

RS-18-061

10 CFR 72.30

May 2, 2018

ATTN: Document Control Desk
Director - Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Braidwood Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-72 and NPF-77
NRC Docket Nos. STN 50-456, STN 50-457, and 72-73

Byron Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-37 and NPF-66
NRC Docket Nos. STN 50-454, STN 50-455, and 72-68

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

Clinton Power Station, Unit 1
Facility Operating License No. NPF-62
NRC Docket No. 50-461 and 72-1046

Dresden Nuclear Power Station, Units 1, 2 and 3
Facility Operating License No. DPR-2
Renewed Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-10, 50-237, 50-249, and 72-37

LaSalle County Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373, 50-374, and 72-70

Limerick Generating Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352, 50-353, and 72-65

Nine Mile Point Nuclear Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-63 and DPR-69
NRC Docket Nos. 50-220, 50-410, and 72-1036

Oyster Creek Nuclear Generating Station
Renewed Facility Operating License No. DPR-16
NRC Docket No. 50-219 and 72-15

Peach Bottom Atomic Power Station, Units 1, 2, and 3
Facility Operating License No. DPR-12
Renewed Facility Operating License Nos. DPR-44 and DPR-56
NRC Docket Nos. 50-171, 50-277, 50-278, and 72-29

Quad Cities Nuclear Power Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-29 and DPR-30
NRC Docket Nos. 50-254, 50-265, and 72-53

R.E. Ginna Nuclear Power Plant
Renewed Facility Operating License No. DPR-18
NRC Docket Nos. 50-244 and 72-67

Salem Generating Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-70 and DPR-75
NRC Docket Nos. 50-272, 50-311, and 72-48

Zion Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-39 and DPR-48
NRC Docket Nos. STN 50-295, STN 50-304, and 72-1037

Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Independent Spent Fuel Storage Installation
Materials License No. SNM-2505
NRC Docket No. 72-08

Subject: Response to Request for Additional Information Regarding Decommissioning
Funding Plans for Independent Spent Fuel Storage Installations (ISFSIs)

- References:
1. Letter from U.S. Nuclear Regulatory Commission to Patrick R. Simpson, "Request for Additional Information Regarding Exelon Generating Company, LLC's Decommissioning Funding Plan Update for Calvert Cliffs Nuclear Power Plant, Nine Mile Point Nuclear Station, R.E. Ginna Nuclear Power Plant, Braidwood Station, Byron Station, Dresden Nuclear Power Station, LaSalle County Station, Limerick Generating Station, Oyster Creek Nuclear Generating Station, Peach Bottom Atomic Power Station, Quad Cities Nuclear Power Station, and Salem Generating Station Independent Spent Fuel Storage Installations," dated March 8, 2018
 2. Letter from U.S. Nuclear Regulatory Commission to Patrick R. Simpson, "Request for Additional Information Regarding ZionSolutions LLC's Decommissioning Funding Plan Update for Zion Independent Spent Fuel Storage Installation," dated March 9, 2018

In accordance with 10 CFR 72.30, "Financial assurance and recordkeeping for decommissioning," Exelon Generation Company, LLC (EGC), or a prior licensee, previously submitted proposed ISFSI decommissioning funding plans for Braidwood Station, Byron Station, Calvert Cliffs Nuclear Power Plant, Clinton Power Station, Dresden Nuclear Power Station, LaSalle County Station, Limerick Generating Station, Nine Mile Point Nuclear Station, Oyster Creek Nuclear Generating Station, Peach Bottom Atomic Power Station, R.E. Ginna Nuclear Power Plant, Quad Cities Nuclear Power Station, Salem Generating Station, and Zion Nuclear Power Station.

The Nuclear Regulatory Commission (NRC) reviewed the EGC provided decommissioning funding plans for each ISFSI and concluded that additional information is necessary. References 1 and 2 requested the additional information needed to complete the NRC's review.

The EGC response to the NRC's request for additional information is provided in the attachments to this letter and is subdivided as follows.

- Attachment 1 provides a response to Reference 1.
- Attachment 2 provides a response to Reference 2.

There are no regulatory commitments contained within this letter.

If you have any questions concerning this letter, please contact me at (630) 657-2823.

Respectfully,



Patrick R. Simpson
Manager – Licensing
Exelon Generation Company, LLC

cc: Regional Administrator – NRC Region I
Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Braidwood Station
NRC Senior Resident Inspector – Byron Station
NRC Senior Resident Inspector – Calvert Cliffs Nuclear Power Plant
NRC Senior Resident Inspector – Clinton Power Station
NRC Senior Resident Inspector – Dresden Nuclear Power Station
NRC Senior Resident Inspector – LaSalle County Station
NRC Senior Resident Inspector – Limerick Generating Station
NRC Senior Resident Inspector – Nine Mile Point Nuclear Station
NRC Senior Resident Inspector – Oyster Creek Nuclear Generating Station
NRC Senior Resident Inspector – Peach Bottom Atomic Power Station
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station
NRC Senior Resident Inspector – R.E. Ginna Nuclear Power Plant
NRC Senior Resident Inspector – Salem Generating Station

Attachments:

1. Response to Request for Additional Information Regarding Independent Spent Fuel Storage Installation Decommissioning Funding Plans
2. Response to Request for Additional Information Regarding Decommissioning Funding Plan Update for Zion Independent Spent Fuel Storage Installation

ATTACHMENT 1

Response to Request for Additional Information Regarding Independent Spent Fuel Storage Installation Decommissioning Funding Plans

By letters dated December 17, 2012 (References 1 and 2), Exelon Generation Company, LLC (EGC) and Constellation Energy Nuclear Group, LLC submitted decommissioning funding plans (DFPs) for the independent spent fuel storage installations (ISFSIs) pursuant to 10 CFR 72.30(b) for Braidwood Station, Byron Station, Dresden Nuclear Power Station, LaSalle County Station, Limerick Generating Station, Oyster Creek Nuclear Generating Station, Peach Bottom Atomic Power Station, Quad Cities Nuclear Power Station, Salem Generating Station, Calvert Cliffs Nuclear Power Plant, Nine Mile Point Nuclear Station, and R.E. Ginna Nuclear Power Plant.

In accordance with 10 CFR 72.30(c), "...at the time of license renewal and at intervals not to exceed 3 years, the decommissioning funding plan required to be submitted by 10 CFR 72.30(b) must be resubmitted with adjustments as necessary to account for changes in costs and the extent of contamination," the December 17, 2012 submittals were updated by EGC in a letter dated March 31, 2015 (Reference 3). The Braidwood Station Units 1 and 2 and Byron Station Unit 2 DFPs were updated in a letter dated February 4, 2016 (Reference 6). An update of the DFPs for all ISFSI facilities was submitted by EGC in a letter dated March 30, 2017 (Reference 4).

A detailed ISFSI decommissioning cost estimate was included for each ISFSI facility in the original DFP submittal (References 1 and 2). The detailed cost estimate is periodically revised based on the schedule for refreshing the full decommissioning cost estimate for the site. The revised detailed ISFSI cost estimate is included in the subsequent DFP update.

ISFSI Facility	Original DFP	Current Updated DFP	Current Detailed Cost Estimate
Braidwood Station	Reference 1	Reference 4	Reference 7
Byron Station	Reference 1	Reference 4	Reference 7
Dresden Nuclear Power Station	Reference 1	Reference 4	Reference 1
LaSalle County Station	Reference 1	Reference 4	Reference 7
Limerick Generating Station	Reference 1	Reference 4	Reference 3
Oyster Creek Nuclear Generating Station	Reference 1	Reference 4	Reference 8
Peach Bottom Atomic Power Station	Reference 1	Reference 4	Reference 4
Quad Cities Nuclear Power Station	Reference 1	Reference 4	Reference 4
Salem Generating Station	Reference 1	Reference 4	Reference 4

Calvert Cliffs Nuclear Power Plant	Reference 2	Reference 4	Reference 4
Nine Mile Point Nuclear Station	Reference 2	Reference 4	Reference 4
R.E. Ginna Nuclear Power Plant	Reference 2	Reference 4	Reference 4

In a Nuclear Regulatory Commission (NRC) letter dated March 8, 2018 (Reference 5), the NRC indicated that it had reviewed the information submitted in the March 31, 2015 letter and requested additional clarifying information to support its continued review. The NRC is requesting that EGC respond to the request for additional information (RAI) within 45 working days of the date of the letter.

EGC has reviewed the RAI and determined that the RAI applies to the February 4, 2016 (Reference 6) and March 30, 2017 (Reference 4) DFP updates submitted by EGC in addition to the March 31, 2015 update. The NRC question in the March 8, 2018 letter is identified below followed by EGC's response relative to EGC's March 31, 2015, February 4, 2016, and March 30, 2017 DFP updates.

Review of the Clinton Power Station updated ISFSI DFP in the Reference 4 letter indicates that the RAI applies to the Clinton Power Station ISFSI in addition to the previously identified ISFSI facilities. EGC's response relative to the March 30, 2017, Clinton Power Station ISFSI DFP update is included below. Reference 9 contains the original DFP and the detailed decommissioning cost estimate for the Clinton Power Station ISFSI.

Request for Additional Information

For each ISFSI, provide a revised DFP that includes information on the occurrence, and the effect on decommissioning costs, of each of the events listed in 10 CFR 72.30(c)(1)-(4): (1) spills of radioactive material producing additional residual radioactivity in onsite subsurface material, (2) facility modifications, (3) changes in authorized possession limits, and (4) actual remediation costs that exceed the previous cost estimate.

Response

The effect of each of the events listed in 10 CFR 72.30(c)(1) through (4) on the cost estimates provided in the ISFSI decommissioning funding plans in References 1, 3, 4, and 6 for Braidwood Station, Byron Station, Dresden Nuclear Power Station, LaSalle County Station, Limerick Generating Station, Oyster Creek Nuclear Generating Station, Peach Bottom Atomic Power Station, Quad Cities Nuclear Power Station, and Salem Generating Station is listed below:

(1) spills of radioactive material producing additional residual radioactivity in onsite subsurface material

No impact. There have not been any spills of radioactive material producing additional residual radioactivity in onsite subsurface material from 2012 to 2017 at any of the ISFSIs at the facilities listed above.

(2) facility modifications

No impact. There have not been any modifications to the ISFSIs at the facilities listed above from 2012 to 2017 that would materially change the latest decommissioning cost estimate.

The ISFSI facility design at the time the cost estimate was prepared was incorporated in the estimate for the facilities listed above. Also, any ISFSI modifications (i.e., ISFSI pad expansions) required to accommodate spent fuel storage after permanent shutdown were incorporated in the cost estimate.

(3) changes in authorized possession limits

No impact. There have not been any changes in authorized possession limits at the ISFSIs at the facilities listed above from 2012 to 2017 that would materially change the decommissioning cost estimate.

The capacity of the cask used at the ISFSI at the time the cost estimate was performed was incorporated in the estimate for the facilities listed above. In anticipation of a change in cask size at Peach Bottom, a larger cask size was incorporated in the latest Peach Bottom ISFSI cost estimate (Reference 4).

(4) actual remediation costs that exceed the previous cost estimate.

No impact. As of 2017, decommissioning had not begun at any of the ISFSIs at the facilities listed above. Consequently, there have been no actual remediation costs that exceed the latest cost estimate.

In References 2, 3, and 4 decommissioning cost estimates were provided for the ISFSIs at Calvert Cliffs Nuclear Power Plant, Nine Mile Point Nuclear Station, and R.E. Ginna Nuclear Power Plant. Each of the items listed in 10 CFR 72.30(c)(1) through (4) was considered in preparation of the cost estimates. A discussion of each item is included below.

(1) spills of radioactive material producing additional residual radioactivity in onsite subsurface material

No impact. There were no spills of radioactive material producing additional residual radioactivity in onsite subsurface material from 2012 to 2017 at any of the ISFSIs at the facilities listed above.

(2) facility modifications

No impact. There have not been any modifications to the ISFSIs at the facilities listed above from 2012 to 2017 that would materially change the latest decommissioning cost estimate.

The ISFSI facility design at the time the updated cost estimate was prepared was incorporated in the estimate for the facilities listed above. Also, any ISFSI modifications (i.e., ISFSI pad expansions) required to accommodate spent fuel storage after permanent shutdown were incorporated in the updated cost estimate.

(3) changes in authorized possession limits

No impact. There have not been any changes in authorized possession limits at the ISFSIs at the facilities listed above from 2012 to 2017 that would materially change the latest decommissioning cost estimate.

The capacity of the cask used at the ISFSI at the time the updated cost estimate was performed was incorporated in the estimate for the facilities listed above. The cask size did not change in the updated estimate relative to the previous estimate.

(4) actual remediation costs that exceed the previous cost estimate.

No impact. As of 2017, decommissioning had not begun at any of the ISFSIs at the facilities listed above. Consequently, there have been no actual remediation costs that exceed the costs included in the latest cost estimate.

In References 9 and 4 decommissioning cost estimates were provided for the Clinton Power Station ISFSI. Each of the items listed in 10 CFR 72.30(c)(1) through (4) was considered in preparation of the cost estimates. A discussion of each item is included below.

(1) spills of radioactive material producing additional residual radioactivity in onsite subsurface material

No impact. There were no spills of radioactive material producing additional residual radioactivity in onsite subsurface material from 2016 to 2017 at the Clinton Power Station ISFSI.

(2) facility modifications

No impact. There have not been any modifications to the Clinton Power Station ISFSI from 2016 to 2017 that would materially change the latest decommissioning cost estimate.

The ISFSI facility design at the time the cost estimate was prepared was incorporated in the estimate. Also, any ISFSI modifications (i.e., ISFSI pad expansions) required to accommodate spent fuel storage after permanent shutdown were incorporated in the cost estimate.

(3) changes in authorized possession limits

No impact. There have not been any changes in authorized possession limits at the Clinton Power Station ISFSI from 2016 to 2017 that would materially change the latest decommissioning cost estimate.

The capacity of the cask planned for use at the ISFSI at the time the cost estimate was performed was incorporated in the estimate for the Clinton Power Station ISFSI. The cask size in use has not changed from that assumed in the cost estimate.

(4) actual remediation costs that exceed the previous cost estimate.

No impact. As of 2017, decommissioning had not begun at the Clinton Power Station ISFSI. Consequently, there have been no actual remediation costs that exceed the costs included in the cost estimate.

Therefore, based on the above information, EGC has concluded that the ISFSI decommissioning funding plan updates (References 3, 4, and 6) for each facility remain valid.

References

1. Letter from Patrick R. Simpson (EGC) to U.S. Nuclear Regulatory Commission, "Proposed Independent Spent Fuel Storage Installation (ISFSI) Decommissioning Funding Plans for Braidwood, Byron, Dresden, LaSalle, Limerick, Oyster Creek, Peach Bottom, Quad Cities, and Salem," dated December 17, 2012
2. Letter from Stephen A. Mormann (Constellation Energy Nuclear Group, LLC) to U.S. Nuclear Regulatory Commission, "ISFSI Decommissioning Funding Plans," dated December 17, 2012
3. Letter from Patrick R. Simpson (EGC) to U.S. Nuclear Regulatory Commission, "Report on the Status of Decommissioning Funding for Reactors and Independent Spent Fuel Storage Installations," dated March 31, 2015
4. Letter from Patrick R. Simpson (EGC) to U.S. Nuclear Regulatory Commission, "Report on Status of Decommissioning Funding for Reactors and Independent Spent Fuel Storage Installations," dated March 30, 2017
5. Letter from U.S. Nuclear Regulatory Commission to Patrick R. Simpson, "Request for Additional Information Regarding Exelon Generating Company, LLC's

Decommissioning Funding Plan Update for Calvert Cliffs Nuclear Power Plant, Nine Mile Point Nuclear Station, R.E. Ginna Nuclear Power Plant, Braidwood Station, Byron Station, Dresden Nuclear Power Station, LaSalle County Station, Limerick Generating Station, Oyster Creek Nuclear Generating Station, Peach Bottom Atomic Power Station, Quad Cities Nuclear Power Station, and Salem Generating Station Independent Spent Fuel Storage Installations," dated March 8, 2018

6. Letter from Patrick R. Simpson (EGC) to U.S. Nuclear Regulatory Commission, "Report on Status of Decommissioning Funding for Braidwood Station, Units 1 and 2 and Byron Station, Unit 2," dated February 4, 2016
7. Letter from Patrick R. Simpson (EGC) to U.S. Nuclear Regulatory Commission, "Submittal of Updated Site-Specific SAFSTOR Decommissioning Cost Estimates for Braidwood Station, Byron Station, and LaSalle County Station," dated February 19, 2015
8. Letter from James Barstow (EGC) to U.S. Nuclear Regulatory Commission, "Submittal of Updated Decommissioning Cost Analysis for Oyster Creek Generating Station," dated March 30, 2016
9. Letter from David M. Gullott (EGC) to U.S. Nuclear Regulatory Commission, "Proposed Independent Spent Fuel Storage Installation (ISFSI) Decommissioning Funding Plans for Clinton Power Station," dated September 6, 2016

ATTACHMENT 2

Response to Request for Additional Information Regarding Decommissioning Funding Plan Update for Zion Independent Spent Fuel Storage Installation

By letter dated October 17, 2013 (Reference 1), Exelon Generation Company, LLC (EGC) submitted a decommissioning funding plan (DFP) for the Zion independent spent fuel storage installation (ISFSI) pursuant to 10 CFR 72.30(b).

In accordance with 10 CFR 72.30(c), "...at the time of license renewal and at intervals not to exceed 3 years, the decommissioning funding plan required to be submitted by 10 CFR 72.30(b) must be resubmitted with adjustments as necessary to account for changes in costs and the extent of contamination," the October 17, 2013 submittal was updated by EGC in a letter dated October 17, 2016 (Reference 2).

In a Nuclear Regulatory Commission (NRC) letter dated March 9, 2018 (Reference 3), the NRC indicated that it had reviewed information on the Zion ISFSI decommissioning funding plan submitted by ZionSolutions and requested additional clarifying information. The NRC is requesting that EGC respond to the request for additional information (RAI) within 45 working days of the date of the letter.

EGC has reviewed the RAI and determined that the request applies to the October 17, 2016 letter EGC submitted for the Zion ISFSI (Reference 2). The NRC question in the March 9, 2018 letter is identified below followed by EGC's response relative to EGC's October 17, 2016 Zion ISFSI decommissioning funding plan.

Request for Additional Information

For the ISFSI at Zion, provide a revised DFP that includes the effect on decommissioning costs of each of the events listed in 10 CFR 72.30(c)(1)-(4): (1) spills of radioactive material producing additional residual radioactivity in onsite subsurface material, (2) facility modifications, (3) changes in authorized possession limits, and (4) actual remediation costs that exceed the previous cost estimate.

Response

In the Reference 2 update of the Zion ISFSI decommissioning funding plan, an updated decommissioning cost estimate was provided. Each of the items listed in 10 CFR 72.30(c)(1) through (4) was considered in preparation of the updated cost estimate. A discussion of each item is included below.

(1) spills of radioactive material producing additional residual radioactivity in onsite subsurface material

No change in the updated cost estimate due to radioactive material spills. There have not been any spills of radioactive material producing additional residual radioactivity in onsite subsurface material at the Zion ISFSI.

(2) facility modifications

The actual ISFSI facility design was accounted for in the updated cost estimate, whereas the planned design was used in the previous cost estimate. There are no planned changes to the Zion ISFSI facility that would materially change the decommissioning cost.

(3) changes in authorized possession limits

The actual number and content of casks on the Zion ISFSI facility were included in the updated cost estimate, whereas the planned number and content was used in the previous cost estimate. No additional casks will be placed on the Zion ISFSI.

(4) actual remediation costs that exceed the previous cost estimate.

Decommissioning of the Zion ISFSI has not begun. Consequently, there have been no actual remediation costs that exceed the updated (or previous) cost estimate.

Therefore, based on the above information, EGC has concluded that the decommissioning funding plan update in Reference 2 for Zion's ISFSI remains valid.

References

1. Letter from Patrick R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "Proposed Independent Spent Fuel Storage Installation (ISFSI) Decommissioning Funding Plan for Zion," dated October 17, 2013
2. Letter from Patrick R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "Independent Spent Fuel Storage Installation (ISFSI) Decommissioning Funding Plan for Zion," dated October 17, 2016
3. Letter from U.S. Nuclear Regulatory Commission to Patrick R. Simpson, "Request for Additional Information Regarding ZionSolutions LLC's Decommissioning Funding Plan Update for Zion Independent Spent Fuel Storage Installation," dated March 9, 2018