

10 CFR 50.75(f)(1)

RS-09-145

October 27, 2009

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

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

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

Clinton Power Station
Facility Operating License No. NPF-62
NRC Docket No. 50-461

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

Subject: Response to Request for Additional Information Regarding
Decommissioning Financial Assurance Plans

- References:**
1. Letter from Keith R. Jury (Exelon Generation Company, LLC) to U.S. NRC, "Decommissioning Funding Assurance Plan," dated July 29, 2009
 2. Letter from Christopher Gratton (U.S. NRC) to Charles G. Pardee (Exelon Generation Company, LLC), "Request for Additional Information Re: Decommissioning Funding Assurance Plans," dated October 2, 2009

In Reference 2, the NRC requested additional information with respect to the decommissioning funding assurance plan, submitted by Exelon Generation Company,

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LLC (EGC) in Reference 1, for Braidwood Station Units 1 and 2, Byron Station Units 1 and 2, Clinton Power Station, and LaSalle County Station Units 1 and 2.

The requested information is contained in the Attachment to this letter.

There are no new regulatory commitments made in this letter.

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

Respectfully,

A handwritten signature in black ink, appearing to read "Patrick R. Simpson", with a long horizontal flourish extending to the right.

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

Attachment: Response to Request for Additional Information

ATTACHMENT

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

Question 1

On July 29, 2009, EGC submitted a DFAP as part of the concurrent 2009 Biennial Decommissioning Review process, which describes how and when it intends to make adjustments to financial assurance mechanisms such that any shortfalls in decommissioning funding assurance for the subject units are covered.

On page 2 of the DFAP, the EGC stated:

On March 31, 2009 (Reference 8), EGC submitted the amount of funds required for radiological decommissioning based on a site-specific SAFSTOR estimate for Braidwood Station, Units 1 and 2, and Byron Station, Units 1 and 2, as allowed by 10 CFR [Title 10 of the Code of Federal Regulations, Section] 50.75(e)(1)(i). The decommissioning funding assurance illustrated by these site-specific estimates was accepted by the NRC on April, 24, 2007.

EGC further stated:

...EGC is updating the site-specific cost estimate for both Braidwood Station, Units 1 and 2, and Byron Station, Units 1 and 2, in 2009. EGC expects a reduction in the site-specific SAFSTOR radiological decommissioning costs, based on the results of EGC estimates completed during this cycle.

EGC stated that it will submit the new site-specific SAFSTOR decommissioning cost estimates to the NRC by November 20, 2009 for Byron Units 1 and 2 and January 15, 2010 for Braidwood Units 1 and 2. EGC stated that it intends to rely on the site-specific SAFSTOR decommissioning cost estimates and subsequent updated estimates to provide adequate decommissioning funding assurance based on decommissioning trust fund values as of December 31, 2009.

10 CFR 50.75 (f)(1) states:

Each power reactor licensee shall report, on a calendar-year basis, to the NRC by March 31, 1999, and at least once every 2 years on the status of its decommissioning funding for each reactor or part of a reactor that it owns...The information in this report must include, at a minimum the amount of decommissioning funds estimated to be required under 10 CFR 50.75(b) and (c)...

Further, 10 CFR 50.75 (b)(1) states:

For an applicant for or holder of an operating license under part 50, the report must contain a certification that financial assurance for decommissioning will be (for a license applicant), or has been

(for a license holder), provided in an amount which may be more, but not less, than the amount stated in the table in paragraph (c)(1) of this section adjusted using a rate at least equal to that stated in paragraph (c)(2) of this section. (Emphasis added.)

The NRC staff requires sufficient documentary evidence, per 10 CFR 50.75 to enable the staff to make a finding of reasonable assurance that decommissioning funding assurance, based on the proposed plan, will be provided for Braidwood Units 1 and 2, Byron Units 1 and 2, consistent with NRC regulations.

Braidwood Unit 1

The Status of Decommissioning Funding Report submitted by EGC to the NRC on March 31, 2009, included a site-specific estimate for Braidwood Unit 1 of \$310.7 million for radiological decommissioning. EGC stated that this estimate will likely decrease when updated. EGC further stated that this amount was based on a site-specific cost estimate submitted to the NRC on December 18, 2006. However, the December 18, 2006, value for Braidwood Unit 1, as supplemented on February 27, 2007, was \$595.2 million in 2007 dollars.

- (a) As stated to EGC in the phone call with the NRC staff on July 1, 2009, the current NRC minimum decommissioning formula amount for Braidwood Unit 1 is \$405.2 million. Please submit an updated site-specific decommissioning cost estimate that meets the requirements of 10 CFR 50.75 (b)(1), which may be “more, but not less,” than the current minimum decommissioning formula amount for Braidwood Unit 1.**
- (b) Along with the updated site-specific cost estimate, which EGC proposes to submit by January 15, 2010, provide financial assurance in an amount that will eliminate the decommissioning funding assurance shortfall for Braidwood Unit 1, as calculated below. Include a table of the annual estimated costs, earnings, and year end fund balances for radiological decommissioning, in current year dollars for the entire decommissioning period.**

A	-	B	-	C	=	D
NRC minimum formula amount	Minus	Cash on hand	Minus	Amount of other Financial Assurance Instruments	Equals	Total Shortfall
		+				
OR		Future Contributions				
TOTAL site specific cost estimate		+				
		Earnings				

Using the values discussed in the July 1, 2009, telecon, the shortfall for Braidwood Unit 1, not accounting for a safe storage period, is calculated as shown:

$$\text{(NRC minimum = \$405.2M) - (Cash on hand plus earnings = \$252.3M) = (Total Shortfall \$152.9M)}$$

Braidwood Unit 2

The Status of Decommissioning Funding Report submitted by EGC to the NRC on March 31, 2009, included a site-specific estimate for Braidwood Unit 2 of \$317.4 million for radiological decommissioning. EGC stated that this estimate will likely decrease when updated. EGC further stated that this amount was based on a site-specific cost estimate submitted to the NRC on December 18, 2006. However, the December 18, 2006 value for Braidwood Unit 2, as supplemented on February 27, 2007, was \$618.3 million in 2007 dollars.

- (a) As stated to EGC in the phone call with the NRC on July 1, 2009, the current NRC minimum decommissioning formula amount for Braidwood Unit 2 is \$405.2 million. Please submit an updated site-specific decommissioning cost estimate that meets the requirements of 10 CFR 50.75 (b)(1), which may be "more, but not less," than the current minimum decommissioning formula amount for Braidwood Unit 2.**
- (b) Along with the updated site-specific cost estimate that EGC proposes to submit by January 15, 2010, provide financial assurance in an amount that will eliminate the decommissioning funding assurance shortfall for Braidwood Unit 2, as shown in the preceding table. Include a table of the annual estimated costs, earnings, and year end fund balances for radiological decommissioning, in current year dollars for the entire decommissioning period.**

Byron Unit 1

The Status of Decommissioning Funding Report submitted by EGC to the NRC on March 31, 2009, included a site-specific estimate for Byron Unit 1 of \$310.3 million for radiological decommissioning. EGC stated that this estimate will likely decrease when updated. EGC further stated that this amount was based on a site-specific cost estimate submitted to the NRC on December 18, 2006. However, the December 18, 2006 value for Byron Station Unit 1, as supplemented on February 27, 2007, was \$593.2 million in 2007 dollars.

- (a) As stated to EGC in the phone call with the NRC on July 1, 2009, the current NRC minimum decommissioning formula amount for Byron Unit 1 is \$405.2 million. Please submit an updated site-specific decommissioning cost estimate that meets the requirements of 10 CFR 50.75 (b)(1), which may be "more, but not less," than the current minimum decommissioning formula amount for Byron Unit 1.**
- (b) Along with the updated site-specific cost estimate which EGC proposes to submit by November 20, 2009, provide financial assurance in an amount**

that will eliminate the decommissioning funding assurance shortfall for Byron Unit 1, as shown in the preceding table. Include a table of the annual estimated costs, earnings, and year end fund balances for radiological decommissioning, in current year dollars for the entire decommissioning period.

Byron Unit 2

The Status of Decommissioning Funding Report submitted by EGC to the NRC on March 31, 2009 included a site-specific estimate for Byron Unit 2 of \$313.9 million for radiological decommissioning. EGC states that this estimate will likely decrease when updated. EGC further stated that this amount was based on a site-specific cost estimate submitted to the NRC on December 18, 2006. However, the December 18, 2006 value for Byron Unit 2, as supplemented on February 27, 2007, was \$602.7 million in 2007 dollars.

(a) As stated to EGC in the phone call with the NRC on July 1, 2009, the current NRC minimum decommissioning formula amount for Byron Station Unit 2 is \$405.2 million. Please submit an updated site-specific decommissioning cost estimate that meets the requirements of 10 CFR 50.75 (b)(1), which may be “more, but not less,” than the current minimum decommissioning formula amount for Byron Station Unit 2.

(b) Along with the updated site-specific cost estimate that EGC proposes to submit by November 20, 2009, provide financial assurance in an amount that will eliminate the decommissioning funding assurance shortfall for Byron Unit 2, as shown in the preceding table. Include a table of the annual estimated costs, earnings, and year end fund balances for radiological decommissioning, in current year dollars for the entire decommissioning period.

Response to Question 1

The site-specific SAFSTOR estimates, previously submitted to and approved by the NRC in References 4, 5, and 6, are greater than the current minimum decommissioning formula amounts for Braidwood Station Units 1 and 2, and Byron Station Units 1 and 2. These site-specific SAFSTOR estimates were used as the basis for the decommissioning funding assurance status report submitted to the NRC on March 31, 2009, in Reference 1, and remain greater than the current minimum decommissioning formula amounts. Reference 1 reported the site-specific estimate with the earnings credit during the decommissioning period included, and hence did not explicitly show how this requirement was met. Further information is provided in the table below to show how this requirement is satisfied. The earnings credit during the decommissioning period is based on the same annual cash flow projection submitted in Reference 5, except that the cash flows are escalated to December 31, 2008, from 2007 dollars.

(\$, millions)	Braidwood Unit 1	Braidwood Unit 2	Byron Unit 1	Byron Unit 2
NRC Minimum Decommissioning Funding Formula Amount	\$405.2	\$405.2	\$405.2	\$405.2
Total SAFSTOR Radiological Decommissioning Costs (2007 dollars), Reference 5	\$595.2	\$618.3	\$593.2	\$602.7
Total SAFSTOR Radiological Decommissioning Costs (December 31, 2008)	\$630.1	\$653.7	\$628.0	\$637.1
Earnings Credit During SAFSTOR Decommissioning Period (December 31, 2008)	\$319.4	\$336.3	\$317.7	\$323.2
Minimum Required Amount at Shutdown, Reported in Reference 1	\$310.7	\$317.4	\$310.3	\$313.9

For Braidwood Station, Units 1 and 2, and Byron Station Units 1 and 2, the decommissioning funding assurance shortfall is being addressed per the plan proposed by EGC in Reference 2. As part of this plan, a revised site-specific SAFSTOR estimate will be submitted by EGC by November 20, 2009, for Byron Station Units 1 and 2, and by January 15, 2010, for Braidwood Station Units 1 and 2. As part of these submittals, a detailed calculation of decommissioning funding assurance will be included, as was recently performed for Clinton Power Station and LaSalle County Station Units 1 and 2 in References 7 and 8. As was demonstrated for Clinton Power Station and LaSalle County Station Units 1 and 2, it will be shown that the site specific cost estimates for Braidwood Station, Units 1 and 2, and Byron Station Units 1 and 2, are greater than the current decommissioning formula amounts, as required by 10 CFR 50.75(b)(1). An annual cash flow for Braidwood Station Units 1 and 2 and Byron Station Units 1 and 2, based on the site-specific SAFSTOR estimates, will be included along with these submittals, in the same manner as was done in References 7 and 8 for Clinton Power Station and LaSalle County Station Units 1 and 2, respectively.

As was performed for Clinton Power Station, and LaSalle County Station, Units 1 and 2, a detailed calculation of the minimum required decommissioning funding assurance and a comparison to current trust fund values will be included with the site-specific SAFSTOR estimates. Any remaining shortfall, as of December 31, 2009, will be addressed through an additional financial assurance method allowed by NRC regulations. The specific method used will be approved by the Exelon Board of Directors and established by April 1, 2010.

Question 2

As part of the proposed DFAP included in its letter dated July 29, 2009, EGC stated the following:

If the site-specific cost estimates for Braidwood Station, Units 1 and 2, and Byron Station, Units 1 and 2, coupled with trust fund values, do not illustrate adequate

decommissioning funding assurance, EGC will establish additional decommissioning funding assurance using a guarantee method, as allowed by NRC regulations, on or before April 1, 2010...As stated above, the initial amount of any additional decommissioning funding assurance will be calculated as of December 31, 2009.

- (a) Clarify that the amounts any proposed parent company guarantees for any plants with decommissioning shortfalls would be determined based on the difference between the greater of the NRC minimum formula amount or site-specific estimate, and the actual trust fund balance as of December 31, 2009, plus any earnings credits, plus the value of any additional financial assurance mechanisms, as of the date of expected termination of operations. The amount of the shortfall is determined by the formula shown in the discussion of Braidwood Unit 1. Note that the regulations in 10 CFR 50.75(e)(1) do not provide for any discounted net present value calculations to determine the amount of the potential guarantee.***

Response to Question 2

EGC intends to calculate any shortfall based on the decommissioning trust fund values and the estimated decommissioning costs as of December 31, 2009, using the current value of the certification amount. Furthermore, EGC intends to update the value of the guarantee on an annual basis, to ensure that any subsequent shortfall is addressed on an annual basis. This annual update will effectively provide for "earnings" on the guarantee. This will provide adequate decommissioning funding assurance.

Also note that EGC has proposed to use a guarantee method (not necessarily a parent company guarantee) to address any funding shortfall. The actual method must be approved by the Exelon Board of Directors, as described in Reference 2. Whatever method is chosen, it will be in accordance with 10 CFR 50.75(e)(1).

REFERENCES

1. Letter from Patrick R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "Report of Status of Decommissioning Funding for Reactors," dated March 31, 2009
2. Letter from Keith R. Jury (Exelon Generation Company, LLC) to U.S. NRC, "Decommissioning Funding Assurance Plan," dated July 29, 2009
3. Letter from Christopher Gratton (U.S. NRC) to Charles G. Pardee (Exelon Generation Company, LLC), "Request for Additional Information Re: Decommissioning Funding Assurance Plans," dated October 2, 2009
4. Letter from Kenneth A. Ainger (Exelon Generation Company, LLC) to U.S. NRC, "Site-specific Decommissioning Cost Estimates," dated December 18, 2006

5. Letter from Patrick R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "Response to Request for Additional Information Regarding Site-specific Decommissioning Cost Estimates," dated February 27, 2007
6. Letter from Christopher Gratton (U.S. NRC) to Christopher M. Crane (Exelon Generation Company, LLC), "Braidwood Station, Units 1 and 2; Byron Station, Units 1 and 2; and LaSalle County Station, Units 1 and 2 – Review of Site-Specific Decommissioning Cost Estimates," dated April 24, 2007
7. Letter from Patrick R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "Submittal of Clinton Power Station Site-Specific SAFSTOR Decommissioning Cost Estimate," dated August 27, 2009
8. Letter from Patrick R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "Submittal of LaSalle County Station Site-Specific SAFSTOR Decommissioning Cost Estimate," dated August 27, 2009