Indiana Michigan
Power Company
500 Circle Drive
Buchanan, MI 49107 1373

INDIANA MICHIGAN POWER

July 23, 2002
AEP:NRC:2036
10 CFR 50.90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

SUBJECT: Donald C. Cook Nuclear Plant Units 1 and 2
Docket Nos. 50-315 and 50-316
License Amendment Request for Removal of Performance Restrictions from Surveillance Requirements

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant Unit 1 and Unit 2, proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to revise certain 18 month surveillance requirements by eliminating the condition that testing be conducted "during shutdown," or "during the COLD SHUTDOWN or REFUELING MODE" (i.e. shutdown conditions). Elimination of the requirement to perform testing during shutdown conditions will simplify and shorten the scheduling of train specific testing and surveillance windows during a refueling outage, resulting in a reduction of outage time and significant cost savings.

The proposed amendment will result in a substantial reduction in the number of components that must be tested during shutdown conditions. This reduction in shutdown testing will improve the availability of systems important to maintaining the plant in a safe shutdown condition. Tests that can not be performed safely at power will continue to be performed during shutdown conditions; however, performing component testing during shutdown conditions that duplicates testing performed at power is an unnecessary distraction for Operations and Maintenance personnel. The numerous and sometimes complex component tests performed to meet the current surveillance requirements during shutdown conditions is a

A001

significant burden to plant personnel and can result in an adverse impact on risk. By allowing credit to be taken for testing accomplished while at power, eliminating duplicate testing, plant safety is not adversely affected, and shutdown risk can be reduced.

The proposed amendment is consistent with wording in similar surveillance requirements of the Standard Technical Specifications for Westinghouse Plants (NUREG-1431, Revision 2) and previous generic guidance regarding specific conditions for performing surveillance requirements. In Generic Letter (GL) 91-04, "Changes to Technical Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle," the Nuclear Regulatory Commission (NRC) specifically recommends the elimination of the shutdown condition from surveillance requirements. The intent of the restriction to perform surveillances "during shutdown" is to ensure the surveillance is performed consistent with safe plant operation. In GL 91-04, the NRC recognized that the consideration of safe plant operation is valid for other surveillances that are performed during operational modes other than shutdown, but is not addressed by restricting the conduct of these surveillances.

I&M also proposes format and capitalization changes to the affected TS pages that improve appearance but do not affect any requirements.

Enclosure 1 provides an oath and affirmation affidavit. Enclosure 2 provides a detailed description and safety analysis to support the proposed changes, including the 10 CFR 50.92(c) evaluation, which concludes that no significant hazard is involved, and the environmental assessment. Attachments 1A and 1B provide marked up TS pages for Unit 1 and Unit 2, respectively. Attachments 2A and 2B provide the proposed TS pages with the changes incorporated for Unit 1 and Unit 2, respectively.

I&M requests approval of the proposed amendment by February 1, 2003, to support the Unit 2 refueling outage. Once approved, the amendment will be implemented within 45 days.

No pending amendment requests affect the TS pages that are submitted in this request. If any future submittals affect these TS pages, I&M will coordinate the changes to the pages with the NRC Project Manager to ensure proper TS page control when the associated license amendment requests are approved.

This amendment request contains no new commitments. If you have any questions or require additional information, please contact Mr. Gordon P. Arent, Manager of Regulatory Affairs, at (616) 697-5553.

Sincerely,

J. E. Pollock
Site Vice President

KS/dmb

Enclosures:
1 Affidavit
2 Evaluation of the Proposed Changes

Attachments:
1A and 1B Technical Specification Pages Marked To Show Proposed Changes
2A and 2B Proposed Technical Specification Pages

c: K. D. Curry, w/o enclosures/attachments
J. E. Dyer
MDEQ - DW & RPD, w/o enclosures/attachments
NRC Resident Inspector
R. Whale, w/o enclosures/attachments

Enclosure 1 to AEP:NRC:2036

AFFIRMATION

I, Joseph E. Pollock, being duly sworn, state that I am Site Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

American Electric Power Service Corporation

J. E. Pollock
Site Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 23RD DAY OF July, 2002

Margaret M. Straigel
Notary Public

My Commission Expires 11/23/2005

Enclosure 2 to AEP:NRC:2036

Application for Amendment
License Amendment Request for Removal of Performance Restrictions from Surveillance Requirements

1.0 DESCRIPTION

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2, proposes to amend Appendix A, Technical Specifications (TS), of Facility Operating Licenses DPR-58 and DPR-74. I&M proposes to revise certain 18 month surveillance requirements (SR) by eliminating the condition that testing be conducted "during shutdown," or "during the COLD SHUTDOWN or REFUELING MODE" (i.e. shutdown conditions). Elimination of the requirement to perform testing during shutdown conditions will simplify and shorten the scheduling of train specific testing and surveillance windows during a refueling outage, resulting in a reduction of outage time and significant cost savings.

2.0 PROPOSED CHANGE

The proposed amendment would revise TS surveillances 4.5.2.e, 4.6.2.1.c, 4.6.2.2.c, 4.7.1.2.e, f, and g, 4.7.3.1.b and d, and 4.7.4.1.b to delete the words "during shutdown" from the text of the surveillances. In addition, the proposed amendment would revise TS surveillance 4.6.3.1.2 to delete the words "during the COLD SHUTDOWN or REFUELING MODE" from the text. TS surveillances 4.5.2.e.1 and 2, 4.6.2.1.c.1 and 2, 4.6.2.2.c, 4.6.3.1.2.a, b, and c, 4.7.1.2.e and f, 4.7.3.1.b and 4.7.4.1.b would be modified to specify that an actual or simulated signal is acceptable to meet the surveillance requirement. In addition, the removal of the word "test" from TS surveillances 4.5.2.e.1, 4.6.2.1.c.1 and 2, 4.6.2.2.c (Unit 2 only), 4.6.3.1.2.a and b, 4.7.1.2.e and f, 4.7.3.1.b, and 4.7.4.1.b is proposed.

I&M also proposes three format changes to the revised Unit 1 TS Page 3/4 6-15. The changes to be applied are:

1. Reformat the header to include numbered first and second tier TS section titles and a full-width single line to separate the header section titles from the page text.

2. Reformat the footer to include "Page (page number)" center page, "AMENDMENT (past amendment numbers, with strikethrough, and ending with the current amendment number)" on the right side of the page, and a full-width single line to separate the footer from the page text.

3. Change the font.

Lastly, I&M proposes the capitalization of "Safety Injection" on Unit 1 and 2 TS Page 3/4 5-5.

Attachments 1A and 1B provide TS pages that are marked to show the proposed changes for Unit 1 and 2, respectively. Attachments 2A and 2B provide TS pages with the proposed changes incorporated for Unit 1 and Unit 2, respectively.

3.0 BACKGROUND

The CNP TS establish requirements for the operability of equipment necessary to safely operate the plant. Each TS requires surveillance activities that establish the operability of the key systems or components necessary to accomplish the TS function. Each SR specifies the tests to be performed, the acceptance criteria, and the testing frequency. Current CNP TS have additional restrictions requiring the performance of some SRs during shutdown conditions.

The proposed amendment is consistent with wording in similar surveillances of the Standard Technical Specifications for Westinghouse plants (NUREG-1431, Revision 2) and previous generic guidance regarding specific conditions for performing surveillance requirements. In Generic Letter (GL) 91-04, "Changes to Technical Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle," the Nuclear Regulatory Commission (NRC) specifically recommends the elimination of the shutdown condition from surveillance requirements. The intent of the restriction to perform surveillances "during shutdown" is to ensure the surveillance is performed consistent with safe plant operation. However, in GL 91-04, the NRC recognized that the consideration of safe plant operation is valid for other surveillances that are performed during operational modes other than shutdown, but is not addressed by restricting the conduct of these surveillances.

GL 91-04 states:

> "The Staff concludes that the TS need not restrict surveillances as only being performed during shutdown. Nevertheless, safety dictates that when refueling interval surveillances are performed during power operation, licensees give proper regard for their effect on the safe operation of the plant. If the performance of a refueling interval surveillance during plant operation would adversely affect safety, the licensee should postpone the surveillance until the unit is shutdown for refueling or is in a condition or mode that is consistent with the safe conduct of that surveillance."

The proposed amendment will allow certain 18 month SRs previously performed while shutdown, to be performed during power operation, and thereby, simplify and shorten the scheduling of train specific testing and surveillance windows during a refueling outage. CNP assesses and manages risk per 10 CFR 50.65(a)(4) prior to performing maintenance and

surveillance activities both online and offline. Activities are scheduled to minimize outage times for TS required equipment. At certain thresholds of risk, contingency plans are required to maximize the reliability of the equipment relied upon for nuclear safety or power operation, and to safely recover from credible events that may further degrade the on-line risk level. Unacceptable levels of risk require deferral of the activity to an acceptable time in the schedule.

4.0 TECHNICAL ANALYSIS

4.1 Deterministic Safety Assessment

Both reactor trip and engineered safety features actuation functions are performed by the solid state protection system. The solid state protection system consists of two identical trains (A and B) that are physically and electrically independent. Inputs to the system are derived either directly or through bistable outputs from various nuclear and non-nuclear sensors located both inside and outside of plant containment. The analog input signals from the process instruments and bistables provide input to logic circuits. The output of the logic circuits consists of a master relay that drives slave relays that actuate safeguards protection equipment.

Actuation of safeguards protection equipment can be performed using approved procedures to send test signals to some equipment without affecting plant operation by blocking undesirable component actuation.

The proposed amendment permitting the performance of 18 month surveillances on pump starts and valve actuations on Safety Injection or Engineered Safety Feature signals during power operation is acceptable based on the following:

- Tests would be performed on equipment on one train such that the other train would be available to mitigate an accident during the allowed outage time.
- Testing would be performed on specific actuation devices or in judiciously selected groups of devices to prevent disruption to plant operation.
- If a Safety Injection or Engineered Safety Feature actuation signal were to occur while the train is in test, in many cases the train would be able to be made available to mitigate an accident with simple operator actions.

The proposed amendment permitting the performance of 18 month surveillances on crosstie valves on auxiliary feedwater (AFW) and component cooling water (CCW) systems during power operation is acceptable based on the following:

- AFW system crosstie valves are already cycled with one unit in operation. Credit for the surveillance test is taken only for the shutdown unit; thereby requiring an

additional valve cycle when the other unit is shutdown. There is no adverse interaction with either unit since the AFW pumps would not be operating with the units at power.

- CCW crosstie valves are already cycled with one unit in operation. Credit for the surveillance test is taken only for the shutdown unit; thereby requiring an additional valve cycle when the other unit is shutdown. There is no adverse interaction with the other unit since each valve is cycled independent of the others, providing one closed valve between each unit's CCW system at all times.

5.0 Regulatory Safety Analysis

5.1 No Significant Hazards Consideration

I&M has evaluated whether or not a significant hazards consideration is involved with the proposed change 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 of occurrence or consequences of an accident previously evaluated?

Response: No

Probability of Occurrence of an Accident Previously Evaluated -

The proposed change would eliminate the requirement to perform certain 18-month surveillance tests during a shutdown condition. These surveillance tests verify that equipment will perform its intended safety function of mitigating an accident. Performing the surveillance tests during power operation does not affect any existing accident initiators or precursors. The proposed change will not create any adverse interactions with other systems that could result in initiation of a design basis accident. The format and capitalization changes are proposed to improve readability and appearance, and do not alter any requirements. Therefore, the probability of occurrence of an accident previously evaluated is not significantly increased.

Consequences of an Accident Previously Evaluated -

The proposed change does not reduce the ability of the mitigating equipment to perform its safety function. The TS will continue to require the surveillance tests be performed on an 18 month periodicity to verify operability. One train will be

verified as operable prior to testing equipment in the other train, thereby making it available to mitigate an accident. The accident analyses assume only one train is operable in the event of an accident. As a result, the ability of the mitigating equipment to perform its safety function is unaffected by the proposed change. The format and capitalization changes are proposed to improve readability and appearance, and do not alter any requirements. Therefore, the safety related systems and components that are supported by the equipment to mitigate the consequences of an accident are not affected by the proposed change.

In summary, the probability of occurrence and the consequences of an accident previously evaluated are not significantly increased.

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 create any new or different accident initiators or precursors. The mitigating equipment will continue to function as before the change, and will continue to be tested at the same surveillance test interval for operability. The proposed change does not create any new failure modes for the mitigating equipment and does not affect the interaction between the equipment and any other system. The format and capitalization changes are proposed to improve readability and appearance, and do not alter any requirements. Thus, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

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

Response: No

The margins of safety applicable to the proposed change are those associated with the capability of the mitigating equipment to perform its safety function. The proposed change allows the surveillance test to be performed during power operation without significantly reducing the capability of the mitigating equipment to perform in accordance with its safety margin. The format and capitalization changes are proposed to improve readability and appearance, and do not alter any requirements. Therefore, the proposed change does not involve a significant reduction in margin of safety.

In summary, based upon the above evaluation, I&M has concluded that the proposed changes involve 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 Applicable Regulatory Requirements/Criteria

5.2.1 Regulations

10 CFR 50.65, "Requirements for monitoring the effectiveness of maintenance at nuclear power plants," requires, in part, that the licensee assess and manage the increase in risk that may result from proposed maintenance activities prior to their performance. The intent of the current restriction to perform certain 18 month surveillance requirements during shutdown conditions is to ensure that the surveillance is performed consistent with safe plant operation. I&M is proposing a license amendment that removes the requirement to perform certain surveillances during shutdown conditions, allowing use of the CNP risk assessment program to determine whether the performance of these surveillance activities is consistent with safe plant operation.

The performance of certain 18 month surveillance test during power operation is in accordance with 10 CFR 50.65.

5.2.2 Design Bases – Updated Final Safety Analysis Report (UFSAR)

The proposed amendment will modify the requirement to perform certain TS surveillance requirements during shutdown conditions. Descriptions of the affected systems design basis are provided below.

Emergency Core Cooling System (ECCS)

The primary purpose of the ECCS per UFSAR Section 6.2, "Emergency Core Cooling Systems," is to automatically deliver cooling water to the reactor core in the event of a loss-of-coolant accident. This limits the fuel clad temperature and thereby ensures that the core will remain substantially intact and in place, with its essential heat transfer geometry preserved. This protection is provided for:

a) All pipe break sizes and locations up to and including the hypothetical instantaneous circumferential rupture of a reactor coolant loop, assuming unobstructed discharge from both ends.
b) A loss-of-coolant associated with the rod ejection accident.
c) A steam generator tube rupture.

Sufficient shutdown reactivity is added by the ECCS so that with a stuck rod, no off-site power, and minimum engineered safety features there is no consequential damage to the Reactor Coolant System for any rupture of any steam line or feedwater line.

UFSAR Section 14.2.5, "Rupture of a Steam Pipe," states that the ECCS consists of the passive accumulators, the low head safety injection (residual heat removal) system, the intermediate head safety injection system, and the high head safety injection (charging) system.

Containment Spray System

The primary purpose of the Containment Spray System per UFSAR Section 6.3, "Containment Spray Systems," is to spray cool water into the containment atmosphere in the event of a loss-of-coolant accident to prevent containment pressure from exceeding the design value. The secondary purpose of the Containment Spray System is the removal of fission products (radioactive iodine isotopes) from the containment atmosphere. The performance of the Containment Spray System for iodine removal with a single containment spray pump operating adequately fulfills the requirement of 10 CFR 100 as described in UFSAR Chapter 14.

The Containment Spray System for each unit consists of two full-size (maximum heat-removal capability) redundant trains. Each train consists of:

1) A containment spray pump, a containment spray heat exchanger, valves, piping, necessary instrumentation and controls and spray headers in both the upper and lower containment volumes.
2) A residual heat removal pump, residual heat removal heat exchanger, piping, valves, necessary controls and instrumentation and an individual spray header in the upper containment volume.

Adequate containment pressure reduction and iodine removal are provided by the Containment Spray Systems whose components operate in sequential modes as follows:

a) Mode "A" sprays a portion of the contents of the refueling water storage tank (RWST) into the containment atmosphere using the containment spray pumps. During this mode, the contents of the spray additive tank (sodium hydroxide (NaOH) solution) are mixed into the spray system to provide adequate iodine removal.

b) Mode "B" provides recirculation of water from the containment sump by the containment spray pumps through containment spray heat exchangers and back to the containment after the RWST has been isolated, but while there is still ice in the ice condenser. This spray reduces the containment atmosphere temperature and prolongs the effective life of the ice.

c) During mode 'A' NaOH is metered into the spray solution by an eductor system, using the containment spray pump discharge for motive water. If the spray additive tank level decreases to the setpoint level during mode 'A,' the eduction of NaOH is automatically terminated. Eduction of NaOH is manually terminated early in mode 'B' as soon as the containment spray pumps have been restarted.

d) Diversion of a portion of the recirculation flow from the Residual Heat Removal System to additional redundant spray headers completes the containment spray system heat removal capability. This operation is initiated after the ice condenser has been depleted and in the event that containment pressure rises above a predetermined limit.

The eductor draws a design suction flow of approximately 23-64 gallons per minute from the spray additive tank, which produces a solution in the recirculation sump suitable for iodine retention. The two eductor loops are served by a shared spray additive tank through the necessary valves and piping equipped with the necessary instrumentation.

The spray additive tank contains sufficient sodium hydroxide solution to ensure that, when mixed with the refueling water, accumulator water, reactor coolant and melted ice in the containment sump, the solution recirculated within containment after a Loss of Coolant Accident has a pH between 7.6 and 9.5. A containment spray pump must be operating and a portion of its discharge is required as motive water to the eductor in order to introduce NaOH into the flow stream.

Containment Isolation System (CIS)

The purpose of the CIS per UFSAR Section 5.4, "Containment Isolation System," states that the system provides the means of isolating the various pipes passing through the containment walls as required to prevent the release of radioactivity to the outside environment in the event of a design basis accident.

Subsequent to an incident, there are at least two barriers between the atmosphere outside the containment and (1) the containment atmosphere, (2) the Reactor Coolant System or (3) closed systems inside the containment which are assumed vulnerable to accident forces.

There are two levels of automatic containment isolation identified as Phase A and Phase B. Phase A isolation closes all lines penetrating the containment except essential lines such as safety injection and containment spray which are not isolated. A Phase B isolation closes lines penetrating containment that provide CCW to the reactor coolant pumps and service water to the ventilation units.

Containment Purge Supply and Exhaust System

UFSAR Section 5.5.3, "System Description," for the Containment Purge Supply and Exhaust System states that the system serves to provide: 1) a means of reducing the radiation level in containment to a safe value for containment entry, 2) a continuous airflow through the containment during refueling operations, 3) heated air to the containment necessary for comfort of personnel working in the containment, and 4) a backup means of pressure relief, in the event that the containment pressure relief system is out of service.

The Containment Purge Supply and Exhaust System is not normally operated. Prior to containment entry, the containment radiation monitors are assessed to determine whether containment area radiation levels are in excess of 10 CFR 20 limits for radiation exposure to an individual worker. If it is determined that the radiation level within the containment is at a safe level for purging then the Containment Purge Supply and Exhaust System isolation valves will be opened and the system activated to reduce the radiation level within the containment to a safe value for containment entry.

UFSAR Section 11.3.2.1 "Gaseous Release Pathways," states that the containment purge and exhaust isolation valves will close on a Containment Ventilation Isolation (CVI) actuation. CVI can be actuated either by the containment airborne monitors or by the normal range containment area monitors.

Operation of the Containment Purge Supply and Exhaust System is controlled by plant technical specifications.

Auxiliary Feedwater

UFSAR Section 10.5.2, "Auxiliary Feedwater," provides the design basis as two motor-driven auxiliary feedwater pumps per unit sized to deliver enough water to maintain a minimum area of heat transfer in the steam generators in order to prevent loss of primary water through the pressurizer safety or relief valves, and a higher capacity turbine driven pump per unit that maintains a tube sheet coverage of 10 feet.

The normal water source for auxiliary feedwater pumps is from the condensate storage tank. An emergency water source is provided from the Essential Service Water (ESW) System. Transfer is accomplished by a remotely operated, motor-operated valve and a manual valve. The supply line from the condensate storage tank in each unit is crosstied through a normally closed valve to provide an additional source of high purity water.

A crosstie on the discharge of the motor driven auxiliary feedwater pumps, from one unit to the other, provides additional emergency flexibility. These lines have a manual valve that is locked or sealed closed during normal operation.

Component Cooling Water

CCW System design bases per UFSAR Section 9.5.1, "Design Bases," is to: a) remove residual and sensible heat from the Reactor Coolant System, via the Residual Heat Removal System, during plant shutdown; b) cool the spent fuel pool water and the letdown flow to the Chemical and Volume Control System during power operation; c) provide cooling to dissipate waste heat from various primary plant components, and d) provide cooling for safeguards equipment.

The CCW System for each unit consists of two CCW pumps, two CCW heat exchangers, one surge tank and associated piping and valves to serve each unit. One pump and heat exchanger, with associated equipment, forms a 100% train. Another use of the CCW pumps is to provide a CCW supply to the other unit in support of safe shutdown. This is based on an Appendix R fire when the other Unit is in Modes 1-4. An additional pump is provided as an installed maintenance spare for either unit and is located in a crosstie header between the Unit 1 and 2 systems.

Essential Service Water

UFSAR Section 9.8.3, "Service Water Systems," states that the ESW System is shared by both units and consists of four ESW pumps, four duplex strainers and associated piping and valves. System piping is arranged in two independent headers, each serving certain components in each unit as follows:

a) Each ESW header supplies cooling water to one of the two Containment Spray Heat Exchangers associated with each unit.
b) The heat exchangers for the two diesel-generator sets on each unit are served by both ESW headers on that unit, one a normal and one a standby supply.
c) Each ESW header supplies cooling water to one of the two CCW heat exchangers associated with each unit.
d) In each unit, one ESW system provides the source of feedwater for the turbine-driven auxiliary feedwater pump and the other to both motor-driven auxiliary feed pumps.
e) Each ESW header supplies cooling water to one of the two control room air conditioners associated with each unit.
f) Each ESW header supplies cooling water to two of the auxiliary feedwater pump enclosure coolers.

These functions and performance requirements are unaffected by the proposed amendment since it continues to provide assurance that the system valve and pump actuations occur on a safety injection or engineered safety feature actuation signal.

UFSAR Section 14, "Safety Analysis," for Unit 1 and Unit 2 provides descriptions of the licensing basis accident analyses for the respective units, including the structures, systems, and components credited with mitigating the accidents. The proposed amendment does not affect the ability of the above systems to fulfill their safety function of supporting the structures, systems, and components credited with mitigating the accidents.

5.2.3 Approved Methodologies

NRC Regulatory Guide 1.22, "Periodic Testing of Protection System Actuation Functions," describes acceptable methods of including the actuation devices in the periodic tests of the protection system during reactor operation.

5.2.4 Conclusion

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, the CNP UFSAR, and approved methodologies, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATIONS

I&M has evaluated this license amendment request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. I&M has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, 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 needs to be prepared concerning the proposed amendment.

7.0 REFERENCES

1. Letter from S. Flanders, NRC, to W. R. Robinson, Shearon Harris Nuclear Power Plant, "Issuance of Amendment No. 77 to Facility Operating License No. NPF-63 Regarding Deletion of Shutdown Requirement From Selected Surveillances for Shearon Harris Nuclear Power Plant, Unit 1," dated April 14, 1998

2. Letter from D. S. Collins, NRC, to L. W. Myers, Beaver Valley Power Station, "Beaver Valley Power Station Unit 2 – Issuance of Amendment Re: Revision of 18 Months Surveillance Criteria For Containment Relay Testing (TAC No. MA9865)," dated October 13, 2000

8.0 PRECEDENCE

The proposed amendment is similar to Beaver Valley, Unit 2, and Shearon Harris, Unit 1, approved by the NRC on October 13, 2000, and April 14, 1998, respectively.

Attachment 1A to AEP:NRC:2036

TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
UNIT 1

3/4 5-5
3/4 6-10
3/4 6-13
3/4 6-15
3/4 7-6
3/4 7-15
3/4 7-17

SURVEILLANCE REQUIREMENTS (Continued)

d. At least once per 18 months by:

1. Verifying the automatic interlock action to prevent opening of the suction of the RHR system from the Reactor Coolant System when the Reactor Coolant System pressure is above 600 psig.

2. A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or abnormal corrosion.

e. At least once per 18 months~~, during shutdown,~~ by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated Safety Injection ~~test~~ signal.

2. Verifying that each of the following pumps start automatically upon receipt of an actual or simulated Safety Injection signal:

a) Centrifugal charging pump

b) Safety injection pump

c) Residual heat removal pump

f. By verifying that each of the following pumps' developed head at the test flow point is greater than or equal to the required developed head when tested pursuant to specification 4.0.5.

1. Centrifugal charging pumps

2. Safety injection pumps

3. Residual heat removal pumps

g. By verifying the correct position of each mechanical stop for the following Emergency Core Cooling System throttle valves:

1. Within 4 hours following completion of each valve stroking operation or maintenance on the valve when the ECCS subsystems are required to be OPERABLE.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent containment spray systems shall be OPERABLE with each spray system capable of taking suction from the RWST and transferring suction to the containment sump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one containment spray system inoperable, restore the inoperable spray system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable spray system to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. By verifying that each containment spray pump's developed head at the test flow point is greater than or equal to the required developed head when tested pursuant to Specification 4.0.5.

c. At least once per 18 months ~~during shutdown,~~ by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on **an actual or simulated** Containment Pressure -- High-High ~~test~~ signal.

2. Verifying that each spray pump starts automatically on **an actual or simulated** Containment Pressure -- High-High ~~test~~ signal.

d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months ~~during shutdown,~~ by verifying that each automatic valve in the flow path actuates to its correct position on [redacted] Containment Pressure -- High-High signal.

d. At least once per 5 years by verifying the flow rate from the spray additive tank test line to each containment spray system with the spray pump operating on recirculation.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE ~~during the COLD SHUTDOWN or REFUELING MODE~~ at least once per 18 months by:

a. Verifying that on [redacted] Phase A containment isolation ~~test~~ signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on [redacted] Phase B containment isolation ~~test~~ signal, each Phase B isolation valve actuates to its isolation position.

c. Verifying that on [redacted] Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position.

4.6.3.1.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

SURVEILLANCE REQUIREMENTS (Continued)

4.7.1.2 Each auxiliary feedwater pump shall be demonstrated OPERABLE when tested pursuant to Specification 4.0.5 by:

a. Verifying that each motor driven auxiliary feedwater pump's developed head at the test flow point is greater than or equal to the required developed head.

b. Verifying that the turbine driven auxiliary feedwater pump's developed head at the test flow point is greater than or equal to the required developed head. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

c. Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position.

d. Verifying that each automatic valve in the flow path is in the correct position whenever the auxiliary feedwater system is placed in automatic control or when above 10% RATED THERMAL POWER. This requirement is not applicable for those portions of the auxiliary feedwater system being used intermittently to maintain steam generator water level.

e. Verifying at least once per 18 months ~~during shutdown~~ that each automatic valve in the flow path actuates to its correct position upon receipt of the appropriate **actual or simulated** engineered safety features actuation ~~test~~ signal required by Specification 3/4.3.2.

f. Verifying at least once per 18 months ~~during shutdown~~ that each auxiliary feedwater pump starts as designed automatically upon receipt of the appropriate **actual or simulated** engineered safety features actuation ~~test~~ signal required by Specification 3/4.3.2.

g. Verifying at least once per 18 months ~~during shutdown~~ that the unit cross-tie valves can cycle full travel. Following cycling, the valves will be verified to be in their closed positions.

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3.1

a. At least two independent component cooling water loops shall be OPERABLE.

b. At least one component cooling water flowpath in support of Unit 2 shutdown functions shall be available.

APPLICABILITY: Specification 3.7.3.1.a - MODES 1, 2, 3 and 4.
Specification 3.7.3.1.b - At all times when Unit 2 is in MODES 1, 2, 3, or 4.

ACTION:

When Specification 3.7.3.1.a is applicable:

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

When Specification 3.7.3.1.b is applicable:

With no flowpath to Unit 2 available, return at least one flow path to available status within 7 days, or provide equivalent shutdown capability in Unit 2 and return at least one flow path to available status within the next 60 days, or have Unit 2 in HOT STANDBY within the next 12 hours and HOT SHUTDOWN within the following 24 hours. The requirements of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.3.1 At least two component cooling water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 18 months ~~during shutdown,~~ by verifying that each automatic valve servicing safety related equipment actuates to its correct position on **an actual or** ~~simulated~~ Safety Injection ~~test~~ signal.

c. By verifying pump performance pursuant to Specification 4.0.5.

d. At least once per 18 months ~~during shutdown,~~ by verifying that the unit cross-tie valves can cycle full travel. Following cycling, the valves will be verified to be in their closed positions.

3/4.7.4 ESSENTIAL SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4.1 a. At least two independent essential service water loops shall be OPERABLE.

b. At least one essential service water flowpath associated with support of Unit 2 shutdown functions shall be available.

APPLICABILITY: Specification 3.7.4.1.a – Either Unit in MODES 1, 2, 3, and 4.
Specification 3.7.4.1.b - At all times when Unit 2 is in MODES 1, 2, 3 or 4.

ACTION:

a. When Unit 1 is in MODES 1, 2, 3, and 4:

With only one essential service water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. When Unit 2 is in MODES 1, 2, 3 and 4:

1. With any Unit 1 essential service water pump not OPERABLE, within one hour close at least one crosstie valve on the associated header or have Unit 2 enter ACTION a for Unit 2 Specification 3.7.4.1 for the Unit 2 essential service water pump sharing the same header with the inoperable Unit 1 essential service water pump.

2. With no essential service water flow path available in support of Unit 2 shutdown functions, return at least one flow path to available status within 7 days, or have Unit 2 in HOT STANDBY within the next 12 hours and HOT SHUTDOWN within the following 24 hours. The requirements of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.4.1 At least two essential service water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 18 months ~~during shutdown,~~ by verifying that each automatic valve servicing safety related equipment actuates to its correct position on **an actual or** ~~simulated~~ Safety Injection ~~test~~ signal.

c. By verifying pump performance pursuant to Specification 4.0.5.

d. At least once per 92 days by verifying that each closed crosstie valve, in the available essential service water flowpath associated with support of Unit 2 shutdown functions, can be cycled from the control room.

Attachment 1B to AEP:NRC:2036

TECHNICAL SPECIFICATIONS PAGES
MARKED TO SHOW PROPOSED CHANGES

REVISED PAGES
UNIT 2

3/4 5-5
3/4 6-10
3/4 6-13
3/4 6-15
3/4 7-6
3/4 7-15
3/4 7-17

d. At least once per 18 months by:

1. Verifying the automatic interlock action to prevent opening of the suction of the RHR system from the Reactor Coolant System when the Reactor Coolant System pressure is above 600 psig.

2. A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or corrosion.

e. At least once per 18 months~~, during shutdown,~~ by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated Safety Injection ~~test~~ signal.

2. Verifying that each of the following pumps start automatically upon receipt of an actual or simulated Safety Injection signal:

a) Centrifugal charging pump

b) Safety injection pump

c) Residual heat removal pump

f. By verifying that each of the following pumps' developed head at the test flow point is greater than or equal to the required developed head when tested pursuant to Specification 4.0.5.

1. Centrifugal charging pumps

2. Safety Injection pumps

3. Residual heat removal pumps

g. By verifying the correct position of each mechanical stop for the following Emergency Core Cooling System throttle valves:

1. Within 4 hours following completion of each valve stroking operation or maintenance on the valve when the ECCS subsystems are required to be OPERABLE.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent containment spray systems shall be OPERABLE with each spray system capable of taking suction from the RWST and transferring suction to the containment sump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one containment spray system inoperable, restore the inoperable spray system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable spray system to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. By verifying that each containment spray pump's developed head at the test flow point is greater than or equal to the required developed head when tested pursuant to Specification 4.0.5.

c. At least once per 18 months ~~during shutdown,~~ by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on **an actual or simulated** Containment Pressure -- High-High ~~test~~ signal.

2. Verifying that each spray pump starts automatically on **an actual or simulated** Containment Pressure -- High-High ~~test~~ signal.

d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months ~~during shutdown,~~ by verifying that each automatic valve in the flow path actuates to its correct position on [redacted] Containment Pressure--High-High ~~test~~ signal.

d. At least once per 5 years by verifying the flow rate from the spray additive tank test line to each containment spray system with the spray pump operating on recirculation.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.1.2 Each containment isolation valve specified shall be demonstrated OPERABLE ~~during the COLD SHUTDOWN or REFUELING MODE~~ at least once per 18 months by:

a. Verifying that on an actual or simulated Phase A containment isolation ~~test~~ signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on an actual or simulated Phase B containment isolation ~~test~~ signal, each Phase B isolation valve actuates to its isolation position.

c. Verifying that on an actual or simulated Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position.

4.6.3.1.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

SURVEILLANCE REQUIREMENTS

4.7.1.2 Each auxiliary feedwater pump shall be demonstrated OPERABLE when tested pursuant to Specification 4.0.5 by:

a. Verifying that each motor driven auxiliary feed pump's developed head at the test flow point is greater than or equal to the required developed head.

b. Verifying that the turbine driven auxiliary feedwater pump's developed head at the test flow point is greater than or equal to the required developed head. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

c. Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position.

d. Verifying that each automatic valve in the flow path is in the correct position whenever the auxiliary feedwater system is placed in automatic control or when above 10% RATED THERMAL POWER. This requirement is not applicable for those portions of the auxiliary feedwater system being used intermittently to maintain steam generator level.

e. Verifying at least once per 18 months ~~during shutdown~~ that each automatic valve in the flow path actuates to its correct position upon receipt of the appropriate **actual or simulated** engineered safety features actuation ~~test~~ signal required by Specification 3/4.3.2.

f. Verifying at least once per 18 months ~~during shutdown~~ that each auxiliary feedwater pump starts as designed automatically upon receipt of the appropriate **actual or simulated** engineered safety features actuation ~~test~~ signal required by Specification 3/4.3.2.

g. Verifying at least once per 18 months ~~during shutdown~~ that the unit cross-tie valves can cycle full travel. Following cycling, the valves will be verified to be in their closed positions.

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3.1

a. At least two independent component cooling water loops shall be OPERABLE.

b. At least one component cooling water flow path in support of Unit 1 shutdown functions shall be available.

APPLICABILITY: Specification 3.7.3.1.a. - MODES 1, 2, 3, 4.
Specification 3.7.3.1.b. - At all times when Unit 1 is in MODES 1, 2, 3, or 4.

ACTION:

When Specification 3.7.3.1.a is applicable:

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

When Specification 3.7.3.1.b is applicable:

With no flowpath to Unit 1 available, return at least one flowpath to available status within 7 days, or provide equivalent shutdown capability in Unit 1 and return at least one flow path to available status within the next 60 days, or have Unit 1 in HOT STANDBY within the next 12 hours and HOT SHUTDOWN within the following 24 hours. The requirements of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.3.1 At least two component cooling water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 18 months ~~during shutdown,~~ by verifying that each automatic valve servicing safety related equipment actuates to its correct position on **an actual or simulated** Safety Injection ~~test~~ signal.

c. By verifying pump performance pursuant to Specification 4.0.5.

d. At least once per 18 months ~~during shutdown~~, verify that the unit cross-tie valves can cycle full travel. Following cycling, the valves will be verified to be in their closed positions.

3/4.7.4 ESSENTIAL SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4.1 a. At least two independent essential service water loops shall be OPERABLE.

b. At least one essential service water flowpath associated with support of Unit 1 shutdown functions shall be available.

APPLICABILITY: Specification 3.7.4.1.a - Either Unit in MODES 1, 2, 3, and 4.
Specification 3.7.4.1.b - At all times when Unit 1 is in MODES 1, 2, 3, or 4.

ACTION:

a. When Unit 2 is in MODES 1, 2, 3, and 4:

With only one essential service water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. When Unit 1 is in MODES 1, 2, 3 and 4:

1. With any Unit 2 essential service water pump not OPERABLE, within one hour close at least one crosstie valve on the associated header or have Unit 1 enter ACTION a for Unit 1 Specification 3.7.4.1 for the Unit 1 essential service water pump sharing the same header with the inoperable Unit 2 essential service water pump.

2. With no essential service water flow path available in support of Unit 1 shutdown functions, return at least one flow path to available status within 7 days, or have Unit 1 in HOT STANDBY within the next 12 hours and HOT SHUTDOWN within the following 24 hours. The requirements of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.4.1 At least two essential service water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 18 months ~~during shutdown,~~ by verifying that each automatic valve servicing safety related equipment actuates to its correct position on **an actual or simulated** Safety Injection ~~test~~ signal.

c. By verifying pump performance pursuant to Specification 4.0.5.

d. At least once per 92 days by verifying that each closed crosstie valve, in the available essential service water flowpath associated with support of Unit 1 shutdown functions, can be cycled from the control room.

Attachment 2A to AEP:NRC:2036

PROPOSED TECHNICAL SPECIFICATIONS PAGES

REVISED PAGES
UNIT 1

3/4 5-5
3/4 6-10
3/4 6-12
3/4 6-14
3/4 7-6
3/4 7-12
3/4 7-13

SURVEILLANCE REQUIREMENTS (Continued)

d. At least once per 18 months by:

1. Verifying the automatic interlock action to prevent opening of the suction of the RHR system from the Reactor Coolant System when the Reactor Coolant System pressure is above 600 psig.

2. A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or abnormal corrosion.

e. At least once per 18 months by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated Safety Injection signal.

2. Verifying that each of the following pumps start automatically upon receipt of an actual or simulated Safety Injection signal:

a) Centrifugal charging pump

b) Safety injection pump

c) Residual heat removal pump

f. By verifying that each of the following pumps' developed head at the test flow point is greater than or equal to the required developed head when tested pursuant to specification 4.0.5.

1. Centrifugal charging pumps

2. Safety injection pumps

3. Residual heat removal pumps

g. By verifying the correct position of each mechanical stop for the following Emergency Core Cooling System throttle valves:

1. Within 4 hours following completion of each valve stroking operation or maintenance on the valve when the ECCS subsystems are required to be OPERABLE.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent containment spray systems shall be OPERABLE with each spray system capable of taking suction from the RWST and transferring suction to the containment sump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one containment spray system inoperable, restore the inoperable spray system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable spray system to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. By verifying that each containment spray pump's developed head at the test flow point is greater than or equal to the required developed head when tested pursuant to Specification 4.0.5.

c. At least once per 18 months by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated Containment Pressure -- High-High signal.

2. Verifying that each spray pump starts automatically on an actual or simulated Containment Pressure -- High-High signal.

d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months by verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated Containment Pressure -- High-High signal.

d. At least once per 5 years by verifying the flow rate from the spray additive tank test line to each containment spray system with the spray pump operating on recirculation.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.1.2 Each containment isolation valve shall be demonstrated OPERABLE at least once per 18 months by:

a. Verifying that on an actual or simulated Phase A containment isolation signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on an actual or simulated Phase B containment isolation signal, each Phase B isolation valve actuates to its isolation position.

c. Verifying that on an actual or simulated Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position.

4.6.3.1.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

SURVEILLANCE REQUIREMENTS (Continued)

4.7.1.2 Each auxiliary feedwater pump shall be demonstrated OPERABLE when tested pursuant to Specification 4.0.5 by:

a. Verifying that each motor driven auxiliary feedwater pump's developed head at the test flow point is greater than or equal to the required developed head.

b. Verifying that the turbine driven auxiliary feedwater pump's developed head at the test flow point is greater than or equal to the required developed head. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

c. Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position.

d. Verifying that each automatic valve in the flow path is in the correct position whenever the auxiliary feedwater system is placed in automatic control or when above 10% RATED THERMAL POWER. This requirement is not applicable for those portions of the auxiliary feedwater system being used intermittently to maintain steam generator water level.

e. Verifying at least once per 18 months that each automatic valve in the flow path actuates to its correct position upon receipt of the appropriate actual or simulated engineered safety features actuation signal required by Specification 3/4.3.2.

f. Verifying at least once per 18 months that each auxiliary feedwater pump starts as designed automatically upon receipt of the appropriate actual or simulated engineered safety features actuation signal required by Specification 3/4.3.2.

g. Verifying at least once per 18 months that the unit cross-tie valves can cycle full travel. Following cycling, the valves will be verified to be in their closed positions.

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3.1

a. At least two independent component cooling water loops shall be OPERABLE.

b. At least one component cooling water flowpath in support of Unit 2 shutdown functions shall be available.

APPLICABILITY: Specification 3.7.3.1.a - MODES 1, 2, 3 and 4.
Specification 3.7.3.1.b - At all times when Unit 2 is in MODES 1, 2, 3, or 4.

ACTION:

When Specification 3.7.3.1.a is applicable:

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

When Specification 3.7.3.1.b is applicable:

With no flowpath to Unit 2 available, return at least one flow path to available status within 7 days, or provide equivalent shutdown capability in Unit 2 and return at least one flow path to available status within the next 60 days, or have Unit 2 in HOT STANDBY within the next 12 hours and HOT SHUTDOWN within the following 24 hours. The requirements of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.3.1 At least two component cooling water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 18 months by verifying that each automatic valve servicing safety related equipment actuates to its correct position on an actual or simulated Safety Injection signal.

c. By verifying pump performance pursuant to Specification 4.0.5.

d. At least once per 18 months by verifying that the unit cross-tie valves can cycle full travel. Following cycling, the valves will be verified to be in their closed positions.

3/4.7.4 ESSENTIAL SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4.1 a. At least two independent essential service water loops shall be OPERABLE.

b. At least one essential service water flowpath associated with support of Unit 2 shutdown functions shall be available.

APPLICABILITY: Specification 3.7.4.1.a – Either Unit in MODES 1, 2, 3, and 4.
Specification 3.7.4.1.b - At all times when Unit 2 is in MODES 1, 2, 3 or 4.

ACTION:

a. When Unit 1 is in MODES 1, 2, 3, and 4:

With only one essential service water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. When Unit 2 is in MODES 1, 2, 3 and 4:

1. With any Unit 1 essential service water pump not OPERABLE, within one hour close at least one crosstie valve on the associated header or have Unit 2 enter ACTION a for Unit 2 Specification 3.7.4.1 for the Unit 2 essential service water pump sharing the same header with the inoperable Unit 1 essential service water pump.

2. With no essential service water flow path available in support of Unit 2 shutdown functions, return at least one flow path to available status within 7 days, or have Unit 2 in HOT STANDBY within the next 12 hours and HOT SHUTDOWN within the following 24 hours. The requirements of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.4.1 At least two essential service water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 18 months by verifying that each automatic valve servicing safety related equipment actuates to its correct position on an actual or simulated Safety Injection signal.

c. By verifying pump performance pursuant to Specification 4.0.5.

d. At least once per 92 days by verifying that each closed crosstie valve, in the available essential service water flowpath associated with support of Unit 2 shutdown functions, can be cycled from the control room.

Attachment 2B to AEP:NRC:2036

PROPOSED TECHNICAL SPECIFICATIONS PAGES

REVISED PAGES
UNIT 2

3/4 5-5
3/4 6-10
3/4 6-12
3/4 6-14
3/4 7-6
3/4 7-12
3/4 7-13

d. At least once per 18 months by:

1. Verifying the automatic interlock action to prevent opening of the suction of the RHR system from the Reactor Coolant System when the Reactor Coolant System pressure is above 600 psig.

2. A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or corrosion.

e. At least once per 18 months by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated Safety Injection signal.

2. Verifying that each of the following pumps start automatically upon receipt of an actual or simulated Safety Injection signal:

a) Centrifugal charging pump

b) Safety injection pump

c) Residual heat removal pump

f. By verifying that each of the following pumps' developed head at the test flow point is greater than or equal to the required developed head when tested pursuant to Specification 4.0.5.

1. Centrifugal charging pumps

2. Safety Injection pumps

3. Residual heat removal pumps

g. By verifying the correct position of each mechanical stop for the following Emergency Core Cooling System throttle valves:

1. Within 4 hours following completion of each valve stroking operation or maintenance on the valve when the ECCS subsystems are required to be OPERABLE.

3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS

CONTAINMENT SPRAY SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.2.1 Two independent containment spray systems shall be OPERABLE with each spray system capable of taking suction from the RWST and transferring suction to the containment sump.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one containment spray system inoperable, restore the inoperable spray system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours; restore the inoperable spray system to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.1 Each containment spray system shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. By verifying that each containment spray pump's developed head at the test flow point is greater than or equal to the required developed head when tested pursuant to Specification 4.0.5.

c. At least once per 18 months by:

1. Verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated Containment Pressure -- High-High signal.

2. Verifying that each spray pump starts automatically on an actual or simulated Containment Pressure -- High-High signal.

d. At least once per 10 years by performing an air or smoke flow test through each spray header and verifying each spray nozzle is unobstructed.

SURVEILLANCE REQUIREMENTS (Continued)

c. At least once per 18 months by verifying that each automatic valve in the flow path actuates to its correct position on an actual or simulated Containment Pressure--High-High signal.

d. At least once per 5 years by verifying the flow rate from the spray additive tank test line to each containment spray system with the spray pump operating on recirculation.

SURVEILLANCE REQUIREMENTS (Continued)

4.6.3.1.2 Each containment isolation valve specified shall be demonstrated OPERABLE at least once per 18 months by:

a. Verifying that on an actual or simulated Phase A containment isolation signal, each Phase A isolation valve actuates to its isolation position.

b. Verifying that on an actual or simulated Phase B containment isolation signal, each Phase B isolation valve actuates to its isolation position.

c. Verifying that on an actual or simulated Containment Purge and Exhaust isolation signal, each Purge and Exhaust valve actuates to its isolation position.

4.6.3.1.3 The isolation time of each power operated or automatic containment isolation valve shall be determined to be within its limit when tested pursuant to Specification 4.0.5.

SURVEILLANCE REQUIREMENTS

4.7.1.2 Each auxiliary feedwater pump shall be demonstrated OPERABLE when tested pursuant to Specification 4.0.5 by:

a. Verifying that each motor driven auxiliary feed pump's developed head at the test flow point is greater than or equal to the required developed head.

b. Verifying that the turbine driven auxiliary feedwater pump's developed head at the test flow point is greater than or equal to the required developed head. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3.

c. Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position.

d. Verifying that each automatic valve in the flow path is in the correct position whenever the auxiliary feedwater system is placed in automatic control or when above 10% RATED THERMAL POWER. This requirement is not applicable for those portions of the auxiliary feedwater system being used intermittently to maintain steam generator level.

e. Verifying at least once per 18 months that each automatic valve in the flow path actuates to its correct position upon receipt of the appropriate actual or simulated engineered safety features actuation signal required by Specification 3/4.3.2.

f. Verifying at least once per 18 months that each auxiliary feedwater pump starts as designed automatically upon receipt of the appropriate actual or simulated engineered safety features actuation signal required by Specification 3/4.3.2.

g. Verifying at least once per 18 months that the unit cross-tie valves can cycle full travel. Following cycling, the valves will be verified to be in their closed positions.

3/4.7.3 COMPONENT COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.3.1

a. At least two independent component cooling water loops shall be OPERABLE.

b. At least one component cooling water flow path in support of Unit 1 shutdown functions shall be available.

APPLICABILITY: Specification 3.7.3.1.a. - MODES 1, 2, 3, 4.
Specification 3.7.3.1.b. - At all times when Unit 1 is in MODES 1, 2, 3, or 4.

ACTION:

When Specification 3.7.3.1.a is applicable:

With only one component cooling water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

When Specification 3.7.3.1.b is applicable:

With no flowpath to Unit 1 available, return at least one flowpath to available status within 7 days, or provide equivalent shutdown capability in Unit 1 and return at least one flow path to available status within the next 60 days, or have Unit 1 in HOT STANDBY within the next 12 hours and HOT SHUTDOWN within the following 24 hours. The requirements of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.3.1 At least two component cooling water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 18 months by verifying that each automatic valve servicing safety related equipment actuates to its correct position on an actual or simulated Safety Injection signal.

c. By verifying pump performance pursuant to Specification 4.0.5.

d. At least once per 18 months verify that the unit cross-tie valves can cycle full travel. Following cycling, the valves will be verified to be in their closed positions.

3/4.7.4 ESSENTIAL SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4.1 a. At least two independent essential service water loops shall be OPERABLE.

b. At least one essential service water flowpath associated with support of Unit 1 shutdown functions shall be available.

APPLICABILITY: Specification 3.7.4.1.a - Either Unit in MODES 1, 2, 3, and 4.
Specification 3.7.4.1.b - At all times when Unit 1 is in MODES 1, 2, 3, or 4.

ACTION:

a. When Unit 2 is in MODES 1, 2, 3, and 4:

With only one essential service water loop OPERABLE, restore at least two loops to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. When Unit 1 is in MODES 1, 2, 3 and 4:

1. With any Unit 2 essential service water pump not OPERABLE, within one hour close at least one crosstie valve on the associated header or have Unit 1 enter ACTION a for Unit 1 Specification 3.7.4.1 for the Unit 1 essential service water pump sharing the same header with the inoperable Unit 2 essential service water pump.

2. With no essential service water flow path available in support of Unit 1 shutdown functions, return at least one flow path to available status within 7 days, or have Unit 1 in HOT STANDBY within the next 12 hours and HOT SHUTDOWN within the following 24 hours. The requirements of Specification 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.4.1 At least two essential service water loops shall be demonstrated OPERABLE:

a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) servicing safety related equipment that is not locked, sealed, or otherwise secured in position, is in its correct position.

b. At least once per 18 months by verifying that each automatic valve servicing safety related equipment actuates to its correct position on an actual or simulated Safety Injection signal.

c. By verifying pump performance pursuant to Specification 4.0.5.

d. At least once per 92 days by verifying that each closed crosstie valve, in the available essential service water flowpath associated with support of Unit 1 shutdown functions, can be cycled from the control room.