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68FR 64372 10 CFR 51

RS-04-010

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January 26, 2004

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Division of Administrative Services
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Washington, DC 20555-0001

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

Subject: Comments Concerning Draft Plant-Specific Supplement 16 to the Generic Environmental Impact Statement Regarding License Renewal for Quad Cities Nuclear Power Station

Reference: Letter from Louis L. Wheeler (USNRC) to John Skolds (Exelon Generation Company, LLC), "Request for Comments on the Draft Plant-Specific Supplement 16 to the Generic Environmental Impact Statement Regarding License Renewal for Quad Cities Nuclear Power Station," dated November 4, 2003

This letter is being submitted in response to the NRC's request for comments concerning the draft plant-specific Supplement 16 to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," regarding the renewal of operating licenses for Quad Cities Nuclear Power Station, Units 1 and 2, for an additional 20 years of operation.

Exelon Generation Company, LLC appreciates the opportunity to comment on draft Supplement 16 to NUREG-1437. We agree that the adverse environmental impacts of license renewal for Quad Cities Units 1 and 2 are not so great that preserving the option of license renewal for energy-planning decision-makers would be unreasonable.

Specific comments on draft Supplement 16 to NUREG-1437 are provided in Attachment 1 and comments pertaining to Severe Accident Management Analysis (SAMA) are provided in Attachment 2.

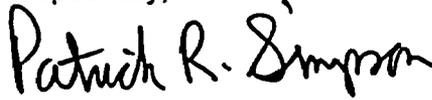
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Case = J. Wheeler (DXW)

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If you have any questions, please contact Al Fulvio at 610-765-5936.

Respectfully,

A handwritten signature in black ink that reads "Patrick R. Simpson". The signature is written in a cursive style with a large, prominent "P" and "S".

Patrick R. Simpson
Manager – Licensing

Attachments:

Attachment 1: Comments on Draft Supplement 16 to NUREG-1437
Attachment 2: Comments on SAMA

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Quad Cities Nuclear Power Station
Illinois Emergency Management Agency – Division of Nuclear Safety

Attachment 1

Specific Comments on Draft Supplement 16 to NUREG-1437

Number	Location (pg/line)	What is in DEIS	What should be in DEIS	Why the change
1	Pg xviii / 14	... specified in the National Electric Safety ...	... specified in the 1981 National Electric Safety ...	The year of the National Electric Safety Code that the NRC uses in the GEIS for analyzing this issue should be specified in the report.
2	Pg 2-13/35	... (ComEd 2000).	... (Exelon 2003a).	The reference for the NPDES Permit is incorrect.
3	Pg 2-47/36	... and plotted it on land that would ...	... and plotted on or near land that would ...	Changes make wording consistent with prior sentence describing approximate location.
4	Pg 2-48/11-16	Though he felt what he had observed had little likelihood of proving significant, he recommended 'use of due caution' during excavation.	Though he felt that the likelihood of what he observed as proving significant was remote, he had alerted appropriate plant personnel to the areas of interest and they were to use due caution during excavation operations.	The replacement wording comes directly from the letter and, more appropriately, characterizes Mr. Bareis' findings in his letter.
5	Pg 4-16/17	Blank line.	Remove line.	The line appears to be unnecessary.
6	Pg 4-20/9	Consideration of mitigation is warranted in the vicinity ...	Consideration of mitigation may be warranted in the vicinity ...	This wording change is in keeping with the wording used elsewhere in the report
7	Pg 4-25/33	... to perform routine maintenance and other activities....	... to perform routine maintenance and other activities related to license renewal.	As noted in the Environmental Report and the GEIS, the assumption used is that these additional personnel would be needed to perform those activities related to aging management activities that need to be performed as a result of the renewing the license.

Number	Location (pg/line)	What is in DEIS	What should be in DEIS	Why the change
8	Pg 4-25/34	... these routine activities during scheduled outages.	... these routine activities.	As noted in the Environmental Report and the GEIS, the assumption used is that these additional personnel would be needed to perform those activities related to aging management activities that need to be performed as a result of the renewing the license.
9	Pg 4-25/35 - 36	... to their permanent staff during license renewal....	... to their permanent staff during the license renewal period....	Wording change for grammatical reasons.
10	Pg 4-30/15 - 17	The Quad Cities site is in an area of moderate-to-high potential. However, there are reports of archaeological resources on the Quad Cities site.	Areas of the Quad Cities site may have moderate-to-high potential. There is a report of an archaeological resource on or near the Quad Cities site.	The archaeological reports cited as a the basis for this statement do not state that the entirety of the Quad Cities site possesses the possibility for moderate to high potential. Furthermore, there are no references cited from any State or National source (other than the University of Chicago report listed on pg 2-47) that could be used to form the basis for the conclusion regarding areas having a potential for archaeological resources.
11	Pg 4-31/32-33	... for guidance on requirements for an archaeological survey when any ...	... for guidance when any ...	This wording change is needed to bring into it into conformance with what was committed to by Exelon in e-mail under ADAMS Accession # ML033090462.

Number	Location (pg/line)	What is in DEIS	What should be in DEIS	Why the change
12	Pg 4-32/1	... the staff's preliminary determination is ...	... the staff's determination is ...	Wording change needed for final report.
13	Pg 4-39/ 24, 30, and 32	These lines mention Exelon practices as they pertain to vegetation management in the transmission corridors. There is no discussion of the owners of the other transmission lines under this review (i.e., MidAmerican and Alliant).		
14	Pg 4-40/12	... the staff has preliminarily concluded that ...	... the staff has concluded that ...	Wording change needed for final report.
15	Pg 4-40/18	This line mentions Exelon practices as they pertain to vegetation management in the transmission corridors in this review. There is no discussion of the owners of the other transmission lines under this review (i.e., MidAmerican and Alliant).		
16	Pg 4-40/19	... it is the staff's preliminary finding that ...	... it is the staff's finding that ...	Wording change needed for final report.
17	Pg 4-44/30, 41	These lines mention Exelon practices as they pertain to vegetation management in the transmission corridors in this review. There is no discussion of the owners of the other transmission lines under this review (i.e., MidAmerican and Alliant).		
18	Pg 4-44/41	... and its contractors at the end of the consultation,		It is not clear what consultation the staff is referencing in this section.
19	Pg 4-46/18	Agency for direction on level of effort necessary for archaeological survey in such project areas, ...	Agency for guidance, ...	This wording change is needed to bring into it into conformance with what was committed to by Exelon in e-mail under ADAMS Accession # ML033090462.
20	Pg 4-50/18, 37	These lines mention Exelon practices as they pertain to vegetation management in the transmission corridors in this review. There is no discussion of the owners of the other transmission lines under this review (i.e., MidAmerican and Alliant).		
21	Pg 4-51/1-2	... the staff has preliminarily determined ...	... the staff has determined ...	Wording change needed for final report.
22	Pg 4-51/35	... the staff's preliminary conclusion ...	... the staff's conclusion ...	Wording change needed for final report.
23	Pg 4-51/39	... the transmission line owner, ComEd, is ...	... the transmission line owner, Exelon Power Delivery, is ...	Wording change reflects the addressee in the letter sent (ADAMS Accession #ML032660226).

Number	Location (pg/line)	What is in DEIS	What should be in DEIS	Why the change
24	Pg 8-42/7, Pg 8-45/31 – Pg 8-46/12, Pg 9-8/16	These discussions of aesthetic impacts of the alternative nuclear plant are not consistent with the analysis presented in the GEIS for aesthetic impacts of license renewal for the existing plant. During the construction of the alternate plant on the Quad Cities site, impacts would be introduced that may bring the overall site to a MODERATE level of impact, however, once the alternate plant is operating and the existing site is fully decommissioned, the overall impacts would not be much different that what currently exists. As stated in the GEIS in the conclusion of the analysis of this issue, the “staff believes that the impacts on aesthetic resources would be small in the future”. For this reason, Exelon believes the staff should review their conclusions with respect to their analysis of this issue.		
25	Pg 8-48/20 - 22	Duplicate of lines 18 – 19 that can be deleted.		
26	Pg 9-5/8	... the staff's preliminary conclusion is ...	... the staff's conclusion is ...	Wording change needed for final report.
27	Pg 9-8/5	LARGE, under Historic and Archaeological Resources	SMALL, under Historic and Archaeological Resources	This makes the wording here consistent with the conclusion in Section 4.4.5.
28	Pg 9-8/31	... MODERATE....	... MODERATE for that portion of the North Nelson line where the induced shock is greater than 5 ma.	This wording change clarifies the area where the impact has been analyzed as being MODERATE.
29	Pg 9-8/32	... considered LARGE....	... considered SMALL....	This makes the wording here consistent with the conclusion in Section 4.4.5.

Attachment 2

Comments on SAMA

Comments on SAMA

Exelon's Severe Accident Management Analysis (SAMA) was an extensive exercise that was done to determine if proposed plant changes are required to support license renewal for the Quad Cities station. Exelon concluded that none are needed to support license renewal and the Nuclear Regulatory Commission (NRC) has agreed (Quad Cities Draft Environmental Impact Statement (QC DEIS) pg 5-9).

Because the current Exelon evaluation of SAMA improvements is performed only to support license renewal, this analysis was done in a conservative manner. Additional analysis is required to ensure that all aspects, both positive and negative, are captured prior to any actual changes in plant equipment, procedures, or training. This is consistent with the NRC DEIS review that concludes, "further evaluation of these SAMAs by Exelon is warranted" (QC DEIS pg G-30).

Exelon wishes to note the following points that were listed in the NRC review:

- a. The cost ranges provided by Exelon are consistent with those provided by other licensees for similar applications (QC DEIS pg G-18).
- b. The severe accident analysis typically assumes that the proposed change completely eliminates the associated risk (e.g., Phase II SAMA #6 risk calculation). In reality, no modification made can ever be perfect. Such bounding calculations overestimate the benefit and are conservative (QC DEIS pg G-13).
- c. The cost-benefit analysis performed by Exelon did not take into account any replacement power or on-going maintenance costs that may be incurred for any plant modifications. Taking these into account would reduce any risk-cost benefit (QC DEIS pg G-10 through 15).
- d. Both Exelon and NRC agree that significant conservatisms exist in the current fire PRA. These conservatisms overstate the actual risk from fire at Quad Cities (QC DEIS pg G-24). The NRC staff reviewers, however, disagreed with a risk multiplier of 5 used by Exelon to account for uncertainties in external events analysis, mostly for fire. The NRC suggested a value of 10. It should be pointed out that the existing 1999 fire PRA study was performed not to provide detailed estimates of fire risk to be used in routine plant analysis, but was limited to the IPEEE purpose of discovery of major fire vulnerabilities. Furthermore, the NRC has provided no basis for the determination of their suggested value of 10. If additional consideration by Exelon were performed, it would include a more realistic review of fire impacts. This more realistic review is expected to verify that the factor of 5 used by Exelon is accurate.

With respect to the specific recommendations by the NRC:

- a. For SAMAs #1 & #2 regarding cooling for the Safe Shutdown Makeup Pump (SSMP) room and alternate drywell spray, the NRC has already concluded only marginal risk-cost benefit exists (QC DEIS, page G-25).
- b. For SAMAs #6 & #8, local electrical breaker operation would require human actions to close breakers onto energized, high voltage buses. Such actions create an industrial safety concern for the personnel performing such actions. Testing the capability to perform such actions would impose actual hazards on personnel during the testing, while the likelihood of ever having to perform the actions during an accident are quite remote (loss of all 125 V DC

power is calculated to occur roughly once per 1 million years as documented in the Quad Cities 2002 PRA).

- c. For SAMAs #10 and #14, the changes suggested in the QC DEIS would require deviations from NRC-approved emergency procedure guidelines. Each would be impacted by the change suggested by the Staff as well as causing a significant deviation from the approved Boiling Water Owners Group (BWROG) strategy.