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10 CFR 50
10 CFR 51
10 CFR 54

RS-14-029

January 21, 2014

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

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

Subject: Response to NRC Request for Additional Information, dated December 20, 2013, related to the Byron and Braidwood Stations, Units 1 and 2 License Renewal Application, Braidwood Station Applicant's Environmental Report

References:

1. Exelon Generation Company, LLC letter from Michael P. Gallagher to NRC Document Control Desk, "Application for Renewed Operating Licenses", dated May 29, 2013
2. Letter from Tam Tran (NRC) to Michael P. Gallagher (Exelon), "Requests for Additional Information for the Review of the Braidwood Nuclear Stations License Renewal Application – Environmental Audit (TAC Nos. MR1832, MR1833, MR1792, and MF1793)", dated December 20, 2013

In the Reference 1 letter, Exelon Generation Company, LLC (Exelon Generation) submitted the License Renewal Application (LRA) for the Byron and Braidwood Stations, Units 1 and 2. In the Reference 2 letter, the NRC requested additional information to support the Staff's review of the Braidwood Station Applicant's Environmental Report (Appendix E, Item E-2 to the LRA).

Enclosure A of this letter provides a cross reference index linking the Staff's questions in the Reference 2 letter with the Exelon Generation responses. Enclosure B contains response sheets that provide information requested by each of the Staff's questions and/or identify supporting documents and materials. Enclosure C of this letter provides duplicate hard copies of the response sheets found in Enclosure B coupled with hard copies of any other relevant documents and materials identified on the response sheets.

Seven hardcopy documents included in Enclosure C were not prepared by Exelon or its contractors (i.e., they are "Non-Exelon" documents), and Exelon did not control development of the documents. Accordingly, while Exelon believes the information in these documents to be accurate and complete, we cannot make any specific representation as to the accuracy or completeness of the documents. The first page of each document and its entry in the index (Enclosure A) are marked with the designation "Non-Exelon."

An information-only copy of this letter and all enclosures are being provided on compact disc to the NRC License Renewal Environmental Project Manager to facilitate Staff review of the information.

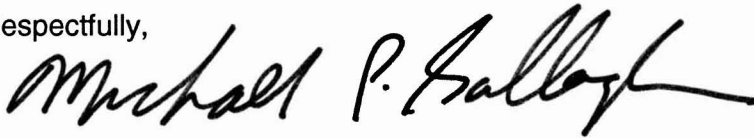
This letter and its enclosures contain no regulatory commitments.

If you have any questions, please contact Mr. Al Fulvio, Manager, Exelon Generation License Renewal, at 610-765-5936.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 01-21-2014

Respectfully,



Michael P. Gallagher
Vice President - License Renewal Projects
Exelon Generation Company, LLC

Enclosures:

- A: Cross Reference Index
- B: Hard copies of Response Sheets
- C: Hard copies of Response Sheets plus other Relevant Documents

cc: Regional Administrator - NRC Region III (w/o Enclosures B and C)
NRC Project Manager (Environmental Review), NRR-DLR (w/o Enclosures B and C)
NRC Project Manager (Safety Review), NRR-DLR (w/o Enclosures B and C)
NRC Project Manager, NRR-DORL Braidwood Station (w/o Enclosures B and C)
NRC Senior Resident Inspector, Braidwood Station (w/o Enclosures B and C)

Exelon Generation

RS-14-029 Enclosure A

Cross Reference Index

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RS-14-029
Enclosure A
Cross Reference Index

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non-Exelon?
Historic and Cultural Resources			
	CR-5: Related to Exelon's environmental review procedures for land-disturbing activities, please provide:		
E1-1	(a) A description of how inadvertent historical or cultural discoveries on the Braidwood Nuclear Station (Braidwood) site are considered by Exelon staff.	CR-5a Response Sheet	Exelon
E1-2	(b) A list of Exelon's environmental procedures and a short description of their purpose.	CR-5b Response Sheet	Exelon
E1-3	CR-6: Related to the cultural resource management plan (Section 4.19 of the Environmental Report (ER)), provide a description of how a proposed activity on the Braidwood site is evaluated for cultural resource impacts by the Chemistry Manager (or designee).	CR-6 Response Sheet	Exelon
E1-4	CR-7: Provide a description of Braidwood's transmission line management plan, including: timing of activities; danger tree removal and other clearing; inspections and repair activities conducted by ground vehicles; standard operating procedures or guidelines for the applicant and any contractors; erosion control procedures; technician training programs; and any regulations that restrict maintenance activities (e.g., looking for activities that could affect depth of disturbance, if any disturbance is necessary along the corridor).	CR-7 Response Sheet 1. UFSAR, Revision 8, Figure 8.2-7, Property Plan	Exelon
E1-5	CR-8: Provide information on management of the land around less-developed areas of the plant site, especially near known historic and cultural resources or near unsurveyed areas.	CR-8 Response Sheet	Exelon
E1-6	CR-13: Does Exelon conduct cultural resource training at Braidwood? If so, provide any documentation of cultural resource training required for staff.	CR-13 Response Sheet	Exelon
E1-7	CR-19: Provide the breakdown (in percentages) of land use (i.e. industrial, agricultural, woodland, etc.) for the Braidwood site. Include leased land.	CR-19 Response Sheet	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-8	CR-20: Provide information regarding management of the land leased by Exelon associated with the Braidwood site to public or private entities – is Exelon managing this land, or is management left to the lessee with oversight by Exelon?	CR-20 Response Sheet	Exelon
Socioeconomics			
E1-9	SOC-1: Provide updated permanent workforce data, preferably a residential distribution of permanent workforce by county in table format.	SOC-1 Response Sheet	Exelon
E1-10	SOC-2: Provide updated property tax information, similar to the data provided in Tables 2.7-2 and 2.7-3 of the ER. Include data for the years 2011 and 2012, if available.	SOC-2 Response Sheet	Exelon
E1-11	SOC-3: Braidwood's last settlement agreement was signed on March 12, 2008 and covered tax years 2007 through 2011. What is the status of the settlement agreement for current and future years? Has Exelon Generation entered into a new settlement agreement with Will County and other taxing districts to set the equalized assessed value (EAV) of Braidwood for tax years 2012 and beyond? Provide any relevant information.	SOC-3 Response Sheet	Exelon
E1-12	SOC-4: In accordance with the 2008 settlement agreement, Exelon agreed to make payments in addition to taxes (PIATs) to specific tax recipients. Under the agreement, Exelon made PIAT payments of \$37,711,150 for tax year 2007 (paid in 2008) and \$3,643,566 for tax year 2008 (paid in 2009). Have there, or will there be, additional PIATs in the future? Were PIATs paid in 2010 and 2011 for tax years 2009 and 2010? If so, have there been any changes to the list of recipients or proportion of payments in ER Table 2.7-1? Provide any relevant information.	SOC-4 Response Sheet	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-13	SOC-5: Exelon pays annual property taxes to a number of taxing entities within, and including, Will County. The Will County Treasurer collects Braidwood's property tax payment and disperses it to the various taxing entities to partially fund their respective operating budgets. Please provide additional information about tax payments to Will County (after tax triggers and excluding PIAT payments) and the portion of the county tax monies allocated to "the forest preserve, township and forest districts, school districts, fire protection districts, park districts, library districts, and the county's cities and villages." Please provide a brief explanation of how these payments are allocated. Please provide a table showing the amount of distribution (or percentage) of the Braidwood property tax payment and each recipient's total revenue (or percent of total revenue). Note, the staff is seeking information to know how dependent some of these recipients may be on the revenue received from the Braidwood property tax payment via Will County.	SOC-5 Response Sheet 1. Sample Braidwood Property Tax Bill	Exelon
E1-14	SOC-6: In addition to property tax payments and PIAT information presented in Section 2.7 of the ER, describe any other major annual support payments, one-time payments, and other forms of non-tax compensation (if any) provided to local organizations, communities, and jurisdictions (e.g., county, municipality, townships, villages, incorporated places, and school districts) by Exelon.	SOC-6 Response Sheet1. SOC-6 Table, 2012 Braidwood Site Fund Charitable Expenditures	Exelon
E1-15	SOC-7: Provide information about any anticipated changes in state and local tax laws, rates, and assessed property value or any other recent or anticipated tax payment adjustments that could result in notable future increases or decreases in property taxes or other payments.	SOC-7 Response Sheet	Exelon
Environmental Justice			
E1-16	EJ-1: Provide summaries of telephone interviews conducted by Exelon regarding local subsistence consumption behavior patterns. These interviews were located in Supplemental Report, Volume II, Table 1, during the environmental audit.	EJ-1 Response Sheet 1. Compilation of Telephone Logs. Investigating Potential Existence of Subsistence-Like Populations in Will County, Grundy, and Kankakee counties, Illinois. July 24, 2013	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-17	EJ-2: Provide information about current or past wildlife sampling and testing of game animals such as deer, squirrel, turkey, pheasant, duck, fish and other game birds and animals that may have been conducted in the vicinity of Braidwood. Wildlife sampling and testing may have been conducted before, during, and after plant construction and in the early days of plant operation, but was discontinued after determining that tissue samples consistently showed no significant or measurable radiological impact on the environment from plant operations.	EJ-2 Response Sheet	Exelon
Terrestrial Resources			
E1-18	TE-1: Provide the following references:	TE-1 Response Sheet	Exelon
E1-19	(a) (ComEd 1973a) Commonwealth Edison Company. 1973. Braidwood Station Environmental Report - Volume I. July 1973 (Terrestrial Ecology sections only).	1. Terrestrial Ecology Sections from ComEd 1973a. Commonwealth Edison Company. 1973. Braidwood Station Environmental Report - Volume I. July 1973.	Exelon
E1-20	(b) (ComEd 1973b) Commonwealth Edison Company. 1973. Braidwood Station Environmental Report - Volume II. July 1973 (Terrestrial Ecology sections only).	2. Terrestrial Ecology Sections from ComEd 1973b. Commonwealth Edison Company. 1973. Braidwood Station Environmental Report Volume II. July 1973.	Exelon
E1-21	(c) (ComEd 1985) Commonwealth Edison Company. 1985. Braidwood Station Units 1 and 2, Environmental Report – Operating License Stage. NRC Docket Nos. 50-456 and 457, Amendment 7. June 10, 1985 (Terrestrial Ecology sections only).	3. (ComEd 1985) Commonwealth Edison Company. 1985. Braidwood Station Units 1 and 2, Environmental Report – Operating License Stage. NRC Docket Nos. 50-456 and 457, Amendment 7. June 10, 1985 (Terrestrial Ecology sections only).	Exelon
TE-3: Provide the following information:			
E1-22	(a) The May 31, 2013, Wildlife at Work recertification application and enclosed Wildlife Management Plan that was discussed with the NRC staff for review during the site audit in response to TE-3 (Environmental Report, Section 2.4, Page 2- 30, paragraph 4).	1. The May 31, 2013, Wildlife at Work recertification application and enclosed Wildlife Management Plan that was discussed with the NRC staff for review during the site audit in response to TE-3 (Environmental Report, Section 2.4, Page 2- 30, paragraph 4).	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-23	(b) The October 18, 2013, letter from Margaret O'Gorman, Wildlife Habitat Council, to Brittney O'Conner, Exelon, that was discussed with the NRC staff for review during the site audit in response to TE-3 (Environmental Report, Section 2.4, Page 2 - 30, paragraph 4).	2. The October 18, 2013, letter from Margaret O'Gorman, Wildlife Habitat Council, to Brittney O'Conner, Exelon, that was discussed with the NRC staff for review during the site audit in response to TE-3 (Environmental Report, Section 2.4, Page 2 - 30, paragraph 4).	Non- Exelon
E1-24	(c) During the site audit, Exelon staff indicated that Exelon intends to continue to maintain its Wildlife at Work Certification throughout the proposed license renewal term. Please confirm that this statement is true.	TE-3 Response Sheet	Exelon
Land Use			
E1-25	LU-1: The June 20, 2013, final rule that amended 10 CFR Part 51 revised the scope of the transmission line review for license renewal to be those "transmission lines that connect the nuclear power plant to the substation where electricity is fed into the regional power distribution system and transmission lines that supply power to the nuclear plant from the grid" (see 10 CFR 51, Appendix B to Subpart A, Table B-1, Footnote 4). Please provide the following information:	LU-1 Response Sheet	Exelon
	(a) Identify the name and location of the substation that connects Braidwood to the regional grid.	LU-1 Response Sheet	Exelon
	(b) Clarify which portions of the transmission lines described in Section 3.1.6 of the ER are in scope for the license renewal review according to the revised definition.	LU-1 Response Sheet 1. Braidwood Station UFSAR Figure 8.2-7, Property Plan	Exelon
	(c) Confirm that the following statement regarding transmission lines that supply power to Braidwood remains true under the revised transmission line scope (ER Section 3.1.6, Page 3-14, Paragraph 2): "No separate transmission lines exist for the purpose of supplying power to Braidwood from the grid (off-site power)."	LU-1 Response Sheet	Exelon
E1-26	LU-2: Does Exelon intend to perform any construction or land-disturbing activities during the proposed license renewal period that would be unrelated to refurbishment activities?	LU-2 Response Sheet	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
Aquatic Ecology			
E1-27	AQ-2: Provide the following reference:	AQ-2 Response Sheet	Exelon
E1-28	HDR Engineering, Inc. (HDR). 2008. Investigations to Determine Presence of State-Listed Species of Fish and Freshwater Mussels in the Kankakee River near the Braidwood Nuclear Station Warm-water Discharge Channel. October 2008.	1. HDR Engineering, Inc. (HDR). 2008. Investigations to Determine Presence of State-Listed Species of Fish and Freshwater Mussels in the Kankakee River near the Braidwood Nuclear Station Warm-water Discharge Channel. October 2008.	Exelon
E1-29	AQ-3: Provide the following references:	AQ-3 Response Sheet	Exelon
E1-30	(a) Exelon's Incidental Take Permit regarding construction of the new discharge structure.	1. Authorization for Incidental Take and Implementing Agreement regarding construction at Braidwood Station of a new outfall and multipoint diffuser impacting the Kankakee River in Will County, Illinois. December 17, 2009.	Exelon
E1-31	(b) Exelon Nuclear (Exelon). 2010. Final Report: Unionid Relocation near the Braidwood Nuclear Station Kankakee River Discharge Location. September 2010.	2. Exelon Nuclear (Exelon). 2010. Final Report: Unionid Relocation near the Braidwood Nuclear Station Kankakee River Discharge Location. September 2010.	Exelon
AQ-4: Section 3.1.3 of the ER describes grills, trash rakes, and traveling screens within the lake screen house and the river screen house. Provide the following information:			
E1-32	(a) Describe the mesh size of traveling screens at the lake screen house.	AQ-4 Response Sheet	Exelon
	(b) Describe the through-screen velocity at the traveling screens at the lake screen house.	AQ-4 Response Sheet	Exelon
	(c) Clarify whether the intake houses include any fish return structures. If fish return structures occur, discuss estimates of survival rates for fish that go through the return structure.	AQ-4 Response Sheet	Exelon
	(d) Describe the cleaning and maintenance procedures at the river screen house and discharge structure, including the frequency of dredging, physical cleaning, and other maintenance procedures.	AQ-4 Response Sheet	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
	Provide the following references:		
E1-33	(e) Exelon Generation (Exelon). 2009. Letter from Exelon Generation (L. Coyle) to U.S. Army Corps of Engineers (K. Bliss) regarding Regional Permit #8 Utility Line Application to Dredge the River Inlet to the Intake Forebay of the Braidwood Generating Station's River Screen House on the Kankakee River. February 3, 2009.	1. AQ-4-e) Exelon Generation (Exelon). 2009. Letter from Exelon Generation (L. Coyle) to U.S. Army Corps of Engineers (K. Bliss) regarding Regional Permit #8 Utility Line Application to Dredge the River Inlet to the Intake Forebay of the Braidwood Generating Station's River Screen House on the Kankakee River. February 3, 2009.	Exelon
E1-34	(f) U.S. Army Corps of Engineers (ACOE). 2009. Letter from U.S. Army Corps of Engineers (K. Wozniak) to Exelon Corporation Braidwood Nuclear Generating System (L. Coyle) regarding authorization to proceed with proposed dredging. June 11, 2009.	2. AQ-4-f) U.S. Army Corps of Engineers (ACOE). 2009. Letter from U.S. Army Corps of Engineers (K. Wozniak) to Exelon Corporation Braidwood Nuclear Generating System (L. Coyle) regarding authorization to proceed with proposed dredging. June 11, 2009.	Non- Exelon
E1-35	(g) Exelon Generation Procedure CR-BR-120-4130, Braidwood Lake Microbiological <i>[sic -- should be "Macrobiological"]</i> Strategic Plan.	3. AQ-4-g) Summary of Exelon Generation Procedure CR-BR-120-4130, Braidwood Lake Microbiological Strategic Plan	Exelon
E1-36	(h) CW-2, Circulating Water Training Figure 39-3, Lake Screen House Sectional (June 13, 2013, Rev. 1).	4. AQ-4-h) CW-2, Circulating Water Training Figure 39-3, Lake Screen House Sectional (June 13, 2013, Rev. 1).	Exelon
E1-37	AQ-6: Exelon has conducted biological monitoring in the Kankakee River for over 20 years. Please provide tables that describe the number of fish caught by species at each monitoring location and by sampling gear for each year that monitoring has occurred. For 2012 monitoring information, provide Tables 3-3 and 3-4 from the HDR Engineering report.	AQ-6 Response Sheet5. HDR Engineering, Inc. (HDR). 2014. Braidwood Station Kankakee River Fish Monitoring Program, 1991—2013 Tables Requested by the NRC. January 2014.	Exelon
	Additionally, provide the following references:		
E1-38	(a) EA Science and Technology (EA). 1990. Results of entrainment and impingement studies conducted at the Braidwood Nuclear Station and the adjacent Kankakee River.	1. EA Science and Technology (EA). 1990. Results of entrainment and impingement studies conducted at the Braidwood Nuclear Station and the adjacent Kankakee River.	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-39	(b) EA Science and Technology (EA). 1991. Results of a three month impingement study at the Braidwood Nuclear Station, April through June 1991.	2. EA Science and Technology (EA). 1991. Results of a three month impingement study at the Braidwood Nuclear Station, April through June 1991. July 1991.	Exelon
E1-40	(c) Larimore RW, Peterson JT. 1989. Kankakee River Fishes of the Braidwood Station Aquatic Monitoring Area, August 1988. Illinois Natural History Survey Aquatic Biology Technical Report. January 1989.	3. Larimore RW, Peterson JT. 1989. Kankakee River Fishes of the Braidwood Station Aquatic Monitoring Area, August 1988. Illinois Natural History Survey Aquatic Biology Technical Report. January 1989.	Exelon
E1-41	(d) HDR Engineering, Inc. (HDR). 2013. Braidwood Station Kankakee River Fish Monitoring Program, 2012.	4. HDR Engineering, Inc. (HDR). 2013. Braidwood Station Kankakee River Fish Monitoring Program, 2012. February 2013.	Exelon
E1-42	AQ-10: Provide the following references	AQ-10 Response Sheet	Exelon
E1-43	(a) Commonwealth Edison Company. 1973. Braidwood Station Environmental Report - Volume II. Aquatic Ecology Sections. July 1973.	1. Commonwealth Edison Company. 1973. Braidwood Station Environmental Report- Volume II. Aquatic Ecology Sections. July 1973.	Exelon
E1-42	(b) Larimore, R.W. 1989. Kankakee River Fishes of the Braidwood Station Aquatic Monitoring Area, August 1989 <i>[sic - should be 1988]</i> . Illinois Natural History Survey Aquatic Biology Technical Report 89/1. January 1989.	AQ-10 Response Sheet	Exelon
E1-44	(c) EA Engineering, Science, and Technology (EA). 2012. Braidwood Station 2011 Benthos Monitoring and Historical Fish and Benthos Comparisons. July 2012.	3. EA Engineering, Science, and Technology (EA). 2012. Braidwood Station 2011 Benthos Monitoring and Historical Fish and Benthos Comparisons. July 2012.	Exelon
E1-45	(d) Exelon Nuclear (Exelon). 2009. Standard Operating Procedures for Braidwood Station's Fisheries Monitoring Program in the Kankakee River and Horse Creek. July 2009.	4. Exelon Nuclear (Exelon). 2009. Standard Operating Procedures for Braidwood Station's Fisheries Monitoring Program in the Kankakee River and Horse Creek. July 2009.	Exelon

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E1-46	(e) Exelon Nuclear (Exelon). 2009. Final Report: Characterization of Unionid Communities near the Braidwood Nuclear Station Kankakee River Discharge Location. January 2009.	5. Exelon Nuclear (Exelon). 2009. Final Report: Characterization of Unionid Communities near the Braidwood Nuclear Station Kankakee River Discharge Location. January 2009	Exelon
E1-47	(f) Exelon Nuclear (Exelon). 2009. Application for an Incidental Take Permit for Threatened or Endangered Species and Conservation Plan. May 11, 2009.	6. Exelon Nuclear (Exelon). 2009. Application for an Incidental Take Permit for Threatened or Endangered Species and Conservation Plan. May 11, 2009.	Exelon
E1-48	(g) Exelon Nuclear (Exelon). 2011. Braidwood Station Kankakee River Fish Monitoring Program, 2010.	7. Exelon Nuclear (Exelon). 2011. Braidwood Station Kankakee River Fish Monitoring Program, 2010.	Exelon
E1-42	(h) (Exelon Nuclear 2011b) Exelon Nuclear. 2011. Braidwood Station Kankakee River Fish Monitoring Program, 2010.	AQ-10 Response Sheet	Exelon
E1-49	(i) Illinois Department of Natural Resources (IDNR). 2008. Status of Fish Communities and Sport Fishery in the Kankakee River and Tributary Streams: 2005 Basin Survey. Fisheries Region II, Streams Program. April 2008.	9. Illinois Department of Natural Resources (IDNR). 2008. Status of Fish Communities and Sport Fishery in the Kankakee River and Tributary Streams: 2005 Basin Survey. Fisheries Region II, Streams Program. April 2008.	Exelon
E1-50	(j) Illinois Department of Natural Resources (IDNR). 2000. Permit No NE2000125 – proposed operation and maintenance of the Braidwood Nuclear Station cooling pond dam, Will County. Office of Water Resources. December 20, 2000	10. Illinois Department of Natural Resources (IDNR). 2000. Permit No NE2000125- proposed operation and maintenance of the Braidwood Nuclear Station cooling pond dam, Will County. Office of Water Resources. December 20, 2000.	Exelon
Groundwater			
E1-51	GW-4: Discuss what impact on groundwater flow, either recharge to or discharge from, the cooling pond has on aquifers around the sides of the pond.	GW-4 Response Sheet 1. Attachment No. 1	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-52	GW-7: Provide the following references:	GW-7 Response Sheet	Exelon
E1-53	(a) (Exelon Generation 2011) Exelon Generation Company, LLC. 2011. Hydrogeologic Investigation Report - Fleetwide Assessment - Braidwood Generating Station, Braceville, IL, Revision 1. Braceville, IL. December 2011.	1. (Exelon Generation 2011) Exelon Generation Company, LLC. 2011. Hydrogeologic Investigation Report- Fleetwide Assessment- Braidwood Generating Station, Braceville, IL, Revision 1. Braceville, IL. December 2011.	Exelon
E1-54	(b) (IEPA 2013a) Illinois Environmental Protection Agency. 2013. Re: Exelon Braidwood Station NPDES Permit Number IL0048321 VB 1 Completion Report. Letter to J. B. Fewell, and M. E. Kanavos. March 28, 2013.	2. (IEPA 2013a) Illinois Environmental Protection Agency. 2013. Re: Exelon Braidwood Station NPDES Permit Number IL0048321 VB 1 Completion Report. Letter to J. B. Fewell, and M. E. Kanavos. March 28, 2013.	Non-Exelon
E1-55	(c) (IEPA 2013b) Illinois Environmental Protection Agency. 2013. Re: Exelon Braidwood Station NPDES Permit Number IL0048321 VB 2/3 and Pond Area Completion Report. Letter to J. B. Fewell, and M. E. Kanavos. March 28, 2013.	3. (IEPA 2013b) Illinois Environmental Protection Agency. 2013. Re: Exelon Braidwood Station NPDES Permit Number IL0048321 VB 2/3 and Pond Area Completion Report. Letter to J. B. Fewell, and M. E. Kanavos. March 28, 2013.	Non-Exelon
E1-56	(d) (IEPA 2013c) Illinois Environmental Protection Agency. 2013. Re: Exelon Braidwood Station NPDES Permit Number IL0048321 VB 4 Completion Report. Letter to J. B. Fewell, and M. E. Kanavos. March 28, 2013.	4. (IEPA 2013c) Illinois Environmental Protection Agency. 2013. Re: Exelon Braidwood Station NPDES Permit Number IL0048321 VB 4 Completion Report. Letter to J. B. Fewell, and M. E. Kanavos. March 28, 2013.	Non-Exelon
E1-57	(e) Letter to IEPA, "Final Plan Completion Report for the VB-1, VB-2/3, and Pond, and Vb-4 Areas", dated January 16, 2013.	5. Letter to I EPA, "Final Plan Completion Report for the VB-1, VB-2/3, and Pond, and VB-4 Areas", dated January 16, 2013.	Exelon
E1-58	(f) Plan Completion Report for the VB-1 Area, Braidwood Generation Station, Braceville, Illinois, October 2012.	6. Plan Completion Report for the VB-1 Area, Braidwood Generation Station, Braceville, Illinois, October 2012.	Exelon
E1-59	(g) Plan Completion Report for the VB-2/3 and Pond Area, Braidwood Generation Station, Braceville, Illinois, December 2012.	7. Plan Completion Report for the VB-2/3 and Pond Area, Braidwood Generation Station, Braceville, Illinois, December 2012.	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-60	(h) Plan Completion Report for the VB-4 Area, Braidwood Generation Station, Braceville, Illinois, October 2011.	8. Plan Completion Report for the VB-4 Area, Braidwood Generation Station, Braceville, Illinois, October 2011.	Exelon
E1-61	(i) Plan Completion Report for the VB-6 Area, Braidwood Generation Station, Braceville, Illinois, August 2009.	9. Plan Completion Report for the VB-6 Area, Braidwood Generation Station, Braceville, Illinois, August 2009.	Exelon
E1-62	(j) Plan Completion Report for the VB-7 Area, Braidwood Generation Station, Braceville, Illinois, February 2010.	10. Plan Completion Report for the VB-7 Area, Braidwood Generation Station, Braceville, Illinois, February 2010.	Exelon
Surface Water			
E1-63	SW-1: Provide the agreement with the Illinois Environmental Protection Agency (IEPA) limiting Braidwood's consumptive use of surface water.	SW-1 Response Sheet 1. Illinois Department of Transportation Division of Water Resources, 1977. Letter to U.S. Department of the Army, District Engineer regarding Issuance of a permit to construct the screen house and blowdown structure for a Commonwealth Edison plant on the Kankakee River. April 7, 1977.	Non-Exelon
		2. Illinois Department of Transportation Division of Water Resources, 1977. Permit No. 15039 to construct a river screen house and blowdown outlet on the Kankakee River for the Braidwood Station. April 29, 1977.	Exelon
E1-64	SW-2: Provide the reference, "Braidwood Storm Water Pollution Prevention Plan."	SW-2 Response Sheet 1. Exelon Nuclear 2006. Braidwood Station #20, NPDES Permit No. IL0048321, Storm Water Pollution Prevention Plan, Revision 5, July 2006	Exelon
E1-65	SW-3: Provide a status summary of issuance of Braidwood's National Pollutant Discharge Elimination System (NPDES) permit that expired September 1, 2000.	SW-3 Response Sheet 1. Draft Reissued NPDES Permit No. IL0048321 for Exelon Generation Company Braidwood Nuclear Power Station, June 27, 2013	Non-Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-66	SW-4: Provide a large-scale map or maps depicting NPDES outfall locations.	SW-4 Response Sheet 1. Map of NPDES Outfall Locations.	Exelon
E1-67	SW-5: As discussed with applicant's staff during the site audit, please provide a summary of available historical and current water quality data for the cooling pond (including temperature), include average ambient values and maximum observed values and date of occurrence, if available. Provide a data set that covers the last 10 years.	SW-5 Response Sheet	Exelon
E1-68	SW-6: Provide all non-radiological monitoring reports from the last 5 years, including NPDES Discharge Monitoring Reports and surface water withdrawal records/reports.	SW-6 Response Sheet1. Surface Water and Groundwater Withdrawal Recordsa. Annual Illinois Water Inventory – Exelon Braidwood Station, 2008b. Annual Illinois Water Inventory – Exelon Braidwood Station, 2009c. Annual Illinois Water Inventory – Exelon Braidwood Station, 2010d. Annual Illinois Water Inventory – Exelon Braidwood Station, 2011e. Annual Illinois Water Inventory – Exelon Braidwood Station, 2012	Exelon
E1-69		2. NPDES Discharge Monitoring Reports a. Monthly NPDES Discharge Monitoring Reports 2008 b. Monthly NPDES Discharge Monitoring Reports 2009 c. Monthly NPDES Discharge Monitoring Reports 2010 d. Monthly NPDES Discharge Monitoring Reports 2011 e. Monthly NPDES Discharge Monitoring Reports 2012 f. Monthly NPDES Discharge Monitoring Reports 2013 (January – May)	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-70	SW-7: Provide copies of any Notices of Violation (NOVs), nonconformance notifications, or related infractions received from regulatory agencies associated with NPDES permitted discharges, sanitary sewage systems, groundwater or soil contamination, including spills, leaks, and other inadvertent releases of fuel solvents, chemicals, or radionuclides (covering the past 5 years). Include correspondence of self-reported violations to responsible agencies.	SW-7 Response Sheet 1. Illinois Environmental Protection Agency, 2012. Provisional Variance From Special Condition 3B of NPDES Permit IL0048321, IEPA – 12-12 (Provisional Variance-Water). March 22, 2012.	Exelon
E1-71	SW-8: In light of excessive cooling pond temperatures experienced during July 2012, provide a discussion and any relevant information as to whether a warming trend has been observed in the cooling pond during the period of plant operations. Provide any study(s) or data that support the conclusions reached (e.g., mean annual, seasonal, and/or monthly water temperature trend for the period of record). Also, describe any measures that Exelon has taken or plans to take to mitigate the impact of high cooling pond temperatures on plant operations.	SW-8 Response Sheet	Exelon
E1-72	SW-9: Provide the application for Clean Water Act Section 401 Certification referenced in Exelon's letter to the I EPA dated May 18, 2012.	SW-9 Response Sheet 1. Joint Application Form for Clean Water Act Section 401 Certification related to Renewal of U.S. Nuclear Regulatory Commission Operating Licenses NPR-72 and NPF-77 for Braidwood Station Units 1 & 2, May 18, 2012.	Exelon
E1-73	SW-13: As observed and discussed with Exelon staff during the site audit, provide a brief description of the plant water treatment upgrades being implemented at the lake screen house and how they relate to Braidwood's Lake Chemistry Strategic Plan. Specifically, address whether and how the quality of water in the cooling pond would be modified as a result of the upgrades. Identify the approximate start date(s) of the construction and when the project(s) is scheduled for completion and commissioning to support plant operations.	SW-13 Response Sheet	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
Meteorology, Air Quality and Noise			
E1-74	MET-1: Provide the copy of the Braidwood Station Units 1 and 2 (Braidwood) Federally Enforceable State Operating Permit for stationary emission sources provided at the site audit. Indicate whether correspondence more recent than October 29, 2007, is available regarding the status of this permit, and include as applicable.	MET-1 Response Sheet 1. Federally Enforceable State Operating Permit, ID No. 197816AAB, Expiration Date: April 29, 2007	Exelon
E1-75	MET -2: Provide copies of Braidwood's annual emission reports for the most recent 5 years.	MET-2 Response Sheet 1. 2012 Annual Emission Report for Braidwood Generating Station 2. 2011 Annual Emission Report for Braidwood Generating Station 3. 2010 Annual Emission Report for Braidwood Generating Station 4. 2009 Annual Emission Report for Braidwood Generating Station 5. 2008 Annual Emission Report for Braidwood Generating Station	Exelon
E1-76	MET-3: Identify combustion sources of hazardous air pollutants (HAPs) at Braidwood and amount released for the most recent 5 years.	MET-3 Response Sheet	Exelon
E1-77	MET-4: Provide details of Braidwood's stationary emission sources including, as applicable, operating hours per year (last 5 years), fuel consumption and rate, horsepower ratings, and capacity.	MET-4 Response Sheet	Exelon
E1-78	MET-6: Are there expected upgrade/replacement activities for equipment/operation that could increase or decrease air emissions over the license renewal period (period of extended operation)?	MET-6 Response Sheet	Exelon
E1-79	MET-7: Provide the information provided at the site audit addressing site-wide emission inventory data (annual) for greenhouse gases (GHG) for the most recent 5 years. Also, include available information on emissions from mobile sources (commuters, visitors, delivery vehicles, etc.)	MET-7 Response Sheet	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-80	MET -8: Provide a description of the primary meteorological tower. Also, describe the backup meteorological tower if one is present. Include a description of instrumentation installed and height of installation for each instrument. Describe any changes in land use around the tower sites that have occurred since installation that may affect any meteorological sensor performance.	MET-8 Response Sheet1. Loop Schematic Diagram Meteorological Monitoring Tower Instruments – “EM” System (Computer & Analog Inputs). Drawing 20E-0-4031EM012. Monthly Report on the Meteorological Monitoring Program at the Braidwood Nuclear Generating Station, March 2012. Prepared for Exelon Nuclear by Murray and Trettel, Inc. May 10, 2012	Exelon
	MET-9: Provide the following meteorological information from the data recorded at Braidwood's meteorological facility. The meteorological data should include the most recent 5 years for which the data are available:		
E1-81	(a) mean monthly and annual temperatures	MET-9 Response Sheet	Exelon
	(b) mean monthly precipitation and annual precipitation	MET-9 Response Sheet	Exelon
	(c) Provide seasonal and annual summary wind statistics in the form of wind direction and speed frequency distribution tables and wind roses. Discuss predominant wind direction and speed by season and annual average, local terrain features affecting wind direction and speed, and provide a value for annual average wind speed.	MET-9 Response Sheet	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-82	(d) Provide seasonal stability class statistics determined from the Braidwood meteorological tower in tabular form for the last 5 years.	MET-9 Response Sheet 1. Annual Report on the Meteorological Monitoring Program at the Braidwood Nuclear Power Station, 2008. Prepared for Exelon Nuclear by Murray and Trettel, Inc. April 18, 2009 2. Annual Report on the Meteorological Monitoring Program at the Braidwood Nuclear Power Station, 2009. Prepared for Exelon Nuclear by Murray and Trettel, Inc. March 31, 2010 3. Annual Report on the Meteorological Monitoring Program at the Braidwood Nuclear Power Station, 2010. Prepared for Exelon Nuclear by Murray and Trettel, Inc. April 24, 2011 4. Annual Report on the Meteorological Monitoring Program at the Byron Nuclear Power Station, 2011. Prepared for Exelon Nuclear by Murray and Trettel, Inc. August 08, 2012 5. Annual Report on the Meteorological Monitoring Program at the Byron Nuclear Power Station, 2012. Prepared for Exelon Nuclear by Murray and Trettel, Inc. April 25, 2013	Exelon
	MET-10: Provide the information provided at the site audit addressing:		
E1-83	(a) Has an atmospheric warming trend been observed in the vicinity of Braidwood during the period of plant operations? Provide data to support the conclusions reached (e.g., mean daily maximum annual temperatures, mean daily minimum annual temperatures, or mean annual temperature for the available period of record from Braidwood's meteorological station).	MET-10a Response Sheet 1. Braidwood Station Meteorological Tower – Average Monthly Temperatures, 30' Elevation. November 1973 through November 2013.	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-84	(b) Has a river warming trend been observed in the Kankakee River during the period of plant operations? Provide any study(s) or data that support the conclusions reached (e.g., mean annual, seasonal, and/or monthly water temperature trend for the period of record).	MET-10b Response Sheet1. TABLE MET-10b: Braidwood Station - Average Monthly Kankakee River Water Intake Temperatures (°F), 2002 to 2008 and 2011 to 2013	Exelon
E1-85	MET-12: Provide information about any noise complaints for the most recent 5 years resulting from plant operation.	MET-12 Response Sheet 1. Staff Interview Form, New and Significant Information Identification Process, Issue 58. Noise.	Exelon
E1-86	MET-15: Identify nearby noise-sensitive receptors (e.g., residences, school, nursing home, childcare facility) and distance to those receptors.	MET-15 Response Sheet	Exelon
Alternatives			
E1-87	AL T-1: Provide a copy of the calculation packages referenced in Section 7 of the ERas Tetra Tech 2012d, Air Emissions and Solid Waste from Coal- and Gas-Fired Alternatives for Braidwood Units 1 and 3; Chapter 7 Energy Alternatives Calculation Package, September 19, 2012; and Tetra Tech 2012e, Employment and Land Requirements for Alternatives to Byron Units 1 and 2 and Braidwood Units 1 and 2, LR Chapter 7 Energy Alternatives Calculation Package, September 18, 2012.	ALT-1 Response Sheet 1. Tetra Tech 2012d; Air Emissions and Solid Waste from Coal- and Gas-Fired Alternatives for Braidwood Units 1 and 3; Chapter 7 Energy Alternatives Calculation Package, September 19, 2012 2. Tetra Tech 2012e, Employment and Land Requirements for Alternatives to Byron Units 1 and 2 and Braidwood Units 1 and 2, LR Chapter 7 Energy Alternatives Calculation Package, September 18, 2012	Exelon
Refurbishment			
E1-88	R-1: Clarify the factors influencing whether Unit 2 steam generator replacement would occur and whether this hypothetical activity should be considered refurbishment. Also briefly describe contributing factors discussed during the audit (i.e., water chemistry program and improved design features of Unit 2 steam generator).	R-1 Response Sheet	Exelon
	R-2: In support of NRC's analysis of the impacts of Unit 2 steam generator replacement, clarify:		
E1-89	(a) How many temporary or permanent buildings will be constructed to support steam generator replacement activities?	R-2 Response Sheet	Exelon

Enclosure C Folder Number	Request for Additional Information	Documents Provided in Response	Exelon or Non- Exelon?
E1-89	(b) What is the estimated footprint (ft ²) of new buildings to be constructed? What is the estimated depth of excavation?	R-2 Response Sheet 1. ComEd Drawing S-2000, Old Steam Generator Storage Facility	Exelon