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

Subject: Seismic Mitigating Strategies Assessment (MSA) Report for the Reevaluated Seismic Hazard Information – NEI 12-06, Appendix H, Revision 4, H.4.4 Path 4: GMRS < 2xSSE

References:

1. NEI 12-06, Revision 4, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, December 2016, ADAMS Accession Number ML16354B421
2. JLD-ISG-2012-01, Revision 2, Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, February 2017, ADAMS Accession Number ML17005A188

The purpose of this letter is to provide the results of the assessment for Calvert Cliffs Nuclear Power Plant Units 1 and 2 to demonstrate that the FLEX strategies developed, implemented and maintained in accordance with NRC Order EA-12-049 can be implemented considering the impacts of the reevaluated seismic hazard. The assessment was performed in accordance with the guidance provided in Appendix H Section H.4.4 of NEI 12-06 Revision 4 [Reference 1] which was endorsed by the NRC [Reference 2].

Based upon the mitigating strategies assessment results provided in the Enclosure, the mitigating strategies for Calvert Cliffs Nuclear Power Plant, Units 1 and 2, as described in References 14 and 15 of the enclosed report, are acceptable considering the impacts of the reevaluated seismic hazard.

This letter contains no new regulatory commitments and no revision to existing regulatory commitments.

Should you have any questions regarding this submittal, please contact David J. Distel at (610) 765-5517.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 31<sup>st</sup> day of August 2017.

Respectfully submitted,



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Enclosure: Seismic Mitigating Strategies Assessment for Calvert Cliffs Nuclear Power Plant, Units  
1 and 2

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# ENCLOSURE

## Seismic Mitigating Strategies Assessment for Calvert Cliffs Nuclear Power Plant, Units 1 and 2

NEI 12-06 Appendix H – Seismic “Path 4”

(9 Pages)

## **1. BACKGROUND**

Calvert Cliffs Nuclear Power Plant Units 1 and 2 (CCNPP) has completed a mitigating strategies assessment (MSA) for the impacts of the reevaluated seismic hazard to determine if the mitigating (FLEX) strategies developed, implemented and maintained in accordance with NRC Order EA-12-049 remain acceptable at the reevaluated seismic hazard levels. The MSA was performed in accordance with the guidance provided in Appendix H of NEI 12-06 Revision 4 [Reference 1] which was endorsed by the NRC [Reference 2].

The Mitigating Strategies Seismic Hazard Information (MSSHI) is the reevaluated seismic hazard information at CCNPP, developed using the Probabilistic Seismic Hazard Analysis (PSHA). The MSSHI includes a performance-based Ground Motion Response Spectrum (GMRS), Uniform Hazard Response Spectra (UHRS) at various annual probabilities of exceedance, and a family of seismic hazard curves at various frequencies and fractiles developed at the CCNPP control point elevation. CCNPP submitted the reevaluated seismic hazard information including the UHRS, GMRS and the hazard curves to the NRC on March 31, 2014 [Reference 3, Attachment 1]. The NRC staff concluded that the GMRS that was submitted adequately characterizes the reevaluated seismic hazard for the CCNPP site [Reference 4]. Section 6.1.1 of Reference 2 identifies the method described in Section H.4.4 of Reference 1 as applicable to CCNPP.

## **2. ASSESSMENT TO MSSHI**

Consistent with Section H.4.4 (Path 4) of Reference 1, the CCNPP GMRS has spectral accelerations greater than the safe shutdown earthquake (SSE) but no more than 2 times the Safe Shutdown Earthquake (SSE) anywhere in the 1 to 10 Hz frequency range. As described in the Final Implementation Plan (FIP) and Safety Evaluation Letter [References 14, 15], the plant equipment relied on for FLEX strategies have previously been evaluated as seismically robust to the SSE levels. The basic elements within the MSA of Path 4 SSCs are described in Reference 1. Implementation of each of these basic Path 4 elements for the CCNPP site is summarized below.

### **2.1 Step 1 – Scope of MSA Plant Equipment**

The scope of SSCs considered for the Path 4 MSA was determined following the guidance used for the expedited seismic evaluation process (ESEP) defined in EPRI 3002000704 [Reference 9]. FLEX SSCs excluded from consideration in the ESEP were added to the MSA equipment scope. In addition, SSC failure modes not addressed in the ESEP that could potentially affect the FLEX strategies were added and evaluated.

SSCs associated with the FLEX strategy that are inherently rugged or sufficiently rugged are discussed in Section 2.3 below and identified in Section H.4.4 (Path 4) of Reference 1. These SSCs were not explicitly added to the scope of MSA plant equipment.

Note that the Flex Storage Commercial Building (FSCB) is not included in the scope of the MSA. The FSCB is not required in order to implement the Final Integrated Plan since the equipment stored in it is either N+1 equipment, supplemental debris removal equipment, or other supplemental/redundant equipment and consumables [Reference 14]. Per NEI 12-06 Revision 4 [Reference 1], Section H.4, "Equipment required to support an alternate means to accomplish a function is not required to be included in the MSA".

## **2.2 Step 2 – ESEP Review**

Equipment used in support of the FLEX strategies has been evaluated to demonstrate seismic adequacy following the guidance in Section 5 of NEI 12-06. As stated in Appendix H of NEI 12-06, previous seismic evaluations should be credited to the extent that they apply for the assessment of the MSSHI. This includes the expedited seismic evaluation process (ESEP) evaluations [Reference 10] for the FLEX strategies which were performed in accordance with EPRI 3002000704 [Reference 9]. The ESEP evaluations remain applicable for this MSA since these evaluations directly addressed the most critical 1 Hz to 10 Hz part of the new seismic hazard using seismic responses from the scaling of the design basis analyses. No High Frequency Evaluation is required for CCNPP, as the MSSHI GMRS high frequency spectral accelerations above 10Hz are within the limits identified in Section 3.1.1 of EPRI 3002004396 [References 5, 6, and 7] (see also Section H.4.2 of Appendix H of NEI 12-06).

## **2.3 Step 3 – Inherently/Sufficiently Rugged Equipment**

The qualitative assessment of certain SSCs not included in the ESEP was accomplished using (1) a qualitative screening of “inherently rugged” SSCs, and (2) evaluation of SSCs to determine if they are “sufficiently rugged.” Reference 1 documents the process and the justification for this ruggedness assessment. SSCs that are either inherently rugged or sufficiently rugged are described in Reference 1 and no further evaluations for these rugged SSCs are required under the MSA.

## **2.4 Step 4 – Evaluations Using Section H.5 of Reference 1**

Step four for Path 4 plants includes the evaluations of:

1. FLEX equipment storage buildings and Non-Seismic Category 1 Structures that could impact FLEX implementation
2. Operator Pathways
3. Tie down of FLEX portable equipment
4. Seismic Interactions not included in ESEP that could affect FLEX strategies
5. Haul Paths

An Expedited Seismic Equipment List (ESEL) was developed for CCNPP in accordance with the guidance in the ESEP [Reference 9]. A review of the ESEL concluded that all SSCs in these lists were designed and installed in accordance with the design basis seismic loads and spectra (SSE). Comparing the spectral ordinates of SSE and the GMRS in the 1 to 10 HZ range [from Reference 3, Attachment 1], the maximum exceedance ratio (GMRS/SSE) is less than 1.36. Considering Section H.5 of NEI 12-06 [Reference 1], for a realistic lower bound case (i.e., with low generic Beta values) the ratio of  $C_{10\%}$  to  $C_{1\%}$  is 1.36.

CCNPP performed dynamic analyses for SSE to develop In-Structure Response Spectrum (ISRS) at various elevations. Therefore, since the GMRS/SSE spectral ratios are less than 1.36, it is reasonable to conclude that SSCs in the ESELs for CCNPP will have adequate  $C_{10\%}$  capacities corresponding to the GMRS.

The results of the reviews of each of these five areas for items not included in the ESELs are described in the sections below.

#### 2.4.1 FLEX Equipment Storage Buildings

- The FLEX Storage Robust Building (FSRB) is a reinforced concrete structure located outside the protected area.
- The seismic design is in accordance with ASCE 7-10, using the SSE horizontal ground acceleration of 0.15g and vertical ground acceleration of 0.10g (per the Civil/Structural Design Criteria for Exelon FLEX Storage and Commercial Buildings [Reference 17]) as input. The FSRB is considered a Risk Category IV structure as defined in ASCE 7-10 Table 1.5-1, and the Maximum Considered Response Spectrum factor of 1.5 was applied. Additional evaluation was performed to evaluate for soil liquefaction at the FSRB. The evaluation concluded that, based on the original site borings and the recent soil borings for the design of the FSRB, any soil liquefaction potential is minimal [References 18 and 23].
- The FSRB was designed to withstand the seismic accelerations associated with a SSE in accordance with the methodology from ASCE 7-10. As the GMRS/SSE spectral ratios are less than 1.36, it is reasonable to conclude that the FSRB for CCNPP has adequate  $C_{10\%}$  capacities corresponding to the GMRS.

#### Non-Seismic Category 1 Structures

The Turbine Building at CCNPP is the only Non-Seismic Category I structure that may be utilized in order to implement the Final Integrated Plan [Reference 14].

- The Turbine Building was originally designed as a Seismic Class II structure. The building is an integrated steel structure with metal siding, supported on reinforced concrete foundations. It was designed in accordance with the Uniform Building Code (UBC). Seismic forces are based on Seismic Probability Zone 3, multiplied by a ratio of 0.08/0.30. A one third increase in allowable stresses in the steel is not allowed. All of the structural steel columns, beams, and roof trusses of the building have been designed as independent members and in accordance with AISC specifications [Reference 21].
- Large commercial/industrial structures designed similarly to the steel constructed CCNPP Turbine Building have behaved very well during strong motion earthquakes with seismic ground motion in excess of 0.9g, maintaining their structural and system integrity with the exception of local damage due to insufficiently anchored equipment [Reference 21]. Both the MSSHI GMRS and the SSE Response Spectrum have ground motions less than 0.9g. Accordingly,

the Turbine Building withstands the MSSHI based on the acceptance criteria required by NEI 12-06.

- Junction Box 2J5329 is the only equipment required for implementation of the Final Integrated Plan located in the Turbine Building [Reference 14]. CCNPP has walked down the area around this junction box and determined that there is no insufficiently anchored equipment in proximity to the box [Reference 22]. The box is only mounted a few feet above grade, and the wall it is anchored to (the K-line wall) is the interface between the Turbine Building and the Seismic Class I Auxiliary Building. The wall is on the Auxiliary Building side of the seismic gap. The conduits attached to 2J5329 are small and have sufficient flexibility to accommodate any differential movement between the Turbine Building and the Auxiliary Building. The mounting of the box to the Auxiliary Building Wall inside the Turbine Building has been evaluated and determined to be acceptable for the MSSHI GMRS earthquake [Reference 22].
- The pathways/routes through the Turbine Building that may be utilized for implementation of the Final Integrated Plan [Reference 14] are wide-open, interconnected by stairs, hallways, and hatches. There is no piece of equipment that would cause a complete pathway/route block such that the operators cannot successfully implement the FLEX strategy.
- Note that even in the event that all access through the Turbine Building is lost, the FLEX Strategy can still be successfully implemented through an alternate and independent strategy/pathway as described in the Final Integrated Plan [Reference 14], Section 8.3.1 and Figure 14-6. This alternate pathway is through the Auxiliary Building, which is a seismic Category I structure.

#### 2.4.2 Operator Pathways

CCNPP has reviewed the operator pathways and verified that the operator pathways are not impacted by the MSSHI. Considerations for this review included:

- Multiple available pathways or multiple FLEX components
- The entire FLEX Strategy can be performed using pathways in seismic Category 1 structures only with previous reviews for seismic ruggedness
- Debris removal capabilities for moderate to smaller seismic interactions
- Available time for operator actions
- Operator pathways were reviewed during a walkdown to assess seismic interactions associated with a GMRS-level seismic event

Operator pathways for implementation of the FLEX strategies are documented in the Final Integrated Plan [Reference 14] and are evaluated in Attachment 1 of the Seismic MSA Path 4 Seismic Evaluation Report [Reference 22]. FLEX operator pathways and pathways for FLEX hose and cable routes for CCNPP entail Elevations 5' thru 69' in the Auxiliary Building (including Control Room and Cable Spreading Room), Elevations 27' and 45' in the Turbine Building, and Elevation 69' in the Unit 1 and Unit 2 Containment.

Pathways within the buildings are interconnected by an escape hatch that connects elevations 5' thru 45', as well as stairs and hallways that have enough space for operators to walk through. In the Auxiliary and Turbine Buildings, there is no equipment that would cause a complete pathway block such that the operators cannot access the FLEX equipment [Reference 22]. Note that even in the event that all access through the Turbine Building is lost, the FLEX Strategy can still be successfully implemented through an alternate and independent strategy/pathway as described in the Final Integrated Plan [Reference 14], Section 8.3.1 and Figure 14-6. This alternate pathway is through the Auxiliary Building, which is a seismic Category I structure.

The Unit 1 and Unit 2 Containments are safety-related Seismic Class I structures, with all equipment inside designed and qualified for SSE loads (either as Seismic Class I or Class II/I). All items designed and qualified for SSE loads SSCs for CCNPP will have adequate  $C_{10\%}$  capacities corresponding to the GMRS.

#### 2.4.3 Tie Down of FLEX Portable Equipment

The portable equipment required for the implementation of the FLEX strategy is described in the FIP [Reference 14]. CCNPP has reviewed the storage requirements (including any tie-down or restraint devices) in effect for FLEX portable equipment and verified that the equipment has no adverse interactions or significant damage that could impair the ability of the equipment to perform its mitigating strategy function during or following the GMRS-level seismic event using the methods described in Section H.5 of NEI 12-06.

Stored equipment was evaluated (for stability and restraint as required/necessary) and protected from seismic interactions to the SSE level as part of the FLEX design process to ensure that unsecured and/or non-seismic components do not damage the FLEX equipment. In addition, large FLEX equipment such as pumps and power supplies were secured as necessary to protect them during a SSE seismic event. Tie-Downs and Racks in the FSRB are evaluated in Calculations FSRB-0011 [Reference 19] and FSRB-0079 [Reference 20]. The Civil/Structural Design Criteria for the FSRB considers SSE ground accelerations. All items designed and qualified for SSE loads SSCs for CCNPP will have adequate  $C_{10\%}$  capacities corresponding to the GMRS.

All equipment stored inside the FSRB is secured with tie-down straps to floor anchors to protect them during a seismic event. The FSRB anchors are integrated into the floor slab [Reference 15]. A walkdown of the FSRB revealed no inadequacies with the tie-downs and storage, and no unevaluated seismic interactions [Reference 22].

#### 2.4.4 Additional Seismic Interactions

Seismic interactions that could potentially affect the FLEX strategies and were not previously reviewed as part of the ESEP program (e.g., flooding from non-seismically robust tanks, interactions to distributed systems associated with the ESEP equipment list, etc.) were reviewed for CCNPP [Reference 22]. No buried tanks are relied upon for implementation of the FLEX strategy at CCNPP Units 1 and 2. A walkdown was performed in order to verify that credible seismic interactions are not present, as



documented in Attachment 1 to the Seismic MSA Path 4 Seismic Evaluation Report [Reference 22].

CCNPP has reviewed the additional seismic interactions and verified that the Mitigation Strategy is not adversely impacted by the GMRS.

#### 2.4.5 Haul Path

Pre-evaluated haul pathways for moving equipment from the FSRB into the protected area are listed in the Final Integrated Plan [Reference 14]. They are as follows:

- Path 1 – (Preferred) Calvert Cliffs Parkway to Camp Canoy Road to road along switchyard to FLEX Primary PA Access north of Warehouse 1.
- Path 2 – (Alternate 1) Calvert Cliffs Parkway to Camp Canoy Road to ISFSI Haul Route to NSF Sallyport.
- Path 3 – (Alternate 2) Lake Davies Road by the ISFSI to ISFSI Haul Route to NSF Sallyport.
- Path 4 – (Alternate 3) Old North Road to North Perimeter gate. (Bypasses 500 KV Highlines)

Equipment (including Big Red Fork Lift, F550 Trucks, F350 Truck, and a Bobcat T650) is securely stored inside the FSRB in order to facilitate removal of debris from the site after a Beyond Design Basis External Event, and removal of debris is not dependent on offsite power. The potential for seismically induced liquefaction has been evaluated and determined to be not credible [Reference 18]. Adequacy of existing paths to move equipment into the protected area after a MSSHI GMRS level seismic event is assured by redundancy, the capability for debris removal, and walkdowns that confirmed that the primary haul path is a wide-open space [Reference 22]. Thus, the haul paths are not adversely impacted by a MSSHI GMRS-level seismic event.

### 3. SPENT FUEL POOL COOLING REVIEW

The evaluation of spent fuel pool cooling for CCNPP was performed based on the initial conditions established in NEI 12-06 [Reference 1] for spent fuel cooling coping in the event of an ELAP/LUHS. The evaluation also used the results of pool heat up analyses from the ELAP evaluation as input.

The FLEX strategy for spent fuel pool (SFP) cooling utilizes SFP level monitoring and make-up capability as described in CCNPP Final Integrated Plan (FIP) [Reference 14]. SFP make-up capability is provided using the portable FLEX SFP makeup pump taking suction through a portable flexible hose and discharging either through a permanently installed FLEX makeup connection tie-in to the SFP emergency make-up piping, or through a flexible hose directly routed to the SFP. The source of make-up water is the plant ultimate heat sink (The Chesapeake Bay).

The permanently installed plant equipment relied on for the implementation of the SFP Cooling FLEX strategy has been designed and installed, or evaluated to remain functional, in accordance with the plant design basis to the SSE loading conditions [Reference 16]. The spent fuel pool

integrity evaluations demonstrated inherent margins of the spent fuel pool structure and interfacing plant equipment above the SSE to a peak spectral acceleration of 0.8g [Reference 16]. The portable FLEX equipment availability, including its storage and deployment pathways, and the permanently installed plant equipment needed to accomplish SFP cooling were originally designed for SSE loading conditions. All items designed and qualified for SSE loads for CCNPP will have adequate  $C_{10\%}$  capacities corresponding to the GMRS since the maximum ratio between the SSE and the GMRS between 1 and 10 Hz is less than 1.36. Pathways were evaluated and it was determined that there is no equipment that would cause a complete pathway block such that the operators cannot access the FLEX equipment [Reference 22] and implement the FLEX strategy. Therefore, the approach for cooling the spent fuel pool is acceptable for the MSSHI.

#### **4 HIGH FREQUENCY REVIEW**

At CCNPP, the MSSHI GMRS spectral accelerations above 10Hz are within the limits identified in Section 3.1.1 of EPRI 3002004396 (0.2g) [References 5, 6, and 7]. According to EPRI 3002004396 a spectral acceleration of up to 0.2g has been determined to be non-damaging. Per NEI 12-06, Appendix H, Section H.4.2, such minimal high frequencies are considered to be inconsequential even if the SSE is exceeded; therefore, no additional High Frequency Review is required [References 1, 5, and 6].

#### **5 CONCLUSION**

Therefore, the FLEX strategies for CCNPP as described in the FIP [Reference 14] are acceptable as specified and no further seismic evaluations or modifications are necessary.

#### **6 REFERENCES**

1. NEI 12-06, Revision 4, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, December 2016, ADAMS Accession Number ML16354B421
2. JLD-ISG-2012-01, Revision 2, Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, February 2017, ADAMS Accession Number ML17005A188
3. CENG Letter to NRC, Seismic Hazard and Screening report (CEUS Sites), Response to NRC Request for Additional Information Pursuant to 10 CFR 50.54(f) Regarding Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi accident, dated March 31, 2014, ADAMS Accession Number ML14099A196
4. NRC Letter, Calvert Cliffs Nuclear Power Plant, Units 1 and 2 - Staff Assessment of Information provided Pursuant to Title 10 of the Code of Federal Regulations Part 50, Section 50.54(f), Seismic Hazard Reevaluations for Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima DAI-ICHI Accident, dated July 8, 2015, ADAMS Accession Number ML15153A073
5. Calvert Cliffs Nuclear Power Plant High Frequency Supplement to Seismic Hazard Screening Report, Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, December 4, 2015, ADAMS Accession Number ML15338A002

6. NRC Letter, Staff Review of High Frequency Confirmation Associated with Reevaluated Seismic Hazard Response in Response to March 12, 2012 50.54(f) Request for Information, February 18, 2016, ADAMS Accession Number ML15364A544
7. EPRI 3002004396, Final Report, July 2015, High Frequency Program Application Guidance for Functional Confirmation and Fragility Evaluation, ADAMS Accession Number ML15223A102
8. NRC Letter, Endorsement of Electric Power Research Institute Final Draft Report 3002004396, "High Frequency Program: Application Guidance for Functional Confirmation and Fragility", dated September 17, 2015, ADAMS Accession Number ML15218A569
9. EPRI, "Seismic Evaluation Guidance: Augmented Approach for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic", Report Number 3002000704, Palo Alto, CA, April, 2013.
10. Expedited Seismic Evaluation Process (ESEP) Report in Response to the 50.54(f) Information Request Regarding Fukushima Near-Term Task Force Recommendation 2.1: Seismic for the Calvert Cliffs Nuclear Power Plant Units 1 and 2 (searchable under Fukushima NTTF 50.54(f), Enclosure 1 - 2.1 Seismic 019)
11. EPRI, "Seismic Evaluation Guidance: Screening, Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic", Report Number 1025287, Palo Alto, CA, November, 2012.
12. EPRI, "EPRI NP-6041-SL Revision 1: A Methodology for Assessment of Nuclear Plant Seismic Margin, Revision 1", Palo Alto, CA, August, 1991.
13. NRC Letter, Calvert Cliffs Nuclear Power Plant, Units 1 and 2 – Staff Review of Interim Evaluation Associated with Reevaluated Seismic Hazard Implementing near-Term Task Force Recommendation 2.1 (TAC Nos. MF5231 and MF5232), dated September 23, 2015, ADAMS Accession Number ML15238A429
14. Calvert Cliffs Nuclear Power Plant, Units 1 and 2, Revised Final Integrated Plan Document – Mitigating Strategies NRC Order EA-12-049, August 9, 2016
15. NRC Letter, Calvert Cliffs Nuclear Power Plant, Units 1 and 2 – Safety Evaluation Regarding Implementation of Mitigating Strategies and Reliable Spent Fuel Pool Instrumentation Relating to Orders EA-12-049 and EA-12-051 (CAC Nos. MF1142, MF1143, MF1140, and MF1141), dated September 29, 2016, ADAMS Accession Number ML16258A446
16. Calvert Cliffs Nuclear Power Plant Units 1 and 2 - Spent Fuel Pool Evaluation Supplemental Report, Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident, dated August 31, 2016, ADAMS Accession Number ML16244A320
17. CB&I Stone & Webster, Inc., Civil/Structural Design Criteria for Exelon FLEX Storage and Commercial Buildings, May 1, 2014
18. CA09996, Liquefaction Evaluation for FLEX Travel Paths
19. FSRB-0011, FLEX Storage Robust Building (151871-C-C-00021), Revision 6, Robust FLEX Storage Building – Qualification of Equipment Tie-Down Anchors

20. FSRB-0079 – FLEX Storage Robust Building (Structural Pallet Rack Calculation), Rack Builders Inc. Structural Pallet Rack Calculations for Exelon Calvert Cliffs, August 25, 2015 (Exelon Order No. 4209)
21. BGE Response to NRC Request for Additional Information – CT199500034, dated June 13, 1996, “Evaluation of Isolation Provisions for the Service Water System, Calvert Cliffs Nuclear Power Plant, Unit No. 1 (TAC No. M87189) and Unit No. 2 (TAC No. M87190)”
22. Calvert Cliffs Nuclear Power Plant Units 1 and 2 Report No. EXLNCC026-REPT-002, Rev. 0, “Seismic MSA Path 4 Seismic Evaluation Report for CCNPP”
23. FSRB-0016, FLEX Storage Robust Building (151871-C-G-07005), Revision 0, Soil Liquefaction Potential – Calvert Cliffs