



FirstEnergy Nuclear Operating Company

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U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT:
Perry Nuclear Power Plant
Docket No. 50-440, License Number NPF-58
2015 Silicone Sealant Report Pursuant to License Commitment 17

Attached is the 2015 Silicone Sealant Report for the Perry Nuclear Power Plant (PNPP). This report fulfills ongoing commitments associated with License Commitment 17 contained in the PNPP Updated Safety Analysis Report, Appendix 1B.

There are no new regulatory commitments contained in this letter. If there are any questions or if additional information is required please contact Mr. Nicola Conicella, Manager - Regulatory Compliance, at (440) 280-5415.

Sincerely,

Ernest J. Harkness

Attachment: 2015 Silicone Sealant Report Pursuant to License Commitment 17

cc: NRC Region III Administrator
NRC Resident Inspector Office
NRC Project Manager
REIRS Project Manager

A001
NRR

Attachment
L-15-193

FIRSTENERGY NUCLEAR OPERATING COMPANY
PERRY NUCLEAR POWER PLANT
DOCKET NUMBER: 50-440 LICENSE NUMBER: NPF-58

Silicone Sealant Report Pursuant to License Commitment 17

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Background

License Commitment 17 contained in the Perry Nuclear Power Plant (PNPP) Updated Safety Analysis Report, Appendix 1B, contains an ongoing commitment to:

- a) PNPP will place the ductwork test specimens used for qualification testing of silicone sealant into the plant in an area environmentally approximate to the ESF ventilation systems. During each refueling outage, PNPP will leak test these test specimens to determine if any degradation of the silicone has occurred.
- b) PNPP will perform an engineering walkdown of the ESF ventilation systems during each refueling outage. This walkdown will consist of a visual inspection of a representative portion of exposed ductwork to check for indication of sealant degradation.
- c) The results of "a" and "b" above, will be briefly summarized and reported to the NRC for years in which refueling outages occur.

During 2015, the PNPP completed the fifteenth refueling outage (1R15). The maintenance plan to inspect duct sealant degradation and to test duct samples was satisfactorily completed in 1R15. This report fulfills the ongoing commitment associated with Licensing Commitment 17 (L01090) of the PNPP Updated Safety Analysis Report, Appendix 1B, "Silicone Sealant".

Results

The duct specimens were individually leak tested at rated pressure, in place, in the Intermediate Building 585 foot pipe chase. The thermoluminescent dosimeter (TLD)s were removed during the refueling outage and analyzed after their respective identification numbers were recorded. The resulting dose (reported in millirem (mrem)) recorded for specimen 1 on TLD S/N 8903010313 is 82,596 mrem (Deep) and for specimen 2 on TLD S/N 8903000313 is 120,679 mrem (Deep). New dosimetry was installed during 1R15, specimen 1, TLD S/N 1746, and specimen 2, TLD S/N 1747.

The results of the duct specimen leak test for the General Electric Silpruf and Foster 30-02 sealants showed no degradation in air leakage at the sealant connections.

The Engineered Safety Features (ESF) ventilation systems (i.e., the Annulus Exhaust Gas Treatment (M15) system, the Control Room HVAC [Heating, Ventilation, and Air Conditioning] (M25/26) system, and the Fuel Handling Building Ventilation (M40) system), were walked down and a representative portion of the exposed exterior silicone sealants were inspected. The exposed exterior sealant on the ductwork inspected during this walkdown was found to be in good condition with no observable degradation or leakage.