

September 7, 2000

Mr. L. W. Myers
Senior Vice President
Beaver Valley Power Station
Post Office Box 4
Shippingport, PA 15077

SUBJECT: BEAVER VALLEY 1 AND 2 - AMENDMENT RE: RELOCATION OF TECHNICAL SPECIFICATION REQUIREMENTS FOR INCORE DETECTORS, CHLORINE DETECTION SYSTEM, TURBINE OVERSPEED PROTECTION, AND SPENT FUEL STORAGE POOL BUILDING CRANE TO THE LICENSING REQUIREMENTS MANUAL (TAC NOS. MA6379 AND MA6380)

Dear Mr. Myers:

The Commission has issued the enclosed Amendment No. 233 to Facility Operating License No. DPR-66 and Amendment No. 115 to Facility Operating License No. NPF-73 for the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and 2). These amendments consist of changes to the Technical Specifications (TSs) in response to the application dated July 20, 1999, filed by Duquesne Light Company, as the then licensee for Beaver Valley, which submitted License Amendment Request Nos. 251 and 121.

These amendments relocate the following TS requirements to the Licensing Requirements Manual: Incore Detectors, Chlorine Detection System, Turbine Over-speed Protection (Unit 2 only), and Crane Travel Spent Fuel Storage Pool Building. In addition, information regarding the remote shutdown panel monitoring instrumentation is relocated to the Updated Final Safety Analysis Report.

A copy of our safety evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/RA/

Daniel S. Collins, Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-334 and 50-412

Enclosures: 1. Amendment No. 233 to DPR-66
2. Amendment No. 115 to NPF-73
3. Safety Evaluation

cc w/encls: See next page

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* See previous concurrence

SE Inputs dated 5/3/00 and 6/9/00 were provided and no major changes were made.

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PENNSYLVANIA POWER COMPANY

OHIO EDISON COMPANY

FIRSTENERGY NUCLEAR OPERATING COMPANY

DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 233
License No. DPR-66

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by FirstEnergy Nuclear Operating Company, et al. (the licensee) dated July 20, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-66 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 233 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days. Implementation of this amendment shall include the relocation of these Technical Specification requirements to the appropriate documents as described in the licensee's application dated July 20, 1999, and evaluated in the staff's safety evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by Alexander W. Dromerick for/

Marsha Gamberoni, Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: September 7, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 233

FACILITY OPERATING LICENSE NO. DPR-66

DOCKET NO. 50-334

Replace the following pages of Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
IV	IV
VIII	VIII
X	X
XIII	XIII
3/4 3-37	3/4 3-37
3/4 3-45	3/4 3-45
3/4 3-49	3/4 3-49
3/4 7-16	3/4 7-16
3/4 7-16a	3/4 7-16a
3/4 7-18	3/4 7-18
3/4 7-18a	3/4 7-18a
3/4 7-18b	3/4 7-18b
3/4 9-7	3/4 9-7
3/4 9-16	3/4 9-16
B 3/4 3-1	B 3/4 3-1
B 3/4 3-1a	B 3/4 3-1a
B 3/4 3-1b	B 3/4 3-1b
B 3/4 3-1c	B 3/4 3-1c
B 3/4 3-2	B 3/4 3-2
B 3/4 3-3	B 3/4 3-3
B 3/4 9-2	B 3/4 9-2

PENNSYLVANIA POWER COMPANY
OHIO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
THE TOLEDO EDISON COMPANY
FIRSTENERGY NUCLEAR OPERATING COMPANY
DOCKET NO. 50-412
BEAVER VALLEY POWER STATION, UNIT 2
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 115
License No. NPF-73

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by FirstEnergy Nuclear Operating Company, et al. (the licensee) dated July 20, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-73 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 115 , and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto are hereby incorporated in the license. FENOC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 90 days. Implementation of this amendment shall include the relocation of these Technical Specification requirements to the appropriate documents as described in the licensee's application dated July 20, 1999, and evaluated in the staff's safety evaluation attached to this amendment.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by Alexander W. Dromerick/

Marsha Gamberoni, Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: September 7, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 115

FACILITY OPERATING LICENSE NO. NPF-73

DOCKET NO. 50-412

Replace the following pages of Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

<u>Remove</u>	<u>Insert</u>
IV	IV
V	V
VIII	VIII
X	X
XII	XII
3/4 3-45	3/4 3-45
3/4 3-53	3/4 3-53
3/4 3-56	3/4 3-56
3/4 3-66	3/4 3-66
3/4 3-67	-----
3/4 7-17	3/4 7-17
3/4 9-7	3/4 9-7
B 3/4 3-1	B 3/4 3-1
B 3/4 3-1a	B 3/4 3-1a
B 3/4 3-5	B 3/4 3-5
B 3/4 3-10	B 3/4 3-10
B 3/4 3-11	B 3/4 3-11
B 3/4 3-12	-----
B 3/4 7-4	B 3/4 7-4
B 3/4 7-5	B 3/4 7-5
B 3/4 7-6	B 3/4 7-6
B 3/4 7-7	B 3/4 7-7
-----	B 3/4 7-8
B 3/4 9-2	B 3/4 9-2

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 233 AND 115 TO FACILITY OPERATING
LICENSE NOS. DPR-66 AND NPF-73
PENNSYLVANIA POWER COMPANY
OHIO EDISON COMPANY
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
THE TOLEDO EDISON COMPANY
FIRSTENERGY NUCLEAR OPERATING COMPANY
BEAVER VALLEY POWER STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-334 AND 50-412

1.0 INTRODUCTION

By letter dated July 20, 1999, the Duquesne Light Company (DLC) submitted a request for changes to the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS-1 and 2), Technical Specifications (TSs). The requested changes would relocate the following TS requirements to the Licensing Requirements Manual (LRM): Incore Detectors, Chlorine Detection System, Turbine Over-speed Protection (Unit 2 only), and Crane Travel Spent Fuel Storage Pool Building. In addition, information regarding the remote shutdown panel monitoring instrumentation would be relocated to the Updated Final Safety Analysis Report (UFSAR) and editorial/format changes would be made.

At the time of the July 20, 1999, letter, DLC was the licensed operator for BVPS-1 and BVPS-2. On December 3, 1999, DLC's ownership interests in both BVPS-1 and BVPS-2 were transferred to the Pennsylvania Power Company, and DLC's operating authority for BVPS-1 and BVPS-2 was transferred to FirstEnergy Nuclear Operating Company (FENOC). By letter dated December 13, 1999, FENOC requested that the Nuclear Regulatory Commission (NRC) continue to review and act upon all requests before the Commission which had been submitted by DLC.

2.0 BACKGROUND

Section 182a of the Atomic Energy Act requires applicants for nuclear power plant operating licenses to state TSs to be included as part of the license. The Commission's regulatory requirements related to the contents of TSs are set forth in Title 10 of the Code of Federal Regulations (10 CFR) Section 50.36. That regulation requires that the TSs include items in five specific categories, including: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation; (3) surveillance requirements; (4) design features; and (5) administrative controls.

The regulation in 10 CFR 50.36 identifies four criteria to be used in determining whether particular safety functions are required to be included in the TSs as follows:

- (1) Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary;
- (2) A process variable, design feature, or operating restriction that is an initial condition of a design-basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
- (3) A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design-basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier; and
- (4) A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

As a result, existing TS requirements that fall within or satisfy any of the criteria in this regulation must be retained in the TSs. However, those TS requirements that do not fall within or satisfy these criteria may be relocated to other licensee-controlled documents.

Generic Letter (GL) 95-10, "Relocation of Selected Technical Specifications Requirements Related To Instrumentation," dated December 15, 1995, provides guidance for licensees to relocate certain instrumentation requirements from their TSs. As discussed therein, the relocation of certain instrumentation requirements from the TSs must be based on the regulatory criteria developed and described in the Final Policy Statement. The content of the Improved Standard Technical Specifications (ISTS) for Westinghouse Plants," NUREG 1431, Rev. 1, which excludes many TSs previously included in Westinghouse Standard TSs, is based on these criteria.

The BVPS LRM for Units 1 and 2 are appendices of the associated UFSAR that were developed and issued by the licensee to control and maintain those items removed from the TSs. As part of the UFSAR, any changes made to the LRM must be in accordance with 10 CFR 50.59, which ensures that NRC review and approval is required when a change to the LRM involves an unreviewed safety question.

The licensee's proposed amendment changes the BVPS TSs to relocate the following TSs and associated TS bases to the licensee's LRM:

- 3/4.3.3.2 Incore Detectors (Units 1 and 2)
- 3/4.3.3.7 Chlorine Detection System (Units 1 and 2)
- 3/4.3.4 Turbine Overspeed Protection (Unit 2 only)
- 3/4.9.7 Crane Travel Spent Fuel Storage Pool Building (Units 1 and 2)

The relocation of the first three TS requirements is on the basis of the guidance contained in GL 95-10; the application of the TS criteria contained in 10 CFR 50.36; and NUREG-1431, Rev. 1. The fourth TS requirement is being relocated because it does not meet the criteria of 10 CFR 50.36 for inclusion in the TS and is not included in the ISTS.

In addition to relocating the above listed TSs, the licensee proposed removal of the "Measurement Range" information from the BVPS-1 and 2 TS Table 3.3-9, "Remote Shutdown Panel Monitoring Instrumentation." This design information is being moved from the TS to an applicable UFSAR section. The removal of this detail from the TS is consistent with the level of detail in the ISTS.

The licensee also proposed two TS Bases enhancements. Additional information is being added to the reactor trip system instrumentation TS Bases to discuss diverse and anticipatory protection features not credited in the accident analyses. The licensee also proposed a revision to the reactor trip system (RTS) instrumentation TS Bases that more clearly describes the source and intermediate range neutron flux protection features required during shutdown modes.

The licensee proposed adding the Unit 1 and Unit 2 license numbers (DPR-66 and NPF-73) to each TS page addressed by this request that does not have this unique identifier. Additionally, the licensee proposed revisions to update page format, correct punctuation, standardize line spacing, correct a typographical error, and eliminate unnecessary lines in the page margins. These changes are intended to improve consistency between the TS pages, and improve clarity. These changes are administrative in nature and will not introduce a technical change to the TSs.

3.0 EVALUATION

3.1 Relocation of TSs

3.1.1 TS 3/4.3.3.2, Movable Incore Detectors

Essentially all pressurized water reactors (PWRs) have a requirement, either in their TSs or LRM, for operability of 75 percent of the incore detector locations for mapping of the core power distribution. Incore detector data is used to calculate power peaking factors which are used to verify compliance with fuel performance limits.

On a number of occasions, for various reasons, failures of detectors in operating PWRs have approached or exceeded 25 percent, and relaxation of the 75 percent requirement has been permitted for the duration of the affected operating cycle. This relaxation was justified because

the reactor had started the cycle and performed the physics startup tests with at least 75 percent of the incore detector locations operable. General trends for the cycle had been established and the system would be restored to full (or nearly full) complement before beginning the next cycle. In addition, the uncertainties on the measurements were increased to account for fewer operable detectors.

A major safety concern relating to the degradation of incore mapping ability is the ability to detect anomalous conditions in the core. One of these is the inadvertent loading of a fuel assembly into an improper position. Since this is a loading problem, it is of great concern if long-term operation with fewer than 75 percent of the detectors is considered. It is not as much a concern when relaxation of requirements is considered for only the remainder of an operating cycle.

The movable incore detector system at Beaver Valley consists of 50 movable incore detectors and is required for recalibration of the axial flux offset detection system, monitoring of the quadrant power tilt ratio and measurement of peaking factors at the beginning of the cycle and every 31 effective full power days. The system is also used to detect anomalous core behavior. However, the measurements are used in a confirmatory manner and do not provide direct input to the reactor protection system or engineered safety features actuation systems functions. The licensee has proposed relocating the TS requirements for these detectors to the LRMs for BVPS-1 and BVPS-2 in accordance with GL 95-10.

The current TS 3.3.3.2 requires a minimum of two detectors per core quadrant. This requirement was established to ensure adequate core coverage. However, this requirement does not meet guidance set forth in 10 CFR 50.36 for inclusion in the TSs. The moveable incore detector system does not detect degradation of the reactor coolant pressure boundary; it is not a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis; it does not function as a primary success path to mitigate events which assume the failure of or challenge the integrity of fission product barriers; and, there is no operating experience or probabilistic risk assessment which shows it to be significant to public health and safety. Although the core power distributions measured by the incore detectors constitute an important initial condition to design-basis accidents and help to ensure the integrity of the first fission product boundary, and therefore need to be addressed by the TSs, the detectors themselves are not an active design feature needed to preclude analyzed accidents or transients. The staff, therefore, determined that the incore detector requirement does not need to be included in the TSs. Hence, relocation of this existing requirement to the LRM is acceptable. This determination is consistent with the NRC staff position contained in GL 95-10. However, changes to the number and/or distribution requirements are of concern.

The NRC staff noted in GL 95-10 that, "relocation of the incore detector requirements from the TSs to the UFSAR does not imply any reduction in their importance in confirming that core power distributions are bounded by safety analysis limits. It is expected that licensees will continue to maximize the number of available incore detectors." This GL contains further guidance on factors the NRC staff considers important, and which licensees should address in evaluations related to changes in incore detector requirements. If the licensee wishes to change the incore detector requirements pursuant to 10 CFR 50.59, the NRC staff considers that a proper evaluation would address the following:

- 1) how an inadvertent loading of a fuel assembly into an improper location will be detected;
- 2) how the validity of the tilt estimates will be ensured;
- 3) how adequate core coverage will be maintained;
- 4) measurement uncertainties and why the added uncertainties are adequate to guarantee that measured peak linear heat rates, peak pin powers, radial peaking factors and azimuthal power tilts will meet TS limits; and
- 5) restoration to full (or nearly full) service before the beginning of each cycle.

3.1.1.1 Technical Specification Changes

TS 3/4.3.3.2 - This section will be eliminated and the limitations on the use of the incore detector system will be relocated to the UFSAR; specifically, to the LRM. Based on the NRC staff's evaluation above, the staff concludes that eliminating TS 3/4.3.3.2 and relocating the limitations on the use of the incore detector system to the UFSAR is acceptable.

3.1.2 TS 3/4.3.3.7, Chlorine Detection System (Unit 1 and 2)

TS 3/4.3.3.7, Chlorine Detection System, specifies the operability requirements for the chlorine detection system. The chlorine detection system ensures that sufficient capability is available to protect the control room operators by promptly detecting and initiating protective action to isolate the control room and initiate the Control Room Emergency Bottled Air Pressurization System in the event of an accidental chlorine release. Three independent chlorine detection systems with alarm/trip setpoints adjusted to actuate at a chlorine concentration of less than or equal to 5 ppm are required operable by each unit's TS. Control room isolation (both units) is initiated by two-out-of-three detectors actuating (either unit). With less than the required number of detection systems operable, the TS contains various actions such as placing a detector in trip and/or placing the control room emergency ventilation system in the recirculation mode of operation.

The conclusions stated in GL 95-10 regarding this instrumentation are applicable to BVPS-1 and 2. Although the chlorine detection system serves an important role in protecting control room personnel, the release of chlorine is not associated with any design-basis accident or transient that assumes a failure of, or presents a challenge to, the integrity of a fission product barrier.

Chlorine detection system requirements are also contained in the Unit 1 TS 3/4.7.7, "Control Room Habitability Systems," and TS 3/4.9.15, "Control Room Emergency Habitability Systems," as well as the Unit 2 TS 3/4.7.7, "Control Room Emergency Air Cleanup and Pressurization System." These control room ventilation specifications contain limiting condition for operation (LCO) references to the chlorine detection system and requirements to verify isolation and pressurization of the control room on a chlorine detection system actuation signal. In addition, the Unit 1 TS for control room habitability, TS 3/4.9.15, contains additional applicable modes (5 and 6) for the chlorine detection system that are not currently specified in the chlorine detection system TS. Control room ventilation TS LCO references to the chlorine detection system, and

surveillance requirements for verifying the chlorine detection system actuation functions are being removed from the TS consistent with the relocation of the chlorine detection system TS described above.

The licensee proposed relocating the control room ventilation TS surveillance requirements to verify control room isolation and initiation of the bottled air pressurization system into the associated chlorine detection system TS, and then relocating the TS to a licensee-controlled document along with the chlorine detection system TS. In addition, the applicable modes (5 and 6) contained in the Unit 1 control room habitability TS 3/4.9.15 for the chlorine detection system are being moved into and relocated with the Unit 1 chlorine detection system TS consistent with the modes of applicability specified for the Unit 2 chlorine detection system. In order to integrate the new actuation function requirements (automatic control room isolation and automatic initiation of the bottled air pressurization system) into the chlorine detection system specification, the licensee proposed to revise the actions of the Unit 1 and 2 chlorine detection system TS to include a specific action for an inoperable actuation function. The proposed action for an inoperable actuation function is the same as that currently specified for a complete loss of the chlorine instrumentation. This action ensures the control room ventilation system is placed in a safe (isolated from outside air) mode of operation. This action is also consistent with the Control Room Emergency Habitability LCO requirements for the isolation dampers to be capable of being closed by an automatic signal.

The NRC staff reviewed the proposed LRM for BVPS-1 and 2, respectively, and found the proposed additions of the chlorine detection system TS items to the LRM to be consistent with the existing TS requirements and NRC requirements. The NRC staff, therefore, finds the proposed revisions and the subsequent relocation of the chlorine detection system TS to the LRM to be acceptable.

3.1.3 TS 3/4.3.4, Turbine Overspeed Protection (Unit 2 only)

TS 3/4.3.4, "Turbine Overspeed Protection," (Unit 2 only), requires at least one overspeed protection system to be operable. The turbine emergency trip system offers redundant overspeed protection via electro-hydraulic and mechanically-actuated systems. The turbine overspeed protection systems include the auto stop trip system, which monitors various turbine generator parameters; an overspeed protection controller, which monitors turbine speed and load; and a mechanical overspeed trip weight. The system is designed such that a single failure of any component will not lead to destructive overspeed. TS 3.3.4 provides turbine overspeed protection system requirements to ensure mechanical and electrical sensing mechanisms, as well as the valves required to operate, are maintained capable of protecting the turbine from an overspeed event. Protection from turbine overspeed is required since excessive overspeed of the turbine could generate potentially damaging missiles which could impact and damage safety-related systems, structures, or components.

In GL 95-10, the staff concluded that probabilistic safety assessments and operating experience have demonstrated that proper maintenance of the turbine overspeed control valves is important to minimize the potential for overspeed events and turbine damage. However, that experience has also demonstrated that there is low likelihood of significant risk to public health and safety because of turbine overspeed events. Further, the potential for, and consequences of, turbine overspeed events are diminished by factors such as the orientation of the turbine

relative to plant structures and equipment; licensee inservice testing programs, which must comply with 10 CFR 50.55(a); and surveillance programs for the turbine control and stop valves derived from the manufacturer's recommendations.

Accordingly, the NRC staff concluded in GL 95-10 that the turbine overspeed protection system does not meet the 10 CFR 50.36 criteria and need not be included in the TSs. The NRC staff finds the incorporation of TS 3/4.3.4 for Unit 2 into the LRM is in accordance with the guidance provided in GL 95-10 and is, therefore, acceptable.

3.2 Relocation of TS Requirements to the License Requirements Manual That Are Not Addressed in GL 95-10

TS 3/4.9.7, "Spent Fuel Storage Building Crane," contains requirements that restrict the movement of loads in excess of 3,000 pounds over fuel assemblies in the storage pool. The crane travel limits are accomplished by the use of interlocks and physical stops that prevent crane travel over the spent fuel pool when moving loads in excess of the weight limit. These restrictions on weight and travel limits during load movements over the spent fuel pool are necessary to limit the number of fuel rods which could be ruptured in the event that the load is dropped and it impacts a stored fuel assembly.

In WCAP-11618, "Methodically Engineered, Restructured and Improved Technical Specifications, Criteria Application," dated November 1987, Westinghouse, on behalf of the Westinghouse Owners Group (WOG) evaluated this TS for inclusion in the ISTS. TS 3/4.9.7, "Crane Travel - Spent Fuel Storage Pool Building," was evaluated and found not to meet any of the criteria for inclusion in the TSs. WCAP-11618 was transmitted to the NRC by letter dated November 12, 1987. The NRC documented their review of WCAP-11618 in a letter to the WOG (Dr. T. E. Murley, NRC, to Mr. R. A. Newton) dated May 9, 1988. In this letter, the staff gave its conclusions regarding TSs selected for retention in the new ISTS and for those existing TSs designated for relocation to licensee-controlled documents. Table 2 of the letter specifically identified TS 3/4.9.7 as one which could be relocated to a licensee-controlled document. This conclusion is reflected in the content of the ISTS, which does not include a TS that corresponds to TS 3/4.9.7.

The requirements contained within the standard TS 3/4.9.7 evaluated by Westinghouse and the NRC for inclusion in the new ISTS are identical to the requirements contained in the BVPS-1 and 2 TS 3/4.9.7. In addition, the safety analysis basis for the TS requirements evaluated by Westinghouse and the NRC is the same as the basis for the BVPS TS requirements. Therefore, the evaluation performed by Westinghouse for the WOG and the NRC are applicable to the BVPS TS as well.

The NRC staff has evaluated the proposed removal of TS 3/4.9.7 from the TSs, and relocation to the LRM, against the four criteria in 10 CFR 50.36 and determined that each of the four criteria is satisfied as follows:

- (1) TS 3/4.9.7 does not include installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Therefore, Criterion 1 does not apply.

- (2) Although a fuel handling (event) accident is considered a design-basis accident, Criterion 2 does not apply to TS 3/4.9.7. NUREG-0800, "Standard Review Plan" (SRP), Section 15.7.4 defines a fuel handling accident as an accident that includes the dropping of a single fuel assembly and handling tool onto spent fuel. Accordingly, TS 3/4.9.7 applies to the crane and its interlocks which have both design features and operation restrictions in place to prevent exceeding the initial condition of dropping a load on to irradiated fuel that is stored in the spent fuel pool. These design features are not, in themselves, initial conditions of a design-basis accident. Similarly, the load limit is an operational restriction that is intended to prevent exceeding the initial condition (the maximum load capacity of the crane) of the design-basis accident. Therefore, the crane, its interlocks, and the load limit are provided to prevent operation in a condition that could lead to an unanalyzed load drop accident.
- (3) TS 3/4.9.7 does not address structures, systems, or components that are part of the primary success path and which function or actuate to mitigate a design-basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- (4) TS 3/4.9.7 does not contain requirements for structures, systems, or components for which operating experience or probabilistic safety assessment has shown to be a significant risk to public health and safety. The spent fuel storage pool crane was not included in the scope of the Individual Plant Examination or the Individual Plant Examination for External Events, nor is it "risk significant" under the Maintenance Rule Program.

Therefore, based on the Westinghouse and NRC evaluations discussed previously and the conclusions stated above, the spent fuel storage pool crane does not meet any of the four criteria for retention in the TSs and this TS may be relocated to a licensee-controlled document. It will be moved into the BVPS LRM. In addition, the associated bases will also be moved into the LRM. The NRC staff finds these changes to be acceptable.

3.3 TS 3/4.3.3.5, Remote Shutdown Instrumentation

TS 3/4.3.3.5, "Remote Shutdown Instrumentation," requires that the monitoring instrumentation shown in BVPS TS Table 3.3-9 be operable with readouts displayed external to the control room. The basis for this TS requirement is to provide sufficient instrumentation to shutdown and maintain the plant in Hot Standby from locations outside the control room. This capability is required in the event control room habitability is lost.

This TS change is similar to the relocation of the TS described in Section 3.2 above. The measurement range information contained in Table 3.3-9 of TS 3/4.3.3.5, "Remote Shutdown Instrumentation," is proposed to be relocated to an applicable UFSAR section that describes this instrumentation. The measurement range information contained in Table 3.3-9 is design detail that is not essential to the requirements of the TSs. The staff concurs with the licensee that the removal of this information makes the content of the BVPS TS more consistent with the level of detail contained in the corresponding ISTS for Remote Shutdown Instrumentation.

The channel check and channel calibration requirements contained within Specification 3/4.3.3.5 remain unchanged and are sufficient to verify the operability of the required instrumentation. The LCO and applicability requirements for this instrumentation also remain unaffected. The removal of the measurement range information will not affect compliance with the operability requirements of the TSs. Therefore, the Remote Shutdown Instrumentation TS will continue to provide adequate assurance that the required instrumentation will be available when necessary to shut the plant down from a location outside the control room.

The licensee proposed to include the measurement range information removed from the TS in the UFSAR. The staff reviewed the draft markups in the UFSAR and concur that the measurement range information has been included appropriately. The staff, therefore, finds this change acceptable.

3.4 TS Bases 3/4.3.1 and 3/4.3.2, Protective And Engineered Safety Features (ESF) Instrumentation

The TS Bases 3/4.3.1 and 3/4.3.2, "Protective And Engineered Safety Features (ESF) Instrumentation," for both units is being revised to include additional information regarding anticipatory and diverse trip functions that are not specifically credited in the accident analyses. This change is proposed to make the TS Bases more consistent with the corresponding UFSAR description of these trip functions. The addition of this descriptive information to the TS Bases does not affect the TS operability requirements for the affected trip functions, nor does it affect the reliability or availability of the affected instrumentation.

The Westinghouse plant RTS and ESF TSs typically contain some instrument functions not specifically credited in a safety analysis but which provide redundant or diverse trip functions. The inclusion of this instrumentation within the TSs ensures a protection system with "defense in depth." The proposed change provides additional background information consistent with the applicable design and safety analyses requirements for BVPS.

The staff reviewed the TS changes that list the specific trip functions affected and their inclusion in the TS Bases, and find these changes acceptable for both units.

The TS Bases 3/4.3.1 and 3/4.3.2 are also being revised for both units to clarify the neutron flux instrumentation required operable during shutdown modes. The proposed TS Bases change more accurately describes the existing TS requirements for the source and intermediate range instrumentation. The proposed change does not affect the TS operability requirements for the affected instrumentation, nor does it affect the reliability or availability of that instrumentation. The TS Bases sentence being replaced by the proposed addition did not completely address the instrumentation required operable during shutdown modes. The proposed TS Bases additions more clearly and accurately describe the TS requirements for this instrumentation. The staff, therefore, finds these changes acceptable.

3.5 Administrative Changes

The licensee proposed to add the Unit 1 and Unit 2 license numbers (DPR-66 and NPF-73) to each TS page in this license amendment request that currently does not contain this unique identifier. This change is administrative and provides a unique document identification number

to meet BVPS records department requirements. The staff finds this administrative change acceptable.

The licensee proposed changes to TS pages to update the page format, correct punctuation, standardize line spacing, correct a typographical error, and eliminate unnecessary lines in the page margins. These changes are intended to improve consistency between the TS pages and improve clarity. These changes are administrative in nature and do not introduce a technical change to the TSs, and therefore are acceptable.

3.6 Summary

Based on the above review and justifications for TS changes, the staff concludes that the licensee's proposed TS changes are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (64 FR 62709). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

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