



**CENTERIOR
ENERGY**

PERRY NUCLEAR POWER PLANT

10 CENTER ROAD
PERRY, OHIO 44081
(216) 259-3737

Mail Address
PO. BOX 97
PERRY, OHIO 44081

Michael D. Lyster
VICE PRESIDENT - NUCLEAR

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U.S. Nuclear Regulatory Commission
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Washington, D. C. 20555

Perry Nuclear Power Plant
Docket No. 50-440
Technical Specification Change Request:
Reactor Protection System Instrumentation,
Control Rod Block Instrumentation and
Source Range Monitors Instrumentation

Gentlemen:

In accordance with 10CFR50.90, enclosed is a request for amendment of Facility Operating License NPF-58 for the Perry Nuclear Power Plant (PNPP) Unit 1. In accordance with the requirements of 10CFR50.91(b)(1), a copy of this amendment request has been sent to the State of Ohio as indicated below.

This amendment request proposes changes to PNPP Technical Specifications 3/4.3.1, "Reactor Protection System Instrumentation"; 3/4.3.6 "Control Rod Block Instrumentation"; and 3/4.3.7.6, "Source Range Monitors." Attachment 1 provides the Summary, Safety Analysis, No Significant Hazards and Environmental Impact Considerations. Attachment 2 is a copy of the marked up Technical Specification pages.

It is requested that these proposed changes be issued prior to our next scheduled manual shutdown for the third refueling outage, currently slated for February 28, 1992.

If you have any questions, please feel free to call.

Sincerely,

Michael D. Lyster

MDL:CJP:njc

Attachments

cc: NRC Project Manager
NRC Resident Inspector Office
NRC Region III
J. Harris, State of Ohio

Operating Companies
Cleveland Electric Illuminating
Toledo Edison

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Summary of Proposed Changes

In accordance with 10CFR50.90, the following changes to the Perry Nuclear Power Plant (PNPP) Technical Specifications 3/4.3.1, "Reactor Protection System Instrumentation"; 3/4.3.3, "Control Rod Block Instrumentation"; and 3/4.3.7.6, "Source Range Monitors," are being proposed. Additional discussion and justification of these items is provided under the "Safety Analysis" section of this letter, which follows the Summary.

- (1) A new Surveillance Requirement, 4.3.1.4 is added to the Reactor Protection System (RPS) Instrumentation Technical Specifications as indicated in Attachment 2, pages 1 and 2. The proposed requirement would state that the provisions of Technical Specification 4.0.4 are not applicable to the Channel Functional Test and Channel Calibration surveillances for the Intermediate Range Monitors (IRM) for entry into their applicable Operational Conditions (as shown in Table 4.3.1.1-1) from Operational Condition 1, provided the surveillances are performed within 12 hours after such entry. This Specification 4.0.4 exception is necessary since in Operational Condition 1 the IRM detectors are withdrawn from the core, and the IRM Channel Functional Test cannot be performed because the IRM trip functions are bypassed with the reactor mode switch in the Run position (The IRM functions are not required to be operable in Operational Condition 1). Consequently, extended plant operation in Operational Condition 1 results in the weekly IRM Channel Functional Test surveillance frequency being exceeded since this testing cannot be performed in Operational Condition 1 prior to the plant entering the Operational Conditions for which the IRM surveillances are required (e.g., Operational Condition 2, 3 or 4) during a manual controlled plant shutdown or due to a reactor scram. As a result, currently, in order to avoid a technical violation of Specification 4.0.4 during manual controlled shutdowns, these IRM functions have to be declared inoperable and the applicable Action Statements entered. This proposed change will allow for manual controlled shutdowns to be performed without technical violations of Specification 4.0.4, and in combination with the provisions of the recently revised Specification 4.0.3, will provide adequate time to perform these surveillances after the applicable Operational Condition has been entered both during manual controlled shutdowns and following reactor scrams. This proposed change will enhance safety by reducing the possibility for unnecessary scrams and safety system challenges by precluding the necessity for technicians having to perform these surveillances under the provisions of the applicable Action Statement, which requires insertion of an IRM trip that produces an RPS half-scrum signal during a planned shutdown or reactor scram recovery. Please note that the possibility of the submittal of a Specification 4.0.4 exception such as proposed here was mentioned in a previous letter to the NRC dated November 28, 1989 (reference letter PY-CEI/NRR-1099L page 2, footnote).

- (2) Note (c) of Technical Specification Table 4.3.1.1-1, "Reactor Protection System Instrumentation Surveillance Requirements" is to be deleted as indicated in Attachment 2, pages 3 and 4. This note is associated with the IRM and Average Power Range Monitor (APRM) Channel Functional Test requirements. The note currently states that the Channel Functional Test must be performed "within 24 hours prior to startup, if not performed within the previous 7 days." This proposed change (to delete the note) is similar to the change proposed to Surveillance Requirement 4.3.7.6.b.1 for Source Range Monitors discussed in item (6) below. The existing wording is considered potentially confusing due to the 24-hour clause, which appears to require anticipation of the exact time of startup, which is not always possible. The current Channel Functional Test requirements (with a frequency of at least once per seven days) provide equivalent assurance of the operability of the associated RPS function.

As a result of the proposed deletion of note (c), the associated "S/U" Channel Functional Test surveillance frequency is no longer required since the surveillance must have been performed within seven days prior to plant startup due to the specified frequency of "at least once per seven days" ("W") and Technical Specification 4.0.4. Therefore, "S/U^(c)" is deleted from the Table 4.3.1.1-1 Channel Functional Test column for items 1.a (IRM) and 2.a (APRM) of the Table (see Attachment 2, page 3).

- (3) Note (d) Technical Specification Table 4.3.1.1-1 is revised by adding a new sentence as indicated in Attachment 2, page 4. Note (d) applies to the weekly Channel Calibration requirement for the RPS APRM Flow-Biased Simulated Thermal Power-High and Neutron Flux-High functions. This note requires adjustment of the APRM channel gains such that the APRMs conform to the reactor power values calculated by a heat balance during Operational Condition 1 when THERMAL POWER > 25% of RATED THERMAL POWER, if the absolute difference is greater than 2% of RATED THERMAL POWER. Per Table 4.3.1.1-1 (page 3/4 3-7), these APRM functions are required to be operable in Operational Condition 1. Note (d) will now provide an exception to the provisions of Technical Specification 4.0.4 to clarify that entry into Operational Condition 1, a subsequent increase to > 25% RATED THERMAL POWER, and a 12 hour time frame for performance of this surveillance after reaching 25% of RATED THERMAL POWER is permitted. In other words, this proposed change will clarify that it is acceptable to enter Operational Condition 1 and further, to establish the plant conditions necessary to provide accurate results from a heat balance calculation prior to performing this surveillance.

- (4) The current Control Rod Block Instrumentation Surveillance Requirement 4.3.6 is renumbered as 4.3.6.1 and a new Surveillance Requirement 4.3.6.2 is added as indicated in Attachment 2, page 5. Similar to proposed change (1) of this submittal, Surveillance Requirement 4.3.6.2 will state that the provisions of Technical Specification 4.0.4 are not applicable to the Channel Functional Test and Channel Calibration surveillances for the IRMs and Source Range Monitors (SRM) for entry into their applicable Operational Conditions (as shown in Table 4.3.6-1) from Operational Condition 1, provided the surveillances are performed within 12 hours after such entry. This provision is also necessary for the reasons stated in proposed change (1) above. Specifically, this provision addresses IRM and SRM surveillances that become applicable during plant shutdowns following extended operation in Operational Condition 1, and which cannot be performed at power.
- (5) The channel calibration frequency for the SRM control rod block functions specified on Technical Specification Table 4.3.6-1 is changed from at least once per 184 days ("SA") to at least once per 18 months ("R") as indicated in Attachment 2, page 6. These proposed changes are consistent with Technical Specification 3/4.3.7.6 for Source Range Monitoring Instrumentation and with Technical Specification 3/4.3.7.5 for Accident Monitoring SRM Instrumentation. There is no specific design basis which requires these SRM control rod block functions to be calibrated more often than the corresponding source range monitoring functions. Also, no credit is taken for these SRM control rod blocks in any of PNPP's Chapter 15 design basis analyses. Although current Channel Functional Test procedures at PNPP (performed at least once per seven days while in applicable modes) already include provisions for verification of proper setpoints for these functions and ensure prompt correction of out-of-calibration setpoints, this change request proposes an addition to Surveillance Requirement 4.3.6, Table 4.3.6-1, to add the performance of this trip setpoint verification to the Technical Specifications for the upscale and downscale SRM Rod Block Setpoints during weekly SRM Channel Functional Tests (reference Attachment 2, page 6). As with all other Technical Specification surveillances, a calibration of the Rod Block Channel would be required if any of these setpoint verifications are found outside the allowable values given in the Technical Specifications.

Note that a similar change was previously approved for the IRM control rod block functions by Amendment No. 31 to the PNPP Operating License (reference Technical Specification Change Request letter PY-CEI/NRR-0732L, dated November 19, 1987, Supplemental Information letter PY-CEI/NRR-1099L, dated November 28, 1989 and Amendment 31, including Safety Evaluation, dated July 18, 1990).

- (6) Surveillance Requirement 4.3.7.6.b.1 is revised for clarification in a manner similar to that proposed for note (c) of Technical Specification Table 4.3.1.1-1 discussed in item (2) above (see Attachment 2, page 7). This surveillance currently requires that the SRMs be demonstrated operable by the performance of a Channel Functional Test "within 24 hours prior to moving the reactor mode switch from the Shutdown position, if not performed within the previous 7 days." The proposed frequency states "within 7 days prior to moving the reactor mode switch from the Shutdown position." As described in item 2 above, the current wording is considered potentially confusing due to the 24-hour clause which appears to require anticipation of the exact time of moving the reactor mode switch from the Shutdown position, which is not always possible. The proposed change provides equivalent assurance that the SRM is operable, while removing the source of possible confusion.
- (7) A new footnote (footnote #) associated with the SRM Channel Calibrations in Surveillance Requirement 4.3.7.6.a.2, and with the SRM Channel Functional Tests in Surveillance Requirement 4.3.7.6.b.2 is added as indicated in Attachment 1, pages 7 and 8. The proposed wording of footnote # states that the provisions of Technical Specification 4.0.4 are not applicable to the Channel Functional Test and Channel Calibration surveillances for the Source Range Monitors for entry into their applicable Operational Conditions (Operational Condition 2*, 3 and 4) from Operational Condition 1, provided the surveillances are performed within 12 hours after such entry. These proposed changes are similar to items (1) and (4) above and are also necessary to address SRM surveillances which become applicable during plant shutdowns following extended operation in Operational Condition 1, and cannot be performed at power.

Safety Analysis/Justification for Proposed Changes

The proposed changes can be grouped into one of three general categories: (1) incorporate statements of exception to Technical Specification 4.0.4 (items 1, 3, 4 and 7), (2) clarify startup surveillance requirements (items 2 and 6), and (3) revise SRM Control Rod Block Channel Calibration frequency (item 5). These general categories are discussed separately below.

Incorporate Statements of Exception to Technical Specification 4.0.4 (item 1, 3, 4 and 7)

As described above, this Technical Specification Change Request proposes to incorporate statements of exception to the provisions of Technical Specification 4.0.4 for the IRM RPS functions in Technical Specification 3/4.3.1, the IRM and SRM Control Rod Block functions in Technical Specification 3/4.3.6 and the SRM functions in Technical Specification 3/4.3.7.6. These proposed exceptions to Technical Specification 4.0.4 will only be applicable during plant shutdowns following extended operation in Operational Condition 1.

As described above in items 1 and 4, this Technical Specification Change Request proposes to add a Specification 4.0.4 exception for the IRM functions in the KPS and Control Rod Block Instrumentation Specifications. As stated in PNPP's Updated Safety Analysis Report (USAR) Section 7.6.1.4.1 and 7.2.1.1.b the IRM system consists of eight detectors. The IRM is a five-decade, ten-range instrument, and the trip setpoint of 120 divisions of scale is active in each of the ten ranges. Thus, as the IRM is "ranged up" to accommodate increases in reactor power, the trip setpoint is also ranged up.

The IRMs also provide neutron monitoring overlap with both the APRM and the SRM systems. After the IRMs have been verified to overlap the APRMs during reactor startups, the IRMs are withdrawn from the reactor core in order to prolong their life. When the reactor mode switch has been placed in the Run position (Operational Condition 1), the IRM scram and control rod block functions are automatically bypassed since adequate protection and monitoring is provided by the APRM functions.

Per Technical Specification 3/4.3.1, Table 4.3.1.1-1, the IRM Neutron Flux-High and Inoperative RPS functions are required to be operable in Operational Conditions 2, 3, 4 and 5. Per Technical Specification 3/4.3.6, Table 4.3.6-1, the IRM Detector-not-full-in, Upscale, Inoperative, and Downscale control rod block functions are currently required to be operable in Operational Conditions 2 and 5. During plant operation in Operational Condition 1 (with the reactor mode switch in the Run position), a Channel Functional Test cannot be performed since the IRM trips are automatically bypassed with the reactor mode switch in the Run position. Further, a Channel Calibration requires the performance of a Channel Functional Test. As a result, the IRM surveillance frequency is exceeded during extended operation in Operational Condition 1.

Technical Specification 4.0.4 prohibits entry into an Operational Condition unless the surveillance requirement(s) associated with the Technical Specification has been performed within the applicable surveillance interval. As a result, Technical Specification 4.0.4 would imply that the reactor mode switch cannot be placed in the Startup/Hot Standby (Operational Condition 2), Hot Shutdown (Op Con 3) or Cold Shutdown (Op Con 4) position after extended operation in Operational Condition 1 until the IRM surveillances have been performed. As previously stated however, these surveillances cannot be performed until after the reactor mode switch is taken out of the Run position. Therefore, it is proposed that an exception to the provisions of Technical Specification 4.0.4 be added for the IRMs to allow entry into the plant conditions required to complete this testing. Additionally, it is proposed that a limit be placed on this exception to require these surveillances to be performed within 12 hours after entering these applicable Operational Conditions.

These proposed changes are justified on the basis that, since the reactor will already be in a shutdown condition (as a result of a scram) or in the process of a controlled shutdown, and since the APRM RPS (scram) functions would continue to be operable (since the APRM surveillances can be maintained current in Op Con 1) adequate scram protection is available during the short period of time needed to perform the IRM surveillances. The 4.0.4 exception would apply only during such reactor shutdowns, and not to reactor startups. In addition, the IRM control rod block functions are provided only to ensure that adequate neutron monitoring is available during control rod movements and no credit is taken in PNPP's USAR Chapter 15 safety analyses for the IRM control rod block function. Again, the APRMs are adequate to perform this monitoring function during the short period of time needed to perform the IRM surveillances in Operational Condition 2. Also, the IRM's are not necessarily incapable of performing their functions during a controlled shutdown just because the surveillances are overdue. The channel check, which can be quickly performed on the IRM channels prior to performance of the functionals/calibrations, provides some confidence that the IRM's are functional. During Operational Condition 3 and 4, the control rods would already be inserted and the Reactor Mode Switch-Shutdown Mode function provides a control rod block to prevent control rod withdrawal.

Because the IRM Surveillances cannot be completed in Operational Condition 1, Technical Specifications would require all the IRM Channels to be declared inoperable upon entry into an applicable Operational Condition for which these surveillance requirements apply (i.e., Operational Condition 2 during normal manual shutdowns, and Operational Condition 3 for reactor scrams), if sustained power operations have occurred which extended beyond the surveillance interval due date (7 days for Channel Functional Tests and 18 months for Channel Calibrations). Due to this "inoperability," the Action Statement for Technical Specification 3.3.1 requires that one RPS trip system be placed in the tripped condition (half-scram condition) within 1 hour after entering Operational Condition 2 (or Operational Condition 3). Likewise, the Action Statement for Technical Specification 3.3.6 requires one of the IRM Channels to be placed in the tripped condition within 1 hour after entering Operational Condition 2. This results in the generation of a control rod block and, since the same IRM logic serves both the rod block and scram functions, it also results in the RPS logic being placed in a half-scram condition. Requiring the performance of IRM Channel Functional Test and Channel Calibration surveillances under the above plant conditions results in a significant increase in the probability for unnecessary reactor scrams and safety system challenges. Also, although Perry Plant operators and technicians take all appropriate actions to avoid a plant scram during performance of the above surveillances, the burden placed on plant operators and technicians to avoid such consequences is, under the circumstances, unnecessary and avoidable.

The proposed exceptions to Technical Specification 4.0.4, along with the proposed 12 hour time period provided for completion of the overdue IRM Channel Functional Test and Channel Calibration surveillances will provide a significant scram reduction benefit by reducing the possibility for unnecessary scram and safety system challenges following mode changes.

As described above in items 4 and 7, this Technical Specification Change Request proposes to add a Specification 4.0.4 exception for the SRM functions in the Control Rod Block and Source Range Monitor Instrumentation Specification's.

The SRM system consists of four detectors, one in each quadrant of the reactor core. As described in Technical Specification Bases 3/4.3.7.6 the SRMs provide neutron flux monitoring capability during reactor startup and low flux level operations. Per Technical Specification 3/4.3.7.6 the SRMs are required to be operable in Operational Conditions 3 and 4 and in Operational Condition 2* (Operational Condition 2 with the IRMs on range 2 or below). Per Technical Specification 3/4.3.6, Table 4.3.6-1, the SRM Detector-not-full-in, Upscale, Inoperative and Downscale control rod block functions are currently required to be operable in Operational Condition 2** (Operational Condition 2 with IRMs on range 2 or below), and in Operational Condition 5.

Similar to the IRM control rod block function discussed above, the SRM's are withdrawn from the core and are bypassed when the plant is at power.¹ Since the SRM's are automatically bypassed and the detectors are fully withdrawn to prolong their life, the surveillances for the SRMs are prevented from being maintained current during extended operation in Operational Condition 1.

Therefore, it is proposed to add a statement of exception to the provisions of Technical Specification 4.0.4 for the SRMs to formally allow either the reactor mode switch to be placed in the Shutdown (Op Con 3) position (manual scram), or a controlled plant shutdown to be performed, by permitting entry into Operational Condition 2 (with the IRM's on Range 2 or below), Op Con 3 or Op Con 4, without the applicable SRM surveillances being current due to extended operation in Operational Condition 1. Additionally, it is proposed that a limit be placed on this exception to require these surveillances to be performed on the SRMs within 12 hours after entering their applicable Operational Conditions.

1 As identified by note (a) of Technical Specification Table 3.3.6-1, the SRM Detector-not-full-in control rod block function is automatically bypassed if the detector count rate is greater than 100 counts per second (cps) or the IRM channels are on range 3 or higher; as identified by note (b) of Table 3.3.6-1, the SRM Upscale and Inoperative control rod block functions are automatically bypassed when the IRM channels are on range 8 or higher; and as identified by note (c) of Table 3.3.6-1, the SRM Downscale control rod block function is automatically bypassed when the IRM channels are on range 3 or higher.

The proposed exceptions to Specification 4.0.4, together with the proposed 12 hour time limit, will provide adequate time for reactor power to be reduced sufficiently to allow the SRMs to be fully inserted, unbypassed, and the surveillances completed. The 4.0.4 exception would apply only during reactor shutdowns and not to reactor startups. Similar to the IRM control rod block functions discussed above, the SRM control rod block functions are provided only to ensure that adequate neutron monitoring capability exists during control rod movements and no credit is taken in PNPP's USAR Chapter 15 safety analyses for their function. Also, similar to the IRM's above, the SRM's are not necessarily incapable of functioning just because the surveillances are overdue. The channel check, which can be quickly performed on the SRM channels prior to performance of the functionals/calibrations, provides some confidence that the SRM's are functional. During Operational Condition 3 and 4, the control rods would already be fully inserted and the Reactor Mode Switch-Shutdown Mode function provides a control rod block to prevent control rod withdrawal.

As described in item 3 above, the Technical Specification change request also proposes to add an exception to the provisions of Technical Specification 4.0.4 for the APRM Flow-Biased Simulated Thermal Power-High and Neutron Flux-High functions of the RPS [Technical Specification Table 4.3.1.1-1, note (d)]. This proposed exception will be applicable to the APRM gain adjustment only during plant startups.

Per Technical Specification 3/4.3.1, Table 4.3.1.1-1, the APRM Flow-Biased Simulated Thermal Power-High and Neutron Flux-High RPS functions are only required to be operable in Operational Condition 1. One of the surveillances required to demonstrate operability of these APRM functions is the adjustment of the APRM gains such that the APRMs conform to the reactor power values calculated by a heat balance during Operational Condition 1 when reactor power is $\geq 25\%$ of RATED THERMAL POWER. At low reactor power levels, heat balance calculations are susceptible to inaccuracies due to low values of feedwater flow and various feedwater heater configurations. As a result, the current surveillance provides an allowance to delay the APRM gain adjustments until reactor power is $\geq 25\%$ of RATED THERMAL POWER. However, since Technical Specification 4.0.4 prohibits mode changes unless all surveillance requirements have been performed within the applicable surveillance intervals, this surveillance should be clarified to clearly state that Operational Condition 1 may be entered prior to performing this surveillance. Therefore, it is proposed to incorporate a statement of exception to Technical Specification 4.0.4 to formally provide the allowance to enter Operational Condition 1. Additionally, it is proposed to require the APRM gains to be adjusted within 12 hours after reaching 25% of RATED THERMAL POWER (whereas there is no current time limit).

Please note that the changes proposed in items 1, 3, 4 and 7 of the above Summary are consistent with the solution suggested by the NRC staff in Generic Letter (GL) 87-09 for similar conflicts. In GL 87-09, the NRC staff recognized that conflicts could arise when Surveillance Requirements can only be completed after entry into a mode or specified condition for which the Surveillance Requirements apply (the very situation addressed above). In addition, the NRC staff recognized that a second conflict could arise because, upon entry into the applicable mode or condition, the requirements of Specification 4.0.3 may not be met because the Surveillance Requirements may not have been performed within the allowable surveillance interval (again, the very situation addressed above). In such cases, the staff recognized that an exception to Specification 4.0.4 would be appropriate. According to the Generic Letter, the exception to Specification 4.0.4, in conjunction with the changes recommended in GL 87-09 for Specification 4.0.3 (i.e., the delay of up to 24 hours in Specification 4.0.3 for the applicability of Action Requirements) would provide an appropriate time limit for the completion of those Surveillance Requirements that become applicable as a consequence of allowance of any exception to Specification 4.0.4.

Although the changes recommended by GL 87-09 for Specification 4.0.3 were granted for PNPP Technical Specifications by Amendment 30, dated May 24, 1990, it is not clear that PNPP is able to implement the above solution proposed by GL 87-09 because of the current lack of a Specification 4.0.4 exception to the IRM and SRM Channel Functional Test and Channel Calibration Surveillance Requirements, and for the APRM Channel Calibration requirement (gain adjustment).

Note also, that although approval of Specification 4.0.4 exceptions in conjunction with Specification 4.0.3 (as currently amended per GL 87-09) would provide an appropriate solution, a specific 12-hour time limit is being proposed for each Specification 4.0.4 exception (rather than the 24 hour time limit provided by the Generic Letter) solely to maintain consistency with the BWR-6 Technical Specification Improvement Program and with similar Amendment Requests proposed by other BWR-6 licensees (reference proposed operating license amendment by Illinois Power for the Clinton Power Station dated August 31, 1990). Due to the safety benefits and scram avoidance aspects that the proposed changes provide, it is appropriate to process these changes and have them approved by the NRC in advance of the Technical Specification Improvement effort. It is requested that this change package be issued prior to our next scheduled manual shutdown for the third refueling outage, currently slated for February 28, 1992.

Clarification of Startup Surveillance Requirements (items 2 and 6)

The current PNPP Technical Specification 3/4.3.1, Table 4.3.1.1-1, Note (c), requires a Channel Functional Test of the APRM Neutron Flux-High, Setdown and IRM Neutron Flux-High functions to be performed within 24 hours prior to startup, if not performed within the previous seven days. Additionally, Technical Specification 3/4.3.7.6.b.1 requires a Channel Functional Test of the SRMs to be performed within 24 hours prior to moving the reactor mode switch from the Shutdown position, if not performed within the previous seven days.

This Technical Specification Change Request proposes to delete the apparent requirement to perform the above described Channel Functional Test within 24 hours prior to startup. The requirement to perform these tests within seven days prior to startup would be retained. The current wording is considered potentially confusing and the proposed changes are provided for clarification. The existing wording of the "24-hour" portion of these items would appear to require anticipation of the exact time of a startup (or mode switch position change) so as to implement that part of the current note. This is not always possible, since plant startup (or the change in mode switch position) could be delayed for more than 24 hours after test completion. As long as the delay after test completion is less than seven days, the surveillance frequency has still been satisfied even though more than 24 hours have passed. As can be seen, the 24-hour clause serves no useful purpose. Incorporation of the proposed changes would prevent confusion while providing the same degree of confidence that the associated instrumentation is operable.

Additionally, the "S/U" annotation associated with Table 4.3.1.1-1, note (c), for these surveillances that are performed at least once per seven days is not needed and should be deleted. Since Technical Specification 4.0.4 prohibits entry into an Operational Condition unless the Surveillance Requirement(s) associated with the Technical Specification has been performed within the applicable surveillance interval, the "S/U" annotation is redundant to the "W" requirement to perform the Channel Functional Test at least once per seven days. Therefore, it is proposed to delete the "S/U" annotation for the above IRM and APRM Channel Functional Tests. These proposed changes are considered justified since they will make the Technical Specifications easier to implement with no reduction in the effectiveness of ensuring the operability of these functions.

Revision of SRM Control Rod Block Channel Calibration Frequency (item 5)

Technical Specifications 3/4.3.7.5 (Accident Monitoring Instrumentation) and 3/4.3.7.6 (Source Range Monitors) currently require the SRMs to be calibrated at least once per 18 months. However, Technical Specification 3/4.3.6 currently requires the SRM Upscale and Downscale control rod block functions to be calibrated at least once per 184 days ("SA"). This proposed change seeks to make the calibration requirements for the SRMs consistent throughout these Technical Specifications by changing the SRM Channel Calibration Surveillance frequency for Control Rod Block Instrumentation (Table 4.3.6-1) from at least once per 184 days ("SA") to at least once per 18 months ("R").

There is no significant difference between the instrumentation used for the accident monitoring function (Spec 3/4.3.7.5) and the source range monitoring function (3/4.3.7.6) versus that used for the control rod block trips (3/4.3.6) since, at the channel level, the instrumentation is the same. Accordingly, there is no specific design basis that requires these trip channels to be calibrated more often for the control rod block function than for the accident monitoring/source range monitoring function. (From a drift allowance standpoint, the difference between the trip setpoint and the allowable value is the same (2/125 of scale) for all these functions). Also, no credit is taken for these SRM control rod blocks in any of PNPP's Chapter

15 design basis analyses. PNPP procedures which control performance of the weekly Channel Functional testing of these SRM functions currently require verification of proper channel operation and include verification of the control rod block upscale and downscale trip setpoints for these functions. This setpoint verification will be added to the Technical Specifications as a requirement in the weekly SRM Channel Functional Test contained in Table 4.3.6-1, consistent with similar changes approved for the IRM Channel Functional Tests by Amendment 31. As with all other Technical Specification surveillances, a calibration of the Rod Block Channel would be required if any of these setpoint verifications are found outside the allowable values given in the Technical Specifications. As a result, there is adequate assurance that requiring the Channel Calibrations to be performed on an 18-month frequency is adequate to ensure that control rod blocks will be initiated when intended.

Additionally, the SRM Channel Calibrations cannot be maintained current during extended operation in Operational Condition 1 since the definition of CHANNEL CALIBRATION requires the performance of a Channel Functional Test. As previously stated, Channel Functional Testing of the SRMs cannot be performed while in Operational Condition 1 because the trips from these instruments are bypassed with the reactor mode switch in the Run position. The proposed changes will resolve this conflict by changing this calibration frequency to 18 months. This frequency is consistent with the current operating cycles of PNPP, and therefore, this proposed frequency will allow the Channel Calibration surveillances to remain current throughout an operating cycle.

Significant Hazards Consideration

The standards used to arrive at a determination that a request for amendment involves no significant hazards considerations are included in the Commission's Regulations, 10CFR50.92, which state that the 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, (2) create the possibility of a new or different kind of accident from any previously evaluated, or (3) involve a significant reduction in a margin of safety.

CEI has reviewed the proposed amendment with respect to these three factors and has determined that the proposed changes do not involve a significant hazard because:

- (1) The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed changes do not involve a physical change or addition to any plant component or system which could cause the probability of an accident to increase. The proposed changes do not result in any change to the plant design or its operating modes. Therefore, these proposed changes cannot increase the probability of any accident previously evaluated.

The proposed addition of Surveillance Requirements 4.3.1.4 and 4.3.6.2, together with the incorporation of the proposed additional text for Surveillance Requirements 4.3.7.6.a and 4.3.7.6.b, provide for performance of the associated IRM and SRM surveillances during plant shutdowns following extended operation in Operational Condition 1. These surveillances cannot be performed with the unit in Operational Condition 1. The proposed changes merely provide the formal means to avoid violation of Technical Specification 4.0.4 and provide adequate time to perform these surveillances without causing the possibility of unnecessary plant scrams, challenges to safety systems, and unnecessary procedural complications/stress on plant personnel while completing these surveillances under the provisions of Action Statements. The 12-hour time allowance for performance of the IRM Channel Functional Test and Channel Calibration Surveillances after entering lower modes of operation from Operational Condition 1 will help avoid unnecessary scrams during controlled plant shutdowns and/or mode changes by significantly reducing (and in most cases eliminating) the time that the half scram signal is inserted into the RPS logic after entry into lower modes of operation and would eliminate unnecessary manipulations of plant equipment in order to perform the IRM Surveillances at the same time that a portion of the RPS system is in the tripped position. Adequate scram protection and neutron monitoring capability are provided by the APRMs during the short time period needed to perform these surveillances. Upon entry into Operational Conditions 3 or 4, the control rod block provided by the mode switch provides adequate protection pending surveillance completion.

The proposed change to provide a formal Specification 4.0.4 exception to allow entry into Operational Condition 1 before the APRM gain surveillance has been performed provides adequate time for plant conditions to be achieved that will result in an accurate heat balance calculation. The APRM Flow-Biased Simulated Thermal Power-High function still provides adequate scram protection during the short time period needed to achieve 25% of RATED THERMAL POWER and perform these APRM gain adjustments after entering Operational Condition 1.

The proposed deletion of the 24-hour clause and the "S/U" notation from the Channel Functional Test requirement for the neutron monitors eliminates the possible confusion caused by the current wording without reducing the effectiveness of these surveillances. The Technical Specifications, when revised as proposed, will continue to require, as they currently do, that these Channel Functional Tests be performed within seven days prior to entering the conditions for which these instruments are required.

The proposed change to the Channel Calibration frequency for the SRM control rod block functions will not result in any significant change in the availability of this rod block function, and it is consistent with the current channel calibration frequency requirement for ensuring that source range neutron monitoring capability is available to the operators during control rod movements at low power conditions, and/or post-accident conditions. No credit is taken for the SRM control rod block function in PNPP's USAR Chapter 15 safety analyses, and since the setpoint is checked during each shutdown in which an applicable Operational Condition for SRMs is entered, they will be fully functional for any subsequent startup.

Based upon the above, these proposed changes cannot increase the probability or the consequences of any accident previously evaluated.

- (2) The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated because the proposed change does not involve a change in the design of any plant system or component nor does it involve a change in the operation of any plant system or component. As a result, no new failure modes are introduced.
- (3) The proposed changes do not result in a significant reduction in the margin of safety, because as discussed in (1) above, the proposed changes still provide adequate assurance that each of the applicable safety functions are capable of being effected when required, including reactor scram protection, control rod block, and neutron monitoring.

Based upon the above considerations, CEI concludes that these proposed changes do not involve significant hazards considerations.

Environmental Consideration

The Cleveland Electric Illuminating Company has reviewed the proposed Technical Specification change against the criteria of 10CFR51.22 for environmental considerations. As shown above, the proposed change does not involve a significant hazards consideration, nor increase the types and amounts of effluents that may be released offsite, nor significantly increase individual or cumulative occupational radiation exposures. Based on the foregoing, CEI concludes that the proposed Technical Specification change meets the criteria given in 10CFR51.22(c)(9) for a categorical exclusion from the requirement for an Environmental Impact Statement.