



FirstEnergy Nuclear Operating Company

Beaver Valley Power Station
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February 4, 2015

L-15-024

10 CFR 50.90

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

SUBJECT:

Beaver Valley Power Station, Unit Nos. 1 and 2
Docket No. 50-334, License No. DPR-66
Docket No. 50-412, License No. NPF-73

Response to Request For Additional Information Regarding License Amendment to
Adopt Technical Specification Task Force Traveler 425 (TAC Nos. MF2942 and
MF2943)

By correspondence dated October 18, 2013 (Accession No. ML13295A006), as supplemented by letters dated June 26, 2014 (Accession No. ML14177A514) and September 21, 2014 (Accession No. ML14265A158), FirstEnergy Nuclear Operating Company (FENOC) submitted a license amendment request for the Beaver Valley Power Station, Unit Nos. 1 and 2 (BVPS). The proposed amendment would modify the BVPS Technical Specifications by relocating specific surveillance frequencies to a licensee controlled program with the implementation of Nuclear Energy Institute (NEI) 04-10, "Risk-Informed Technical Specifications Initiative 5b, Risk-Informed Method for Control of Surveillance Frequencies." The proposed amendment is consistent with Nuclear Regulatory Commission (NRC)-approved Technical Specifications Task Force (TSTF) Traveler TSTF-425, Revision 3, "Relocate Surveillance Frequencies to Licensee Control – Risk Informed Technical Specification Task Force (RITSTF) Initiative 5b," with certain proposed deviations.

The NRC staff submitted a draft request for additional information on January 20, 2015 (Accession No. ML15016A439). FENOC's response to this request is attached.

There are no regulatory commitments established in this submittal. If there are any questions or additional information is required, please contact Mr. Thomas A. Lentz, Manager – Fleet Licensing, at (330) 315-6810.

Beaver Valley Power Station, Unit Nos. 1 and 2

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I declare under penalty of perjury that the foregoing is true and correct. Executed on February 4, 2015.

Sincerely,



Eric A. Larson

Attachment: Response to Request for Additional Information

cc: NRC Region I Administrator
NRC Resident Inspector
NRC Project Manager
Director BRP/DEP
Site BRP/DEP Representative

Response to Request for Additional Information
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By letter dated October 18, 2013, as supplemented by letters dated June 26, 2014, and September 21, 2014, FirstEnergy Nuclear Operating Company (FENOC) submitted a license amendment request for Beaver Valley Power Station (BVPS) Units 1 and 2. The proposed amendment would modify the BVPS Technical Specifications by relocating specific surveillance frequencies to a licensee controlled program with the implementation of Nuclear Energy Institute (NEI) 04-10, "Risk-Informed Technical Specifications Initiative 5b, Risk-Informed Method for Control of Surveillance Frequencies," (TSTF-425). To complete its review, the Nuclear Regulatory Commission (NRC) staff requested a response to the question in bold below.

BACKGROUND

The licensee's current TS SR 3.3.2.6 is associated with the Engineered Safety Features Actuation System (ESFAS) instrumentation. The surveillance requires that Slave Relay Test shall be performed once every 18 months for Unit 1 and once every 92 days for Unit 2 operations, OR for Unit 2 only once every 12 months per a NOTE in the surveillance frequency which states, "Only applicable to Unit 2 provided a satisfactory contact loading analysis has been completed, and a satisfactory slave relay service life has been established, for the slave relay being tested."

The licensee's proposed change as shown on TS page 3.3.2-6 in Attachment 2 of the application relocates the SR 3.3.2.6 frequency to the licensee's SFCP.

DISCUSSION

The staff noticed that NOTE in SR 3.3.2.6 frequency is a specific condition to BVPS Unit 2 operations only. It is a frequency that is related to specific conditions or conditions for the performance of the surveillance requirement. As such, it is an exception to the SFCP. Therefore, the surveillance frequencies and associated NOTE for Unit 2 operations need to be retained in TSs.

RAI 8:

Please submit revised TS page for SR 3.3.2.6 change, otherwise submit a request for NRC permission to remove the condition with applicable justification for the NRC staff's review and approval.

Regulatory Basis

The regulations under 10 CFR 50.36 (c)(2)(i) state that Limiting Conditions for Operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility (emphasis added). When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the TSs until the condition can be met.

Response:

The NOTE provided in Technical Specification (TS) Surveillance Requirement (SR) 3.3.2.6 was inserted from Beaver Valley Power Station (BVPS) Unit 2 Amendment 141 as approved on May 14, 2004 (reference ML041030082). Amendment 141 increased the Unit 2 engineered safety feature actuation system (ESFAS) instrumentation slave relay surveillance test interval from 92 days to 12 months provided that a contact loading analysis is completed, which confirms that the slave relay's contact loading is satisfactory and a satisfactory slave relay service life is established for the slave relays being tested.

The BVPS Unit 2 slave relay surveillance test interval is at 12 months because the supporting contact loading analysis that determined the solid state protection system (SSPS) slave relays contacts are adequate for the applied loads has been completed. The contact loading analysis concluded that the slave relay contacts are adequate for the application with the exception of two relays (one from each train). In 2004, a condition report (CR) was initiated to address those exceptions and the CR's corrective action has been completed, which added contacts in series to the applicable circuits to increase the effective contact rating via a design modification. A satisfactory service life has been established for the Unit 2 relays at 19 years for the energized slave relays and 40 years for the de-energized slave relays. This replacement schedule is the same for the Unit 2 Westinghouse AR440 type slave relays as well as the Potter Brumfield MDR type slave relays and is consistent with WCAP-13877 and WCAP-13878, which has been accepted by the NRC (reference ML003731486). Based on the above, a satisfactory contact loading analyses has been completed for the Unit 2 slave relays.

With the proposed amendment request to adopt TSTF-425, FENOC requests the NOTE within SR 3.3.2.6 be removed, since a satisfactory contact loading analysis and a satisfactory slave relay service life has been established for the Unit 2 slave relays. With the removal of the NOTE, the SR frequency is no longer conditional and the SR can be relocated to the Surveillance Frequency Control Program (SFCP) consistent with TSTF-425. When relocated to the SFCP, the SR frequency for the slave relays will be established within the SFCP as 18 months for Unit 1 relays and 12 months for Unit 2 relays. A more detailed description of slave relay testing is contained in the BVPS Unit 2 UFSAR, Section 7.3.2.2.5.

As documented in the NRC Safety Evaluation for BVPS Unit 2 Amendment 141, the probability of a relay failing to actuate on demand is not significantly influenced by the surveillance interval. Also, the performance and reliability of the relays is controlled via the Maintenance Rule per the requirements of 10 CFR 50.65 and a change to a new relay type would be implemented by the design change process, which would require evaluation per the requirements of 10 CFR 50.59. Therefore, it is justified to remove the NOTE within TS SR 3.3.2.6, since it has been satisfied to establish the Unit 2 slave relay frequency at 12 months and the proposed revision to TS SR 3.3.2.6 for the BVPS license amendment request to adopt TSTF-425 SR is acceptable to relocate the Unit 1 and 2 slave relay testing frequencies to the SFCP.