~~SECURITY-RELATED INFORMATION – WITHHOLD UNDER 10 CFR 2.390~~

Exelon Generation®

George H. Gellrich
Site Vice President

Calvert Cliffs Nuclear Power Plant
1650 Calvert Cliffs Parkway
Lusby, MD 20657

410 495 5200 Office
717 497 3463 Mobile
www.exeloncorp.com

george.gellrich@exeloncorp.com

10 CFR 50.90

April 22, 2016

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

Calvert Cliffs Nuclear Power Plant, Units No. 1 and 2
Renewed Facility Operating License Nos. DPR-53 and DPR-69
NRC Docket Nos. 50-317 and 50-318

Subject: Response to NRC Clarification Request for NFPA-805 License Amendment Request

Reference: 1. Letter from G.H Gellrich (CCNPP) to Document control Desk (NRC), dated September 24, 2013, License Amendment request re: Transition to 10 CFR 50.48(c) – NFPA 805 Performance Based Standard for Fire Protection

In Reference 1, Calvert Cliffs Nuclear Power Plant submitted a license amendment request to adopt National Fire Protection Association 805. On April 7, 2016, a conference call was held with the Nuclear Regulatory Commission staff to discuss some clarifications requested by the Nuclear Regulatory Commission staff. Calvert Cliffs' responses, as discussed during the conference call, are contained in Attachment (1). Enclosure 1 contains page replacements for Attachments G and W of the license amendment package. Enclosure 1 also contains Attachment S with all revisions incorporated and updated to show items completed.

Attachments S and W in Enclosure 1 contain security-related information and are requested to be withheld from public disclosure under 10 CFR 2.390.

This additional information does not change the No Significant Hazards Determination provided in Reference 1. No regulatory commitments are contained in this letter.

Should you have questions regarding this matter, please contact Mr. Larry D. Smith at (410) 495-5219.

A006
NRR

Upon removal of Attachment S and W pages in Enclosure 1, this submittal is not restricted

I declare under penalty of perjury that the foregoing is true and correct. Executed on April 22, 2016.

Respectfully,

George H. Gellrich
Site Vice President

GHG/KLG/bjm

Attachment: (1) Responses to NRC Request for Clarification
Enclosure: 1 Page Replacements for Attachment G, S, and W

cc: **(Without Enclosures)**
NRC Project Manager, Calvert Cliffs
NRC Regional Administrator, Region I
NRC Resident Inspector, Calvert Cliffs
S. Gray, MD-DNR

ATTACHMENT (1)

RESPONSES TO NRC REQUEST FOR CLARIFICATION

Calvert Cliffs Nuclear Power Plant
April 22, 2016

ATTACHMENT (1)

RESPONSES TO NRC REQUEST FOR CLARIFICATIONS

1. Clarification to PRA 03.b in reference to PRA RAI 02.b.11.01

In the response to PRA RAI 03.b, dated February 24, 2016, the disposition of PRA RAI 02.b.ii.01 (page 31 in Attachment 1 of the response) indicates that the final number of joint HEPs less than 1.0E-5 and several example justifications that were requested by PRA RAI 02.b.ii.01 but not provided in the July 6, 2015 response would be provided in a supplemental response to PRA RAI 02.b.ii.01 or as part of the response to PRA RAI 03. However, the NRC staff cannot find this information.

Calvert Cliffs Response:

No joint HEP values of less than 1E-05 were used in the final quantification, therefore, no supplemental response was provided.

2. Clarification to PRA RAI 19.01

PRA RAI 19.a.i noted several inconsistencies associated with LAR Table W-7 in which some deterministically compliant fire areas (i.e., NFPA Basis 4.2.3.2) were indicated as having VFDRs and some performance-based fire areas (i.e., NFPA Basis 4.2.4.2) were shown to have neither VFDRs nor a calculated delta risk (i.e., N/A). Although the response to PRA RAI 19, dated February 24, 2016, indicates that such inconsistencies have been resolved, they still appear to be present in the update provided to Table W-7. For instance, Fire Area 2 is noted as being deterministically compliant (i/e., NFPA Basis 4.2.3.2); however, a delta risk is calculated in Table W-7, and VFDRs are identified in the updated Attachment C. The reverse is true for Fire Areas 3 and 4. The NRC staff seeks clarification if these are simply editorial errors or if they could impact the reported estimates.

Calvert Cliffs Response:

These are editorial errors in the column in question. In Table W-7, Fire Areas with VFDR = "Yes" are performance based (Section 4.2.4.2), while fire areas with VFDR = "No" are deterministically compliant (4.2.3.2). Where VFDR = "Yes" appears, there are delta risk numbers. Where VFDR = "No" appears, the delta risk is "N/A." A revised Table W-7 is provided. Also one editorial change is made to Table W-6 for fire area AB-1 to note that there is no CDF or LERF number for this fire area. This change is also attached.

3. Clarification regarding VFDR 16-27-1 (Fire Area 16) and VFDRs 16-61-2 and 17-25-2 (Fire Area 17)

In the recent revisions provided in Attachment C, the licensee documented that risk, DID and SM criteria were met with no further action related to VFDR 16-27-1, (ADVs 1CV-3938 and 1CF-3939) (for Fire Area 16), and VFDRs 16-61-2 and 17-25-2 (ADVs 2CV-3938 and 2CV-3939) (for Fire Area 17) citing the use of the Safety Relief Valves for controlling Steam Generator pressure. However, the revisions provided in Attachment G create inconsistencies with the approach used to disposition the VFDR.

Consistent with the VFDR disposition in Attachment C, in LAR Attachment G, Table G-1, the licensee removed the recovery actions for fire area 16 to reposition 11 and 12 ADV hand valves in order to locally operate ADVs 1 CV3938 an 1CV3939 from Panel 1C43, but inconsistent with the disposition in Attachment C, maintained the PCS action to initialize the ADV controls at panel 1C43 and use the ADV hand controllers to control RCS temperature and verify natural circulation. In fire area 16, the licensee also removed the action to close the 21 and 22 steam generator ADVs 2CV3939 and 2CV3938, respectively, from panel 2C43. Similarly, for fire

area 17, the licensee removed the recovery actions to reposition 21 and 22 ADV hand valves in order to locally operate the ADVs 2CV3938 and 2CV3939 from panel 2C43, but maintained the PCS action to initialize the ADV controls at panel 2C43 and to use the ADV hand controllers to control RCS temperature and verify natural circulation. In fire area 17, the licensee also removed the action to close the 11 and 12 steam generator ADVs 1CV3939 and 1CV3938, respectively, from panel 1C43.

However, in the summary of results for Step 1 in the LAR Attachment G, the licensee still states that the hand valves associated with the ADV hand controller on panels 1C43 and 2C43, respectively, are required to be repositioned in order to enable operation of the ADVs from panels 1C43 and 2C43.

The NRC staff seeks clarification (1) whether the hand controller at the PCS panels 1C43 and 2C43 for the steam generator ADVs for both units are credited to meet the nuclear safety performance criteria for a fire in fire area 16 or 17, and (2) whether the description of the PCS actions in the results of Step 1, which are associated with the steam generator ADVs, is accurate.

Calvert Cliffs Response:

The hand controller at the PCS panels 1C43 and 2C43 for the steam generator ADVs for both units are NOT credited to meet the nuclear safety performance criteria for a fire in fire area 16 or 17. The description of the local actions required to enable the 1C43 and 2C43 hand controllers on pages G-4 and G-7 is accurate but these actions are not a (NFPA 805) recovery action, since these actions are not required to reduce risk or for defense in depth in fire area 16 or 17. Attachment C and Attachment G, Table G-1 are correct.

Revised text for the main body of Attachment G is provided.

Enclosure 1

Page Replacements for Attachment G, S, and W

33. 11 Reactor Coolant Pressurizer Level Indication (1LI110X)
34. 11 Reactor Coolant Pressurizer Level Indication (1LI110Y)
35. 11 Reactor Coolant Pressurizer Pressure Indication (1PI105AA)
36. 11 Reactor Coolant Pressurizer Pressure Indication (1PI105B)
37. Unit 1 Neutron Power, Logarithmic, Wide Range, % Power Indication (1NI016 from either 1NE002 or 1NE004 via Hand Switch 1HS015B)
38. Unit 1 Neutron Power, Logarithmic, Wide Range, Counts Per Second Indication (1NI015 from either 1NE002 or 1NE004 via Hand Switch 1HS015B)
39. Backup Pressurizer Heater Bank 11 (1UCC2) Transfer / Control Hand Switch (1HS100-4A) see note 1
40. Backup Pressurizer Heater Bank 13 (1UH1) Transfer / Control Hand Switch (1HS100-6A) see note 1
41. Unit 1 Reactor Coolant Pump Controlled Bleedoff Isolation Valve 1CV505 Hand Switch (1HS2505A)
42. Unit 1 Reactor Coolant Letdown Isolation Valve 1CV516 Hand Switch (1HS2516A)
43. Unit 1 Reactor Coolant Sampling Isolation Valve 1CV4564 Hand Switch (1HS5464B)

1C43 Notes:

Note 1: Enabling of each Backup Pressurizer Heater also requires a local ~~recovery~~ action to verify closed / reclose the associated feeder breaker to the heater Motor Control Center (1MCC109PH / 1MCC111PH) at the 480V Unit Bus (1BUS1B01B / 1BUS1B04B) as identified below: | LIC

Backup Heater	Feed Breaker	Feed Breaker(s) Room Location
Bank 11 (1UCC2)	1BKR52-1127	317
Bank 13 (1UH1)	1BKR52-1427	430

Note 2: To enable the 1C43 hand controller requires a local ~~recovery~~ action to reposition the associated hand valve(s) as identified below: | LIC

Hand Controller	Hand Valve(s)	Hand Valve(s) Room Location
1HC4056A	1HVMS-3938A	430
	1HVMS-3938B	430
1HC4056B	1HVMS-3939A	430
	1HVMS-3939B	430
1HC4511B	1HVAFW-4511	226
1HC4512B	1HVAFW-4512	226

43. Unit 2 Reactor Coolant Sampling Isolation Valve 2CV4564 Hand Switch (2HS5464B)

2C43 Notes:

Note 1: Enabling of each Backup Pressurizer Heater also requires a local ~~recovery~~ action to verify closed / reclose the associated feeder breaker to the heater Motor Control Center (2MCC209PH / 2MCC211PH) at the 480V Unit Bus (2BUS2B01B / 2BUS2B04B) as identified below: | LIC

Backup Heater	Feed Breaker	Feed Breaker(s) Room Location
Bank 21 (2UCC2)	2BKR52-2127	311
Bank 23 (2UH1)	2BKR52-2427	407

Note 2: To enable the 2C43 hand controller requires a local ~~recovery~~ action to reposition the associated hand valve(s) as identified below: | LIC

Hand Controller	Hand Valve(s)	Hand Valve(s) Room Location
2HC4056A	2HVMS-3939A	407
	2HVMS-3939B	407
2HC4056B	2HVMS-3938A	407
	2HVMS-3938B	407
2HC4511B	2HVAFW-4511	205
2HC4512B	2HVAFW-4512	205
2HC4525B	2HVAFW-4525	205
2HC4535B	2HVAFW-4535	205
2HC3987B	2HVMS-3987	605
2HC3989B	2HVMS-3989	605

Note 3: Enabling of Channel A WRNI at 2C43 requires placing 2HS001A1 to off. This is considered a PCS action that initiates control of instrumentation at the alternate shutdown panel. The hand switch is located in the same room as 2C43.

1C43 (Unit 1) and 2C43 (Unit 2) are the Primary Control Station for implementation of the Alternate Shutdown Strategy in the event of a fire that requires the evacuation of the Main Control Room. NRC approval for the design of the Alternate Shutdown Panel(s), and for the overall Alternate Shutdown Strategy to meet the requirements of 10 CFR 50 Appendix R, Section III.G.3, was provided in SER Supplement No. 3, dated September 27, 1982. Baltimore Gas and Electric Company, Calvert Cliffs Units 1 and 2, Docket Nos., STN 50-317 and 50-318, Item 3.2.1 of the Fire Protection Safety Evaluation Report, Appendix R to 10 CFR Part 50, Items III.G.3 and III.L.