

~~Exelon Confidential/Proprietary Information - Withhold Under 10 CFR 2.390
Attachment 3 contains Exelon Confidential/Proprietary Information;
upon separation this cover letter and Attachments 1 and 2 are decontrolled.~~



10 CFR 50.54(q)(5)
10 CFR 50.4
10 CFR 72.44(f)

RS-16-058

March 28, 2016

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

Clinton Power Station, Unit 1
Facility Operating License Nos. NPF-62
NRC Docket No. 50-461

Subject: Exelon Nuclear Radiological Emergency Plan Addendum Revision

In accordance with 10 CFR 50.4(b)(5), "Emergency Plan and related submissions," Exelon Generation Company, LLC (EGC) is submitting an Emergency Plan Addendum revision for Clinton Power Station (Clinton) as listed in the table below.

Document	Revision	Title
EP-AA-1003, Addendum 3	1	Emergency Action Levels for Clinton Station

The change to the Emergency Plan Addendum was evaluated under the requirements of 10 CFR 50.54(q) and was determined not to result in a reduction in the effectiveness of the Emergency Plan for Clinton. This notification is being submitted within 30 days of implementation of the changes as required by 10 CFR 50.4(b)(5). The changes continue to meet the applicable planning standards established in 10 CFR 50.47(b) and 10 CFR 50, Appendix E.

Furthermore, the Emergency Plan Addendum identified in Attachment 3 of this letter is proprietary and confidential and contains trade secrets and commercial or financial information. EGC maintains this information on a confidential basis and protects it from disclosure to the general public or unauthorized individuals. EGC requests that the Emergency Plan Addendum contained in Attachment 3 be withheld from public disclosure pursuant to 10 CFR 2.390(a)(4), and has attached an affidavit for this purpose (Attachment 2). However, if the NRC intends to place any of this information in the Public Document Room or on the Agencywide Documents Access and Management System or produce it in response to a Freedom of Information Act (FOIA) request, EGC requests the opportunity to redact the materials consistent with established FOIA exemptions and precedent.

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In addition, as required by 10 CFR 50.54(q)(5), this submittal includes a summary analysis of the changes to the Emergency Plan Addendum (Attachment 1).

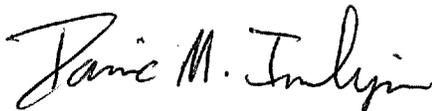
This submittal also satisfies the reporting requirements associated with 10 CFR 72.44(f), which stipulates that within six months after any change is made to the Emergency Plan, the licensee shall submit a report containing a description of the changes to the Director, Division of Spent Fuel Storage and Transportation.

A copy of the revised Emergency Plan Addendum and supporting change summary analysis are included in the attachments to this letter.

There are no regulatory commitments in this submittal.

If you have any questions or require additional information, please contact Amy Hambly at (630) 657-2808.

Respectfully,



Dominic M. Imburgia
Manager - Licensing Programs
Exelon Generation Company, LLC

Attachments:

1. 10 CFR 50.54(q)(5) Procedure Change Summary Analysis
2. Affidavit
3. EP-AA-1003, Addendum 3, Revision 1, Emergency Action Levels for Clinton Station

cc: Regional Administrator - NRC Region III
Director, NRC Division of Spent Fuel Storage and Transportation, ONMSS
NRC Senior Resident Inspector - Clinton Station
NRC Project Manager, NRR - Clinton Station

ATTACHMENT 1

10 CFR 50.54(q)(5) Procedure Change Summary Analysis

10 CFR 50.54(q)(5) Procedure Change Summary Analysis

Procedure title

Exelon Generation Company, LLC (EGC) is submitting the following Emergency Plan Addendum revision for Clinton Power Station (Clinton):

- EP-AA-1003, Addendum 3, Revision 1, "Emergency Action Levels for Clinton Station"

This document contains Exelon Confidential/Proprietary Information and is requested to be withheld from public disclosure pursuant to 10 CFR 2.390.

Description of procedure

EP-AA-1003, Addendum 3 describes the Emergency Action Levels (EALs) implemented at Clinton for entering Emergency Classification Levels (ECLs).

Description of change

This revision to EP-AA-1001, Addendum 3 for Clinton incorporates the following changes:

1. Implementation of NEI 99-01, Revision 6, "Development of Emergency Action Levels for Non-Passive Reactors," which involved a complete rewrite/formatting of the document.
2. Establishes EAL thresholds for the NRC pre-approved EALs RG2 and RS2 and an additional threshold for RA2 based on Spent Fuel Pool (SFP) levels.
3. Revised EAL MU3 (ATWS) to provide clarity regarding a successful reactor shutdown.
4. Revised EAL MG2 (Loss of all AC and DC Power) basis section to provide clarity regarding applicable Safety Systems as Division I and II SAFETY SYSTEMS.
5. An Independent Spent Fuel Storage Installation (ISFSI) is being installed at Clinton Station in accordance with 10 CFR 72. EAL E-HU1 (Damage to a Loaded Cask Confinement Boundary) was added to Clinton EALs in accordance with NEI 99-01 Revision 6 ISFSI Malfunction Section 8. Also, EAL HU3 (Fire) basis section has been revised to reflect the ISFSI.

A more detailed description of the changes is provided below.

1. The revised EAL schemes based on NEI 99-01, Revision 6 were submitted to the NRC in a License Amendment Request (LAR) dated May 30, 2014. The NRC approved the LAR as documented in a letter and supporting Safety Evaluation (SE) dated July 28, 2015. Training was satisfactorily completed for the Clinton and supporting Corporate Emergency Response Organization (ERO) personnel on the revised EAL schemes during the fourth quarter of 2015 and the first quarter of 2016. As a result, the NRC-approved EAL schemes based on the NEI 99-01, Revision 6 guidance were implemented and this revision to EP-AA-1003, Addendum 3 reflects the changes.
2. As part of the NRC approval of the new EAL Scheme, three new thresholds were approved generically without specific levels associated with them. The levels are based on enhanced SFP level devices to be placed in service in accordance with the discussion in NRC Order EA-12-051, Section 1.4. NEI 99-01, Revision 6, recommended

that these EAL thresholds be implemented when the enhanced spent fuel pool level instrumentation is available for use.

At Clinton, the enhanced SFP level instruments were placed in service in accordance with a site-approved design change package. For the new EALs RG2 and RS2 a "site specific level 3" threshold value is used and for RA2 there is a third threshold that uses a "site specific level 2" value. Based on the site-approved design change package the following thresholds were used for each of the site-specific values:

A supporting site-approved calculation was used to document the logic and assumptions for establishing the EAL thresholds for SFP "site specific level 3" and "site specific level 2."

- For EAL thresholds RG2 and RS2 the value of 1.00 ft. was calculated for "site specific level 3" value.
- For EAL threshold RA2.3 the value of 11.00 ft. was calculated for "site specific level 2" value.

For EALs RG2 and RS2 the value of 1.00 foot as indicated on applicable instrumentation was chosen as being indicative of the immediate need to restore SFP level. For EAL threshold RA2.3 the value of 11.00 feet as indicated applicable instrumentation was chosen as being the SFP level that is adequate to provide substantial radiation shielding for a person standing on the SFP operating deck.

The site-specific levels are determined in accordance with NRC Order EA-12-051 and NEI 12-02, "Industry Guidance for Compliance with NRC Order EA-12-051, 'To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation,'" and applicable owner's group guidance, and have been modified to reflect site-specific constraints and limitations associated with the design and operation of the applicable instrumentation as required by the developer guidance in the NRC-endorsed NEI 99-01, Revision 6 guidance.

Updating the EAL threshold values based on an NRC-accepted methodology and the resulting approved design change and supporting calculation does not alter the meaning or intent of the basis of the EAL provided in the NRC's SE approving the EALs.

3. A change is being made to EAL MU3 (ATWS) to provide further clarification regarding a successful reactor shutdown in order to avoid confusion when making the assessment. The following clarifying statement has been added in three places in the EAL.

"as indicated by Reactor Power <5%"

This will ensure that the same indication that is being used within EAL MU3 to determine that the reactor is not shutdown is also being used to determine a successful reactor shutdown. This is also in keeping with the escalation path EAL MA3 and MS3 determination of reactor shutdown.

4. EAL MG2 (Loss of all AC and DC Power) was revised to provide clarity regarding applicable Safety Systems as Division I and II SAFETY SYSTEMS. The addition was made to avoid confusion when assessing the loss of all AC and DC power. This will ensure that Division III AC and Division IV DC equipment is excluded since these power sources do not provide enough equipment power to allow for a full ECCS train, and cannot be credited as enough restoration of power to have an equivalent vital bus restored.

This will ensure that the same power sources discussed in MG2.1, MG2.2 and MG2.3 are being evaluated in EAL MG2.4. This is also in keeping with the evaluation of AC power loss in EAL MG1 (Prolonged Loss of all AC Power) and MS1 (Loss of all AC Power).

5. An Independent Spent Fuel Storage Installation (ISFSI) is being installed at Clinton in accordance with 10 CFR 72. As part of the installation process, Engineering Change 387355, "ISFSI – Installation of Haul Path and Storage Pad" evaluation is being performed to ensure the installation, its processes, and procedures reflect current NRC guidance. As part of this effort EAL E-HU1 (Damage to a Loaded Cask Confinement Boundary) was added to Clinton EALs in accordance with NEI 99-01 Revision 6 ISFSI Malfunction Section 8. Also, HU3 (Fire) basis section has been revised to add the following sentence:

"ISFSI is not specifically addressed in EAL #3 and #4 since it is within the plant PROTECTED AREA and is therefore covered under EALs #3 and #4."

The two above additions will ensure that Clinton Station will reflect the same ISFSI specifics as the rest of the Exelon fleet sites that contain an ISFSI with respect to implementing NEI 99-01 Rev 6 EAL guidance.

Description of how the change still complies with regulations

This revision to the EP-AA-1002, Addendum 3 continues to satisfy the applicable Emergency Planning requirements established in 10 CFR 50.47(b)(4) and the Program Element guidance specified in NUREG-0654, Section II.D as note below.

1. The revision to EP-AA-1003, Addendum 3 implements the EAL scheme changes reviewed and approved by the NRC as documented in its letter dated July 28, 2015. As such, the NRC has determined that this revision to the Emergency Plan Addendum is acceptable and the changes satisfy regulatory requirements and commitments.
2. Updating the threshold values for EALs RG2, RS2, and RA2 based on NRC-accepted methodology and site-approved design change documentation does not alter the meaning or intent of the basis for the approved EALs. The applicable emergency planning regulations and commitments continue to be met.
3. Updating the threshold value for MU3 to provide further clarification regarding the assessment for determining a successful reactor shutdown does not alter the meaning or intent of the basis of the approved EAL. The applicable emergency planning regulations and commitments continue to be met.
4. Updating the EAL basis for clarification purposes does not alter the meaning or intent of the basis of the approved EAL. The applicable emergency planning regulations and commitments continue to be met.

5. The addition of and modification of the EAL supports the regulation with the installation of an ISFSI. This change is not a reduction in effectiveness because no existing Exelon EP requirements have been deleted or revised under this revision. The applicable emergency planning regulations and commitments continue to be met.

Description of why the change is not a reduction in effectiveness (RIE)

1. The change to the Clinton EAL schemes reflect the NRC's approval of the LAR as documented in its letter and support SER dated July 28, 2015 (i.e., Clinton Amendment No. 205 to Facility Operating License No. NPF-62, Unit No. 1).

The applicable emergency planning regulations and commitments continue to be met. Therefore, this change does not result in a reduction in effectiveness of the Clinton Emergency Plan.

2. The changes to EALs RG2, RS2, and RA2 reflect the changes as approved by the NRC as documented in its letter and supporting SE dated July 28, 2015. The approved EALs had indicated that a site-specific threshold value would be added upon installation of enhanced SFP level devices in accordance with NRC Order EA-12-051. Clinton has subsequently installed the enhanced SFP level devices and threshold values have been established in accordance with a site-approved design change and supporting calculation.

NRC Order EA-12-051. Clinton has subsequently installed the enhanced SFP level devices and thresholds have been calculated in accordance with EC 392333 and EP Calculation EP-EAL-1006. The calculation has been reviewed and approved in accordance with Clinton and Exelon Corporate procedures.

For EALs RG2 and RS2 the value of 1.00 ft. as indicated on 1LI-FC221A(B), was chosen as being indicative of the immediate need to restore fuel pool level. For EAL RA2.3 the value of 11.00 ft. as indicated on 1LI-FC221A(B), was chosen as being the spent fuel pool level that is adequate to provide substantial radiation shielding for a person standing on the spent fuel pool operating deck.

The site-specific levels are determined in accordance with NRC Order EA-12-051 and NEI 12-02, and applicable owner's group guidance, and have been modified to reflect site-specific constraints and limitations associated with the design and operation of instrumentation as required by the developer guidance in the NRC endorsed NEI 99-01 Rev 6.

Updating the EAL threshold values based on an NRC accepted methodology and the resulting approved calculation does not alter the meaning or intent of the basis of the EAL provided in the NRC Safety Evaluation Report. Therefore this change is not a Reduction In Effectiveness because no existing Exelon EP requirements have been deleted or minimized under this revision. Regulations and commitments to the NRC continue to be met.

3. A change is being made to EAL MU3 (ATWS) to provide clarity regarding a successful reactor shutdown. The addition is made to avoid confusion when assessing a successful reactor shutdown. The addition of "as indicated by Reactor Power < 5%", to EAL MU3, as the criteria to determine a successful reactor shutdown clarifies the indication to be used for this determination and will eliminate any potential confusion. This ensures consistency is applied within EAL MU3 to determine that the reactor is not shutdown and also being used to determine a successful reactor shutdown. This is also in keeping with the escalation path EAL MA3 and MS3 regarding determination of reactor shutdown.

Updating the EAL threshold for clarification purposes does not alter the meaning or intent of the basis of the approved EAL. Therefore this change is not a Reduction In Effectiveness because no existing Exelon EP requirements have been deleted or minimized under this revision. Regulations and commitments to the NRC continue to be met.

4. A change is being made to EAL MG2 (Loss of all AC and DC Power) basis section to provide clarity regarding applicable Safety Systems as Division I and II SAFETY SYSTEMS. The addition is made to avoid confusion when assessing the loss of all AC and DC power. This will ensure that Division III AC and Division IV DC equipment is excluded since these power sources do not provide enough equipment power to allow for a full ECCS train, and cannot be credited as enough restoration of power to have an equivalent vital bus restored. This will ensure that the same power sources discussed in MG2.1, MG2.2 and MG2.3 are the ones being evaluated in EAL MG2.4. This is also in keeping with the evaluation of AC power loss in EAL MG1 (Prolonged Loss of all AC Power) and MS1 (Loss of all AC Power).

Updating the EAL basis for clarification purposes does not alter the meaning or intent of the basis of the approved EAL. Therefore this change is not a Reduction In Effectiveness because no existing Exelon EP requirements have been deleted or minimized under this revision. Regulations and commitments to the NRC continue to be met.

5. An Independent Spent Fuel Storage Installation (ISFSI) is being installed at Clinton Station in accordance with 10CFR72. As part of this installation process, Engineering Change 387355, "ISFSI – Installation of Haul Path and Storage Pad" evaluation is being performed to ensure the installation, its processes, and procedures reflect current NRC guidance. As part of this effort EAL E-HU1 (Damage to a Loaded Cask Confinement Boundary) was added to Clintons EALs in accordance and consistent with NEI 99-01 Rev 6 ISFSI Malfunction section 8. Also, HU3 (Fire) basis section has been enhanced to reference the ISFSI.

The one addition and one modification will ensure that Clinton Station will reflect the same ISFSI specifics as the rest of the Exelon fleet with respect to implementing NEI 99-01 Rev 6 EAL guidance.

This change is not a Reduction In Effectiveness because no existing Exelon EP requirements have been deleted or revised under this revision. Additionally, the regulations and commitments to the NRC continue to be met. The addition of and modification of the EAL supports the regulation with the installation of an ISFSI.

ATTACHMENT 2

Affidavit

AFFIDAVIT OF DOMINIC M. IMBURGIA

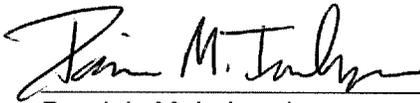
DOCKET NO. 50-461

I, Dominic M. Imburgia, Manager - Licensing Programs, Exelon Generation Company, LLC, do hereby affirm and state:

1. I am Manager, Licensing Programs for Exelon Generation Company, LLC (EGC), and I am authorized to execute this affidavit on behalf of EGC.
2. I am further authorized to review the documents sought to be withheld from public disclosure in connection with submittals to the Nuclear Regulatory Commission ("NRC"):
 - EP-AA-1003, Addendum 3, Revision 1, "Emergency Action Levels for Clinton Station"
3. I am also authorized to apply to the NRC for the withholding of the aforementioned documents from public disclosure under 10 CFR 2.390(a)(4) and 9.17(a)(4) on the grounds that the documents contain privileged or confidential or proprietary commercial information. The documents EGC seeks to withhold from public disclosure have been marked "Proprietary" and are summarized in the attachment to my Affidavit.
4. On behalf of EGC, I request that the documents marked by EGC as "Proprietary" and described in the attached list (Appendix 1) be withheld, in their entirety, by the NRC from public disclosure.
5. In making this application for withholding of proprietary and confidential information of which EGC is the owner, EGC relies on 10 CFR 2.390(a)(4) and 10 CFR 9.17(a)(4). The proprietary documents contain privileged or confidential or proprietary commercial information.
6. The proprietary information described in Appendix 1 should be withheld from disclosure by the NRC pursuant to the policy reflected in 10 CFR 2.390(a)(4), and for the following reasons to be considered pursuant to 10 CFR 2.390(b)(4):
 - i.. The documents are each either a policy, procedure, process, technical requirements document, or other document that forms part of the Exelon Nuclear Management Model ("ENMM").
 - ii. The ENMM is a set of confidential policies and procedures that enable EGC to consistently achieve excellence in all key dimensions of its business. It documents proven ways of achieving excellence and defines how EGC executes and manages performance and assesses results. EGC expended significant resources, in terms of time and money, to develop, implement, and update the ENMM. EGC derives economic benefit from the ENMM in terms of increased efficiency and improved results as well as revenue generated from EGC's sale or licensing of the ENMM.
 - iii. The documents are now, and have been, held in confidence by EGC. EGC does not customarily make these documents available to the public. EGC has not authorized making the documents available through public sources.
 - iv. EGC is providing the NRC with the documents and information in confidence.

- v. Economic harm would come to EGC with the publication of the individual documents that form the ENMM, as it would reduce or eliminate the need for any third party to purchase or license the ENMM from EGC, and would reduce the competitive position of EGC based on the benefits that the ENMM provides to EGC in the management of its own nuclear plants. The ENMM is considered by EGC to be a very valuable part of our intellectual property and it would be very difficult, costly and time-consuming for another to duplicate it without access to these documents.
7. EGC requests that the document listed in Appendix 1 be withheld from public disclosure based on the reasons stated above in paragraph 6.i. through 6.v.

I declare under penalty of perjury that the foregoing affidavit and statements therein are true and correct to the best of my knowledge, information, and belief.



Dominic M. Imburgia
Manager - Licensing Programs
Exelon Generation Company, LLC

Date: March 28, 2016

Appendix 1: Information that Should Be Withheld from Public Disclosure

Date or Revision	Description of Document	Reason(s) to Withhold
Revision 1	EP-AA-1003, Addendum 3	Entire document exempt from disclosure under 10 CFR 2.390(a)(4) and 9.17(a)(4) based on paragraph 6 of the affidavit to which this Appendix 1 is attached.