

ER 02/406

July 26, 2002

Chief, Rules Review and Directives Branch  
U.S. Nuclear Regulatory Commission  
Mail Stop T6-D59  
Washington, DC 20555

RE: Draft Supplemental Environmental Impact Statement for License Renewal of Nuclear Power Plants, Supplement 8, McGuire Nuclear Station, Units 1 & 2, Mecklenburg County, NC (NUREG-1437)

Dear Sir:

The Department of the Interior has reviewed the above referenced document, and we have the following comments for consideration by the NRC staff.

I-1 We are pleased with the level of detail provided in the Draft Supplemental Environmental Impact Statement (DSEIS) and are glad the proposal includes regular monitoring following relicensing.

The proposed Federal action by the U.S. Nuclear Regulatory Commission (NRC) is renewal of the operating license for McGuire Nuclear Station. McGuire Nuclear Station is located on the shore of Lake Norman, approximately 17 miles north of Charlotte, Mecklenburg County, North Carolina. The plant has two Westinghouse-designed, pressurized, light-water reactors, each with a design rating for a net electrical output of 1129 megawatts. The DSEIS considers the environmental impacts of renewing the operating license in the NRC's Generic Environmental Impact Statement for License Renewal of Nuclear Plants (GEIS), NUREG-1437. The draft supplement reviews 23 site-specific issues, in addition to those considered in the GEIS. The current operating licenses expire in 2021 (Unit 1) and 2023 (Unit 2).

General Comments

I-2 **Impingement and Entrainment of Aquatic Organisms.** One of several issues identified at McGuire includes impingement and entrainment of aquatic organisms at the cooling water intake. Previous studies at the site by Duke found impingement of some fishes, mostly threadfin shad, some bluegill, and alewife, particularly during periods of cold water. Although the DSEIS concludes that the impacts were SMALL, we recommend that the licensee establish a regular monitoring program and develop a strategy to reduce impingement and entrainment. These periodic reports of findings should be forwarded to the U.S. Fish and Wildlife Service (FWS).

I-3 **Migratory birds and raptors.** We do not agree that there is enough information to conclude that the impacts of potential bird collisions, or electrocution, are small in significance. We believe that a monitoring program should be developed consistent with the draft Memorandum of

*Memorandum = ADM-013*

*FRTDS = ADM-03  
Add - J. H. WILSON (STAW)  
#DEANEK (FFB)*

RECEIVED

2002 SEP 11 11 9: 07

Rules and Directives Branch USNRC

*5/10/02  
6/7/02 9/18/02  
(2)*

I-4

Agreement between the U.S. Fish and Wildlife Service and NRC for migratory birds. Since bald eagles, osprey, black and turkey vultures, and herons frequent the project vicinity, we recommend lines crossing wetlands and large bodies of water should be maintained to maximize visibility of the line to raptors by one of the following design modifications: (1) remove the static line; (2) enlarge the static line to improve visibility to raptors; or (3) mount aviation balls or similar markers on the static line.

**Endangered species.** We have reviewed our records and visited the site, and notwithstanding the above comments, we concur with the determination that the proposed project is not likely to affect endangered species. Therefore, we believe the requirements under Section 7 of the Act are fulfilled. However, obligations under Section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat is determined that may be affected by the identified action.

For further coordination and additional information concerning these comments, please contact Mr. Mark Cantrell of the Asheville Field Office, U.S. Fish and Wildlife Service, 160 Zillicoa Street, Asheville, North Carolina 28801; telephone number 828/258-3939, Ext. 227.

I can be reached at 404-331-4524 if I can be of further assistance to you.

Sincerely,

Gregory Hogue  
Region Environmental Officer

cc:  
OEPC, WASO  
MCantrell, FWS, Asheville  
AValenta, FWS, R-4



Duke Power  
526 South Church St. EC07H  
Charlotte, NC 28202  
P. O. Box 1006 EC07H  
Charlotte, NC 28201-1006  
(704) 382-2200 OFFICE  
(704) 382-4360 FAX

M. S. Tuckman  
Executive Vice President  
Nuclear Generation

U.S. Nuclear Regulatory Commission  
Document Control Desk  
August 2, 2002  
Page 2

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. J. Tuckman*

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 2<sup>ND</sup> day of August 2002.

*Mary P. Johns*  
Notary Public

My Commission Expires:

JAN 22, 2006

**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**

J-1

J-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>

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

J-3

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 vaughniana</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 vaughniana</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>

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

J-4

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>

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

**Chapter** Offsite Land Use  
**Section** 2.2.8.3

Comment Number	Page	Line	Comment
J-5	5	2-31 37	Cowan's Ford Wildlife Refuge should be Cowan's Ford Waterfowl Refuge.
J-6	6	2-33 1	Cowan's Ford Wildfowl Refuge should be Cowan's Ford Wildlife Refuge.
J-7	7	2-33 2	Line should read: "... within an oxbow bend in the riverine section of Mountain Island Lake."
J-8	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
J-9	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
J-10	10	5-6 23	Line reads:  "... comments received during the McGuire peer review process, ..."  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.
J-11	11	5-8 22	0.006 should be 0.06.
J-12	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
J-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.
J-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.
			<b>Core Damage Frequency Contribution</b>
			<b>Initiator</b>
			SEISMIC
			8.9E-06
			TORN SW
			1.6E-06
			FIRES
			6.3E-06
			<b>Total External</b>
			<b>1.7E-05</b>
			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
			<b>Total Internal</b>
			<b>2.0E-05</b>
			<b>Total CDF</b>
			<b>3.7E-05</b>
			<b>SBO Frequency Contribution</b>
			Total SBO Frequency
			1.0E-05
			Seismic
			7.4E-06
			Tornado
			1.5E-06

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

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

Comment Number	Page	Line	Comment
J-20	5-21 5-17	28 Table 5-7	The cost estimate provided by Duke (\$205,000) is a per unit cost and should not be divided by 2.  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.
J-21	5-21	29	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.
J-22	5-21	39	The cost estimate provided by Duke (\$540,000) is a per unit cost and should not be divided by 2.
J-23	5-22	3-5	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.
J-24	5-22	9	replace "reactor vessel cooling" with "the Containment Ventilation Cooling Water System"
J-25	5-22	15-16	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.

*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** 5.2.6.1 Duke Evaluation

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

Attachment 1  
Comments on Draft NUREG-1437, Supplement 8  
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

J-28

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

J-29

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.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

August 2, 2002

5/10/02  
67 PR 21846  
①

4EAD

Chief, Rules Review and Directives Branch  
U.S. Nuclear Regulatory Commission  
Mail Stop T6-D59  
Washington, DC 20555-0001

SUBJECT: Generic Draft Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 8 McGuire Nuclear Station, Units 1 & 2 CEQ No. 020204

Dear Sir/Madam:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the document entitled, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding the McGuire Nuclear Station, Units 1 & 2," Draft Report for Comment, NUREG-1437 (Draft GEIS). The proposed federal action is the renewal of the Operating Licenses (OL) for McGuire Nuclear Station, Units 1 & 2. We appreciate your compliance with the disclosure and public access aspects of the NEPA process. The purpose of this letter is to provide you with the results of our review of the Generic DEIS.

The Generic DEIS discusses the proposed action of renewing the OL for McGuire Nuclear Station, Units 1 & 2. Duke Energy Corporation submitted the application for renewal. The document also discusses the alternatives to renewal which were evaluated.

K-1

Rad waste, which is usually considered a "low volume waste stream," is any waste stream (i.e., ion exchange regenerate, etc.), that has a radioactive component. EPA Region 4's review of this Draft GEIS found no issues related to nuclear or environmental radiation which were significant enough to comment on or ask for clarification. However, EPA does not regulate the radioactive component of any waste streams; that is the responsibility of the Nuclear Regulatory Commission (NRC). The NRC regulates the alpha, beta, and gamma radioactivity of all the waste streams at nuclear plants.

K-2  
K-3

Based on the sufficiency of information, alternatives evaluation, and potential environmental impacts over which EPA has authority, the document received a rating of "EC-1," (Environmental Concerns - Adequate Information). That is, the review identified environmental impacts which should be avoided, in order to fully protect the environment. Specifically, the

Internet Address (URL) • <http://www.epa.gov>

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 30% Postconsumer)

Template = ADM-013

E-PRDS = ADM-03  
Call = James H. Wilson (JHW1)

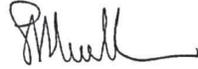
RECEIVED  
7/27 4:56 13 Fri 2:46  
Rules and Directives Branch  
USNRC

K-3 cont

possibility of environmental impacts resulting from a release due to a severe accident are a concern. However, we understand that NRC along with DOE, FEMA, and EPA are taking additional steps to ensure that nuclear plants are prepared for such an occurrence. In addition, while the Draft GEIS provides reasonable analysis of the proposed action and alternatives, we look forward to the inclusion of clarifying information in the Final GEIS. Our comments are attached.

Thank you for the opportunity to provide our comments regarding this project. If you have any questions, you may contact Ramona McConney of my staff at (404) 562-9615.

Sincerely,



Heinz J. Mueller, Chief  
Office of Environmental Assessment

Attachment

EPA Comments on  
Generic Draft Environmental Impact Statement for  
License Renewal of Nuclear Plants, Supplement 8  
McGuire Nuclear Station, Units 1 & 2  
CEQ No. 020204

K-4

**General:** The document does not mention whether power demands on the McGuire facility are expected to change significantly from present levels during the license renewal period (up to 20 years). If consumer power needs in the service area increase significantly, please clarify how this would affect operations, particularly with regard to the cooling system, effluent release, and waste quantity. The anticipated growth rate of the service area during the renewal period should be taken into consideration.

K-5

**Groundwater:** Page 4-35 discusses groundwater use and quality. The document mentions that the facility uses <100 gpm from six existing groundwater wells (page 2-8). However, Appendix E does not list information pertaining to the regulatory status of these groundwater wells.

K-6

**Cultural Resources:** We note that the licensee should take care that historic properties are not inadvertently impacted during normal operational and maintenance activities (Page 4-30).



H. B. Barron  
Vice President

Duke Energy Corporation  
McGuire Nuclear Station  
12700 Hagers Ferry Road  
Huntersville, NC 28078-9340  
(704) 875-4800 OFFICE  
(704) 875-4809 FAX

August 19, 2002

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

SUBJECT: Duke Energy Corporation  
McGuire Nuclear Station, Units 1 and 2  
Docket Numbers 50-369 and 50-370  
Severe Accident Mitigation Alternatives

REFERENCE: 1) Letter, U.S. Nuclear Regulatory Commission to Duke  
Energy Corporation Dated May 6, 2002, SUBJECT:  
Request for Comments on the Draft Plant-Specific  
Supplement 8 to the Generic Draft Environmental  
Impact Statement Regarding McGuire Nuclear  
Station, Units 1 and 2 (TAC NOS. MB2021 and  
MB2022).

L-1 Section 5.2.7 of Reference 1 identifies one Severe Accident  
Mitigation Alternative (SAMA) that would provide back-up power to  
the hydrogen igniters for Station Blackout (SBO) event. The NRC  
staff states that since this SAMA does not relate to adequately  
managing the effects of aging during the period of extended  
operation, it does not need to be implemented as part of license  
renewal pursuant to 10 CFR 54. The NRC staff intends to pursue  
this SAMA as a current operating license issue. McGuire concurs  
with the NRC that this SAMA is not within the scope of license  
renewal and should be addressed separate from any license renewal  
proceedings.

L-2 McGuire concurs with the NRC staff that there may be a cost-  
beneficial plant design modification that can provide alternative  
power to the hydrogen ignition system during a SBO event. The  
NRC staff has determined that the hydrogen control issue is  
sufficiently important for PWRs with ice-condenser containment  
and BWR Mark III containments that the NRC has made the issue a  
Generic Safety Issue (GSI), GSI-189 - Susceptibility of Ice-  
Condenser and Mark III Containments to Early Failure from  
Hydrogen Combustion During a Severe Accident. McGuire has begun  
evaluating possible plant design and procedure changes to find a  
cost-beneficial resolution for this SAMA issue.

*A085*

U.S. Nuclear Regulatory Commission  
August 19, 2002  
Page 2

Duke Energy has performed plant-specific probabilistic risk  
assessments (PRA), individual plant examinations, and  
system/component reliability studies to evaluate severe accidents  
at McGuire. Various design and procedure changes have been  
identified and implemented as a result of the above efforts.  
These changes have reduced the risk associated with major  
contributors identified by the McGuire PRA and have enhanced  
overall plant safety. Resolution of the SAMA issue identified in  
Reference 1 is consistent with the effort by Duke Energy to use  
risk insights to continuously improve the safety of McGuire  
Nuclear Station. McGuire is cooperating with the NRC in  
resolving GSI-189 as a current operating license issue.

If you have any questions regarding this submittal, please  
contact P.T. Vu at 704-875-4302.

Very Truly Yours,

H.B. Barron

HBB/PTV/s