Clinton Power Station 8401 Power Road Clinton, IL 61727



**U-604406** B

March 20, 2018

10CFR50.73 SRRS 5A.108

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

> Clinton Power Station, Unit 1 Facility Operating License No. NPF-62 <u>NRC Docket No. 50-461</u>

Subject: Special Report Follow-Up: Inoperable Drywell High Range Gamma Radiation Monitor

Reference: U-604357 Special Report Inoperable Drywell High Range Gamma Radiation Monitor

In the refenced letter, dated July 5, 2017 Clinton Power Station (CPS) submitted a Special Report in accordance with Technical Specification (TS) 3.3.3.1, Post Accident Monitoring (PAM) Instrumentation, Required Action B.1, concerning the inoperability of Drywell High Range Gamma Radiation Monitor, 1RIX-CM060. At the time, CPS was still investigating the cause of inoperability. This letter provides an update on the cause of inoperability and actions taken to restore operability.

The cause of inoperability was determined to be degradation of a connector located at the containment penetration resulting in a loss of voltage supplied to the detector. CPS located the cause using vendor supported Time-Domain Reflectometry (TDR).

After determining the cause of inoperability, CPS replaced the degraded connector and returned 1RIX-CM060 to operable status on January 11, 2018.

The station's inability to identify and fix the detector within 30 days was due to a neutron field located in proximity of the containment penetration, requiring development of purpose built shielding to be installed to allow for further investigation and repair.

Should you have any questions concerning this report, please contact Mr. Dale Shelton, Regulatory Assurance Manager, at (217) 937-2800.

Respectfully,

Theodore R, Stoner Site Vice President Clinton Power Station NAS

cc:

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Regional Administrator— NRC Region III NRC Senior Resident Inspector - Clinton Power Station Office of Nuclear Facility Safety — Illinois Emergency Management Agency