionally, amendment No. 147 to the Pilgrim TS was approved on March 25, 1993, which in part, extended channel functional test intervals for the APRM channels from 1 month to 3 months. The technical basis for this change was General Electric Topical Report NEDC-30851P, "Technical Specification Improvement Analysis for BWR Reactor Protection Systems."

4. Technical Analysis

4.1 TS Table 4.1.1, Note 7, is applied to APRM High Flux, Minimum Frequency of "every 3 months" for the Functional Test and requires additional testing "within 24 hours after entering RUN mode, if not performed within the previous seven days." The normal periodic frequency is accepted for routine operations, but Note 7 also imposes an additional performance within a brief window during or prior to a plant startup -- often on startup critical path.

The proposed change eliminates the requirement that functional testing be performed within a brief window associated with a plant startup. This will allow the verifications to continue to be performed at their normal periodic frequency. This change is acceptable because the operability requirements for APRM instruments are unchanged and the normal periodic testing frequency provides reasonable assurance that the affected equipment is functioning properly. If any surveillance has not been performed within its normal required interval, startup may not commence. This provides reasonable assurance that the affected equipment is functioning properly prior to and during startup.

Additionally, amendment No. 147 to the Pilgrim TS was approved on March 25, 1993, which in part, extended channel functional test intervals for the APRM channels from 1 month to 3 months. The technical basis for this change was General Electric Topical Report

NEDC-30851P, "Technical Specification Improvement Analysis for BWR Reactor Protection Systems." The surveillance frequency assumed for these evaluations did not assume the functional testing of "within 24 hours after entering RUN mode, if not performed within the previous seven days." As such, that analysis continues to bound the testing frequency after the deletion of the requirement that functional testing be performed within a brief window associated with a plant startup.

In various approvals of Amendments to adopt the latest Standard TS consistent with NUREG-1433, the NRC has determined that the removal of the situational surveillance frequencies, such as these cases, will have a negligible impact on safety. The corresponding channel functional test surveillance requirement (SR) in NUREG-1433 is SR 3.3.1.1.7 for the APRM High Flux channels. This SR requires only a normal periodic frequency, and does not include a "startup" related situational surveillance frequency.

4.2 The APRM channels receive input signals from the local power range monitors (LPRMs) within the reactor core to provide an indication of the power distribution and local power changes. The APRM channels average these LPRM signals to provide a continuous indication of average reactor power from a few percent to greater than rated thermal power. To ensure that the APRMs are accurately indicating the true core average power, the APRMs are calibrated to the reactor power calculated from a heat balance, as required by TS Table 4.1.2 for the APRM High Flux channels. As stated in the Bases, the frequency of once every 3 days is based on minor changes in LPRM sensitivity, which could affect the APRM reading between calibrations.

However, at low reactor power levels LPRM sensitivity and the averaging of these readings does not allow for consistent or accurate representations of absolute power level readings. Furthermore, at low power levels the plant parameter readings used to perform the heat balance are indicating at the low end of the associated scale where inherent inaccuracies introduce greater resultant uncertainties, and thus do not provide a high degree of accuracy on which to base calibrations. Additionally, having the main turbine offline and extraction steam not providing the appropriate feedwater heating (the turbine is generally placed online between 15% and 25% power) also introduces large inaccuracies. Because it is difficult to accurately maintain APRM indication of core thermal power consistent with a heat balance at these low power levels, this calibration is not required for the "APRM High Flux (15%)" trip. When less than 15% power, Pilgrim TS currently accept that the APRM accuracy is adequately maintained by its last at-power calibration adjustment. NRC guidance in Standard TS (NUREG-0123 and NUREG-1433) has recognized an allowance to apply the heat balance calibration only when $\geq$ 25% power. As such, an exception is proposed for the Pilgrim TS to require the heat balance calibration only at $\geq$ 25% rated thermal power. TS Table 4.1.2, APRM High Flux Output Signal, Calibration Test, adds a reference to Note "(8)" to the "Heat Balance" requirement, and in the Notes for Table 4.1.2, adds Note 8 stating: "Not required to be performed until 12 hours after thermal power is $\geq$ 25% rated thermal power."

At low power levels, a high degree of accuracy is unnecessary because of the large, inherent margin to fuel thermal limits. Once operating at $\geq$ 25% power, the heat balance calibration is required to have been satisfactorily performed every three days. Note 8 allows initially deferring the calibration until 12 hours after reaching or exceeding 25% power. Twelve hours is based on industry operating experience and in consideration of providing a reasonable time in which to complete the SR. This allowance is consistent with NUREG-1433, SR 3.3.1.1.2 (with the exception that SR 3.3.1.1.2 is only required once every seven days).

4.3 Note 2 for Tables 4.2.A through 4.2.G specifies, in part: "instrument checks shall be performed at least once per day during those periods when the instruments are required to be operable." The Instrument Check column for TS Table 4.2.D requires a "once/day" frequency, as well as being annotated with Note 2. As such, the Note 2 reference is repetitive for specifying the required instrument check frequency. The definition of SURVEILLANCE INTERVAL encompasses the allowance that surveillance requirements are only required during those periods when the instruments are required to be operable. Therefore, eliminating reference to Note 2 in Table 4.2.D has no impact on requirements and is an editorial change only.

4.4 TS Table 4.2.G Instrument Functional Test requirements for ATWS RPT/ARI apply both Note 1 and Note 2. Note 1 requires test intervals "not less than one month nor more than three months"; while Note 2 requires that "Functional tests shall be performed before each startup with a required frequency not to exceed once per week." The normal periodic frequency of Note 1 is accepted for routine operations, but Note 2 also imposes an additional performance within a brief window during or prior to a plant startup, often on startup critical path.

The proposed changes eliminate the requirement that functional testing be performed within a brief window associated with a plant startup. This will allow the verifications to continue to be performed at their normal periodic frequency. This change is acceptable because the operability requirements for APRM and for ATWS RPT/ARI instruments are unchanged and the normal periodic testing frequency provides reasonable assurance that the affected equipment is functioning properly. If any surveillance has not been performed within its normal required interval, startup may not commence. This provides reasonable assurance that the affected equipment is functioning properly prior to and during startup.

In various approvals of Amendments to adopt the latest Standard TS consistent with NUREG-1433, the NRC has determined that the removal of the situational surveillance frequencies, such as these cases, will have a negligible impact on safety. The corresponding channel functional test SR in NUREG-1433 is SR 3.3.4.2.2 for the ATWS channels. This SR requires only a normal periodic frequency, and does not include a "startup" related situational surveillance frequency.

TS Table 4.2.G Calibration requirements for ATWS RPT/ARI apply both Note 7 and Note 2. Note 7 requires test intervals "each refueling outage." Note 2 contains only calibration information for the intermediate range monitors and source range monitors ("IRMs and SRMs") and has no impact on ATWS RPT/ARI testing.

TS Table 4.2.G Instrument Check requirement requires a "once/day" frequency, as well as being annotated with Note 2. Similarly, as noted in section 4.3 above, the Note 2 reference is repetitive for specifying the required instrument check frequency. The definition of SURVEILLANCE INTERVAL encompasses the allowance that surveillance requirements are only required during those periods when the instruments are required to be operable.

Therefore, eliminating reference to Note 2 in Table 4.2.G has no impact on testing requirements and reflects an editorial change only.

4.5 Based on the above changes, Note 2 for Tables 4.2.A through 4.2.G remains applicable only to the Calibration Frequency for the Neutron Monitoring channels in Table 4.2.F. The first two sentences and the last sentence of Note 2 address Function Tests and Instruments Checks – not Calibrations. The first sentence of Note 2 provides an exception for testing when instruments are not required to be operable or are tripped. However, the definition of SURVEILLANCE INTERVAL encompasses these exceptions in that surveillance requirements

are only required during those periods when the instruments are required to be operable. Therefore, eliminating the first two sentences and the last sentence of Note 2 has no impact on the neutron monitoring calibration requirements in Table 4.2.F and reflects an editorial change only.

5. Regulatory Safety Analysis

5.1 No Significant Hazards Consideration

Entergy Nuclear Operations, Inc. (Entergy) is proposing to modify the Pilgrim Nuclear Power Station Technical Specifications (TS) to remove the additional requirement to perform functional testing of the Average Power Range Monitor (APRM) and Anticipated Transient Without Scram (ATWS) Recirculation Pump Trip (RPT) / Alternate Rod Insertion (ARI) instrumentation on each startup, even when the nominally required quarterly testing is current. Additionally, the applicability of the APRM High Flux heat balance calibration is modified to apply only after 12 hours at $\geq$ 25% power. Additional editorial clarifications related to Table 4.2.A through 4.2.G, Note 2 and associated Table references are also proposed.

Entergy has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No. The proposed changes to eliminate startup-related functional testing, even when the nominally required quarterly testing is current, will not result in a significant increase in the probability or consequences of an accident previously evaluated because there is no change to the requirement that the instrument channels remain operable and are periodically tested throughout the time that the associated function is required. The surveillance continues to be performed at the normal frequency and the normal surveillance frequency has been shown, based on operating experience, to be adequate for assuring that required conditions are established and maintained.

   Delaying the APRM heat balance calibration until conditions allow for accurate results will not result in a significant increase in the probability or consequences of an accident previously evaluated because there is no change to the requirement that the instrument channels remain operable. The ability of the APRMs to adequately respond to power excursions from < 25% that assume an APRM trip at 120% is not significantly impacted by deferring the APRM-to-heat balance calibration from the currently required 15% power, until the proposed 12 hours after $\geq$ 25% power. Additional editorial changes have no technical or operational impact.

   Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No. The proposed change does not involve any physical alteration of plant equipment and does not change the method by which any safety-related system performs its function. As such, no new or different types of equipment will be installed, and the basic operation of installed equipment is unchanged. The methods governing plant operation and testing remain consistent with current safety analysis assumptions.

   Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

   Response: No. The proposed changes do not negate any existing equipment or system performance requirements, and do not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analysis. As such, there are no changes being made to safety analysis assumptions, safety limits or safety system settings that would adversely affect plant safety as a result of the proposed change.

   Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, Pilgrim concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.2 Environmental Consideration

A review has determined that the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need to be prepared in connection with the proposed amendment.

6. Precedents

The NRC has approved similar changes in a number of amendments that approved complete conversion of the facility's TS to the NUREG-1433 Standard TS format and content. An example includes LaSalle County Station, Units 1 and 2, Amendment Nos.147 and 133, respectively, dated March 30, 2001.

7. References

1. NUREG-1433, Rev. 3, "Standard Technical Specifications, General Electric Plants, BWR/4"

2. LaSalle County Station, Units 1 and 2, Amendment Nos.147 and 133, respectively, dated March 30, 2001.

ATTACHMENT 1

PROPOSED TECHNICAL SPECIFICATION AND BASES

CHANGES (MARK-UP)

PNPS TABLE 4.1.1

REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENTATION FUNCTIONAL TESTS

MINIMUM FUNCTIONAL TEST FREQUENCIES FOR SAFETY INSTRUMENTATION AND CONTROL CIRCUITS

	Functional Test	Minimum Frequency (3)
Mode Switch in Shutdown	Place Mode Switch in Shutdown	Each Refueling Outage
Manual Scram	Trip Channel and Alarm	Every 3 Months
RPS Channel Test Switch (5)	Trip Channel and Alarm	Once per week
IRM		
High Flux	Trip Channel and Alarm (4)	Once Per Week During Refueling and Before Each Startup
Inoperative	Trip Channel and Alarm	Once Per Week During Refueling and Before Each Startup
APRM		
High Flux	Trip Output Relays (4)	Every 3 Months (17)
Inoperative	Trip Output Relays (4)	Every 3 Months
Flow Bias	Trip Output Relays (4)	Every 3 Months
High Flux (15%)	Trip Output Relays (4)	Once Per Week During Refueling and Before Each Startup
High Reactor Pressure	Trip Channel and Alarm (4)	Every 3 Months
High Drywell Pressure	Trip Channel and Alarm (4)	Every 3 Months
Reactor Low Water Level	Trip Channel and Alarm (4)	Every 3 Months
High Water Level in Scram Discharge Tanks	Trip Channel and Alarm (4)	Every 3 Months
Main Steam Line Isolation Valve Closure	Trip Channel and Alarm	Every 3 Months
Turbine Control Valve Fast Closure	Trip Channel and Alarm	Every 3 Months
Turbine First Stage Pressure Permissive	Trip Channel and Alarm (4)	Every 3 Months
Turbine Stop Valve Closure	Trip Channel and Alarm	Every 3 Months
Reactor Pressure Permissive	Trip Channel and Alarm (4)	Every 3 Months

NOTES FOR TABLE 4.1.1

1. Deleted

2. Deleted

3. Functional tests are not required when the systems are not required to be operable or are tripped.

   If tests are missed, they shall be performed prior to returning the systems to an operable status.

4. This instrumentation is exempted from the instrument channel test definition. This instrument channel functional test will consist of injecting a simulated electrical signal into the measurement channels.

5. Test RPS channel after maintenance.

~~6. Deleted~~

~~7. This APRM testing will be performed once every 3 months when in the RUN mode and within 24 hours after entering RUN mode, if not performed within the previous seven days.~~

PNPS TABLE 4.1.2

REACTOR PROTECTION SYSTEM (SCRAM) INSTRUMENT CALIBRATION

MINIMUM CALIBRATION FREQUENCIES FOR REACTOR PROTECTION INSTRUMENT CHANNELS

Instrument Channel	Calibration Test (5)	Minimum Frequency (2)
IRM High Flux	Comparison to APRM on Controlled Shutdowns	Note (4)
	Full Calibration	Once per Operating Cycle
APRM High Flux Output Signal	Heat Balance (8)	Once every 3 Days
Flow Bias Signal	Calibrate Flow Comparator and Flow Bias Network	At least once every 18 Months
	Calibrate Flow Bias Signal (1)	Every 3 Months
LPRM Signal	TIP System Traverse	Every 1000 Effective Full Power Hours
High Reactor Pressure	Note (7)	Note (7)
High Drywell Pressure	Note (7)	Note (7)
Reactor Low Water Level	Note (7)	Note (7)
High Water Level in Scram Discharge Tanks	Note (7)	Note (7)
Main Steam Line Isolation Valve Closure	Note (6)	Note (6)
Turbine First Stage Pressure Permissive	Note (7)	Note (7)
Turbine Control Valve Fast Closure	Standard Pressure Source	Every 3 Months
Turbine Stop Valve Closure	Note (6)	Note (6)
Reactor Pressure Permissive	Note (7)	Note (7)

NOTES FOR TABLE-4.1.2

1. Adjust the flow bias trip reference, as necessary, to conform to a calibrated flow signal.
2. Calibration tests are not required when the systems are not required to be operable or are tripped.
3. Deleted.
4. Maximum frequency required is once per week.
5. Response time is not a part of the routine instrument channel test, but will be checked once per operating cycle.
6. Physical inspection and actuation of these position switches will be performed during the refueling outages.
7. Calibration of these devices will be performed during refueling outages.

   To verify transmitter output, a daily instrument check will be performed. Calibration of the associated analog trip units will be performed concurrent with functional testing as specified in Table 4.1.1.

8. Not required to be performed until 12 hours after thermal power is ≥ 25% rated thermal power.

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TABLE 4.2.D

MINIMUM TEST AND CALIBRATION FREQUENCY FOR RADIATION MONITORING SYSTEMS

	Instrument Channels	Instrument Functional Test	Calibration	Instrument Check (2)
1)	Refuel Area Exhaust Monitors - Upscale	(1)	Once/3 months	Once/day
2)	Refuel Area Exhaust Monitors - Downscale	(1)	Once/3 months	Once/day

Logic System Functional Test (4) (6)	Frequency
1) Reactor Building Isolation	Once/Operating Cycle
2) Standby Gas Treatment System Actuation	Once/Operating Cycle

PNPS
TABLE 4.2.G

MINIMUM TEST AND CALIBRATION FREQUENCY FOR ATWS RPT/ARI INSTRUMENTATION

Instrument Channel	Instrument Functional Test (2)	Calibration (2)	Instrument Check (2)
1. Reactor High Pressure	(1) (7)	(7)	Once/day
2. Reactor Low-Low Water Level	(1) (7)	(7)	Once/day

NOTES FOR TABLES 4.2.A THROUGH 4.2.G

1. Initially once per month until exposure hours (M as defined on Figure 4.2-1) is 2.0×10^5; thereafter, according to Figure 4.2-1 with an interval not less than one month nor more than three months.

2. Functional tests, calibrations and instrument checks are not required when these instruments are not required to be operable or are tripped. Functional tests shall be performed before each startup with a required frequency not to exceed once per week. Calibrations of IRMs and SRMs shall be performed during each startup or during controlled shutdowns with a required frequency not to exceed once per week. Instrument checks shall be performed at least once per day during those periods when the instruments are required to be operable.

3. Deleted.

4. Simulated automatic actuation shall be performed once each operating cycle. Where possible, all logic system functional tests will be performed using the test jacks.

5. Reactor low water level and high drywell pressure are not included on Table 4.2.A since they are tested on Tables 4.1.1 and 4.1.2.

6. The logic system functional tests shall include a calibration of time delay relays and timers necessary for proper functioning of the trip systems.

7. Calibration of analog trip units will be performed concurrent with functional testing. The functional test will consist of injecting a simulated electrical signal into the measurement channel. Calibration of associated analog transmitters will be performed each refueling outage.