

May 28, 2014

Mr. Michael P. Gallagher
Vice President Nuclear Licensing Projects
Exelon Generating Company, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: ISSUANCE OF ENVIRONMENTAL SCOPING SUMMARY REPORT
ASSOCIATED WITH THE STAFF'S REVIEW OF BYRON STATION, UNITS 1
AND 2, LICENSE RENEWAL APPLICATION

Dear Mr. Gallagher:

The U.S. Nuclear Regulatory Commission (NRC or the staff) conducted an environmental scoping process and solicited public comments from July 21 to September 27, 2013. This process determined the scope of the staff's environmental review of the application for renewal of the operating license for Byron Station (Byron), Units 1 and 2. The scoping process is the first step in the development of a supplement, specific to the Byron plant, to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (GEIS) (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML13106A241, ML13106A242, and ML13106A244).

As part of the scoping process, the staff held two public environmental scoping meetings in Byron, IL, on August 20, 2013, to solicit public input regarding the scope of the review. The staff also received written comments by letter, e-mail, and through www.Regulations.gov. At the conclusion of the scoping process, the staff prepared the enclosed environmental scoping summary report identifying comments received during the scoping period. In accordance with Section 51.29(b) of Title 10 of the *Code of Federal Regulations* (10 CFR) the staff will send a copy of the scoping summary report to all participants in the scoping process.

The transcripts of the public scoping meetings are available for public inspection via the NRC's ADAMS from any personal or public computer, including the NRC Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. The ADAMS Public Electronic Reading Room is accessible at <http://www.nrc.gov/reading-rm/adams.html>. The transcripts for the afternoon and evening meetings are listed under ADAMS Accession Nos. ML13266A183 and ML13266A182, respectively. Persons who encounter problems in accessing documents in ADAMS should contact the NRC's PDR reference staff by telephone at 1-800-397-4209 or 301-415-4737 or by e-mail at pdr.resource@nrc.gov.

M. Gallagher

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If you have any questions concerning the staff's environmental review of this license renewal application, please contact the project manager, Ms. Lois James, by phone at 301-415-3306 or by e-mail at Lois.James@nrc.gov.

Sincerely,

/RA/

Brian D. Wittick, Chief
Projects Branch 2
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-454 and 50-455

Enclosure:
As stated

cc w/encl: Listserv

M. Gallagher

-2-

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Division of License Renewal
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Docket Nos. 50-454 and 50-455

Enclosure:
As stated

cc w/encl: Listserv

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ASSOCIATED WITH THE STAFF'S REVIEW OF BYRON STATION, UNITS 1
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**Environmental Impact Statement
Scoping Process**

Summary Report

**Byron Station, Units 1 and 2
Byron, IL**

January 2014



**U.S. Nuclear Regulatory Commission
Rockville, Maryland**

ENCLOSURE

1 Introduction

The U.S. Nuclear Regulatory Commission (NRC) received an application from Exelon Generating Company, LLC (Exelon), dated May 29, 2013, for renewal of the operating license for Byron Station (Byron), Units 1 and 2. Byron is located in Byron, Illinois. The purpose of this report is to provide a concise summary of the determinations and conclusions reached, including the significant issues identified, as a result of the scoping process in the NRC's environmental review of this license renewal application.

As part of the application, Exelon submitted an Environmental Report (ER) (Exelon 2013) prepared in accordance with Title 10 of the *Code of Federal Regulations* (CFR) Part 51, "Environmental protection regulations for domestic licensing and related regulatory functions," which contains the NRC requirements for implementing the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq., herein referred to as NEPA). The requirements for preparation and submittal of ERs to the NRC are outlined in 10 CFR 51.53(c)(3).

The requirements in section 51.53(c)(3) were based upon the findings documented in NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (GEIS) (NRC 1996, 1999, 2013a). In the GEIS, the staff identified and evaluated the environmental impacts associated with license renewal. After issuing a draft version of the GEIS, the staff received and considered input from Federal and state agencies, public organizations, and private citizens before developing the final document. As a result of the assessments in the GEIS, a number of impacts were determined to be generic to all nuclear power plants (or, in some cases, to plants having specific characteristics such as a particular type of cooling system). These generic issues were designated as "Category 1" impacts. An applicant for license renewal may adopt the conclusions contained in the GEIS for Category 1 impacts unless there is new and significant information that may cause the conclusions to differ from those of the GEIS. Other impacts that require a site-specific review were designated as "Category 2" impacts and are required to be evaluated in the applicant's ER.

On July 31, 2013, the NRC initiated the scoping process for Byron by issuing a *Federal Register* notice (78 FR 47800). This *Federal Register* notice notified the public of the staff's intent to prepare a plant-specific supplement to the GEIS regarding the application for renewal of the Byron operating licenses. The plant-specific supplement to the GEIS is also referred to as the supplemental environmental impact statement (SEIS). The SEIS will be prepared in accordance with 10 CFR Part 51.

The scoping process provides an opportunity for public participation to identify issues to be addressed in the SEIS and to highlight public concerns and issues. The notice of intent (NRC 2013e) identified the following objectives of the scoping process:

- Define the proposed action;
- Determine the scope of the SEIS and identify significant issues to be analyzed in depth;
- Identify and eliminate peripheral issues;

- Identify any environmental assessments and other environmental impact statements being prepared that are related to the SEIS;
- Identify other environmental review and consultation requirements;
- Indicate the schedule for preparation of the SEIS;
- Identify any cooperating agencies; and
- Describe how the SEIS will be prepared.

The NRC's proposed action is deciding whether to renew the Byron operating license for an additional 20 years.

The scope of the SEIS includes an evaluation of the environmental impacts of renewing the licenses of Byron Units 1 and 2 and of the reasonable alternatives to license renewal. The "Scoping Comments and Responses" section of this report includes specific issues identified by the comments. The subsequent NRC responses explain whether the issues will be addressed in the SEIS and, if so, where in the report they will likely be addressed.

Throughout the scoping process, the NRC staff identified and eliminated peripheral issues. This report provides responses to comments that were determined to be out of the scope of this review. Those that were significant or have not been covered by another environmental review will be evaluated in detail and documented in the appropriate sections of the SEIS for Byron's license renewal.

In parallel with its NEPA review, the NRC staff is conducting section 7 consultation under the Endangered Species Act of 1973 (ESA) to ensure the protection of listed species and designated critical habitat that may be affected by the proposed license renewal. The regulations that implement section 7 (50 CFR 402, "Interagency cooperation—Endangered Species Act of 1973, as amended") describe the consultation procedures that Federal agencies must follow in order to fully comply with the act. Depending on the project, the NRC may need to consult with the U.S. Fish and Wildlife Service (FWS), the National Marine Fisheries Service (NMFS), or both. In the case of Byron, no species under NMFS's jurisdiction occur within the action area; therefore, the NRC staff is only consulting with the FWS.

In accordance with 36 CFR 800.8, "Coordination with the National Environmental Policy Act," the NRC will coordinate compliance with Section 106 of the National Historic Preservation Act (NHPA) through the requirements of NEPA. NRC staff has initiated consultation with the Advisory Council on Historic Preservation, the Illinois State Historic Preservation Office, and tribes with historic ties to the area surrounding the Byron site.

The NRC staff expects to publish the draft SEIS in October 2014. The SEIS will be prepared by NRC staff with contract support from Argonne National Laboratory and BLH Technologies, Inc.

The NRC invited the applicant; Federal, state, and local government agencies; Indian tribal governments; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meetings or by submitting written comments before the end of the scoping comment period on September 27, 2013. The scoping process included two public meetings which were held on August 20, 2013, at the Byron Forest Preserve District, 7993 North River Road, Byron, IL. The NRC issued press releases, purchased

newspaper advertisements, and distributed flyers locally to advertise these meetings. Approximately 60 people attended the meetings. Each session began with NRC staff members providing a brief overview of the license renewal process and the NEPA environmental review process. Following the NRC's prepared statements, the floor was opened for public comments. Approximately 30 attendees provided oral comments that were recorded and transcribed by a certified court reporter. The NRC issued a summary of the scoping meetings on October 4, 2013 (NRC 2013d).

All documents associated with this scoping process are available for public inspection in the NRC Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852, or from the NRC's Agencywide Documents Access and Management System (ADAMS). The ADAMS Public Electronic Reading Room is accessible at <http://www.nrc.gov/reading-rm/adams.html>. Persons who encounter problems in accessing documents in ADAMS should contact the NRC's PDR Reference staff by telephone at 1-800-397-4209 or 301-415- 4737 or by e-mail at pdr.resource@nrc.gov. In addition to the comments received at the meetings, the NRC also received two letters with comments about the review. The ADAMS accession number for each document is listed below in Table 1.

At the conclusion of the scoping period, the staff reviewed the transcripts (NRC 2013b, 2013c), meeting notes, and all written material received in order to identify individual comments. Each comment was marked with a unique identifier including the Commenter ID (specified in Table 1) and a comment number, allowing each comment to be traced back to the transcript, letter, or e-mail in which the comment was submitted. Comments were consolidated and categorized according to the topic within the proposed SEIS or according to the general topic if outside the scope of the GEIS. Once comments were grouped according to subject area, the staff determined the appropriate action for the comment. The action or resolution for each comment is described in the staff's responses in this report.

1.1 Scoping Participants

Table 1 identifies the individuals providing comments and the assigned Commenter ID. For oral comments, the individuals are listed in the order in which they spoke at the public meeting. Accession numbers identify the source document of the comment in ADAMS.

Table 1. Individuals Providing Comments During the Scoping Comment Period

Commenter (as listed on the sign in sheet)	Affiliation (If Stated)	Comment Source	Commenter ID	ADAMS Accession Number
Chris Millard	City of Byron, Mayor	Afternoon Scoping Meeting	001	ML13269A006
Jared Funderburg	Representative for Congressman Kinzinger, Illinois, 16th District	Afternoon Scoping Meeting	002	ML13269A006
		Evening Scoping Meeting	013	
Russ Kearney	Byron Site VP	Afternoon Scoping Meeting	003	ML13269A006
		Evening Scoping Meeting	015	
Mike Gallagher	Exelon Vice President of License Renewal	Afternoon Scoping Meeting	004	ML13269A006
		Evening Scoping Meeting	016	
Ron Gibson	Byron Township	Afternoon Scoping Meeting	005	ML13269A006
Tom Wolf	Illinois Chamber of Commerce	Afternoon Scoping Meeting	006	ML13269A006
Sarah Fuller	Byron employee	Afternoon Scoping Meeting	007	ML13269A006
Michael Harn	Sheriff of Ogle County	Afternoon Scoping Meeting	008	ML13269A006

Commenter (as listed on the sign in sheet)	Affiliation (If Stated)	Comment Source	Commenter ID	ADAMS Accession Number
Doug O'Brien	Illinois Clean Energy Coalition	Afternoon Scoping Meeting	009	ML13269A006
		Evening Scoping Meeting	017	
Todd Tucker	Executive Director of the Byron Forest Preserve	Afternoon Scoping Meeting	010	ML13269A006
Allen Christianson	Exelon	Afternoon Scoping Meeting	011	ML13269A006
Jenny Beckman	Director of United Way of Ogle County	Afternoon Scoping Meeting	012	ML13269A006
Tom Demmer	State Representative	Evening Scoping Meeting	014	ML13269A006
Ron Colson	Blackhawk Hills Regional Council	Evening Scoping Meeting	018	ML13269A006
Charles Medrano	Byron employee	Evening Scoping Meeting	019	ML13269A006
Dan Westin	Rochelle Utilities	Evening Scoping Meeting	020	ML13269A006
Ronald Bolin	Exelon	Evening Scoping Meeting	021	ML13269A006
Kim Gouker	Ogle County Board	Evening Scoping Meeting	022	ML13269A006
		Letter	026	ML13263A221

Commenter (as listed on the sign in sheet)	Affiliation (If Stated)	Comment Source	Commenter ID	ADAMS Accession Number
Brent Baker	Byron Chamber and Employee of the Byron Bank	Evening Scoping Meeting	023	ML13269A006
Bruce Drawbridge	Vice President with CB&I, Chicago Bridge and Iron	Evening Scoping Meeting	024	ML13269A006
David Kraft	Nuclear Energy Information Service	Evening Scoping Meeting	025	ML13269A006
		Letter	027	ML13277A306

1.2 Scoping Comments

The comments and suggestions received as part of the scoping process are documented in this section and the disposition of each comment is discussed. The entire transcripts of the public scoping meetings are available for public inspection in the NRC Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852, or through ADAMS. The transcripts for the afternoon and evening meetings are listed under ADAMS accession numbers ML13266A183 and ML13266A182, respectively.

Comments have been grouped into the following general categories:

1. General Comments in support of Exelon, nuclear power, and license renewal for Byron (SR);
2. Meteorology, Air Quality, and Noise (ME);
3. Alternatives to License Renewal of Byron (AL);
4. Socioeconomic Impact of Byron (SO); and
5. Other comments Outside the Scope of NRC's environmental review (OS).

In those cases in which no new environmental information was provided by the commenter, only a brief response has been provided to the comment and no further evaluation will be performed.

The preparation of the SEIS will take into account all of the relevant issues raised during the scoping process. The SEIS will address both Category 1 and 2 issues, along with any new information identified as a result of the scoping process. The SEIS will rely on conclusions supported by information in the GEIS for Category 1 issues and will include analysis of Category 2 issues and any new and significant information (NRC 1996, 1999, 2013a). The

NRC will issue a draft SEIS for public comment. The comment period will offer the next opportunity for the applicant, interested Federal, state, and local government agencies, Indian tribal governments, local organizations, and other members of the public to provide input to the NRC's environmental review process. The comments received on the draft SEIS will be considered in the preparation of the final SEIS. The final SEIS, along with the staff's safety evaluation report (SER), will provide much of the basis for the NRC's decision on the Exelon application to renew the license of Byron.

2 Byron Nuclear Station, Units 1 and 2 Scoping Comments and Responses

2.1 General Comments in support of Exelon Generating Company, LLC (Exelon), nuclear power, and license renewal for Byron Nuclear Station, Units 1 and 2 (Byron) (SR)

Comment: The following comments have been categorized under the area of support for license renewal. The following comments are general in nature and express support for nuclear power or the license renewal of Byron.

Identifiers: 001-01 SR, 002-01 SR, 003-01 SR, 004-1 SR, 005-1 SR, 006-1 SR, 007-1 SR, 008-1 SR, 009-1 SR, 010-1 SR, 011-1 SR, 012-1 SR, 013-1 SR, 014-1 SR, 015-1 SR, 016-1 SR, 017-1 SR, 018-1 SR, 019-1 SR, 020-1 SR, 021-1 SR, 022-1 SR, 023-1 SR, 024-1 SR, and 026-1 SR

Response: *These comments are general in nature and express support for Exelon, nuclear power, or license renewal of Byron. The comments provide no new and significant information and will not be evaluated further in the development of the draft SEIS.*

2.2 Meteorology, Air Quality, and Noise (ME)

Comment: The following comment has been categorized under the resource area of Meteorology, Air Quality, and Noise. The comment expresses concern that the ER did not provide evidence that the applicant examined the projected effects of predicted Illinois climate disruption on future operations.

Identifier: 027-2 ME

Response: *This comment expresses concern over climate change projections and the adequacy of the analysis of future water use by Byron plant as presented in Exelon's ER. NRC's analysis of surface water resources at Byron, including the Rock River, and the effects of plant operations on surface water hydrology will be presented in the meteorological, air quality, and noise sections of Chapters 3 and 4, respectively, of this draft SEIS. Specifically, these sections discuss the volumes of water used and projected to be used during the license renewal term, including the regulatory requirements that govern the plant's water uses. In addition, Chapter 4 of the draft SEIS will contain the NRC staff's analysis of climate change and its implications for impacts on plant operations.*

2.3 Socioeconomic Impact of Byron (SO)

Comment: The following comment has been categorized under the resource area of Socioeconomic Impact of Byron. The comment expresses concern that the ER only addresses the positive impacts of the significant tax impact; it does not mention or analyze negative impacts resulting from the abrupt, planned, or unexpected early closure of Byron.

Identifier: 027-3 SO

Response: *With the exception of an unexpected major accident and NRC-ordered shutdown for safety reasons, the possible events leading to the closure of Byron identified in this comment involve energy planning decisions that would be made by Exelon and state officials. The NRC has no role in these energy planning decisions. Also, the closure of Byron could occur at any time, including upon the expiration of either the current or renewed operating license.*

Information about Exelon's tax payments will be described in the socioeconomic section in Chapter 3 in the draft SEIS, and the socioeconomic impacts of station closure and the termination of reactor operations caused by the expiration of the Byron operating license will be described as part of the "no action" alternative in the socioeconomic impacts of license renewal section in Chapter 4 in the draft SEIS. The impacts of closing and decommissioning a nuclear power plant are also described in the "Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Regarding the Decommissioning of Nuclear Power Reactors" (NUREG-0586) (NRC 2002). The environmental consequences of decommissioning Byron itself would be addressed in a separate environmental NEPA review.

In regards to what is to be discussed in the ER, 10 CFR 51.45(c) states "Environmental reports prepared at the license renewal stage under § 51.53(c) need not discuss the economic or technical benefits and costs of either the proposed action or alternatives except if these benefits and costs are either essential for a determination regarding the inclusion of an alternative in the range of alternatives considered or relevant to mitigation. In addition, environmental reports prepared under § 51.53(c) need not discuss issues not related to the environmental effects of the proposed action [license renewal] and its alternatives."

2.4 Alternatives to License Renewal of Byron (AL)

Comment: The following comment has been categorized under the resource area of Alternatives to License Renewal of Byron. The comment expresses concern that the ER does not incorporate better data on the capabilities of wind and solar, based on expected improvements in technology, or better and more optimal use decisions.

Identifier: 027-5 AL

Response: *The staff's evaluation of reasonable alternatives, including the no-action alternative, will be in Chapter 4 of the draft SEIS. In this chapter, the NRC staff will examine the potential environmental impacts of alternatives to license renewal for Byron, as well as alternatives that may reduce or avoid adverse environmental impacts from license renewal, when and where these alternatives are applicable.*

In evaluating alternatives to license renewal, the NRC staff first selects energy technologies or options currently in commercial operation, as well as some technologies not currently in commercial operation but likely to be commercially available by the time the current Byron operating licenses expire in 2024 and 2026.

Second, the NRC staff screens the alternatives to remove those that cannot meet future system needs. Then, the remaining options are screened to remove those alternatives whose costs or benefits do not justify inclusion in the range of reasonable alternatives. Any alternatives remaining, then, constitute alternatives to the proposed action that the NRC staff evaluates in depth throughout Chapter 4.

2.5 Out of Scope (OS)

Comment: The following comments were determined to be Outside of the Scope of the environmental review. The comments express concern that NRC has been admonishing utilities in Region III on their “lack of safety culture.”

Identifier: 025-1 OS, 025-2 OS, 027-1 OS, 027-4 OS, and 027-06 OS

Response: *These comments discuss issues related to the (1) overall safety culture of the plants within NRC Region III, (2) what is included in the environmental review, (3) use of distributed generation and decline of the “baseload power” business model, and (4) how expected upgrades, improvements and additions of grid and dispatching systems are included in the environmental review.*

(1) Overall safety culture of the plants within NRC Region III

The NRC assesses plant performance continuously, including safety culture, and communicates its assessment of plant performance in letters to the licensees. These assessment letters are available on a plant performance page for each plant, and are posted on the web site as they become available.

The NRC assessment reports for Byron can be accessed at http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/BYRO1/byro1_chart.html and http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/BYRO2/byro2_chart.html.

Therefore, these comments are not within the scope of the environmental review and will not be evaluated further in the development of the draft SEIS.

(2) What is included in the environmental review

The NRC’s environmental review is confined to environmental matters relevant to the extended period of operation requested by the applicant. The regulations governing the environmental review are contained in 10 CFR Part 51, and the regulations for the safety review are contained in 10 CFR Part 54, “Requirements for renewal of operating licenses for nuclear power plants.” Because the two reviews are separate, operational safety issues and safety issues related to aging are outside the scope of the environmental review.

The principal safety concerns associated with license renewal are related to the aging of structures, systems, and components important to the continued safe operation of the facility. When the plants were designed, certain assumptions were made about the length of time each plant would be operated. During the safety review for license renewal, the NRC must determine whether aging effects will be adequately managed so that the original design assumptions will continue to be valid throughout the period of extended operation, or verify that any aging effects will be adequately managed. For all aspects of operation, existing regulatory requirements governing a plant offer reasonable assurance of adequate protection if its license were renewed.

Therefore, this comment is not within the scope of the environmental review and will not be evaluated further in the development of the draft SEIS.

(3) Use of distributed generation and decline of the “baseload power” business model

The NRC’s environmental review is confined to environmental matters relevant to the extended period of operation requested by the applicant. The regulations governing the environmental review are contained in 10 CFR Part 51, “Environmental protection regulations for domestic licensing and related regulatory functions.” The type of business model Exelon chooses to operate under is not relevant to the environmental review.

Therefore, this comment is not within the scope of the environmental review and will not be evaluated further in the development of the draft SEIS.

(4) How expected upgrades, improvements and additions of grid and dispatching systems are included in the environmental review

The 2013 GEIS, at pages 3-3 and 3-4, states that “only those transmission lines that connect the plant to the switchyard where electricity is fed into the regional power distribution system (encompassing those lines that connect the plant to the first substation of the regional electric power grid) and power lines that feed the plant from the grid during outages are considered within the regulatory scope of license renewal environmental review....”

“Expected upgrades, improvements and additions of grid and dispatching systems in the... interconnection areas” are outside the scope of this review.

3 References

- 10 CFR 50. *Code of Federal Regulations*, Title 10, *Energy*, Part 50, “Domestic licensing of production and utilization facilities.”
- 10 CFR 51. *Code of Federal Regulations*, Title 10, *Energy*, Part 51, “Environmental protection regulations for domestic licensing and related regulatory functions.”
- 10 CFR 54. *Code of Federal Regulations*, Title 10, *Energy*, Part 54, “Requirements for renewal of operating licenses for nuclear power plants.”
- 36 CFR 800.8. *U.S. Code of Federal Regulations*, “Coordination with the National Environmental Policy Act,” Part 800.8, Title 36, “Parks, Forests, and Public Property.”
- 50 CFR 402. *U.S. Code of Federal Regulations*, “Interagency Cooperation—Endangered Species Act of 1973,” Part 402, Subchapter A, Title 50, “Wildlife and Fisheries.”
- 78 FR 47800. U.S. Nuclear Regulatory Commission, Notice of intent to prepare an environmental impact statement and conduct scoping process for License Renewal Application for Byron Station, Units 1 and 2; Exelon Generation Company, LLC, *Federal Register*, Volume 78, No. 151, August 6, 2013, pp. 47800-47802
- [Exelon] Exelon Generation Company, LLC. 2013. *Applicant’s Environmental Report – Operating License Renewal Stage, Byron Station*. Kennett Square, PA: Exelon. May 2013. 707 p. ADAMS No. ML14022A048.
- National Environmental Policy Act of 1969, as amended (NEPA). 42 U.S.C. §4321 et seq.
- [NRC] U.S. Nuclear Regulatory Commission. 1996. *Generic Environmental Impact Statement for License Renewal of Nuclear Plants*. Washington, DC: NRC. NUREG-1437, Volumes 1 and 2. May 1996. 1,204 p. ADAMS Nos. ML040690705 and ML040690738.
- [NRC] U.S. Nuclear Regulatory Commission. 1999. Section 6.3—Transportation, Table 9.1, Summary of findings on NEPA issues for license renewal of nuclear power plants. In: *Generic Environmental Impact Statement for License Renewal of Nuclear Plant*. Washington, DC: NRC. NUREG-1437, Volume 1, Addendum 1. August 1999. 100 p. ADAMS No. ML040690720.
- [NRC] U.S. Nuclear Regulatory Commission. 2002. *Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, Supplement 1: Regarding the Decommissioning of Nuclear Power Reactors, Appendices N, O and P, Final Report*. Washington, DC: NRC. NUREG-0586, Volume 2. November 2002. 548 p. ADAMS No. ML023500228.
- [NRC] U.S. Nuclear Regulatory Commission. 2013a. *Generic Environmental Impact Statement for License Renewal of Nuclear Plants*. Revision 1. Washington, DC: NRC. NUREG-1437, Volumes 1, 2, and 3. June 2013. 1,535 p. ADAMS Nos. ML13106A241, ML13106A242, and ML13106A244.
- [NRC] U.S. Nuclear Regulatory Commission. 2013b. *Public Meeting RE License Renewal: Byron Nuclear Station, Afternoon Session*. Washington, DC: NRC. August 20, 2013. 50 p. ADAMS No. ML13266A183.
- [NRC] U.S. Nuclear Regulatory Commission. 2013c. *Public Meeting RE License Renewal: Byron Nuclear Station, Evening Session*. Washington, DC: NRC. August 20, 2013. 54 p. ADAMS No. ML13266A182.
- [NRC] U.S. Nuclear Regulatory Commission. 2013d. *Summary of Public Scoping Meetings Conducted Related to the Review of the Byron Nuclear Station, License Renewal*

Application (TAC NOS. MF1790 AND MF1791). Washington, DC: NRC. October 4, 2013. ADAMS No. ML13269A006.

[NRC] U.S. Nuclear Regulatory Commission. 2013e. *Notice of Intent to Conduct Scoping Meetings and Prepare an EIS for the Byron Station License Renewal Application.* Washington, DC: NRC. July 31, 2013. ADAMS No. ML13184A095.

4 Comment Letters and Meeting Transcripts

The following pages contain the comments, identified by commenter designation and comment number, from letters, emails, and the transcripts of the public scoping meetings.

1 Whitt Law. During the presentation, there was a slide
2 about the anticipated time line, the schedule, as well
3 as a slide about the Waste Confidence decision. Is it
4 correct to say that the NRC does not expect the Waste
5 Confidence decision process to delay the renewal process
6 decision for Byron?

7 MR. MOREY: Yes, that's correct.

8 MS. RAY: Thank you, Dennis. Are there any
9 other questions regarding the presentation? Seeing
10 none, we will move into the public comment period. Just
11 to mention once again, if you have arrived, and would like
12 to make a comment, I ask that you fill out a yellow comment
13 card. They're on the registration desk, and we will be
14 happy to hear your comments. But, with that, I would
15 also ask that you keep your comments to about five minutes
16 so we can ensure that everyone has a chance to speak. An
17 please introduce yourself. I will call out the comment,
18 and first we'll hear from Chris Millard, the Mayor of
19 Byron.

20 MR. MILLARD: Thank you. My name is Chris
21 Millard. I'm the Mayor of Byron currently. A little
22 history on myself. Our family came to Byron when I was
23 five years old, so Byron is really all that I have ever
24 known in my life. And when I got into city politics, I'm
25 a three-term alderman, and I'm in my second term now as

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1 mayor. But, before that, or during that period, too, I
2 was also a career fire fighter for Byron for 35 years.

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3 I had the distinct pleasure to work with the
4 people at the plant, the professionals out there. We did
5 some very unique things early on. We did pre-fire
6 planning on the site, where we actually went in, did
7 building surveys and things like that. So the fire
8 department was always received very openly. Since I
9 have retired, two years ago now, and I'm sure the fire
10 chief will probably be here to validate those comments.

11 But on emergencies, fire-related, on EMS
12 calls, the people were always very professional. We
13 worked very closely with their fire brigade. For quite
14 a while, we even trained their fire brigade. And, on the
15 city end of it, we have our emergency operations center
16 since we're within the 10-mile zone. And the
17 communication has really been phenomenal.

18 To be able to get phone calls from the plant,
19 saying that they're doing some testing. They're going
20 to be, maybe, dumping some of the steam off of a generator
21 to test something out there; I'm not sure what they're
22 testing. But to let us know, because we might hear
23 noises in town or people might be calling city hall and
24 asking, you know, have we heard what's going on. We're
25 able to answer those questions because we do know what

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is going on.

For our drills and our exercises, they're really good, because they're all different varieties of drills. They're not the same drill every year, where you walk in and you sit down and think oh boy, you know, here, we're going to be here for six or seven hours. It's a functional drill where we can learn. Where we can practice our things that we have to do on a local government level.

And I would also like to say that the city proper is not one of the 11 taxing districts for the nuclear power plant. So our relationships is still phenomenal with them. I think right now, currently, you've got probably somewhere of a hundred or your employees that live within the realm of Byron, within that area. And I know, of course, you also have employees that live in Stillman Valley, Oregon, Mt. Morris, and the different town in our county of Rochelle.

And I know the people that you employ out there are very active in the communities. And, like for the outages, I know two months ahead, two-and-a-half months ahead that there's a schedule outage coming. Our businesses plan for that. When you're going to bring in 1,200 to maybe 2,000 construction workers to the area, of course that's a great economic boom for our community.

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1 So my kudos to the plant, and to everything
2 that it's about. Because I couldn't ask for a better
3 working relationship. Thank you very much.

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4 MS. RAY: Thank you. I'd like to invite
5 Jarid Funderburg to the podium from Congressman
6 Kinzinger's office.

7 MR. FUNDERBURG: Thank you. My name is
8 Jarid Funderburg. I am the representative for
9 Congressman Kinzinger, Illinois 16th District. He
10 wrote a letter, and I'd like to read it on his behalf.
11 Dear Nuclear Regulatory Commissioners, I write to
12 express my full support for the renewal of the operating
13 license of the nuclear generating station at Byron,
14 Illinois. This facility provides lower energy costs for
15 residents and businesses, and supports hundreds of
16 high-paying jobs in Illinois, while helping to ensure
17 statement compliance with federal Clean Air Act
18 regulations.

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19 It will, undoubtedly, play an important
20 role in meeting the energy needs of Illinoisans well into
21 the future. Nuclear energy production plays a critical
22 role in Illinois, where nuclear energy generates 48
23 percent of the state's electricity and employs nearly
24 5,000 skilled workers. Having visited the Byron
25 generating facility, I can attest to the value it has to

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1 local residents and communities, which benefit through
2 reduced energy costs, high quality jobs, and significant
3 tax revenue.

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4 While many areas of Illinois struggle to
5 meet clean air standards, the generating station at Byron
6 offers affordable abundant energy with a fraction of the
7 greenhouse gas emissions as other convention energy
8 resources. As American and Illinoisans' demand for
9 demand for energy rises, nuclear generating stations
10 like Byron will be vital to meeting the energy needs of
11 our citizens. I fully support the operating license
12 renewal for this generating station, and believe it will
13 play a critical role in making American and the State of
14 Illinois more energy secure. Sincerely, Adam
15 Kinzinger, Member of Congress. Thank you.

16 MS. RAY: Thank you. I'd like to invite
17 Russ Kearney from Byron. He is the site VP.

18 Mr. KEARNEY: Sheila, if I may, I'm going
19 to turn this podium just a little bit. I'll try not to
20 break anything. Good afternoon, ladies and gentlemen,
21 Mr. Mayor, members of the State of Illinois and the NRC.
22 My name is Russ Kearney. I am the site vice president
23 at the Byron generating station. I have some 30 years
24 experience in the nuclear power industry. Before
25 beginning my career in commercial nuclear power, I spent

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1 six years serving our country in the United States Navy
2 in the Nuclear Navy Propulsion Program.

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3 Following my Navy time, I worked some 22
4 years at the Perry Nuclear Plant that's located in
5 northeastern Ohio, currently owned and operated by
6 FirstEnergy. I joined the Exelon Generation
7 Corporation in April of 2005, and I've had assignments
8 at the Dresden station at the director level, and I've
9 been a site vice president now at three of our stations;
10 those being the Clinton power station here in Illinois,
11 Limerick generating station located in Pennsylvania and
12 currently at the Byron station.

13 Operating our nuclear station here is a
14 great responsibility for myself and for our employees.
15 We're very committed to safety and reliability on all
16 fronts. We take that as a commitment to ourselves, to
17 our industry and, certainly, to the community that
18 surrounds us. The Byron station has operated in this
19 manner for some 25 years now in our community, and with
20 a prime objective of preserving our environment.

21 We work hard to maintain a comprehensive
22 radiological monitoring program. That program has
23 extensive measures to monitor air quality, water quality
24 and impacts to food products in our community. We have
25 a very comprehensive onsite environmental monitoring

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1 program, as well. We monitor and detect the presence of
2 any radioactivity that may find its way into the ground
3 water.

4 Currently, we have installed 15 monitoring
5 wells. Those wells allow us to quickly detect, and then
6 make any adjustments that we need to make to ground water
7 interfaces with our station. We have detailed
8 procedures that outline for my staff and how to respond
9 and how to monitor each one of those wells.

10 Radiation monitors are staged within the 10-mile
11 radius of the station. There's 40 radiation monitors,
12 again looking at the plant's impact to the environment
13 in the local community. And Byron has been recognized
14 recently, through our environmental management program,
15 and attained a certification from the international
16 certification organization, standardization
17 organization known as ISO. Specifically, the
18 environmental certification is known as ISO 14001.

19 Last year, the Wildlife Habitat Council
20 recognized the Byron generating station's commitment to
21 environmental stewardship by awarding the station, and
22 really by awarding the people at the station, a Wildlife
23 At-work Certification. The distinction of this award is
24 that it recognizes the station's footprint in the
25 community from an environmental habitat standpoint,

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1 where the plant property provides a healthy habitat,
2 undisturbed, habitat for the wildlife, providing food,
3 water, shelter, et cetera.

4 To ensure Byron continues to operate safely
5 now and into the renewal period, Exelon Generation
6 invests significant capital on an annual basis at the
7 station. Now, that investment is intended to improve
8 today's equipment through modernization and
9 replacement. And also works to enhance plant operations
10 and safety.

11 Our investment in the future does not, and
12 just with the equipment that we operate, it also extends
13 into our employees, as well. Since 2011, the station's
14 hired on the order of 200 employees, and we expect that
15 that hiring rate will continue for some time now, as the
16 first generation moves through the plant, and the next
17 generation joins us in the product of electricity through
18 nuclear power.

19 Currently, as was mentioned earlier, the
20 station has some 850 full-time employees that live and
21 around the Byron area. And during refueling outages,
22 you can see that number surge to between 1,000 and 2,000
23 employees for on the order of about a month while we go
24 through out refueling outages.

25 We also take great pride, great pride in our

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1 commitment to the community through our community
 2 service. Since 2012, the station has contributed around
 3 \$300,000 to the community, mostly through United
 4 Way-related agencies. But also into very local agencies,
 5 local schools and the like. You'll find our employees
 6 serving at food banks, serving side-by-side with local
 7 community leaders, hosting blood drives, hosting toy
 8 drives, hosting local fund raisers for schools and other
 9 businesses.

10 For more than 25 years now, the Byron
 11 station has operated safely and reliably and has set a
 12 number of benchmarks within our industry. We're proud
 13 of our service record to the industry, and we're proud
 14 to be a community leader. In conclusion, the Byron
 15 station and myself look forward to working with NRC
 16 through the renewal period, and we look forward to
 17 generation beyond our initial license period into the
 18 period of extended operation. Thank you for your time.

19 MS. RAY: Thank you. I'd like to invite
 20 Mike Gallagher from Byron.

21 MR. GALLAGHER: I'll turn this a little bit
 22 more this way. Yes, my name is Mike Gallagher, and I'm
 23 the vice president of license renewal for Exelon, and I
 24 have overall responsibility for the Byron generating
 25 station license renewal application. First of all, I'd

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1 like to thank the NRC for giving us this opportunity to
2 speak on behalf of, give me this opportunity to speak on
3 behalf of Exelon on this important project for us.

4 Exelon has a great deal of experience with
5 license renewal, as we have already obtained the renewed
6 licenses for Dresden and Quad Cities plants here in
7 Illinois, and for three of our other facilities in
8 Pennsylvania and New Jersey. And we also have an
9 application under NRC review from our Limerick plant in
10 Pennsylvania.

11 Just briefly about myself, I've been
12 working in the nuclear industry for 32 years. I was a
13 licensed senior reactor operator at the Limerick
14 generating station, and a plant manager there also. And
15 I worked at two other nuclear plants and our corporate
16 office. So Mr. Kearney, the site vice president for
17 Byron, spoke to you about how rigorously we run that
18 station, and about the reasons for renewing the license
19 at Byron.

20 I'd like to speak briefly about the process
21 for preparing this license renewal application, and
22 about the amount of work and engineering analysis that
23 was put into preparing the application. Because the
24 Byron station can be operated safely and reliably, Exelon
25 decided to pursue license renewal. Byron's safe,

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1 efficient operation promotes a critical supply of
2 carbon-free electricity for Illinois and beyond. Byron
3 produces enough clean power to supply more than two
4 million homes.

5 So, in 2011, we announced our intention to
6 seek license renewal for Byron, and a similar plant,
7 Braidwood generating station down in Will County. Later
8 that year, we started the work necessary to prepare the
9 application and, after over two years of work, we've
10 submitted the application to the Nuclear Regulatory
11 Commission on May 29, 2013. So, safe and reliable
12 operations have been a hallmark at Byron station since
13 it came online, and our goal is, during the license
14 renewal process, to demonstrate to the NRC and to our
15 neighbors that we will continue that legacy during the
16 additional 20-year operating period.

17 The application, when you print it out, is
18 very large. It's about 3,500 pages, and when you put it
19 in binders, it's four large binders about this thick.
20 It's a huge amount of information. But that only
21 represents a small portion of what we did to prepare that
22 application. The total amount of this engineering
23 analysis, if we printed it all out, would be about 400
24 binders of information.

25 We invested over 90,000 man hours of

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1 engineering work. Once we completed our engineering
2 work to prepare the application, we brought in experts
3 from outside Exelon to review the application, and to
4 ensure it was complete, thorough and accurate. Our
5 total cost to prepare and to get our application reviewed
6 by the NRC for both Byron and Braidwood will be
7 approximately \$45 million.

8 There are two parts to our application.
9 It's the safety review and the environmental review,
10 which is the subject of today's meeting. For the safety
11 review, we took an in depth look at the history and the
12 condition of the safety equipment at the plant. We did
13 this to determine whether the necessary maintenance was
14 being performed on that equipment, and to make sure that
15 the equipment will be able to operate when needed, not
16 only today, but for an additional 20 years of operation.

17 So, when you look back at Byron when it was
18 built and all the equipment was new, it was thoroughly
19 to make sure it would perform properly. But, like
20 anything else, the equipment does age. And, therefore,
21 certain activities need to be performed on it. We
22 performed preventative maintenance. Sometimes
23 equipment, it was refurbished. Sometimes equipment may
24 be replace.

25 There may be modifications done to the plant

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1 to upgrade the equipment in the plant. And, in fact, as
2 Russ pointed out, Exelon has invested over \$220 million
3 in the last three years at Byron to improve and modernize
4 the equipment, and to enhance plant operations and
5 safety.

6 We also reviewed the calculations that were
7 performed as part of the design of the plant that were
8 done to ensure the plant could operate safely for 40
9 years. We analyzed those calculations, and were able to
10 confirm that the plant would be able to operate safely
11 for 60 years. So, overall, our conclusion from our
12 engineering review was that Byron could operate safely
13 for 60 years.

14 We also took a look at the environmental
15 impacts of continuing to operate Byron. We looked at all
16 the aspects of continued impact of the plant on the
17 environment. Our conclusion is that the impact on the
18 environment are small. And I use the term small in the
19 sense of regulation. The regulation defines small as
20 the environmental effects are not detectible or are
21 minor.

22 We also reviewed the alternatives if Byron
23 would not have its license renewed, and another source
24 of electric generation would need to be installed either
25 here or nearby to substitute for this electricity. We

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1 concluded that any other means of generation to replace
2 the electricity would have more of an impact on the
3 environment than the continued operation of Byron.

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4 So, in conclusion, we operate Byron safely,
5 and we can continue to operate safely for an additional
6 20 years. Byron will provide approximately 2,340
7 megawatts of base load generation that's not only safe,
8 but it's clean, it's reliable, and it's economical. So,
9 continue operation of Byron will benefit this community,
10 the State of Illinois and our nation. Thanks for this
11 opportunity.

12 MS. RAY: Thank you. I'd like to invite
13 Ron Gibson from the Byron Township to make comments.

14 MR. GIBSON: Good afternoon, everybody.
15 I'm Rob Gibson. I'm the highway commissioner for Byron
16 Township. The township is not one of the 11 taxing
17 bodies, however, it has benefitted in many ways through
18 the growth. I would strongly urge that the safety and
19 the environmental that Byron plant has had over the past
20 29 years that I've been commissioner, that they be
21 granted this license in the future because they have done
22 an excellent job, and I have very strong confidence that
23 they will continue to do that. Thank you.

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24 MS. RAY: Thank you. Next I'd like to
25 invite Tom Wolf from the Illinois Chamber of Commerce.

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1 MR. WOLF: Good afternoon. My name is Tom
2 Wolf. I'm executive director of the energy council at
3 the Illinois Chamber of Commerce, and I'm here today
4 speaking on behalf of the Chamber and its members across
5 the state, every corner of the state. And we're asking
6 you to approve the 20-year renewal of the Byron
7 generation facility operating license. We do so because
8 we need to support the continued operation of this vital
9 component of our energy infrastructure.

10 It's no secret that Illinois continues to
11 face significant challenges to creating, attracting and
12 retaining jobs. But, amid discussion of taxes, tax
13 rates, regulations, pension reform and infrastructure
14 improvement, there is one relatively constant asset that
15 helps keeps Illinois competitive in the global
16 marketplace; our reliable, abundant and
17 cost-competitive supply of electricity.

18 To maintain an abundant and diverse
19 electricity supply, without brownouts or limits to
20 access, and to be able to provide that supply at
21 competitive rates, Illinois relies heavily on its fleet
22 of nuclear power generation systems and facilities,
23 including Byron. As you are all well aware, Illinois has
24 more nuclear power generation than any state in the
25 country. Nearly 45 percent of Illinois' power

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1 generation comes from nuclear power, and 90 percent of
2 its carbon-free electricity comes from nuclear power.

3 And whether or not you agree with President
4 Obama's recent push on making America a leader in
5 reducing carbon emissions, every kind of energy
6 generation is looking for ways to improve its cost,
7 efficiency, reliability and, yes, it's environmental and
8 carbon footprint. While coal and gas remain viable and
9 important sources of electricity, and are renewable
10 sector continues to grow, Illinois' nuclear industry
11 combines capacity, reliability and efficiency without
12 those carbon emissions.

13 At the same time, nuclear generation
14 employs thousands of Illinoisans and injects billions
15 into our state's economy every year. It's hard to get
16 any kind of serious energy policy going in today's
17 political environment, and it's hard to predict how new
18 technologies will effect future electricity generation
19 opportunities. However, it doesn't take a nuclear
20 physicist, and I'm not a nuclear physicist, it doesn't
21 take one to figure out that a diverse, reliable supply
22 of electricity will create cost-competitive power that
23 our economy and our businesses need to thrive.

24 So, in that light, because Byron has been
25 a key part of Illinois' nuclear fleet which has, in turn,

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1 been a critical part of Illinois' electricity
 2 infrastructure, because Exelon has shown itself to be an
 3 excellent, responsible owner and operator of the Byron
 4 generation facility and its other nuclear plants,
 5 because a nuclear fleet is such a critical part of
 6 Illinois' electricity supply, and because Byron is such
 7 a benefit to the community in terms of employment, tax
 8 revenues, direct and indirect spending and community
 9 involvement; for all those reasons and more, the Illinois
 10 Chamber of Commerce strongly supports this application
 11 and hopes you see fit to grant Exelon the license renewal.

12 Thank you for your time and I want to end
 13 with a very personal note. In 1980, when I was a senior
 14 in high school, I was asked to do a paper about the future
 15 or nuclear energy. I was a senior in high school. I got
 16 an A- on the paper, I needed that A-, I needed it bad.
 17 But I had the wrong conclusion. I concluded that we
 18 needed to phase out nuclear power in our country. And,
 19 for the record, I want to state that I was wrong, and I'm
 20 glad that no one listened to me, and I'm happy that it's
 21 part of our past, present and future. Thank you.

22 MS. RAY: Thank you. I'd like to invite
 23 Sarah Faller from Exelon Byron station, and also NA-YGN,
 24 to the podium.

25 MS. FALLER: Hi, my name's Sarah Faller,

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1 and I work at Exelon at the Byron station. And I wanted
2 to speak more on a personal level. I don't have a lot
3 of accomplishments and stuff yet with the company. But
4 that's one of the reasons that I really think that this
5 is such a great idea, and such a good thing to extend the
6 license. Is just from the perspective of the Young
7 Generation in Nuclear, which is group that myself and
8 another individual at our site are part of.

9 Coming in, for example, I came in through
10 the internship program originally. And seeing a company
11 that, you know, you go through training and you're like
12 oh my goodness, you know, what next? You go through
13 three days of background checks, and discussions on what,
14 you know, how to walk even. We have procedures on how
15 to walk.

16 And then, when I got to the station and
17 actually saw that, kind of on Mr. Daily's point, with the
18 safety of the public and the, just the future of the world
19 in general, I mean, through environmental and the
20 individuals in the community. I mean, they practice
21 what they preach. It was interesting coming, you know,
22 I was still in college, I was really nervous. You walk
23 in and there's gates and security and everything.

24 But it really is focused on safety of the
25 public. And when you walk into the station, the first

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1 thing you see is well, you don't have to walk in, when
2 you drive, you know, do a safe and good job so that you
3 can go home to your family. And that's really what, we
4 want to provide safe, reliable energy, but at the same
5 time, make sure that the community and the employees are
6 benefitting from it.

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7 MS. RAY: Thank you. I'd like to invite
8 Ron Colson, the president of Blackhawk Hills Regional
9 Council to the podium. Oh, he may show up later. At
10 this time, I'd like to invite Michael Harn, the Sheriff
11 of Ogle County.

12 MR. HARN: Good day. I'm Michael Harn, the
13 Sheriff of Ogle County. And I'll make it brief. I've
14 been there for 29 years next month. I've worked for
15 three other sheriffs, and now I am the sheriff. And I'd
16 like to comment on the cooperation that the nuclear plant
17 and its employees provide to the sheriff's office and the
18 people of the community.

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19 At any time that they think there's a
20 problem, they call us. At any time there's not a
21 problem, they call us. And at any time that we can
22 resolve any of their issues, they call us. So, I guess
23 what that means is they call us all the time, because we
24 have a great working relationship with the nuclear plant.
25 And that being the fourth sheriff since the plant's been

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1 there, I take great provide in providing whatever service
2 they need.

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3 When there's an influx of 2,000 people for
4 a refueling, we don't have major highways to get people
5 to work. So we provide traffic safety at the entrance
6 to the plant, on our highways, make sure that people
7 aren't driving in a hurry to get there because we want
8 everybody to get to the plant to get their jobs done.

9 As far as security, we work very closely
10 with the security of the plant. They've given us
11 resources in the past, and I'm sure that if I asked they
12 would give us resources now. We provide everything from
13 patrolling the Rock River where the pump station is, to
14 participating in SWAT exercises, to taking advantage of
15 the shooting range that they have that's available.

16 So, the nuclear plant and its employees are
17 very vital to the county. We feel that we can't live
18 without them, and we'd like to think that we're very
19 important to their life, too, so thank you.

20 MS. RAY: Thank you. I'd like to invite
21 Doug O'Brien of the Illinois Clean Energy Coalition.

22 MR. O'BRIEN: Thank you very much, and I
23 wanted to note that Mr. Colson from Blackhawk Hills and
24 County Board Chairman Gouker both had to go to the same
25 county board, which is why they're not here. My name is

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1 Doug O'Brien, and I'm the executive director of the
2 Illinois Clean Energy Coalition. Our group is supported
3 by business, labor and policy leaders across the state,
4 and promotes the development and use of clean energy in
5 a competitive market that benefits both the environment
6 and our economy.

7 Now, we've heard about the positive impacts
8 that Byron has on surrounding communities, the jobs, the
9 economic activity that pumps billions into the state's
10 economy. But the positive impacts reach much further
11 than the areas that directly benefit from the plant's
12 operations. Nuclear power and the Byron generating
13 station significantly enhance the reliability of our
14 regional energy market.

15 Nuclear provides the backbone of baseline
16 power supply in Illinois. Meaning employers that rely
17 on electricity, the manufacturers, information
18 technology firms, hospitals and retailers for who
19 electricity is a major input, know that they can rely on
20 an abundant supply. Nuclear also brings broad benefit
21 to Illinois by helping maintain a competitive
22 marketplace for consumers.

23 And while many facts play into the rates
24 that are paid by resident and commercial customers, the
25 existence of a reliable and abundant baseline supply is

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1 a significant factor in Illinois' lower energy costs;
2 more than 10 percent below the national average, 25
3 percent lower than the State of Michigan, and 40 percent
4 lower than in New York, according to the U.S. Energy
5 Information Administration.

6 And the benefits derived from Byron and the
7 other nuclear plants in Illinois are not limited to the
8 economy. It is an enormous benefit that the generation
9 of 18 million megawatts of electricity at Byron last year
10 produced no carbon air emissions. Earlier this year,
11 NASA's Goddard Institute sought to quantify the real
12 impact of nuclear power's carbon-free emissions. The
13 Goddard study found that replacing nuclear power with
14 fossil fuel generation would lead to approximately
15 26,000 deaths a year globally, primarily as a result of
16 increased cardio and pulmonary disease.

17 Now this is even more important here in
18 Illinois. The Chicago metropolitan area is designated
19 as a non-attainment area by the EPA due to the presence
20 of air pollution. This situation would be greatly
21 exacerbated without the existence of Byron generating
22 station which produces energy to power, as we know, up
23 to two million homes without adding to this existing
24 environmental problem. And for these reasons, the
25 Illinois Clean Energy Coalition urges the renewal of the

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1 operating license for Byron station. Thank you very
2 much.

3 MS. RAY: Thank you. I'd like to invite
4 Todd Tucker, the executive director of the Byron Forest
5 Preserves.

6 MR. TUCKER: Good afternoon. Once again,
7 I'm Todd Tucker. I'm executive director of the Byron
8 Forest Preserves, the spot that you're here, beautiful
9 spot. The forest preserve definitely would like to see
10 the license renewal. You know, I've worked here in Byron
11 now 19 years at the forest preserve. I grew up the last
12 44 years, my whole life, 23 miles from here. So even that
13 far away, my step dad worked at the plant, building it,
14 helping to build it in the first two years. So it
15 impacted our lives even then with a good economy and a
16 better household.

17 So I'd also like to talk, someone mentioned,
18 too, that the 800 employees out there and up to maybe
19 2,000 are direct employees. But non-direct employees,
20 we have 17 full-time employees at the Byron forest
21 preserve and have had up to 140 employees with seasonal
22 and part time staff throughout the year. So, you know,
23 that's a benefit, you know, from realtors to everything
24 else that helps this community. And, you know, they've
25 helped out community immensely. I would like to see that

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1 continue.

2 We talked about the environmental impact.
3 And, obviously, right here the Byron forest preserve owns
4 1,977 acres. I'm not saying the nuclear plant is the
5 only contributor to taxes, but we all know it's the lion's
6 share. Would the forest preserve be here without it?
7 Probably not. And that impacts lots of other things.
8 We have five federally and state endangered species here
9 for plants, Lespedeza Leptostachya is one of them, and
10 there's only 29 known sites in the world of it. So, I
11 mean, that's something that holds here that's very dear
12 to my heart.

13 The Regal Fritillary, a butterfly. It only
14 hosts off of the bird's-foot violet. We have that here,
15 so that's the only reason we have the butterfly here.
16 Henslow's sparrows. I mean, it goes on and it gone on
17 and it goes on. Pileated woodpecker on property we just
18 bought four years ago. So, you know, it impacts a lot.
19 The environmental is positive for here because we
20 wouldn't have these 2,000 acres. We wouldn't protect
21 these plants and animals without the nuclear and their
22 input to the taxes.

23 And I just think about how many more acres
24 can be protected in the next 20 years of its license. And
25 the good and the education that we provide for the

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1 environment to all the school kids. We give free school
 2 kids, we just started a couple years ago providing all
 3 of our school kids in the community free programs through
 4 the day, through all the teachers and stuff like that.

5 So, anyway, it's been positive. We would
 6 love to see it, and it's been a great asset to our
 7 community through the forest preserve. Thank you.

8 MS. RAY: Thank you. I'd like to invite
 9 Allen Christianson of Exelon.

10 MR. CHRISTIANSON: Hello. My name's Allen
 11 Christianson. I live in Byron, Illinois. I've been at
 12 Byron station since initial start-up of the plant. Most
 13 of my career has been in the operating department where
 14 it's the responsibility for us to keep the units
 15 operating safely and provide reliable energy.

16 Byron station's workforce is highly trained
 17 to commit to the plant to keep it operating in a safe
 18 manner. And I am confident that, going forward, that
 19 Byron station will continue to provide safe and reliable
 20 energy. My family and I appreciate what Byron station
 21 has done for the local area, including the Byron forest
 22 preserve, Byron park district, Byron fire department,
 23 and the Byron school district. I support the license
 24 renewal for Byron station. Thank you.

25 MS. RAY: Thank you. I'd like to invite

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1 Jennifer Beckman of the United Way.

2 MS. BECKMAN: Good afternoon. My name is
3 Jenny Beckman, and I'm the director of United Way of Ogle
4 County. I am here to speak in favor of the license
5 renewal on behalf of the non-profits in Ogle County.
6 United Way currently provides funding to 22 non-profits
7 in Ogle County, many of them being in Oregon and the
8 Rochelle area. But Exelon, on a corporate level and from
9 its employees, provide well over \$125,000 for those
10 particular agencies only through United Way. I know
11 that there is much more that is donated.

12 But I truly believe that Exelon and its
13 employees are making a positive difference in the lives
14 of the individuals here in our community. Thank you so
15 much.

16 MS. RAY: Thank you. I did want to check
17 one more time if Ron Colson or Kim Gouker have come back
18 from their meeting. I do not think so. Are there any
19 other participants in this meeting who would like to make
20 comments? Hearing no comments, you may also provide
21 comments via in person, electronically or in written form
22 as provided from the contact information on the slides.

23 I would like to thank everyone for their
24 attendance, and for their participation. The comments
25 provided here will be addressed in the scoping summary

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1 MS. HAUSMAN: Thank you. Any other
2 questions regarding the presentation? Okay, we'll now
3 move into the public comment section of the meeting. I
4 have cards here for some of the people who have already
5 filled it out, noting that they wanted to make a comment.
6 If there's anybody who has not filled out a yellow card,
7 please do so so that I can call your name and have you
8 make your comment. Okay, I'm going to call the names of
9 people whose cards I have, and please step up to the
10 podium, state your name and make your comment. First I
11 would like to invite Jarid Funderburg.

12 MR. FUNDERBURG: Good evening. My name is
13 Jarid Funderburg. I am the field representative for
14 Congressman Adam Kinzinger, Illinois 16th District. I
15 would like to read a letter on his behalf. Dear Nuclear
16 Regulatory Commissioners, I write to express my full
17 support for the renewal of the operating license of the
18 nuclear generating station at Byron, Illinois. This
19 facility provides lower energy costs for residents and
20 businesses, and supports hundreds of high-paying jobs in
21 Illinois, while helping to ensure statement compliance
22 with federal Clean Air Act regulations.

23 It will, undoubtedly, play an important
24 role in meeting the energy needs of Illinoisans well into
25 the future. Nuclear energy production plays a critical

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1 role in Illinois, where nuclear energy generates 48
 2 percent of the state's electricity and employs nearly
 3 5,000 skilled workers. Having visited the Byron
 4 generating facility, I can attest to the value it has to
 5 local residents and communities, which benefit through
 6 reduced energy costs, high quality jobs, and significant
 7 tax revenue.

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8 While many areas of Illinois struggle to
 9 meet clean air standards, the generating station at Byron
 10 offers affordable abundant energy with a fraction of the
 11 greenhouse gas emissions as other conventional energy
 12 sources. As Americans' and Illinoisans' demand for
 13 energy rises, nuclear generating stations like Byron
 14 will be vital to meeting the energy needs of our citizens.
 15 I fully support the operating license renewal for this
 16 generating station, and I believe it will play a critical
 17 role in making American and the State of Illinois more
 18 energy secure. Sincerely, Adam Kinzinger, Member of
 19 Congress. Thank you.

20 MS. HAUSMAN: Thank you. Next I would like
 21 to invite Tom Demmer, state representative.

22 MR. DEMMER: Thank you. I'd also like to
 23 offer support for the license renewal application, and
 24 I do so for a couple of reasons. First, I think that the
 25 mark of a strong community is often the diversification

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1 that we see in industry. And around here, we have some
2 of the best agricultural industries in the state, and the
3 country, really. We have a long history of
4 manufacturing success, and we're seeing a resurgence in
5 that. And I would add to that a strength in the diversity
6 that we have for our local economy through the energy
7 industry.

8 As Congressman Kinzinger's letter said, we
9 see, through the Byron generating plant, quite a few
10 good-paying, long-term jobs. We see a lot of tax revenue
11 that supports buildings like this forest preserve
12 property, the schools in the area, the library, and many
13 of the public services that residents of Byron, and
14 really of all of northern Illinois enjoy.

15 We also see access to affordable, reliable
16 power, and that's a key component of building any modern,
17 efficient economy. And it provides incentive for
18 companies to locate around here that bring further job
19 and economic opportunities to this region. So, I think
20 we've seen some great examples of how Exelon and the staff
21 at the plant are good corporate citizens in the
22 community. Very active in participating and supporting
23 community endeavors. Bring to us a lot of stability in
24 the economy, a lot of job opportunities. And provide the
25 community with a significant asset.

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1 And it's for those reasons that I know
2 across my district, and really across northern Illinois,
3 there's widespread support for the Byron generating
4 plants, and that's why I support the license renewal
5 application. Thank you.

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6 MS. HAUSMAN: Thank you. Next I'd like to
7 invite Mr. Russ Kearney, site VP for Byron.

8 Mr. KEARNEY: Good evening, ladies and
9 gentlemen, officials of the State of Illinois, local law
10 enforcement, members of NRC EPA. My name is Russ
11 Kearney. I am the site vice president at the Byron
12 generating station. I have a little bit better than 30
13 years experience in the commercial nuclear power
14 industry. I started my career in nuclear power,
15 actually, in the United States Navy, where I served our
16 country onboard nuclear submarines for some six years.

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17 And I began my commercial experience in 1982
18 at FirstEnergy's nuclear power station up in Perry, Ohio.
19 At Perry, I licensed as a senior reactor operator; held
20 that license for a little bit better than 15 years. I
21 joined Exelon in 2005, and I've held positions at the
22 Dresden station at the director level. And then I had
23 site vice president responsibilities at the Clinton
24 nuclear station which is in central Illinois, Limerick
25 generating station, and now the privilege of managing the

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1 Byron station through normal operations and into the
2 license renewal space.

3 I can tell you that myself and the employees
4 at the Byron generating station have a strong commitment
5 to safe and reliable operations of our station. That
6 includes the operation of the plant, and it also includes
7 our commitment to the environment. Each day we renew
8 that commitment to ourselves, to our industry and, as
9 well as to the community. You'll find that,
10 environmentally speaking, we have a very solid air
11 quality monitoring program locally at the station.

12 We monitor the quality of the ground water
13 around the station and on all our site property. WE have
14 some 15 monitoring wells that we're continuously
15 checking ground water quality for affects from our
16 nuclear operations. And then, lastly, in the local
17 area, some 10-mile radius around the station, we have 40
18 radiological monitoring stations that continuously
19 monitor the environment and then our technicians are
20 trained to go and retrieve that data, analyze it, and
21 compile reports for ourselves and also for other
22 government agencies.

23 Environmentally speaking, Byron is
24 certified to an ISO standard ISO 14001. In plain
25 language, that's an international standard for the

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1 environment. We're proud to be ISO 14001 holders.
2 Recently, within the past year, the Wildlife Habitat
3 Council awarded the employees at the Byron station for
4 their environmental stewardship, a Wildlife At-work
5 Certification. Now that certification represents,
6 clearly, the station's footprint that we have in the
7 local community, environmentally speaking. We use our
8 land, that is not used for production, to house and
9 provide a habitat for local species as food, and shelter
10 and water, et cetera. We're very proud of that
11 certification.

12 If I can, I'll shift just for a minute to
13 the plant. Exelon is committed to continue to make
14 capital improvements at the Byron station. Year over
15 year we make significant capital improvements, which go
16 towards renovation of equipment, replacement of
17 equipment. Some design modifications still, you know,
18 30 years into the station's life, we still modifying the
19 plant and modernizing the plant. Those capital
20 investments also serve to help our operations, make it
21 much more safe and much more efficient as we go.

22 Capital investment is one area, but we also
23 invest heavily in our employees. Since 2011, we've
24 hired over 200 employees at the station. We expect that
25 trend to continue for the next several years, as the first

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1 generation of nuclear completes their assignment at our
2 stations, and we onboard the next generation in nuclear.
3 Very active, very active bunch.

4 Lastly, I would tell you that our investment
5 in the community is an item that we wear very proudly.
6 Over the last year, we have monetarily contributed to the
7 community some \$300,000 to agencies in the local area,
8 principally through the United Way and their partnered
9 agencies. Money is one item, but you'll also find many
10 Byron employees out in the community, working arm in arm
11 with local food banks. They're in our schools, both
12 teaching and contributing and conducting blood drives,
13 donor drives, of the like. Byron employees have a great
14 heart for the people that are in this area.

15 We've completed better than 25 years of safe
16 and reliable power plant operations. That's, as I said
17 earlier, that's what we're committed to. We will
18 continue that commitment the first 40-year license that
19 we're currently licensed to, and then on into the renewal
20 period when that time period comes. I look forward to
21 being part of the Byron plant for a number of years to
22 go. And I thank you for the opportunity to comment this
23 evening.

24 MS. HAUSMAN: Thank you. Next, Mr. Mike
25 Gallagher, VP of license renewal for Exelon.

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1 MR. GALLAGHER: Okay, good evening. My
2 name is Mike Gallagher, and I'm the vice president of
3 license renewal for Exelon, and I have overall
4 responsibility for the Byron license renewal project.
5 So, first of all, I'd like to thank the NRC for this
6 opportunity to speak on behalf of Exelon. This is a very
7 important project for us, and I'm very glad to be here.

8 Exelon has a great deal of experience with
9 license renewal, as we have completed and obtained the
10 renewed licenses for our Dresden and Quad Cities plants
11 here in Illinois, and for three of our other facilities
12 in Pennsylvania and New Jersey. We also have an
13 application for our Limerick nuclear power plant in with
14 the NRC, and it's under NRC review.

15 So just a little bit, briefly, about myself.
16 I've been working in the nuclear power industry for 32
17 years. I was a licensed senior operator and plant
18 manager at the Limerick power plant in Pennsylvania.
19 And I've worked at two other nuclear plants and our
20 corporate office. So Mr. Kearney, the site vice
21 president for Byron, spoke to you about our rigorous
22 plant operations, and about the reasons for renewing the
23 license for Byron.

24 What I'd like to talk to you about is about
25 the process that we go through for preparing this license

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1 renewal application, and the amount of work and
2 engineering analysis that we put into preparing the
3 application. Because the Byron station can be operated
4 safely and reliably, Exelon decided to pursue license
5 renewal. Byron's safe, efficient operation promotes a
6 critical supply of carbon-free electricity for Illinois
7 and beyond. Byron produces enough clean power to supply
8 more than two million homes.

9 So, in 2011, we announced our intention to
10 seek license renewal for Byron, and a similar plant at
11 the Braidwood generating station down in Will County.
12 Later that year, we started the work necessary to prepare
13 the application and, after over two years of work, we've
14 submitted the application to the Nuclear Regulatory
15 Commission on May 29, 2013. Safe and reliable
16 operations has been a hallmark at Byron station since it
17 came online, and our goal, during the license renewal
18 process, to demonstrate to the NRC and to our neighbors
19 that we will continue this legacy in the additional
20 20-year operating period.

21 The application, when you print it out, it's
22 about 3,500 pages, and when you put it in binders, it fits
23 into about four large binders about this thick. It's a
24 huge amount of information. But that only represents a
25 small part of the work that was done for the engineering

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1 analysis to prepare the application. The total amount
2 of this engineering analysis, if we printed it all out,
3 would be about 400 binders of information.

4 We invested over 90,000 man hours of
5 engineering work. And, once we completed our work to
6 prepare the application, we brought in experts from
7 outside Exelon to review the application to ensure it was
8 complete, thorough and accurate. Our total cost to
9 prepare and get our application reviewed by the NRC for
10 both Byron and Braidwood will be approximately \$45
11 million.

12 There are two different parts to our
13 application; the safety review and the environmental
14 review. For the safety review, we took an in depth look
15 at the history and the condition of the safety equipment
16 in the plant. We did that to determine whether the
17 necessary maintenance was being performed on that
18 equipment, and to make sure that the equipment will be
19 able to operate as needed, not only today, but for an
20 additional 20 years of operation.

21 So, when you look back at Byron when it was
22 built, all the equipment was new, it was thoroughly
23 tested to make sure it would perform properly. But, like
24 anything else, equipment does age. And, therefore,
25 certain activities need to be performed. Sometimes we

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1 perform preventative maintenance. Sometimes the
2 equipment is refurbished. Some equipment may be
3 replaced. There may be modifications done to the plant
4 to upgrade the equipment, as Mr. Kearney had talked
5 about. In fact, Exelon has invested over \$220 million
6 in the last three years alone at Byron to improve and
7 modernize equipment, and enhance plant operations and
8 safety.

9 We also reviewed calculations that were
10 performed as part of the design of the plant that were
11 done to ensure the plant could operate of the original
12 40 years, and we analyzed those calculations, and were
13 able to confirm that the plant would be able to operate
14 safely for 60 years. So, overall, our conclusion from
15 our engineering review was that Byron could operate
16 safely for 60 years.

17 We also took a look at the environmental
18 impacts of continuing to operate Byron. We looked at all
19 the aspects of continued impact of the plant on the
20 environment. Our conclusion is that the impacts on the
21 environment are small. And I use the term small in the
22 sense that is defined in the regulation. And it's
23 defined as the environmental effects are not detectible
24 or are minor.

25 We also reviewed the alternatives if Byron

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1 would not have its license renewed, and another source
2 of electric generation would have to be installed either
3 here onsite or someplace else to generate the replacement
4 electricity. We concluded that any other means of
5 generation generating the replacement electricity would
6 have more of an impact on the environment than the
7 continued operation of Byron.

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8 So, in conclusion, we operate Byron safely,
9 and we can continue to operate safely for an additional
10 20 years. Byron will provide approximately 2,340
11 megawatts of base load generation that's not only safe,
12 but it's clean, it's reliable, and economical.
13 Continued operation of Byron will benefit this
14 community, the State of Illinois and our nation. Thank
15 you.

16 MS. HAUSMAN: Thank you. Ron Colson from
17 Blackhawk Hills Regional Council. Okay. Doug O'Brien,
18 Illinois Clean Energy Coalition.

19 MR. O'BRIEN: Thank you. My name is Doug
20 O'Brien. I am the executive director of the Illinois
21 Clean Energy Coalition. And our group is made up of
22 business, labor and policy leaders from across the State
23 of Illinois representing thousands of employees and
24 employers, small businesses and policy leaders
25 throughout the state. Our organization promotes the

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1 development and use of clean energy in a competitive
2 market that benefits both the environment and our
3 economy.

4 And we're hearing a lot about the positive
5 impacts that Byron has on surrounding communities, the
6 jobs, the economic activity that pumps billions into the
7 local economy. But the positive impacts reach much
8 further than the areas that benefit from the plant
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12 Nuclear provides the backbone of baseline
13 power supply. Meaning employers that rely on
14 electricity, the manufacturers, information technology
15 firms, hospitals and retailers for whom electricity is
16 a major input, know that they can rely on an abundant
17 supply. Nuclear also brings broad benefits to Illinois
18 by helping maintain a competitive marketplace for
19 consumers.

20 And while many factors, obviously, play
21 into the rates that are paid by residential and
22 commercial customers, the existence of this reliable and
23 abundant baseline supply is a significant factor in
24 Illinois' lower energy costs; more than 10 percent lower
25 than the national average, 25 percent lower than in the

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1 State of Michigan, and over 40 percent lower than in the
2 State of New York, according to the U.S. Energy
3 Information Administration.

4 And the benefits derived from Byron and the
5 other nuclear plants in Illinois are not limited to the
6 economy. It is an enormous benefit that the generation
7 of 18 million megawatts of electricity at Byron last year
8 produced no carbon air emissions. Earlier this year,
9 NASA's Goddard Institute sought to quantify the real
10 impact of nuclear power's carbon-free emission
11 operations. The Goddard study found that replacing
12 nuclear power with fossil fuel generation would lead to
13 up to 76,000 thousand additional deaths per year
14 globally, primarily as a result of increased cardio and
15 pulmonary disease.

16 And this is even more important in the State
17 of Illinois. The Chicago metro area is designated as a
18 non-attainment area by the EPA due to air pollution. And
19 this situation would be greatly exacerbated without the
20 existence of Byron generating station which produces
21 energy, as we heard, to power up to two million homes
22 without adding to this existing environmental problem.
23 And for these reasons, the Illinois Clean Energy
24 Coalition urges the renewal of the operating license for
25 Byron station. Thank you very much.

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1 MS. HAUSMAN: Thank you, and Ron Colson,
2 you just came in, from Blackhawk Hills Regional Council.

3 MR. COLSON: Is there a selected podium
4 here?

5 MS. HAUSMAN: Either one is fine.

6 MR. COLSON: Okay. I just came in the
7 door. I was signed up earlier, and missed the afternoon
8 session when they cut it short. I'm Ron Colson, the
9 president of Blackhawk Hills Regional Council, also the
10 Ogle County board representative of that group.
11 Blackhawk Hills Regional Council is an organization of
12 six northwest Illinois counties, Joe Davies, Carroll,
13 Stephenson, Ogle, Lee and Whiteside. And we have a
14 rather divergent task.

15 We were founded by both the counties and
16 their economic development efforts and the soil and water
17 conservation districts in those counties, in their
18 conservation efforts. So, we work in an area to find
19 that economic development and resource conservation are
20 not mutually exclusive terms. Certainly, clean energy
21 that we feel the Byron station represents is an important
22 part of both of those missions.

23 In our six-county area, there's, obviously
24 in Ogle County, the home to the plant, there is a
25 significant affect to the tax base on regional or local,

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018-1 SR

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1 between local, let's call it countywide recreational and
2 government services and educational services. So the
3 tax base factor is significant. That's the business
4 side. I know we're talking environmental here.

5 The jobs that this plant represents are
6 significant to our area just in the ability of people to
7 make a living. It represents a large number of the best
8 ongoing jobs in the area. Plus, the outside contractors
9 that come in for the outages represent significant
10 business to our hotels, restaurants, things of that
11 nature.

12 So these, after that, and we have found the
13 experience of several decades now that this, I can't
14 claim to be an expert on this, but I think it's the opinion
15 of most folks in this area that this is probably the best
16 run nuclear power station in the country, possibly in the
17 world, where we have that feeling of the plant and of the
18 employees that operate it. We're very proud of it. The
19 record is established, both for effective production of
20 electricity and for safe operation and for concern with
21 maintaining both of those very high standards.

22 So we are very much in support of the
23 re-licensing. We think it's a continued asset for our
24 area. And we hope that it will continue as an asset, and
25 it's certainly established itself very well in that

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1 regard. Thank you.

2 MS. HAUSMAN: Thank you. Kim Gouker, Ogle
3 County board. Okay. Charles Medrano, engineer at
4 Byron station.

5 MR. MEDRANO: Good evening. I don't have
6 a prepared speech. I just wanted to speak to you, not
7 only as a design engineer who does the number crunching
8 and analyses at the plant, but more importantly as a
9 husband and a father and a brother to people who live in
10 Byron. And so as you can tell, I have, you know, a vested
11 interest in safe operation of the plant.

12 And, you know, I can, I know I speak for
13 myself and for a lot of the people at the plant that we
14 work very hard, day in, day out, to ensure that we put
15 safety first in everything we do, and technical rigor in
16 everything we do and we touch. And we strive to maintain
17 integrity with, you know, whether it's a calculation or
18 whether it's a study or review, you know, this is
19 something we take very seriously, especially, you know,
20 after learning and hearing about various events
21 throughout the world related to nuclear power. We take
22 these things very seriously. So, for what it's worth,
23 I just wanted to share my perspective as a voice within
24 the plant. So, thank you.

25 MS. HAUSMAN: Thank you. Dan Westin,

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1 Rochelle Utilities.

2 MR. WESTIN: Dan West Rochelle
3 Municipality Utilities, RMU. RMU supports the license
4 renewal, specifically as to the Byron plant, it's
5 reliability to the generation of power in the region.
6 Thank you.

7 MS. HAUSMAN: Thank you. Ronald Bolin,
8 Exelon.

9 MR. BOLIN: Hello, I'm Ron Bolin. I'm a
10 system engineer at Byron. What I do is I am in charge
11 of maintaining the reliability of the diesel generators
12 at the station. I just wanted to give an example of like
13 when we talk about capital projects that we try to do to
14 keep the plant modernized and keep everything safe.

15 So we just recently approved adding a state
16 of the art monitoring system for the diesel generators.
17 What it does is it will allow us to trend and analyze using
18 computers and monitoring computer software, to make sure
19 that we can keep the diesels as safe and reliable as
20 possible. And this wasn't something that was required
21 by the NRC or anything like that. This was something
22 that the Byron station said that they wanted to be the
23 best in the fleet, and try to maintain the plant as safe
24 as it could.

25 And we decided to invest the money. And it

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020-1 SR

021-1 SR

1 wasn't required. It was, you know, good for safety and
2 good for the public. So, you know, we put our money where
3 our mouth was, and we did a good job. So I just wanted
4 to kind of share that story about how the plant tries to
5 keep the public safe and keep everything, thanks.

021-1 SR
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6 MS. HAUSMAN: Thank you. Kim Gouker, Ogle
7 County board.

8 MR. GOUKER: Thank you. Tonight was our
9 county board meeting, which is one thing I cannot change.
10 I'm glad to be here tonight to speak on behalf of the
11 community of Byron and Ogle County, as well. I'm a
12 lifelong Byron resident, except for the three years that
13 I went to college. That's kind of the time that this
14 started.

022-1 SR

15 The environment is what you're looking at,
16 but part of that environment needs to be the community.
17 And the people at the Byron station that work there, the
18 management, have become a very vital part of our
19 community. They live here. They work here. They
20 participate in civic organizations. And the plant,
21 themselves, they immerse themselves into our community.

22 I remember what it was like before the
23 nuclear plant, and I think our community is better today.
24 There was much concern about how it would change our
25 environment, and it really hasn't, other than it has

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1 improved the community tremendously. Just in closing,
2 I have a resolution that I had written, and asked the
3 county board to adopt, which my county board has adopted
4 it unanimously. And, basically, well, I'll read part of
5 it.

6 You know, whereas the electricity
7 generation is an important part of our state economy and
8 the economy of Ogle County. And whereas competitive,
9 abundant and reliable energy is a significant factor in
10 attracting and retaining jobs in Illinois, And whereas
11 since 1985 the Byron nuclear generating station has been
12 a major Ogle County employer, directly creating 850
13 full-time jobs, up to 2,500 part-time jobs during
14 refueling periods, and indirectly supporting thousands
15 more jobs throughout our county.

16 And whereas the Byron generating station
17 generates enough electricity to power over two million
18 homes without generating any air pollutants or
19 greenhouse gases. And whereas the Byron generating
20 station is the largest single-property taxpayer in Ogle
21 County and contributes directly to the community through
22 both financial and human investment and charitable and
23 community activities.

24 And whereas the Byron generating station
25 maintains the highest standards for safety and

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1 environmental protections and has built a strong,
 2 cooperative relationship with the county's first
 3 responders and emergency service agencies. And whereas
 4 its parent company, Exelon Corporation, has filed an
 5 application to the federal Nuclear Regulatory Commission
 6 for a 20-year renewal of its operating license at the
 7 Byron nuclear generating station.

022-1 SR
 cont

8 Therefore, be it resolved by the County
 9 Board of Ogle County, State of Illinois on this 18th day
 10 of June, 2013, that this body supports the renewal of the
 11 operating license of the Byron nuclear generating
 12 stations, and welcomes the Nuclear Regulatory
 13 Commission's outreach to our communities to measure the
 14 broad and strong support that exists for the license
 15 renewal. Signed by myself and the Ogle County clerk, and
 16 I've made several copies. That's really all I have.
 17 Thank you very much.

18 MS. HAUSMAN: Thank you. Mr. Brent Baker,
 19 Byron Chamber and of the Byron Bank.

20 MR. BAKER: Good evening. Brent Baker.
 21 I'm the president of our Byron Chamber and I also work
 22 at the Byron Bank locally. I'm a parent of three boys
 23 and a resident. So, we're going to take some assumptions
 24 that Russ and his staff are doing a great job of keeping
 25 us safe, as well as the environment. As it pertains to

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1 our local community, Mr. Gouker hit it on the head. The
 2 employees wrap themselves around our community.

3 The benefits of having the tax dollars, my
 4 kids now have probably the best library in the county to
 5 go to. They have the best park district to go
 6 participate at. The best gold course to play golf at.
 7 If our house is on fire, they've got the best fire
 8 department to put it out. So, that means a lot to a
 9 resident, to a family man, husband, father.

10 As it pertains to business, Byron Bank, we
 11 thrive on local tax dollars, as well. We thrive on the
 12 employees, the loans, the giving back. You know, we
 13 always think we're one of the better at sponsoring the
 14 local kids' events. Well, you're not going to find a
 15 better friend than in ComEd and their staff. As it
 16 pertains to the Chamber, you also talked about the
 17 businesses. The 850 employees, the 2,300 part-time, are
 18 going to our grocery stores. Are going to our gas
 19 stations. Are going to our restaurants, our bars, our
 20 whatever it is.

21 And so, there's a lot of good, a lot of good
 22 things going on in that regard. And so, from the
 23 Chamber, as a resident, and from the Byron Bank, we are
 24 in full support and look forward to a lot more years of
 25 involvement from Exelon and their staff. Thank you.

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023-1 SR
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1 MS. HAUSMAN: Thank you. Bruce
2 Drawbridge, CB&I.

3 MR. DRAWBRIDGE: Good evening. My name is
4 Bruce Drawbridge. I'm a vice president with CB&I,
5 Chicago Bridge and Iron. They recently acquired my past
6 former company by the name of Shaw Group. We provide
7 maintenance and modification and construction services
8 for the Exelon fleet, including Byron station. A little
9 bit about my background, heard a little bit about some
10 of the other people's backgrounds.

11 I did a little quick calculation. I've
12 spent 38 years in the nuclear business. I first started
13 off in the utilities side. I was a vice president of
14 operations for a nuclear utility in Massachusetts, and
15 then I was also responsible for the start-up and
16 operation for 10 years of the Seabrook nuclear power
17 plant in Seabrook, New Hampshire.

18 Since then, I've been on the service side
19 of the nuclear business. I've been 12 years working with
20 Exelon here at Byron station, and at their other
21 stations. I've also worked with other companies in the
22 nuclear industry. And I have to tell you that Exelon is
23 the model for rigorous implementation of work. I'm
24 going to give you a few statistics here specific to Byron
25 station. This is just from my company.

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024-1 SR

1 I went back and took a look over the last
2 three-and-a-half years. Just so you know, our
3 maintenance modification work is, primarily, done during
4 refueling outages. We keep a small group of people
5 onsite, working with the in-house people, developing
6 work packages, developing our schedule for the refueling
7 outage.

8 And then, as the outage comes closer, we
9 bring in more people. We hire from the local community.
10 These are Union jobs. We hire from the local Unions.
11 Some of them come in from other areas as travelers. In
12 2010, we peaked at 969 people, and had almost, just over
13 \$13 million in payroll. In 2011, this was a dual outage
14 year, we peaked at over 1,000 people, 1,053 people, and
15 our payroll was just over \$36 million.

16 In 2012, we had 848 people as a peak, \$16
17 million. And then, so far this year, we've peaked at 838
18 people and, again, just over \$16 million in payroll.
19 These are good jobs that go back into the community. So,
20 over the past three-and-a-half years, we have performed
21 1.1 million person hours of work activity at the station,
22 helping the station maintain and improve their equipment
23 there at the station. I want to tell you we support the
24 re-licensing of these plants. Thank you.

25 MS. HAUSMAN: Thank you. Dave Kraft,

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1 Nuclear Energy Info. Service.

2 MR. KRAFT: Thank you for the opportunity
3 to speak. I'm Dave Kraft, director of Nuclear Energy
4 Information Service based in Chicago. We're a 32-year
5 old environmental organization that's been watch dogging
6 the nuclear power industry in Illinois during that
7 period. I actually wasn't planning on making comments
8 tonight, but hearing your comments sort of triggered some
9 thoughts that I wanted to share, particularly to the
10 community members.

11 The first question, though, I have is will
12 the slides be made available on the NRC website for
13 review?

14 MS. HAUSMAN: Yes.

15 MR. KRAFT: Okay, that's good. So the
16 first comment is very brief, and it's directed to the NRC
17 that you've heard many very positive statements about
18 what a positive impact Byron has had on the community here
19 over the years. The investment of the company in the
20 community. The generosity and the charity that has been
21 done by the workers. I guess I would just point out,
22 though, that this is a meeting about the environmental
23 impact statement.

24 And, as commendable as all of the good works
25 have been, and all the benefits that the company has

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025-1 OS

1 provided to the community, I would remind the NRC that
2 it's actually irrelevant to the determination of whether
3 the facility will pass the environmental muster on this
4 plant. I don't have a position one way or another yet,
5 because I haven't seen all the details of the
6 application. But I did want to at least hone in on that
7 point, because it's only natural, it's only human that
8 a community would embrace the positives. And we're not
9 saying that there aren't any. There certainly are,
10 especially in a rural community such as you have out here.

11 But hearing as many comments as I did, I'm
12 reminded of the old Aesop fable of the grasshopper and
13 the ant. Kind of a paraphrasing of that would be, you
14 know, that when things are going great, you know, the
15 grasshopper can sit around and extol all the positive
16 benefits. But it's the ants who plan ahead that are the
17 ones who will survive any unexpected and unforeseen
18 circumstances that can occur.

19 And I bring that up, in particular, in a
20 community that depends as heavily as yours does on the
21 nuclear power plant. It's, essentially, a company town
22 situation. You know, for better or for worse, it is what
23 it is. But that doesn't mean that a community can't plan
24 ahead for things going wrong. And, I guess the comment
25 I would make is you really ought to.

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1 I saw what happened to the community of Zion
2 in 1997 when, back then it was ComEd decided to pull the
3 plug on the plant. That community lost \$5.5 million of
4 its tax base overnight. So I ask you, members of the
5 Chamber, and the bankers and the others to take a look
6 at what that would mean for the community of Byron to lose
7 a sizeable portion of its tax base should some unforeseen
8 circumstance result in the closure of the plant, either
9 temporarily or permanently.

10 It's up to the company sometimes, but it's
11 up to the NRC other times. So it's something to really
12 consider. And back in the late '90's when that did
13 occur, I spoke with some of the local legislators up there
14 that, perhaps, what might be needed, moving forward in
15 these kinds of situations where you have a company town,
16 is some sort of an economic mitigation fund. An escrowed
17 fund that could be negotiated between the company and the
18 communities to prevent a sudden and abrupt drop in tax
19 base and loss of service should something go wrong with
20 the plant.

21 I think that's something that is a part of
22 prudent planning, and I would suggest that that be
23 examined, both by the business community, and also the
24 elected officials around here. Because some day this
25 plant is going to close. Now, that may be out of your

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1 lifetime, so maybe you don't care about that. But again,
2 prudent planning and defense of the community, I think,
3 argue for some sort of softening of that blow. And
4 working out some sort of a way to make sure that the
5 communities aren't totally devastated by the loss of the
6 operation of the plant.

7 Another example would be the Clinton
8 facility. This was before ComEd got involved with it.
9 I don't know if any of you have ever been downstate to
10 see downtown Clinton. But the last time I was there, it
11 was pretty much a ghost town because of the problem that
12 Illinois Power at the time, and then AmerGen were having
13 at that facility. This is something you need to pay
14 attention to as a community to protect yourself. So,
15 that's the first comment.

16 Second comment is, again, I think addressed
17 to the NRC. I want to mention I have met many nuclear
18 workers at a lot of plants. A lot of times we don't
19 agree; most of the times, as a matter of fact. But I was
20 impressed over and over with some of the people I have
21 met, even here at Byron. Last year, I was at the annual
22 review. I was really impressed with the tenacity of
23 Barry Quigley, a member of the Byron staff. Really
24 hammering on a safety point that he thought was
25 important.

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025-2 OS

1 I would really like to see more of that in
2 the nuclear industry, but I don't. And when I have seen
3 it in the past, the individuals who, perhaps, were
4 asserting themselves a little too strongly, didn't
5 always end up with, you know, being treated well. So,
6 I wanted to put that in the context of the notion of safety
7 culture. That shouldn't be a term unfamiliar to most of
8 you in the audience, especially those of you working at
9 the plant.

10 But I'm bringing it up because I heard it
11 a lot last year from Chuck Castro, the former Region III
12 director of NRC who just left. And also, from Allison
13 MacFarlane when I met with her last September in
14 Washington. That the notion of instilling a safety
15 culture is important to the Agency. Well, one of the
16 things we want to point out to the Agency is that
17 standards that are promulgated in a safety culture should
18 be a floor, not a ceiling.

19 They shouldn't be just, you know, a bunch
20 of check boxes where, if you do this kind of performance,
21 that's adequate. You know, that may be necessary, but
22 it's really not sufficient. And I'm saying that because
23 of the definition that Chuck Castro used at the Palisades
24 plant last year to define a safety culture from an NRC
25 slide. It was going beyond the standards. It was going

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1 beyond the mere expectations.

2 So this is what we are going to be looking
3 for in this process, both the environmental side and the
4 generic application, which will be filed for both Byron
5 and for Braidwood. And we would expect that if the NRC
6 is serious about safety culture, that they will take that
7 attitude that the standards that are set are just the
8 basis that you should do, and you should always aspire
9 to do more than that. So thank you for the opportunity.
10 Good night.

11 MS. HAUSMAN: Thank you. Does anybody
12 else have any cards that are filled out, or have a
13 comment? Okay. I would like to thank everybody for
14 coming to the meeting, for the participation, for the
15 comments. And, any comments that were made tonight will
16 be available in the scoping summary report which will be
17 available publicly on the licensing renewal website.
18 And the address for that website was on the handout, or
19 in the slides.

20 And, if you have any future comments, please
21 provide them either electronically or in writing. And,
22 in closing, the NRC is always looking to improve the
23 public meeting format and process. So there are public
24 format feedback forms in the, I think they're right
25 outside the room here. You can fill them out, and

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E-RIDS = ADM-03
Add= L. James (LMS)

RESOLUTION 2013-0701 0610
Resolution of Support for the License Renewal
Application of the Byron Power Generating Station

026-1 SR

WHEREAS, the government of the County of Ogle, State of Illinois, has a responsibility of certain and specific duties for the good of the public welfare of its citizens, and such responsibility being vested with the County Board of the County of Ogle, and

WHEREAS, electricity generation is an important part of our state economy and the economy of Ogle County, and

WHEREAS, competitive, abundant and reliable energy is a significant factor in attracting and retaining jobs in Illinois, and

WHEREAS, since 1985, the Byron Nuclear Generating Station has been a major Ogle County employer, directly creating 850 full-time jobs, up to 2,500 part-time jobs during re-fueling periods, and indirectly supporting thousands more jobs throughout our County, and

WHEREAS, the Byron Generating Station generates enough electricity to power over two million homes without generating any air pollutants or greenhouse gases, and

WHEREAS, the Byron Generating Station is the largest single property tax payer in Ogle County, and contributes directly to the community, through both financial and human investment, in charitable and community activities, and

WHEREAS, the Byron Generating Station maintains the highest standards for safety and environmental protections, and has built a strong cooperative relationship with the County's first responders and emergency service agencies, and

WHEREAS, its parent company, Exelon Corporation, has filed an application to the federal Nuclear Regulatory Commission for a 20-year renewal of its operating license of the Byron Nuclear Generating Station,

THEREFORE BE IT RESOLVED, by the County Board of Ogle County, State of Illinois on this 18th day of June, 2013, that this body supports the renewal of the operating license of the Byron Nuclear Generating Station, and welcomes the Nuclear Regulatory Commission's outreach to our communities to measure the broad and strong support that exists for the license renewal.



Attest:

A handwritten signature in cursive script, reading "Rebecca Huntley".

Rebecca Huntley
Ogle County Clerk

A handwritten signature in cursive script, reading "Kim P. Gouker".

Kim P. Gouker
Chairman, Ogle County Board

PUBLIC SUBMISSION

As of: October 01, 2013
Received: September 27, 2013
Status: Pending_Post
Tracking No. ljsx-87un-z436
Comments Due: September 27, 2013
Submission Type: Web

Docket: NRC-2013-0178

License Renewal Application for Byron Station, Units 1 and 2; Exelon Generation Company, LLC

Comment On: NRC-2013-0178-0001

License Renewal Applications: Byron Station, Units 1 and 2; Exelon Generation Co., LLC

Document: NRC-2013-0178-DRAFT-0001

Comment on FR Doc # 2013-18935

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78 FR 47800
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General Comment

27 September, 2013

Cindy Bladey, Chief
 Rules, Announcements, and Directives Branch (RADB)
 Office of Administration
 Mail Stop: 3WFN-06-A44M
 U.S. Nuclear Regulatory Commission
 Washington, DC 20555-0001

Comments on the Supplement to the NRC's "Generic Environmental Impact Statement (GEIS)
 for License Renewal for the Byron Nuclear Power Station
 Docket number NRC-2013-0178

Greetings:

SUNSI Review Complete
Template = ADM - 013
E-RIDS= ADM-03
Add= L. James (LMS)

Nuclear Energy Information Service is a 32 year old Illinois environmental organization based in Chicago. We submit the following comments on the above Docket, to be entered into the official record concerning the Byron Nuclear Power Station relicensing.

Thank you.

David A. Kraft
Director

Attachments

Byron license renewal comments 9-27-13



Nuclear Energy Information Service

Illinois' Nuclear Power Watchdog since 1981

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U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Comments on the Supplement to the NRC's "Generic Environmental Impact Statement (GEIS) for License Renewal for the Byron Nuclear Power Station Docket number NRC-2013-0178

September 27, 2013

Nuclear Energy Information Service is a 32 year old Illinois environmental organization based in Chicago. We wish to make the following comments on the above Docket, to be entered into the official record.

Prefacing Remarks: a "Nuclear Safety Culture"

027-1 OS

In oral comments made at the public meeting held by NRC at the Byron Station on August 19, 2013, we made the following observation about NRC's expected role in the license renewal process.

For the better part of a year now, NRC has been admonishing utilities in Region III on their "lack of a safety culture." In September, 2012, at the Palisades reactor in Michigan, NRC presented a slide show, instructing utilities what it expects and illustrating the characteristics of an acceptable "nuclear safety culture":

"Nuclear Safety Culture is the core values and behaviors resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment." [NRC side show, Palisades reactor presentation, 9/12/12]

In a Q&A session with then Region III director Chuck Casto, we asked what such "competing goals" might be, and suggested things like: schedules, procedures, how management and regulators listen to and act upon worker complaints. Mr. Casto stated,

"We're trying to go beyond what's required." (emphasis ours)

A REAL, AUTHENTIC nuclear safety culture will evidence behaviors that go beyond the mere letter of the requirements. Evaluations of all kinds will therefore be more than mere check-box exercises in compliance to the letter of the regulations. If NRC expects utilities to operate with that mindset, then NRC needs to lead by example, and regulate with that mindset as well.

If NRC is serious about establishing a nuclear safety culture, then we will be forced to evaluate NRC's role in this relicensing proceeding with those same standards: going beyond what's required, what's perfunctory. This will mean entertaining notions and requiring lines of investigation into matters that are "outside the box" of existing regulations in some cases. The regulations serve as the floor, not the ceiling, of compliance that will "ensure protection of people and the environment."

It is with this attitude that we will evaluate NRC's performance in this license renewal proceeding.

Comment 1: The ER submitted by Exelon is incomplete in not providing evidence that it has examined the projected effects of predicted Illinois climate disruption on future operations. NRC regulations are inadequate for not requiring this examination.

027-2 ME

Current climate models suggest that Illinois will gradually assume a climate resembling that of East Texas or Mississippi by mid-Century (within the period of operational life extension of Byron), depending on whether one is running a low- or high- emissions model. Summer temperatures are expected to increase on average from 3.3° to 8.6° F. While total precipitation is expected to remain about the same, seasonal variation will increase, and frequency of heavy precipitation events—measured in terms of number of days per year with more than 2 inches of rain, and annual maximum 24-hr, 5-day and 7-day rainfall totals—is likely to continue to increase, particularly closer to the Great Lakes, a factor which will have implications in the Comments below.

The implications of these projections do not seem to be incorporated into the ER analysis provided by Exelon, which invariably result in the conclusion of “small” impact. The ER clearly states that the Rock River is a “small river” by definition. Make-up water for the mechanical draft cooling tower system relies on the Rock River. Decreased volume and flow rates expected under projected climate disruption models for Illinois could have an adverse effect on the MDCT’s ability to function. Since this system is dedicated to cooling the safety-related portions of the plant, this could have serious consequences; but this is not evidenced in the conclusions Exelon arrives at.

Exelon’s historic penchant to request license variances on water use and thermal discharge (not a factor at Byron) from IEPA suggests the possibility for greater effect than is characterized in the Exelon ER document. The alternative would be curtailment of operation, which also does not appear factored into the Exelon ER in any manner.

Recommendation: *NRC should require a more thorough projection of water use at Byron, based on the best possible climate modeling for Illinois between now and mid-century. Because this variation in climate disruption and its effects are local/regional, it falls outside the scope of a generic analysis or regulation.*

Comment 2: Analysis of socio-economic impacts are incomplete. No analysis of impacts of early or unexpected closure are considered or provided.

027-3 SO

The Exelon ER documents a significant tax impact for the presence of the Byron Nuclear Station, yet only addresses the positive impacts. No mention or analysis of negative impacts resulting from abrupt, planned, or unexpected early closure of Byron is presented. This is a significant omission.

According to the Exelon ER Byron represents nearly 26% of the Ogle County total tax base, roughly \$30 million annually for the years 2008 through 2010. It also accounts for upwards of 73% of Byron Unit 226 School District’s adjusted property tax levy. These are not insignificant amounts. Their abrupt disappearance would wreak economic havoc on the affected governmental and essential service entities’ ability to operate.

The ER either fails to recognize or mention at all some of the possible events that could result in such a situation:

- Unexpected major accident, resulting in immediate and presumably premature closure
- NRC ordered shut down
- Exelon’s unilateral decision to close the plant on economic or other grounds, as it did at Zion, resulting in an immediate loss of about 55% of Zion’s tax base
- Devaluation through sale, as occurred at the Clinton station, resulting in enormous loss of tax base
- Eventual old-age, license expiration closure (the outcome most hoped for)

Exelon even provides a possible indication of the kinds of circumstances that would lead it to close Byron on economic grounds. Section 3.2 on Refurbishment indicates that Exelon is well aware that Byron Unit 2 may need a steam generator replacement during the extended operational lifetime. It is also tracking the potential for reactor vessel head replacements at its operating PWRs at both Byron and Braidwood. Should either or both of these conditions emerge at a time of deflated energy prices, or at a time Exelon acknowledges might occur as early as 2024 when renewables are much more cost competitive and approaching base load capabilities (Sec. 7.2, page 7-9), or as the result of multi-season drought curtailing water availability – Exelon being a business will certainly make the calculations it made when it closed Zion, and decide if Byron should continue to operate.

027-03 SO
cont

In this omission the ER makes the same mistake the U.S. Government made when it invaded Iraq – *it had no exit strategy*. To simply assume that the only socio-economic effects of Byron's presence will be positive ones is simply irrational.

Recommendation: *Planning for some kind of eventual closure must be made long before it happens to minimize economic and service disruptions to the entities whose tax base will be affected. Debate about the license extension serves as a good reminder of this fact, and an opportunity to take action. We recommend that dependent governmental and taxing entities begin formal negotiations with Exelon to establish an escrowed "closure mitigation fund," based on some mutually agreeable assessment and payment structure, so that dependent entities will have some kind of temporary funds available to soften the economic blow of closure, and not radically disrupt essential services.*

Comment 3: Incomplete and faulty analysis in Section 7.0 - Alternatives to the Proposed Action

In reviewing the scenarios Exelon examined to come up with its evaluations concerning the viability of options replacing the power output of Byron, we find that Exelon uses information that is perhaps not current, and leaves out significant other real world options for consideration and analysis:

- *Role of renewables too narrow, inaccurate, inappropriate:* Exelon tends to treat the renewable energy resources as if they are just some variant of traditional fossil and nuclear plants. They are not. As a result they analyze these renewables solely in ways amenable to their own narrow view of functioning, which is not necessarily the best or optimal use of the particular renewable energy resource. For example only centralized energy station use of both wind and solar are considered, with no consideration of "distributed generation" in any meaningful way. Pairing up one renewable with natural gas is the only permutation analyzed, when pairing up of solar with wind to compliment the strengths of both is ignored. Further, it is not clear the degree to which the operational efficiencies of these renewables either in the present or the future is accurately analyzed. Improvements in technology, higher wind towers, increased solar panel efficiencies, etc. are all very real prospects even before the 2024/26 license expirations of the two Byron nuclear reactors. We believe that this section needs a serious revision, perhaps from an outside independent consultant to more accurately reflect both the real, and the realistically anticipated world of renewable energy contributions.
- *Anachronistic business model used exclusively:* The Exelon ER examines the contributions of all competitors to the Byron nuclear plant – not just the renewables – on the assumption that Byron can only be replaced by "baseload" power. While indeed that is the way things are structured at present, current trends and real world energy discussions are starting to envision the end of this business model and approach. The notion of "distributed power" has been around for over a decade. Recently FERC officials have seriously talked about "baseload" being a concept of the past, which technological developments in both generation and grid dispatching will render increasingly meaningless. Some major US utilities are even setting up exploration of a non-baseload oriented system in trial increments within their existing systems.

The purpose of the license extension proceeding for Byron is NOT to analyze its past performance and compare it to the present; it is to look at its present performance and extrapolate that out an additional 20 years (31 and 33 years from now), attempting to envision the energy world at that time to see if the "present" can compete or even function in that world. Insufficient attention has been paid to this analysis in the Exelon ER. Section 7 reads like a convenient cherry-picked self-fulfilling prophecy.

Even Exelon itself cannot think that the business model it uses today will be the one that Byron will operate in from 2024 to 2044. A way to prove that is to ask: does Exelon TODAY operate with the business model it had in 2002 (11 years AGO)? This was just a handful of years out from utility deregulation and unbundling of utilities here in Illinois. Exelon did not even exist. Its predecessor's predecessor was just in the process of selling off its coal plants.

Before these critiques are summarily dismissed by NRC as out of the scope of this docket, we would remind you that a "nuclear safety culture" demands that kind of "out of the box" thinking and analysis to "...ensure protection of people and the environment." You said so yourselves. Analyzing the functioning of Byron in the energy world of the future will have serious implications for Exelon's analysis of socio-economic impacts. Until that analysis is done, their "small" conclusions must be held in serious doubt.

Recommendation: Order Exelon to re-examine its Section 7 comparisons, incorporating: 1.) distributed generation and decline of the "baseload power" business model; 2.) better data on the capabilities of wind and solar, based on expected improvements in technology, or better and more optimal use decisions; 3.) expected upgrades, improvements and additions of grid and dispatching systems in the MISO and PJM Interconnection areas. 027-04 OS
027-05 AL
027-06 OS

We appreciate the opportunity to offer these observations. We look forward to NRC incorporating these recommendations in future license extension proceedings.