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10 CFR 50.90

November 10, 2016

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

Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-53 and DPR-69
Docket Nos. 50-317 and 50-318

Subject: Supplement to License Amendment Request – Control Room Emergency Ventilation System

Reference: License Amendment Request - Control Room Emergency Ventilation System, dated September 22, 2016.

By letter dated September 22, 2016, (Reference 1) Exelon Generation Company, LLC (Exelon) submitted a request to amend the Calvert Cliffs' Technical Specifications (TS) associated with the Control Room Emergency Ventilation System.

On October 28, 2016, e-mail from Mr. Richard Guzman, Senior PM, Division of Operating Reactors Licensing, to Mr. Enrique Villar (Exelon) transmitted a request for information needed to complete the Nuclear Regulatory Commission (NRC) acceptance review of Reference 1. On November 1, 2016, a teleconference was held to clarify some of the information requested, and a formal request was transmitted by the NRC to Exelon via letter dated November 2, 2016.

Attachment 1 to this letter contains the requested information followed by Exelon's response.

There are no regulatory commitments contained in this letter.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 10th day of November 2016.

If you should have any questions regarding this submittal, please contact Enrique Villar at 610-765-5736.

Respectfully,

David T. Gudger
Manager - Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Attachment: 1. Request for Supplemental Information

cc: NRC Regional Administrator, Region I w/attachments
NRC Senior Resident Inspector, CCNPP "
NRC Project Manager, NRR, CCNPP "
S. T. Gray, State of Maryland "

**Attachment 1**
**Request for Supplemental Information**
**License Amendment Request**
**Control Room Emergency Ventilation System**
**Docket Nos. 50-317 and 50-318**

NRC STAFF ACCEPTANCE REVIEW COMMENTS REQUESTED

LICENSING ACTION RE:

CONTROL ROOM EMERGENCY VENTILATION SYSTEM RENEWED

FACILITY OPERATING LICENSE NOS. DPR-53 AND DPR-69

EXELON NUCLEAR GENERATION, LLC

CALVERT CLIFFS NUCLEAR POWER PLANT, UNITS 1 AND 2

DOCKET NOS. 50-317 AND 50-318

By letter dated September 22, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16266A086), Exelon Nuclear Generation, LLC (Exelon) submitted a license amendment request (LAR) for Calvert Cliffs Nuclear Power Plant, Units 1 and 2. The Nuclear Regulatory Commission (NRC) staff has reviewed Exelon's application and concluded that the information delineated below is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment request in terms of regulatory requirements and the protection of public health and safety and the environment.

Title 10 of the *Code of Federal Regulations* (1O CFR) Section 50.36(b) states in part that..."The technical specifications will be derived from the analyses and evaluation included in the safety analysis report, and amendments thereto, submitted pursuant to § 50.34." The NRC staff has determined the application lacks depth of technical information in the discussion regarding the modification of the Control Room Emergency Ventilation System (CREV) including the design change control process used, analyses, evaluations and criteria used to assess acceptability of the modification.

The licensee is requested to supplement their application by providing a detailed explanation of the design change which should include the process used to control the design change, the evaluation criteria used to assess the acceptability of the design change as well as any analyses and evaluations used to justify the design change. The staff notes that the modification discussed in the LAR was performed in 1999; the licensee is requested to provide a detailed explanation of its rationale for leaving the technical specifications unaltered and the reasons for the subsequent determination years later to submit a license amendment request proposing the TS changes.

**Exelon's Response**

Historical Background

In Reference 1, the NRC staff required that Calvert Cliffs submit analyses to address the habitability of the Control Room (CR) following various design basis accidents. These analyses were submitted in References 2 and 3. To meet the CR habitability dose goals, the atmospheric dispersion coefficient analysis identified the need to install sealed hatches over the CR HVAC dampers on the roof of the Auxiliary Building. These hatches created more favorable atmospheric dispersion coefficients for the analyses. Hatch installation was assumed as part of the submitted analyses. It was physically accomplished in 1999. In Reference 4, Exelon withdrew the analyses from NRC consideration pending resolution of several generic issues related to CR habitability.

Subsequently, the NRC issued Generic Letter (GL) 2003-01 (Reference 5). In the response to GL 2003-01 (Reference 6), Exelon informed the NRC that its method of resolving the interim compensatory actions in place for CR habitability would involve performing re-analyses using an alternative source term as allowed by 10 CFR 50.67.

Calvert Cliffs submitted the licensing basis conversion to an alternative source term as a License Amendment Request (LAR) in Reference 7. These alternative source term analyses assumed that the atmospheric dispersion coefficients were the same as had been previously submitted in 1998, which included the installed hatches. The NRC approved the alternative source term LAR in Amendments 281/258 (Reference 8).

In summary, the hatches were installed to create more favorable atmospheric dispersion coefficients for the analyses to meet the CR habitability dose rates. The modification was performed in accordance with standard engineering practices and was reviewed in accordance with 10 CFR 50.59 to determine if prior NRC approval was required. The review determined that prior NRC approval was not required to install the hatches.

As stated in the original submittal of September 22, 2016, with the hatches installed and the system in permanent recirculation mode, the dampers no longer performed any safety function. Additionally, since the dampers were still addressed in Technical Specification (TS) 3.7.8, Condition A and Condition C, they continue to be tested by Surveillance Requirement 3.7.8.3 at the required periodicity. The station procedure to test the dampers requires that the dampers be fully stroked and locally observe operation of the dampers. The dampers continue to pass their SR testing.

Since the implementation of the alternate source term TS in 2009, the station has considered revising the TS to remove the dampers from testing, since they no longer perform a safety function. However, higher priority license amendments were being addressed. Exelon is now requesting removal of the dampers from the TS. As stated in the original submittal, the reason for requesting the TS change is to allow for the elimination of components that no longer serve as safety related function. It also eliminates the need to perform unnecessary surveillance testing which carries the potential of a dual unit shutdown with no safety benefit. At present time, it is Exelon's intention to leave the dampers in place and to continue to perform

preventative maintenance. Associated closure signals will remain in place for now, but could be removed in the future, since they no longer are needed to perform the safety function.

**References**

1. Letter from A. W. Dromerick (NRC) to C. H. Cruse (BGE), dated August 28, 1997, Extension of Control Room Habitability Analysis Submittal Date for Calvert Cliffs Nuclear Power Plant

2. Letter from C. H. Cruse (BGE) to NRC Document Control Desk, dated March 17, 1998, Response to Request for Additional Information: Control Room Habitability Analyses and Main Steam Line Break Analyses

3. Letter from C. H. Cruse (BGE) to NRC Document Control Desk, dated April 9, 1998, Response to Request for Additional Information: Accident Dose Analyses and Control Room Habitability Analyses for the Maximum Hypothetical Accident, Fuel Handling Accident and Control Element Assembly Ejection Event (9804160401)

4. Letter from C. H. Cruse (BGE) to NRC Document Control Desk, dated August 31, 2000, Withdrawal of Accident Dose Analysis and Control Room Habitability Analyses (ML003747236)

5. Generic Letter 2003-01, Control Room Habitability, dated June 12, 2003

6. Letter from G. Vanderheyden (CGG) to NRC Document Control Desk, dated December 12, 2003, Response to NRC Generic Letter 2003-01, Control Room Habitability (ML033440342)

7. Letter from to NRC Document Control Desk, dated November 3, 2005, License Amendment Request ML053200316

8. Letter from D. V. Pickett (NRC) to J. A. Spina (CCNPP), dated August 29, 2007, Amendment re: Implementation of Alternative Radiological Source Term, ML072420203.