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M. S. Tuckman
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August 2, 2002

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

Subject: Comments on draft plant-specific Supplement 8 to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants" McGuire Nuclear Station, Docket Nos. 50-369 and 50-370

By letter dated June 13, 2001, Duke Energy Corporation (Duke) submitted an Application to Renew the Facility Operating Licenses of McGuire Nuclear Station and Catawba Nuclear Station (Application). The staff has reviewed the information provided in the Environmental Report contained in the Application as well as the information provided in Duke letters dated January 17 and 31, 2002. By letter dated May 6, 2002, the staff forwarded a copy of the draft plant-specific Supplement 8 to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants" for McGuire and provided Duke the opportunity to submit comments. Accordingly, please find Duke comments on draft Supplement 8 to NUREG-1437.

In addition to providing comments on the draft Supplement 8, Duke is also in the process of reviewing the conclusions contained in Section 5.2.7 of the draft Supplement 8. In this section, the staff concluded that one of the severe accident mitigation alternatives (SAMAs) related to hydrogen control in SBO sequences is cost beneficial under certain assumptions, which are being examined in connection with the resolution of GSI-189, "Susceptibility of Ice-Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident." Duke is in the process of reviewing this SAMA and plans to provide its position by a separate letter.

If there are any questions, please contact either Bill Miller at (704) 373-7900 or Bob Gill at (704) 382-3339.

Very truly yours,

M. S. Tuckman

Attachment

A085

Affidavit

M. S. Tuckman, being duly sworn, states that he is Executive Vice President, Nuclear Generation Department, Duke Energy Corporation; that he is authorized on the part of said Corporation to sign and file with the U. S. Nuclear Regulatory Commission the attached comments on draft plant-specific Supplement 8 to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants," and that all the statements and matters set forth herein are true and correct to the best of his knowledge and belief. To the extent that these statements are not based on his personal knowledge, they are based on information provided by Duke employees and/or consultants. Such information has been reviewed in accordance with Duke Energy Corporation practice and is believed to be reliable.

M. S. Tuckman

M. S. Tuckman, Executive Vice President
Duke Energy Corporation

Subscribed and sworn to before me this 2ND day of August 2002.

Mary P. Nelson
Notary Public

My Commission Expires:

JAN 22, 2006

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Attachment 1

***Comments on Draft Plant-specific Supplement 8 to NUREG-1437,
“Generic Environmental Impact Statement for License Renewal of Nuclear
Power Plants”***

McGuire Nuclear Station, Units 1 and 2

*Attachment 1
Comments on Draft NUREG-1437, Supplement 8
McGuire Nuclear Station, Units 1 and 2*

Chapter 2.0 Description of Nuclear Power Plant and Site and Plant Interaction with the Environment
Section 2.2.5 Aquatic Resources

Comment Number	Page	Line	Comment
1	2-19	19	<p>Line reads: “The primary fish caught in the nearshore littoral zone include sunfish (<i>Lepomis</i> spp.), carp (<i>Cyprinus carpio</i>), and catfish including the blue catfish (<i>Ictalurus furcatus</i>), snail bullhead (<i>Ameiurus brunneus</i>), white catfish (<i>I. catus</i>), and flat bullhead (<i>I. platycephalus</i>).”</p> <p>The inclusion of blue catfish as inhabitants of the nearshore littoral zone is incorrect as these fish are considered largely pelagic in nature and are only occasionally caught inshore. Additionally snail bullhead, white catfish, and flat bullhead are no longer found in significant numbers due in large part we believe by blue catfish and flathead catfish predation.</p> <p>Correct the sentence to read, “The primary fish caught in the nearshore littoral zone include sunfish (<i>Lepomis</i> spp.), largemouth bass, crappie, and carp (<i>Cyprinus carpio</i>). Numbers of previously abundant catfish species like snail bullhead (<i>Ameiurus brunneus</i>), white catfish (<i>I. catus</i>), and flat bullhead (<i>I. platycephalus</i>) have dwindled significantly due to suspected predation by blue catfish (<i>Ictalurus furcatus</i>), and flathead catfish (<i>Pylodictis olivaris</i>).”</p>
2	2-19	27-29	<p>Lines read: “In 1999, 135 species of phytoplankton were collected, the dominant types being cryptophytes and diatoms (Duke 2001a).”</p> <p>It is more accurate to use the words ‘varieties and forms’ instead of species. Correct the sentence to read “In 1999, 135 varieties and forms of phytoplankton were collected, the dominant types being cryptophytes and diatoms (Duke 2001a).”</p>

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Chapter 2.0 Description of Nuclear Power Plant and Site and Plant Interaction with the Environment
Section 2.2.5 Aquatic Resources

Comment Number	Page	Line	Comment
3	2-20	5-8	<p>Lines read:</p> <p>“....--and three mussel species- Carolina heelsplitter (<i>Lasmigona decorata</i>), dwarf threetooth (<i>Triodopsis fulciden</i>), and Carolina creekshell (<i>Villosa vaughnaniana</i>)- could inhabit the region around McGuire (Table 2-1).”</p> <p>Although the word ‘could’ is used in this sentence, it creates the impression these mussels might be found in the area. This likelihood is extremely remote due to the lack of flowing water habitats around McGuire. Concurrence with this professional judgment is even stated in the SEIS on page 4-36, lines 25-28, “As described in Section 2.2.5, the only Federally or State-listed threatened or endangered aquatic species with the potential to inhabit waters near McGuire, the Carolina heelsplitter (<i>Lasmigona decorata</i>), is not present in the vicinity of the plant (Fridell 2001) and does not occur in impounded water.”</p> <p>Revise sentence to read “....--and three mussel species- Carolina heelsplitter (<i>Lasmigona decorata</i>), dwarf threetooth (<i>Triodopsis fulciden</i>), and Carolina creekshell (<i>Villosa vaughnaniana</i>)- could inhabit the region around McGuire (Table 2-1), but practically speaking the probability is extremely unlikely because of lack of lotic environments.”</p>

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Chapter 2.0 Description of Nuclear Power Plant and Site and Plant Interaction with the Environment
Section 2.2.5 Aquatic Resources

Comment Number	Page	Line	Comment
4	2-20	32-34	<p>Lines read:</p> <p>“Menhinick (1991) lists the highfin carpsucker from Lake Norman considerably north of the study area and lists only historic records for the Santee chub in Lake Norman, but north of the study area (Gaddy 2001).”</p> <p>Although the above sentence is not factually incorrect, it leaves the impression that perhaps the highfin carpsucker and maybe even the Santee chub may exist in Lake Norman. It is well worth noting however that in the NC Heritage Program records the highfin carpsucker documentation is extremely sketchy and the EORANK (Element Occurrence Rank) designation is O (Obscure-date, location, and/or quality of the occurrence is unknown) and the survey date is listed only as pre-1991. The same paucity of rigorous documentation and species records is also true for the Santee Chub.</p> <p>Revise sentence to read “Menhinick (1991) lists the highfin carpsucker from Lake Norman considerably north of the study area and lists only historic records for the Santee chub in Lake Norman, but north of the study area (Gaddy 2001). However, detailed and thorough historical documentation on both species in the NC Natural Heritage Program records is incomplete or non-existent and there have been no citations of these species at all in the recent past.”</p>

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Chapter Offsite Land Use
Section 2.2.8.3

Comment Number	Page	Line	Comment
5	2-31	37	Cowan's Ford Wildlife Refuge should be Cowan's Ford Waterfowl Refuge.
6	2-33	1	Cowan's Ford Wildfowl Refuge should be Cowan's Ford Wildlife Refuge.
7	2-33	2	Line should read: "... within an oxbow bend in the riverine section of Mountain Island Lake."
8	2-33	1-6	Section does not mention Crowder's Mountain State Park. Crowder's Mountain State Park is located approximately 24 miles south-west of McGuire.

Chapter 4.0 Environmental Impacts of Operation
Section 4.4.4 Public Services: Transportation Impacts During Operations

Comment Number	Page	Line	Comment
9	4-29	19-25	McGuire's main entrance (west entrance) has been closed as a result of the events of Sept.11, 2001. This will probably be a permanent closure. All entrance and exit traffic must use the east entrance with the traffic light.

Attachment 1
Comments on Draft NUREG-1437, Supplement 8
McGuire Nuclear Station, Units 1 and 2

Chapter 5.0 Environmental Impacts of Postulated Accidents
Section 5.2.2.1 Duke's Risk Estimates

Comment Number	Page	Line	Comment
10	5-6	23	<p>Line reads:</p> <p>"... comments received during the McGuire peer review process, ..."</p> <p>Including the above phrase in this location may lead a reader to assume that the peer review comments were incorporated into Revision 2 of the PRA which was used for the SAMA analysis. This is not the case; the peer review occurred after Revision 2 was complete. Suggest that the reference to the peer review be deleted here.</p>
11	5-8	22	0.006 should be 0.06.
12	5-8	23	0.0075 should be 0.07.

*Attachment 1
Comments on Draft NUREG-1437, Supplement 8
McGuire Nuclear Station, Units 1 and 2*

Chapter 5.0 Environmental Impacts of Postulated Accidents
Section 5.2.2.2 Review of Duke's Risk Estimates

Comment Number	Page	Line	Comment		
13	5-10	22	The Revision 3 results provided at the time of the RAI response were preliminary and somewhat changed in the final approved version of Revision 3. Values from the final approved version of Revision 3 are provided in the following comment.		
14	5-11	Table 5-5	The Revision 3 results provided by Duke at the time of the RAI were preliminary and somewhat changed in the final approved version of Revision 3. Values from the final approved version of Revision 3 are provided below. The format for these values is the same as provided in the RAI response dated January 31, 2002.		
			<u>Core Damage Frequency Contribution</u>		
			Initiator		
			SEISMIC	8.9E-06	
			TORNSW	1.6E-06	
			FIRES	6.3E-06	
			Total External	1.7E-05	
			Internal Floods	5.4E-06	
			Transients	2.9E-06	
			LOCAs	8.8E-06	
			RPV Rupture	1.0E-06	
			SGTR	5.2E-07	
			ATWS	5.3E-07	
			ISLOCA	9.8E-07	
			Total Internal	2.0E-05	
			Total CDF	3.7E-05	
					<u>SBO Frequency Contribution</u>
			Total SBO Frequency	1.0E-05	
			Seismic	7.4E-06	
			Tornado	1.5E-06	

Attachment 1
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McGuire Nuclear Station, Units 1 and 2

Chapter 5.0 Environmental Impacts of Postulated Accidents
Section 5.2.2.2 Review of Duke's Risk Estimates

Comment Number	Page	Line	Comment
15	5-11	Table 5-5, line 18	The seismic CDF listed under the column heading PRA, Rev. 1 (IPE) is given as 1.1E-05. This is the value from the IPEEE not the IPE (1.4E-05). This should be more clearly identified in the table.
16	5-11	Table 5-5, line 20	Table 8.1-1 of Revision 1 of the McGuire PRA (IPE), lists the fire CDF as 8.1E-08, not 2.3E-07. The IPEEE estimate of the fire CDF is 2.3E-07. Clarify which value and reference are intended.

Chapter 5.0 Environmental Impacts of Postulated Accidents
Section 5.2.3.1 Potential Design Improvements

Comment Number	Page	Line	Comment
17	5-16	Table 5-6	Line in Table 5-6 reads: "align reactor vessel (RV) cooling/other Unit RN"... The Duke table used RV cooling. In this case RV is not an acronym for reactor vessel. RV is the shorthand notation for the Containment Ventilation Cooling Water System. This description should be added to the RV entry on page xxiii Abbreviations/Acronyms.
18	5-16	Table 5-6	The zeros in the CDF column should be replaced with the CDF values from Table 4-2, found in Attachment K of the McGuire ER.

Chapter 5.0 Environmental Impacts of Postulated Accidents
Section 5.2.4 Risk Reduction Potential of Design Improvements

Comment Number	Page	Line	Comment
19	5-19	27	The Revision 3 results provided at the time of the RAI response were preliminary and somewhat changed in the final approved version of Revision 3. Values from the final approved version of Revision 3 are provided Comment Number 14.

*Attachment 1
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Chapter 5.0 Environmental Impacts of Postulated Accidents
Section 5.2.5 Cost Impacts of Candidate Design Improvements

Comment Number	Page	Line	Comment
20	5-21 5-17	28 Table 5-7	<p>The cost estimate provided by Duke (\$205,000) is a per unit cost and should not be divided by 2.</p> <p>One of the major cost categories for the candidate modification is in the installation labor, primarily pulling cables. It was judged that finding a location for the diesel that would allow it to serve either unit would dramatically increase the cable pulling cost component. As such, it was judged that having a diesel for each unit would be less expensive (given the low cost of the hardware) than pulling cables to both units from a single location.</p>
21	5-21	29	<p>Note that the pre-staged option was selected in order to provide confidence that the alignment could be established within a time frame that would allow mitigation for fast as well as slow station blackouts. Without pre-staging, the time needed to power the igniters would be long and may not be effective for all sequences. The estimated benefit would be reduced by some amount if a pre-staged diesel was not assumed.</p>
22	5-21	39	<p>The cost estimate provided by Duke (\$540,000) is a per unit cost and should not be divided by 2.</p>
23	5-22	3-5	<p>The sentence, "Duke further noted that ..." should be modified. The discussion that Duke provided relative to powering the air-return fans was in the context of powering the igniters. The mixing afforded by the fans may or may not be significant to the effectiveness of PARs, but in any case Duke provided no position on the need for fans when using PARs.</p>
24	5-22	9	<p>replace "reactor vessel cooling" with "the Containment Ventilation Cooling Water System"</p>
25	5-22	15-16	<p>The two cost estimates, \$275,000 and \$291,000, are in the reverse order of the 2 SAMAs, (1) and (2), discussed earlier in the same paragraph. This may lead a reader to associate the costs incorrectly with the SAMAs.</p>

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McGuire Nuclear Station, Units 1 and 2

Chapter 5.0 Environmental Impacts of Postulated Accidents
Section 5.2.6.1 Duke Evaluation

Comment Number	Page	Line	Comment
26	5-25	4	3.81E+08 should be 3.1E+08 See page 12 of Attachment K, McGuire ER.

Chapter 5.0 Environmental Impacts of Postulated Accidents
Section 5.2.6.2 Staff Evaluation

Comment Number	Page	Line	Comment
27	5-27	17	Update CDF discussion based on final Revision 3 results provided in Comment Number 14.

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McGuire Nuclear Station, Units 1 and 2*

Chapter 6.0 Environmental Impacts of the Uranium Fuel Cycle and Solid Waste Management
Section 6.1 The Uranium Fuel Cycle

Comment Number	Page	Line	Comment
28	6-6	25	<p>This page presents a brief chronology of events that have occurred in the area of high level waste disposal subsequent to the GEIS being published in 1996. The chronology ends at the President's recommendation in February 2002.</p> <p>While it may seem a bit odd for this type of information to be contained in an environmental document, Duke believes that the chronology should remain in the SEIS and should be updated to reflect significant events that have taken place since then. For example:</p> <p>"On April 8, 2002, Governor Guinn of Nevada issued a "Notice of Disapproval" regarding the recommendation of the President. As required by the Nuclear Waste Policy Act, the matter was then referred to the Congress. Subsequently, [insert final decision of Congress and date]."</p>

Chapter Appendix E
Section Table E-1

Comment Number	Page	Line	Comment
29	E-2	11	Draft permit was issued May 30, 2002. Comments have been submitted to NCDENR for final approval.