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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit No. 1 and No. 2
Docket No. 50-334, License No. DPR-66
Docket No. 50-412, License No. NPF-73
License Amendment Request Nos. 307 and 178

Pursuant to 10 CFR 50.90, FirstEnergy Nuclear Operating Company (FENOC) hereby requests an amendment to the above licenses in the form of changes to the technical specifications (TSs). The proposed amendment revises the containment spray surveillance requirement (SR) frequency for SRs 4.6.2.1.d and 4.6.2.2.f from once per ten years to following maintenance which results in the potential for nozzle blockage and allows for the use of a visual examination in place of an air or smoke flow test. The proposed amendment also eliminates the associated Recirculation Spray System (RSS) flow requirement of SR 4.6.2.2.e.3 since the flow rate criteria is contained in the Updated Final Safety Analysis Report (UFSAR) for Beaver Valley Power Station (BVPS) Unit Nos. 1 and 2, respectively. The proposed amendment also makes minor clarification text changes to TS 3.3.1.1 for the P-13 function in the Reactor Protection System.

The proposed amendment to revise the containment spray surveillance requirement eliminates the personnel safety risk involved with accessing the upper portions of containment, removes constraints on crane and fuel movement during the surveillance, and eliminates the expense of the surveillance test. The proposed change to the containment spray SR is similar to the containment spray SR frequency approved by the NRC for FENOC's Perry Nuclear Power Plant, Technical Specification Amendment No. 113.

The SR criteria for RSS flow testing was originally requested to be added by the licensee in 1985. Since no other SR criteria currently exists for similar flow testing in the TSs, the RSS flow rate requirement of SR 4.6.2.2.e.3 is proposed to be eliminated since the flow rate is credited in the BVPS unit-specific UFSARs, which is consistent with 10 CFR 50.36 and with the Standard Technical Specifications for Westinghouse Plants for the Recirculation Spray System.

A001

The proposed changes to the text describing the P-13 function do not involve any physical or design changes; they are proposed for clarification only.

The safety analysis and no significant hazard evaluation are presented in the Enclosure. The proposed technical specification changes are presented in Attachment A-1 and Attachment A-2 for BVPS Unit Nos. 1 and 2, respectively. The proposed technical specification bases changes are presented in Attachment B-1 and Attachment B-2 for BVPS Unit Nos. 1 and 2, respectively, for information only. Attachment C provides two new regulatory commitments made in this letter applicable to both units.

The Beaver Valley review committees have reviewed the changes. The changes were determined to be safe and do not involve a significant hazard consideration as defined in 10 CFR 50.92 based on the attached safety analysis and no significant hazard evaluation.

FENOC requests approval of the proposed amendment by February 1, 2003, in support of BVPS Unit 1 Refueling Outage 15 (1R15) when the subject system flow surveillance testing is next scheduled for performance. Once approved, the amendment shall be implemented within 60 days.

If there are any questions concerning this matter, please contact Mr. Larry R. Freeland, Manager, Regulatory Affairs/Corrective Action at 724-682-5284.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 7, 2002.

Sincerely,

M. B. Bezilla

Enclosure:
FENOC Evaluation of the Proposed Change

Attachments:
A-1 Proposed BVPS Unit 1 Technical Specification Changes (mark-ups)
A-2 Proposed BVPS Unit 2 Technical Specification Changes (mark-ups)
B-1 Proposed BVPS Unit 1 Technical Specification Bases Changes (mark-ups for information only)
B-2 Proposed BVPS Unit 2 Technical Specification Bases Changes (mark-ups for information only)
C Commitment Summary

c: Mr. D. S. Collins, NRR Project Manager
Mr. D. M. Kern, NRC Sr. Resident Inspector
Mr. H. J. Miller, NRC Region I Administrator
Mr. D. A. Allard, Director BRP/DEP
Mr. L. E. Ryan (BRP/DEP)

ENCLOSURE

Beaver Valley Power Station, Unit Nos. 1 and 2
License Amendment Request Nos. 307 and 178

FirstEnergy Nuclear Operating Company Evaluation

Subject: Application for amendment to the technical specifications to revise the containment spray nozzle surveillance frequency and testing method, to eliminate the Recirculation Spray System surveillance requirement on river/service water flow rate, and to clarify the current text criteria for the P-13 function in Technical Specification 3.3.1.1 for Beaver Valley Power Station (BVPS), Unit Nos. 1 and 2.

Attachments

1. DESCRIPTION

FirstEnergy Nuclear Operating Company (FENOC) requests to amend Operating Licenses DPR-66 and NPF-73 for Beaver Valley Power Station (BVPS), Unit Nos. 1 and 2, respectively.

The proposed change would revise the Operating Licenses' Technical Specification containment spray surveillance requirement (SR) frequency for SRs 4.6.2.1.d and 4.6.2.2.f from once per ten years to following maintenance which results in the potential for nozzle blockage and allows for the use of a visual examination in place of an air or smoke flow test. The proposed amendment also eliminates the Recirculation Spray System (RSS) requirement on river/service water flow rate in SR 4.6.2.2.e.3. The proposed amendment would also modify the text description for the P-13 criteria in Technical Specification 3.3.1.1 solely for clarification.

2. PROPOSED CHANGES

The proposed change will revise BVPS Units Nos. 1 and 2 Technical Specifications (TSs). The changes to the TSs are being proposed to revise the containment spray surveillance requirement frequency for SRs 4.6.2.1.d and 4.6.2.2.f from once per ten years to following maintenance that has been evaluated to potentially result in nozzle blockage and allows for the use of a visual examination in place of an air or smoke flow test. Additional changes to the TSs are also proposed to eliminate the RSS requirement on river/service water flow rate in SR 4.6.2.2.e.3 and retain the flow rate requirement in the BVPS unit-specific UFSARs. The proposed change would also modify the P-13 title and allowable value text description in Tech Spec 3.3.1.1 solely for clarification.

These changes are summarized below:

Proposed Change	**BVPS Unit No. 1**	**Title**	**Description**
1	4.6.2.1.d and 4.6.2.2.f	Containment Quench Spray System and Recirculation Spray System	The SR frequency will be revised from once per ten years to following maintenance which results in the potential for nozzle blockage and allows for the use of a visual examination in place of an air or smoke flow test.
2	4.6.2.2.e.3	Containment Recirculation Spray System	The SR criteria for the river water flow rate through the Recirculation Spray System heat exchangers will be eliminated from the TSs and retained in the unit-specific UFSAR.

3	3.3.1.1 Table 3.3-1 Item 23.E	Turbine Pressure, P-13	Replace the words "Impulse Chamber" from the P-13 Item title with "First Stage". Replace "Impulse" with "First Stage" in the description for Allowable Value.

Proposed Change	**BVPS Unit No. 2**	**Title**	**Description**
1	4.6.2.1.d and 4.6.2.2.f	Containment Quench Spray System and Recirculation Spray System	The SR frequency will be revised from once per ten years to following maintenance which results in the potential for nozzle blockage and allows for the use of a visual examination in place of an air or smoke flow test.
2	4.6.2.2.e.3	Containment Recirculation Spray System	The SR criteria for the service water flow rate through the Recirculation Spray System heat exchangers will be eliminated from the TSs and retained in the unit-specific UFSAR.
3	3.3.1.1 Table 3.3-1 Table 4.3-1 Item 23.E	Turbine Pressure, P-13	Replace the words "Impulse Chamber" from the P-13 Item title with "First Stage". Replace "Impulse" with "First Stage" in the description for Allowable Value.

To meet format requirements, the TS pages will be revised and repaginated as necessary to reflect the change being proposed by this LAR.

The proposed TS changes for BVPS, Unit Nos. 1 and 2 are provided in Attachments A-1 and A-2, respectively. Affected TS Bases section markups are provided in Attachments B-1 and B-2 for BVPS Unit Nos. 1 and 2, respectively, for information only and will be revised in accordance with the BVPS TS Bases Control Program and 10 CFR 50.59.

3. BACKGROUND

Proposed Changes 1 and 2

The BVPS Unit No. 1 and 2 containment depressurization system includes the Quench Spray System (QSS) and the Recirculation Spray System (RSS). These systems are described in Section 6.4 of the BVPS Unit 1 UFSAR and in Section 6.2.2 of the BVPS Unit 2 UFSAR. These spray systems are an Engineered Safety Feature which have a dual function of removing both heat and fission product iodine from the post-accident containment atmosphere. These spray systems serve no function during normal operation.

These spray systems reduce the containment temperature and pressure following a postulated design basis accident involving a break in either the primary or secondary system piping inside the containment. Heat that is removed from the containment atmosphere by the spray systems is transferred to the containment sump. Heat is then removed from the containment by the river water/service water via the recirculation spray heat exchangers, for Unit 1 and 2 respectively.

The QSS and RSS at both BVPS Units utilize stainless steel nozzles to spray water into the containment atmosphere to reduce the containment temperature/pressure and remove iodine during a design basis accident inside containment.

The containment spray nozzle surveillance specified in TS SRs 4.6.2.1.d and 4.6.2.2.f requires that each containment spray nozzle be verified unobstructed on a 10-year frequency and specifies that the test performed be an air or smoke flow test through each spray header. The 10-year frequency had been determined in the past by the NRC to be adequate to detect degradation in performance due to the passive spray nozzle design and its normally dry state of the spray rings as approved in BVPS Unit No. 1 Technical Specification Amendment No. 231 and in BVPS Unit No. 2 Technical Specification Amendment No. 111. In specifically requiring air or smoke flow testing, SRs 4.6.2.1.d and 4.6.2.2.f currently do not permit visual testing techniques (e.g., boroscope) or other valid verification methodologies.

Performance of the air flow and smoke flow tests present a personnel safety risk for the individual(s) required to access the upper portions of the containment to check for nozzle air flow. These personnel must use a work platform that telescopes out from the polar crane trolley near the top of the inner containment dome to access the containment spray header nozzles. During the test, personnel are approximately 95 feet above the containment operating deck on a movable platform. Performance of these flow tests also limits the availability of the polar crane to support other refueling outage-critical activities that may impact duration and cost of the outage. Additionally, the testing itself is expensive to conduct due to the time, material, and resources required. Thus, implementation of the proposed change eliminates the personnel safety risk involved with accessing the upper portions of containment, removes constraints on polar crane use during the surveillance, and eliminates the expense of the surveillance test.

A review of the maintenance histories for the containment spray systems for BVPS, Unit Nos. 1 and 2, shows that during the performance of five (5) nozzle air flow tests on Unit No. 1 and three (3) nozzle air flow tests on Unit No. 2, that no nozzle obstructions were observed. Cleanliness control practices (Foreign Material Exclusion), including post maintenance inspections, are proceduralized to preclude the introduction of foreign material. Additionally, review of industry experience indicates that containment spray systems of similar design are highly reliable and not subject to plugging.

The proposed changes to the containment spray system nozzle surveillance frequency and the manner in which the nozzles are verified to be unobstructed, is similar to the containment spray SR approved by the NRC for FENOC's Perry Nuclear Power Plant (Docket No. 50-440, Operating License No. NPF-58, TS Amendment No. 113, June 29, 2000) and for the Clinton Power Station Unit 1 (Docket 50-461, Operating License No. NPF-62, TS Amendment No. 146, March 28, 2002).

The proposed change to eliminate the associated RSS flow rate requirement from the TS SR does not reduce the assurance that this function will be maintained since the unit-specific UFSAR continues to require a minimum flow rate. The change also aligns the BVPS Unit Nos. 1 and 2 TSs with the TS requirements contained in NUREG-1431, "[Improved] Standard Technical Specifications (ISTS) – Westinghouse Plants," Revision 2, issued by the NRC in April 2001 for the RSS. The ISTS do not contain a surveillance requirement to verify a listed flow rate through the cooling side of the RSS heat exchangers.

Proposed Change 3

P-13 is a Reactor Protection System protection signal based on the turbine power. The P-13 signal is one of two inputs to P-7. The absence of a P-7 signal will block a reactor trip on: low reactor coolant flow in more than one loop, and undervoltage, underfrequency, or Reactor Coolant Pump breakers open in more than one loop, pressurizer low pressure, and pressurizer high level.

The proposed change to substitute the word "impulse" with "first stage" in the descriptive text associated with the P-13 function of the Reactor Trip System in TS 3.3.1.1, Table 3.3-1 and Table 4.3-1 does not involve any physical or design change for the P-13 function. The proposed change is intended to eliminate any potential confusion following a future planned turbine modification when the turbine first stage will no longer be considered an "impulse" chamber. The future planned turbine design change to enhance the BVPS turbines' performance by making them a fully reaction turbine design (which includes the turbine first stage chamber) will not alter the current function or design of P-13. A reaction turbine's first stage will continue to be representative of overall turbine power via a linear relationship as is currently employed with the impulse first stage turbine design. The term "impulse" is often considered synonymous in the industry with the "first stage" when described in relationship to turbine design. Since a future planned turbine design change may replace the first stage impulse blading with reaction blading, the proposed TS change was considered prudent to avoid any possible misinterpretation in the future between what is intended and what is labeled in TS 3.3.1.1 regarding the P-13 function.

4. TECHNICAL ANALYSIS

Proposed Change 1

The BVPS Unit No. 1 and 2 containment depressurization system includes the QSS and the RSS. The QSS and RSS each contain two-100% capacity subsystems. Each subsystem utilizes spray rings located in the top of the containment dome. These spray systems serve no function during normal operation. The spray headers are maintained dry until the containment depressurization system is initiated which would force water to rise up into the spray headers in containment. The associated piping in the BVPS Unit No. 1 QSS and RSS is stainless steel. The spray systems' nozzles were replaced at BVPS Unit No. 1 in a design change in 1979 and are stainless steel. The function of the air flow surveillance testing is to ensure that the flow path through the spray nozzles is not blocked. The associated piping and spray nozzles in the BVPS Unit No. 2 Quench Spray and Recirculation Spray System are also stainless. Stainless steel components are highly resistant to corrosion, especially in a low-stress application such as in the QSS and RSS at BVPS Unit Nos. 1 and 2.

Previous testing has demonstrated that the nozzles have not been blocked at BVPS. The air flow surveillance testing conducted at BVPS Unit No. 1 in 1980 (following the design change), 1984, 1989, 1995 and 2000 did not identify any obstructed or clogged spray systems' nozzles. The air flow surveillance testing conducted at BVPS Unit No. 2 in 1986 (during pre-operational startup testing), 1990, and 1995 did not identify any obstructed or clogged spray systems nozzles. The time most likely for debris to be introduced into the containment spray headers is during the initial construction and installation of the system. Pre-operational testing on both BVPS Units successfully verified that each spray nozzle was not obstructed prior to initial plant operation. Based on these early test results, it is unlikely that there is any residual debris in the headers or nozzles from original construction. It is not expected that corrosion or any other mechanism would cause obstruction of the nozzles in the future since the system piping and spray nozzles are stainless steel, the containment spray header piping above the water level maintained in the Refueling Water Storage Tank (RWST) is maintained dry at all times and the air in containment is largely free of contaminants. Additionally, a review of industry experience indicates that containment spray systems of similar design are highly reliable and not subject to plugging. Thus, the proposed change to the TS SR frequency to verify each spray nozzle is unobstructed following maintenance that could result in nozzle blockage is compatible with the plant operating experience at BVPS Unit No. 1 and 2 and the industry.

No evolutions normally require the containment spray systems' boundary to be breached, except when maintenance or testing activities are in progress. Cleanliness control or Foreign Material Exclusion (FME) practices, including post maintenance inspections, are

proceduralized to preclude the introduction of foreign material. The current FME program at BVPS requires that any breaches of system boundaries during maintenance activities be appropriately protected from the intrusion of foreign material. These controls include, but are not limited to, covers for open pipes, in-progress and closeout inspections, and accounting for tools and materials during the performance of work. The FME program provides guidance that establishes cleanliness requirements and accounting of materials, tools, and parts to preclude the introduction of foreign material into systems and components during maintenance, modification, test, or inspection activities. The program demands a high level of controls for safety-related systems such as the containment depressurization spray systems. These controls are sufficient to ensure that foreign material are not inadvertently introduced. Normal plant operation and maintenance practices at BVPS, Unit Nos. 1 and 2, are not expected to cause activation of the surveillance requirement as proposed. Only an unanticipated circumstance would initiate this surveillance, such as an inadvertent spray actuation, a major configuration change, or a loss of FME control when working within the affected boundary of the system. Per the established corrective action program, an unanticipated circumstance would trigger an investigation by initiating a Condition Report. The corrective action program would include remedial actions to ensure that the spray nozzles are operable prior to being returned to service, and actions to prevent recurrence would address long term operability as necessary.

Current procedures require appropriate FME controls for maintenance activities that breach systems. In addition, appropriate BVPS, Unit Nos. 1 and 2 procedures will specifically address the need for an engineering evaluation to determine whether a Containment Spray Nozzle Test is necessary to ensure that the nozzles remain unobstructed following maintenance on sections of containment spray system piping. When a test is determined to be necessary, a visual inspection (e.g., boroscope) of the nozzles could be utilized in lieu of either a smoke or air test. Such inspections would be proceduralized.

Affected TS Bases section markups are provided in Attachments B-1 and B-2 for BVPS Unit Nos. 1 and 2, respectively, for information only and will be revised in accordance with the BVPS TS Bases Control Program and 10 CFR 50.59 as part of the implementation of the proposed amendment.

The passive nature of the system, coupled with the fact that the spray headers and nozzles are maintained in a dry location, is not conducive to the presence of an active corrosion mechanism. Likewise, the design, configuration, and maintenance of the system are sufficient to provide confidence that other active degradation mechanisms are not present. The containment spray nozzles are located near the top of containment and are not easily accessible. The introduction of materials other than air is considered remote for this reason. These reasons make the potential for nozzle obstruction very low. The

requirement to verify the nozzles are not obstructed every ten years is unnecessarily restrictive. Verifying that the nozzles are not obstructed following maintenance that could introduce foreign material internal to the spray headers is an appropriate frequency considering the system design and station FME controls. The proposed changes are acceptable since the safety analyses approved by the NRC for the containment spray systems are not affected by the changes to the surveillance frequency or the change in testing methodology.

Proposed Change 2

Currently, the RSS TS requires a surveillance to verify a specific minimum river/service water flow rate (Unit 1/Unit 2, respectively) through each RSS train. Each train contains two RSS heat exchangers. The RSS TS SR to verify a specific minimum river water flow rate through the BVPS Unit 1 RSS heat exchangers was voluntarily added in 1985 due to the licensee's request. The SR was added solely as a measure to ensure this parameter was tested based entirely on licensee discretion, and was not added in response to any regulation or regulator input. This RSS TS SR was approved in BVPS Unit No. 1 TS Amendment No. 91 on February 22, 1985 and was incorporated into the original BVPS Unit No. 2 TS for consistency with BVPS Unit No. 1.

There is no SR requirement in either BVPS Unit No. 1 or No. 2 TSs to verify a specific minimum river/service water flow rate through any other safety related component's heat exchanger which is cooled by the river water system at BVPS Unit No. 1 or by service water system at BVPS Unit No. 2. Similarly, there is not an explicit minimum overall flow rate value specified in the SRs for the River Water System and Service Water System TSs (the SR specifies testing pursuant to TS 4.0.5). Criteria to explicitly test the river/service flow rate through the RSS is not and has not been a criteria in any previous version of the Standard Technical Specification for Westinghouse Pressurized Water Reactors (NUREG-0452, Revisions 0 through 4, and NUREG-1432, Revisions 0 through 2) for the TS describing RSS.

River water/service water flow rate through the RSS trains is one of many parameters which are not explicitly cited in TS SRs, but that are credited in safety analyses and are specified in the UFSARs for design basis accidents. The minimum river water flow rate of 8000 gpm currently listed in TS SR 4.6.2.2.e.3 is the same value credited through one train of RSS at BVPS Unit No. 1 in the design basis safety analyses and is currently listed in Tables 9.9-3 and 14.3-5 in the BVPS Unit No. 1 UFSAR. The proposed change is to remove SR 4.6.2.2.e.3 from each BVPS Unit's TS and to control this parameter in the same manner as other safety-related UFSAR-listed parameters which are credited in design basis accident safety analyses. This parameter, like the other safety analyses parameters listed in the UFSAR, would be controlled pursuant to 10 CFR 50.59 requirements. Similarly, the minimum service water flow rate through one RSS train of

11,000 gpm is currently listed in the BVPS Unit No. 2 UFSAR in Table 9.2-2. This parameter would also be controlled pursuant to 10 CFR 50.59 requirements. This is consistent with the current [Improved] Standard Technical Specifications for RSS.

The minimum river/service water flow rate values specified in SR 4.6.2.2.e.3 of at least 8,000 gpm for Unit 1 and 11,000 gpm for Unit 2 are based on analyses performed using the maximum allowable river water and containment air temperature as an input assumption. This results in conservative values for minimum river/service water flows contained in the surveillance requirement. Since the river water temperature rarely approaches the maximum limit, the surveillance requirement is normally overly restrictive. This overly restrictive requirement has resulted in several unnecessary operability issues in the past at Beaver Valley Power Station when observed flows were slightly less than the requirement while being greater that the flows required for the actual environmental and plant conditions at the time (e.g., Licensee Event Report No. 2002-001 for BVPS Unit No. 2). With implementation of the proposed change, the flow criteria will continue to be specified in the UFSAR and the river/service water system monitoring program will still require sufficient river/service water flows through the recirculation spray heat exchangers. The river/service water system monitoring program meets the criteria of NRC Generic Letter 89-13 for ensuring that the river/service water flow through safety related heat exchangers will be maintained. FENOC commits to perform a test on a once per 18 month frequency (±25%) to verify acceptable flow rate of the river/service water through the Recirculation Spray System heat exchangers at BVPS Unit No. 1 and No. 2. The change will result in flexibility to evaluate non-conforming conditions using the guidance provided by Generic Letter 91-18 "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions."

The BVPS Unit No.1 and Unit No. 2 TS will continue to require that the RSSs remain operable in accordance with TS 3/4.6.2.2. Inherent in the operable definition is that the system is capable of "performing its specified function(s) and that all necessary attendant instrumentation, controls, normal and emergency electric power sources, cooling or seal water, lubrication or other auxiliary equipment that are required for the system to perform its function(s) are also capable of performing their related safety function(s)." The river/service water flow rate through each RSS train is one of those support functions which is required in order to maintain the RSS operable. Thus, should a future condition be identified where the river/service water flow rate through a RSS train is determined to not provide adequate UFSAR safety analyses conclusions, then that portion of the RSS would have to be declared inoperable and appropriate TS Action statement requirements followed. The proposed TS change would continue to ensure adequate RSS functions are retained; thus, the proposed change remains consistent with 10 CFR 50.36.

The proposed changes are acceptable since the safety analyses approved by the NRC for the containment spray systems are not affected by the elimination of the associated RSS flow test requirements from the TS SRs, the flow rates are specified in the unit-specific UFSARs, and TS criteria are retained which require the RSS system to remain operable. The proposed License Amendment provides the same assurance that the acceptance criteria for river/service water flow rate through the RSS as for many other safety-related UFSAR-specified safety analyses parameters which are not explicitly cited in TS SRs.

Proposed Change 3

The proposed wording changes proposed for TS 3.3.1.1, Table 3.3-1/4.3-1, Item 23E is only a clarification of the current requirements. The proposed changes do not involve any physical changes nor any design changes for the P-13 function of the RPS. No changes are being proposed for the specific parameter values associated with the P-13 criteria (i.e., total number of channels, channels to trip, minimum channels operable, allowable value, applicable modes, and action).

The requirements for P-13 within the RPS design is that the P-13 signal be representative of overall turbine power. This is accomplished at BVPS by measuring turbine first stage pressure since turbine first stage pressure exhibits a consistent and accurate relationship with overall turbine power. The term "impulse" refers to a particular type of turbine blade design. A turbine with impulse blades in its first stage will exhibit a first stage pressure that has a consistent and accurate relationship with overall turbine power. A turbine with "reaction" blades in its first stage will also exhibit a first stage pressure that has a consistent and accurate relationship with overall turbine power (though not necessarily with the exact same relationship as exhibited with impulse blades). Thus, a valid P-13 signal can be established and calibrated with either impulse or reaction blades in the turbine's first stage.

The proposed TS change revises the text to state the basic requirement for P-13, without necessarily inferring or implying a specific turbine blade design. This change is proposed solely to clarify the basic TS intent for this criteria, and to allow for future turbine design flexibility for potential turbine enhancements, while retaining the required P-13 safety function.

The proposed changes for TS 3.3.1.1, Table 3.3-1/4.3-1, Item 23E are acceptable since the safety related function of P-13 in the BVPS Unit No. 1 and Unit No. 2 RPS design, as credited in safety analyses, remains unchanged.

5. REGULATORY SAFETY ANALYSIS

FirstEnergy Nuclear Operating Company proposes to amend the Operating Licenses for Beaver Valley Power Station, Unit Nos. 1 and 2, in the form of changes to the technical specifications. The proposed amendment revises the containment spray surveillance requirement (SR) frequency for SRs 4.6.2.1.d and 4.6.2.2.f from once per ten years to following maintenance which results in the potential for nozzle blockage and allows for the use of a visual examination in place of an air or smoke flow test. The proposed amendment also eliminates the associated Recirculation Spray System flow rate requirement of SR 4.6.2.2.e.3 and to retain the flow rate criteria in the Updated Final Safety Analysis Report (UFSAR) for Beaver Valley Power Station, Unit No. 1 and 2, respectively. The proposed amendment would also modify the P-13 title and allowable value text description in Technical Specification 3.3.1.1, Table 3.3-1/4.3-1 by replacing the words "Impulse Chamber" from the P-13 Item title with "First Stage" and by replacing "Impulse" with "First Stage" in the description for Allowable Value.

5.1 No Significant Hazards Consideration

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

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

   No. The proposed changes to the containment spray system nozzle surveillance frequency, the manner in which the nozzles are verified to be unobstructed, and the elimination of the associated Recirculation Spray System (RSS) flow rate requirement does not introduce an initiator of any design basis accident or event. The proposed changes do not adversely affect accident initiators or precursors nor alter the configuration of the facility or the manner in which the plant is maintained. The river/service water system monitoring program ensures that the river/service water flow through the RSS heat exchangers will be maintained. The proposed changes to provide alternate wording for the P-13 function in the Reactor Protection System solely for clarification of the current criteria does not adversely affect accident initiators or precursors. Thus, the proposed changes do not involve a significant increase in the probability of an accident previously evaluated.

   The proposed changes do not alter or prevent the ability of structures, systems, and components (SSCs) from performing their intended function to mitigate the

consequences of an initiating event within the assumed acceptance limits. Introduction of foreign materials into the containment spray system from the exterior is unlikely due to the location of the spray headers, the passive nature of the nozzles, station foreign material controls, and the fact that the containment spray headers are maintained dry above the water level maintained in the Recirculation Water Storage Tank which inhibits active degradation mechanisms such as corrosion. The proposed amendment to eliminate the associated RSS flow rate requirements and the text clarification for the P-13 function do not introduce an initiator of any design basis accident or event. The proposed changes are consistent with the safety analysis assumptions and resultant consequences. Accident analyses potentially affected by the proposed change have been reviewed and none are adversely affected. Thus, the proposed change does not involve a significant increase in the consequences of an accident previously evaluated.

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

   No. The proposed changes to the containment spray system nozzle surveillance frequency, the manner in which the nozzles are verified to be unobstructed, the elimination of the associated RSS flow rate requirement, and the text clarifications for the P-13 function do not involve any physical alteration of the plant (i.e., no new or different type of equipment will be installed), subsequently no new or different failure modes or limiting single failures are created. The plant will not be operated in a different manner due to the proposed change. All SSCs will continue to function as currently designed. Thus, the proposed change does not create any new or different accident scenarios.

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

   No. The proposed changes to the containment spray system nozzle surveillance frequency, the manner in which the nozzles are verified to be unobstructed, the elimination of the associated RSS flow rate requirement, and the text clarifications for the P-13 function do not involve revisions to any safety limits or safety system settings that would adversely impact plant safety. No current setpoints are altered by this change. The proposed amendment does not alter the functional capabilities assumed in a safety analysis for any SSCs important to the mitigation and control of design bases accident conditions within the facility. The river/service water system monitoring program ensures that the river/service water flow through the RSS heat exchangers will be maintained.

All of the applicable acceptance criteria for each of the analyses affected by the proposed change continue to be met. The conclusions of the UFSAR remain valid. Thus, since the operating parameters and system performance will remain within design requirements and safety analysis assumptions, safety margin is maintained.

Based on the above, FENOC concludes that the proposed amendment present 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

In the following paragraphs applicable criteria and acceptance limits as they are related to the proposed changes are discussed. A summary of the applicable regulatory requirements and criteria are provided in the following tables.

General Design Criteria		Assessment
20	Protection System Functions	No Impact
38	Containment Heat Removal	No Impact
39	Inspection of Containment Heat Removal System	No Impact
40	Testing of Containment Heat Removal System	No Impact
41	Containment Atmosphere Cleanup	No Impact

10 CFR 50		Assessment
Part 100	Reactor Site Criteria	No Impact
Appendix K	Emergency Core Cooling System Evaluation Models	No Impact

Regulatory Guides		Assessment
1.82	Sumps for Emergency Core Cooling and Containment Spray Systems	No Impact
1.183	Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors	No Impact

The requested revisions to Surveillance Requirements 4.6.2.1.d and 4.6.2.2.f would change the frequency to require verification that the nozzles are unobstructed following maintenance which results in potential for nozzle blockage and would not specify the type of testing that may be performed. The requested elimination of Surveillance Requirement 4.6.2.2.e.3 by crediting the flow rate in the unit-specific UFSARs will assure that the river/service water flow rates through the RSS will be

controlled in the same manner as other river/service water flow rates through other safety related systems and equipment which are credited in safety analyses. These proposed changes continue to assure that the containment depressurization systems will perform as designed to mitigate Design Basis Accidents as analyzed in the BVPS Unit Nos. 1 and 2 safety analyses and as described in the UFSARs. The proposed text changes for the P-13 function in the Reactor Protection System are for clarification only and do not alter the current design function and operation of the Reactor Protection System. Thus, the proposed changes do not impact the design or performance characteristics of containment or the containment depressurization systems and Reactor Protection System.

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, 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. ENVIRONMENTAL CONSIDERATION

A review 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 need be prepared in connection with the proposed amendment.

7. REFERENCES

A. BVPS Unit No. 1, Updated Final Safety Analysis Report, Sections 1.3, 6.4,7.2

B. BVPS Unit No 2, Updated Final Safety Analysis Report, Sections 3.1, 6.2, 6.5, 7.2

C. BVPS Unit No. 1 Technical Specification Amendment No. 231, dated July 11, 2000.

D. BVPS Unit No. 2 Technical Specification Amendment No. 111, dated July 11, 2000.

E. Perry Nuclear Power Plant (Docket No. 50-440, Operating License No. NPF-58) Technical Specification Amendment No. 113, dated June 29, 2000.

F. Clinton Power Station Unit 1 (Docket No. 50-461, Operating License No. NPF-62) Technical Specification Amendment No. 146, dated March 28, 2002.

G. Beaver Valley Power Station Unit No. 2 Licensee Event Report No. 2002-001.

ATTACHMENT A-1

Beaver Valley Power Station, Unit No. 1
License Amendment Request No. 307

The following is a list of the affected Technical Specification pages:

3/4 3-4a
3/4 6-12
3/4 6-14

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	ALLOWABLE VALUE	APPLICABLE MODES	ACTION
21. Reactor Trip Breakers	2	1	2	Not Applicable	1, 2	40
	2	1	2	Not Applicable	3(3), 4(3), 5(3)	39
22. Automatic Trip Logic	2	1	2	Not Applicable	1, 2	1
	2	1	2	Not Applicable	3(3), 4(3), 5(3)	39
23. Reactor Trip System Interlocks						
A. Intermediate Range Neutron Flux, P-6	2	1	1	$\geq 9.0 \times 10^{-11}$ Amps	2	3
B. Power Range Neutron Flux, P-8	4	2	3	$\leq$ 30.5% RATED THERMAL POWER	1	12
C. Power Range Neutron Flux, P-9	4	2	3	$\leq$ 49.5% RATED THERMAL POWER	1	12
D. Power Range Neutron Flux, P-10	4	2	3	$\geq$ 9.5% RATED THERMAL POWER on increasing power and $\leq$ 10.5% RATED THERMAL POWER on decreasing power	1	12
E. Turbine ~~Impulse Chamber~~ Pressure, P-13	2	1	1	$\leq$ 10.5% of RTP Turbine ~~Impulse~~ Pressure Equivalent	1	12

First Stage

First Stage

SURVEILLANCE REQUIREMENTS (Continued)

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

1. Cycling each power operated (excluding automatic) valve in the flow path that is not testable during plant operation, through at least one complete cycle of full travel.

2. Verifying that each automatic valve in the flow path actuates to its correct position on a test signal.

3. Verifying that each spray pump starts automatically on a 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.

Following maintenance which results in the potential for nozzle blockage, as determined by engineering evaluation, by

SURVEILLANCE REQUIREMENTS (Continued)

d. Verify, at the frequency specified in the Inservice Testing Program, that each recirculation spray pump's developed head at the flow test point is greater than or equal to the required developed head as specified in the Inservice Testing Program and the Containment Integrity Safety Analysis.

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

1. Cycling each power operated (excluding automatic) valve in the flow path not testable during plant operation, through at least one complete cycle of full travel.

2. Verifying that each automatic valve in the flow path actuates to its correct position on a test signal.

~~3. Initiating flow through each River Water subsystem and its two associated recirculation spray heat exchangers, and verifying a flow rate of at least 8000 gpm.~~

f. ~~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.

Following maintenance which results in the potential for nozzle blockage, as determined by engineering evaluation, by

ATTACHMENT A-2

Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 178

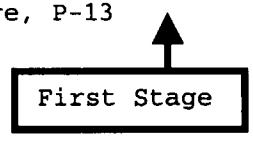
The following is a list of the affected Technical Specification pages:

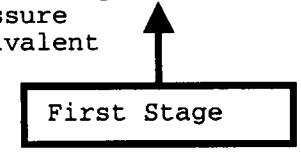
3/4 3-4a
3/4 3-12
3/4 6-11
3/4 6-13

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	ALLOWABLE VALUE	APPLICABLE MODES	ACTION
23. Reactor Trip System Interlocks						
a. Intermediate Range Neutron Flux, P-6	2	1	2	$\geq 9.0 \times 10^{-11}$ amps	2	44
b. Power Range Neutron Flux, P-8	4	2	3	$\leq$ 30.5% of RTP*	1	44
c. Power Range Neutron Flux, P-9	4	2	3	$\leq$ 49.5% of RTP*	1	44
d. Power Range Neutron Flux, P-10	4	2	3	$\geq$ 9.5% RTP* on increasing power and $\leq$ 10.5% RTP* on decreasing power	1, 2	44
e. Turbine ~~Impulse Chamber~~ Pressure, P-13	2	1	2	$\leq$ 10.5% of RTP* turbine ~~impulse~~ pressure equivalent	1	44





* = RATED THERMAL POWER

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

Functional Unit	Channel Check	Channel Calibration	Channel Functional Test	Modes in Which Surveillance Required
22. Automatic Trip Logic	N.A.	N.A.	M(5)	1,2,3(14),4(14),5(14)
23. Reactor Trip System Interlocks				
A. Intermediate Range Neutron Flux, P-6	N.A.	R(6)	R	1, 2
B. Power Range Neutron Flux, P-8	N.A.	R(6)	R	1
C. Power Range Neutron Flux, P-9	N.A.	R(6)	R	1
D. Power Range Neutron Flux, P-10	N.A.	R(6)	R	1, 2
E. Turbine ~~Impulse Chamber~~ Pressure, P-13	N.A.	R	R	1
24. Reactor Trip Bypass Breakers	N.A.	N.A.	M(12), R(13)	1, 2, 3(14), 4(14), 5(14)

First Stage

SURVEILLANCE REQUIREMENTS (Continued)

2. Verifying that each automatic valve in the flow path actuates to its correct position on a test signal.

3. Verifying that each spray pump starts automatically on a 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.

Following maintenance which results in the potential for nozzle blockage, as determined by engineering evaluation, by

SURVEILLANCE REQUIREMENTS (Continued)

d. Verify, at the frequency specified in the Inservice Testing Program, that each recirculation spray pump's developed head at the flow test point is greater than or equal to the required developed head as specified in the Inservice Testing Program and the Containment Integrity Safety Analysis.

e. At least once per 18 months by:

1. Cycling each power operated (excluding automatic) valve in the flow path through at least one complete cycle of full travel.

2. Verifying that each automatic valve in the flow path actuates to its correct position on a test signal.

~~3. Initiating flow through each Service Water subsystem and its two associated recirculation spray heat exchangers, and verifying a flow rate of at least 11,000 gpm.~~

f. ~~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.

Following maintenance which results in the potential for nozzle blockage, as determined by engineering evaluation, by

ATTACHMENT B-1

FOR INFORMATION ONLY

Beaver Valley Power Station, Unit No. 1
License Amendment Request No. 307

The following is a list of the affected Technical Specification Bases pages:

B 3/4 3-1h
B 3/4 6-11

3/4.3.1 and 3/4.3.2 REACTOR TRIP SYSTEM AND ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION (Continued)

OPERABILITY of the following trips in Table 3.3-1 provides additional diverse or anticipatory protection features and is not credited in the accident analyses:

Undervoltage - Reactor Coolant Pumps (Above P-7); Underfrequency Reactor Coolant Pumps (Above P-7); Turbine Trip (Above P-9); Reactor Coolant Pump Breaker Position Trip (Above P-7); Turbine ~~Impulse Chamber~~ First Stage Pressure, P-13.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with WCAP-10271, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System," and supplements to that report as approved by the NRC and documented in the SER (letter to J. J. Sheppard from Cecil O. Thomas dated February 21, 1985). Jumpers and lifted leads are not an acceptable method for placing equipment in bypass as documented in the NRC safety evaluation report for this WCAP.

The surveillance requirements for the Manual Trip Function, Reactor Trip Breakers and Reactor Trip Bypass Breakers are provided to reduce the possibility of an Anticipated Transient Without Scram (ATWS) event by ensuring OPERABILITY of the diverse trip features (Reference: Generic Letter 85-09).

The measurement of response time at the specified frequencies provides assurance that the protective and ESF action function associated with each channel is completed within the time limit assumed in the accident analyses. No credit was taken in the analyses for those channels with response times indicated as not applicable.

ESF response times which include sequential operation of the RWST and VCT valves are based on values assumed in the Non-LOCA safety analyses and are provided in Section 3 of the Licensing Requirements Manual. These analyses take credit for injection of borated water. Initial borated water is supplied by the BIT, however, injection of borated water from the RWST is assumed not to occur until the VCT charging pump suction valves are closed following opening of the RWST charging pump suction valves. When sequential operation of the RWST and VCT valves is not included in the response times, the values specified are based on the LOCA analyses. [redacted] take

Provided for Information Only.

3/4.6.2.1 and 3/4.6.2.2 CONTAINMENT QUENCH AND RECIRCULATION SPRAY SYSTEMS (Continued)

Verifying that each recirculation spray system pump's developed head at the flow test point is greater than or equal to the required developed head ensures that recirculation spray system pump performance has not degraded during the cycle. The term "required developed head" refers to the value that is assumed in the Containment Integrity Safety Analysis for the recirculation spray pump's developed head at a specific flow point. This value for the required developed head at a flow point is defined as the MOP in the IST Program. The verification that the pump's developed head at the flow test point is greater than or equal to the required developed head is performed by using a MOP curve. The MOP curve is contained in the IST Program and was developed using the required developed head at a specific flow point as a reference point. From the reference point, a curve was drawn which is a constant percentage below the current pump performance curve. Based on the MOP curve, a verification is performed to ensure that the pump's developed head at the flow test point is greater than or equal to the required developed head. Flow and differential head are normal test parameters of centrifugal pump performance required by Section XI of the ASME Code. Since the recirculation spray system pumps cannot be tested with flow through the spray headers, they are tested on bypass flow. This test confirms one point on the pump design curve and is indicative of overall performance. Such inservice tests confirm component OPERABILITY, trend performance, and detect incipient failures by indicating abnormal performance.

~~The ten year surveillance interval for performing an air or smoke flow test through each spray header is considered adequate for detecting obstruction of the nozzles due to the passive design of the spray header and the header's components being constructed with stainless steel.~~

Add Insert 1

Provided for Information Only.

Insert 1

Verifying that each spray nozzle is unobstructed is to be performed following maintenance which results in the potential for nozzle blockage as determined through an engineering evaluation. Post maintenance test instructions for affected systems will specifically address the need for an engineering evaluation to determine whether a containment spray nozzle test is necessary to ensure that the nozzles remain unobstructed. This is considered adequate due to the passive design of the spray header, the header's components being constructed with stainless steel, and the controls contained in the foreign materials exclusion program. When a test is determined to be necessary to verify each spray nozzle is unobstructed, a visual inspection (e.g., boroscope) of the nozzles could be utilized or perform an air or smoke flow test through each spray nozzle.

ATTACHMENT B-2

FOR INFORMATION ONLY

Beaver Valley Power Station, Unit No. 2
License Amendment Request No. 178

The following is a list of the affected Technical Specification Bases pages:

B 3/4 3-2
B 3/4 6-11

BASES

3/4.3.1 and 3/4.3.2 REACTOR TRIP SYSTEM AND ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION (Continued)

OPERABILITY of the following trips in Table 3.3-1 provides additional diverse or anticipatory protection features and is not credited in the accident analyses:

Undervoltage - Reactor Coolant Pumps (Above P-7); Underfrequency Reactor Coolant Pumps (Above P-7); Turbine Trip (Above P-9); Reactor Coolant Pump Breaker Position Trip (Above P-7); Turbine ~~Impulse Chamber~~ First Stage Pressure, P-13.

Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with WCAP-10271, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System," and supplements to that report as approved by the NRC and documented in the SER (letter to J. J. Sheppard from Cecil O. Thomas dated February 21, 1985). Jumpers and lifted leads are not an acceptable method for placing equipment in bypass as documented in the NRC safety evaluation report for this WCAP.

The surveillance requirements for the Manual Trip Function, Reactor Trip Breakers, and Reactor Trip Bypass Breakers are provided to reduce the possibility of an Anticipated Transient Without Scram (ATWS) event by ensuring OPERABILITY of the diverse trip features (Reference: Generic Letter 85-09).

The measurement of response time at the specified frequencies provides assurance that the protective and ESF action function associated with each channel is completed within the time limit assumed in the accident analyses. No credit was taken in the analyses for those channels with response times indicated as not applicable.

ESF response times which include sequential operation of the RWST and VCT valves are based on values assumed in the non-LOCA safety analyses and are provided in Section 3 of the Licensing Requirements Manual. These analyses take credit for injection of borated water from the RWST. Injection of borated water is assumed not to occur until the VCT charging pump suction valves are closed following opening of the RWST charging pump suction valves. When sequential operation of the RWST and VCT valves is not included in the response times, the values specified are based on the LOCA analyses. The LOCA analyses take credit for injection flow from the RWST to the source. Verification of the response times includes the assumptions used for the LOCA and Non-LOCA analyses relative to operation of the VCT and RWST valves are valid.

Provided for Information Only.

3/4.6.2.1 and 3/4.6.2.2 CONTAINMENT QUENCH AND RECIRCULATION SPRAY SYSTEMS (Continued)

on bypass flow. This test confirms one point on the pump design curve and is indicative of overall performance. Such inservice tests confirm component OPERABILITY, trend performance, and detect incipient failures by indicating abnormal performance.

Verifying that each recirculation spray system pump's developed head at the flow test point is greater than or equal to the required developed head ensures that recirculation spray system pump performance has not degraded during the cycle. The term "required developed head" refers to the value that is assumed in the Containment Integrity Safety Analysis for the recirculation spray pump's developed head at a specific flow point. This value for the required developed head at a flow point is defined as the MOP in the IST Program. The verification that the pump's developed head at the flow test point is greater than or equal to the required developed head is performed by using a MOP curve. The MOP curve is contained in the IST Program and was developed using the required developed head at a specific flow point as a reference point. From the reference point, a curve was drawn which is a constant percentage below the current pump performance curve. Based on the MOP curve, a verification is performed to ensure that the pump's developed head at the flow test point is greater than or equal to the required developed head. Flow and differential head are normal test parameters of centrifugal pump performance required by Section XI of the ASME Code. Since the recirculation spray system pumps cannot be tested with flow through the spray headers, they are tested on bypass flow. This test confirms one point on the pump design curve and is indicative of overall performance. Such inservice tests confirm component OPERABILITY, trend performance, and detect incipient failures by indicating abnormal performance.

~~The ten year surveillance interval for performing an air or smoke flow test through each spray header is considered adequate for detecting obstruction of the nozzles due to the passive design of the spray header and the header's components being constructed with stainless steel.~~

Add Insert 2

The 18-month surveillance interv[illegible] with expected length of fuel cycles and allows for component testing to be performed during plant shutdown conditions if necessary to avoid a plant transient that could occur if the component were tested at power. However, for those components that may be safel[illegible], the 18-month surveillance may be met by performing [illegible]sting at power.

Provided for Information Only.

Insert 2

Verifying that each spray nozzle is unobstructed is to be performed following maintenance which results in the potential for nozzle blockage as determined through an engineering evaluation. Post maintenance test instructions for affected systems will specifically address the need for an engineering evaluation to determine whether a containment spray nozzle test is necessary to ensure that the nozzles remain unobstructed. This is considered adequate due to the passive design of the spray header, the header's components being constructed with stainless steel, and the controls contained in the foreign materials exclusion program. When a test is determined to be necessary to verify each spray nozzle is unobstructed, a visual inspection (e.g., boroscope) of the nozzles could be utilized or perform an air or smoke flow test through each spray nozzle.

ATTACHMENT C

Beaver Valley Power Station, Unit Nos. 1 and 2
License Amendment Request Nos. 307 and 178

Commitment Summary

Attachment C
Beaver Valley Power Station, Unit Nos. 1 and 2
License Amendment Request Nos. 307 and 178

Commitment List

The following list identifies those actions committed to by FirstEnergy Nuclear Operating Company (FENOC) for Beaver Valley Power Station (BVPS), Unit Nos. 1 and 2 in this document. Any other actions discussed in the submittal represent intended or planned actions by Beaver Valley. These other actions are described only as information and are not regulatory commitments. Please notify Mr. Larry R. Freeland, Manager, Regulatory Affairs/Corrective Action, at Beaver Valley on (724) 682-5284 of any questions regarding this document or associated regulatory commitments.

Commitment	Due Date
FENOC commits that the appropriate procedures will specifically address the need for an engineering evaluation to determine whether a Containment Spray Nozzle Test is necessary to ensure that the nozzles remain unobstructed following maintenance on affected sections of the Containment Spray piping systems.	Prior to implementation of the amendment.
FENOC commits to perform a test on a once per 18 month frequency (±25%) to verify acceptable flow rate of the river/service water through the Recirculation Spray System heat exchangers at BVPS Unit No. 1 and No. 2.	Prior to implementation of the amendment.