

March 27, 2002

Mr. M. S. Tuckman, Executive
Vice President - Nuclear Generation
Duke Energy Corporation
526 South Church St. EC07H
Charlotte, NC 28201

SUBJECT: ISSUANCE OF ENVIRONMENTAL SCOPING SUMMARY REPORT
ASSOCIATED WITH THE STAFF'S REVIEW OF THE APPLICATION BY DUKE
ENERGY CORPORATION FOR RENEWAL OF THE OPERATING LICENSES
FOR MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

Dear Mr. Tuckman:

From August 23 through October 21, 2001, the Nuclear Regulatory Commission (NRC) conducted a scoping process to determine the scope of the NRC staff's environmental review of the application for renewal of the operating licenses for the McGuire Nuclear Station, Units 1 and 2, submitted by Duke Energy Corporation by letter dated June 13, 2001. As part of the scoping process, the NRC staff held two public environmental scoping meetings in Huntersville, North Carolina, on September 25, 2001, to solicit public input regarding the scope of the review. The scoping process is the first step in the development of a plant-specific supplement to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants (GEIS)," for the McGuire Nuclear Station.

The NRC staff has prepared the enclosed environmental scoping summary report identifying comments received at the September 25, 2001, license renewal environmental scoping meetings. In addition, the NRC received a number of comments in writing during the comment period; these are included in the scoping summary report. In accordance with 10 CFR 51.29(b), you are being provided a copy of the scoping summary report. Transcripts of the meetings have been prepared and are attached to the meeting summary issued on October 12, 2001, which is available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm.html> (the Public Electronic Reading Room) (Note that the URL is case-sensitive).

The next step in the environmental review process is the issuance of a draft supplement to the GEIS, which is scheduled for May 2002. Notice of the availability of the draft supplement to the

M. S. Tuckman

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GEIS and the procedures for providing comments will be published in a future *Federal Register* notice. If you have any questions concerning this matter, you can call me at (301) 415-1108.

Sincerely,

Original Signed By: JHWilson

James H. Wilson, Senior Project Manager

License Renewal and Environmental Impacts Program

Division of Regulatory Improvement Programs

Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Enclosure: As stated

cc w/encl: see next page

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**Environmental
Scoping Summary Report**

**McGuire Nuclear Station, Units 1 and 2
License Renewal**

Docket Nos. 50-369 and 50-370

Introduction

On June 14, 2001, the Nuclear Regulatory Commission (NRC) received an application dated June 13, 2001, from the applicant, Duke Energy Corporation (Duke) for renewal of the operating licenses of McGuire Nuclear Station, Units 1 and 2 (McGuire). McGuire is located in Mecklenburg County, North Carolina. As part of the application, Duke submitted an environmental report (ER) prepared in accordance with the requirements of 10 CFR Part 51. Part 51 contains the NRC requirements for implementing the National Environmental Policy Act (NEPA) of 1969 and is consistent with the implementing regulations promulgated by the Council on Environmental Quality (CEQ). Section 51.53 outlines requirements for preparation and submittal of environmental reports to the NRC.

Section 51.53(c)(3) was based upon the findings documented in NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants," (GEIS). The GEIS, in which the staff identified and evaluated the environmental impacts associated with license renewal, was issued for public comment. The staff received input from Federal and State agencies, public organizations, and private citizens. As a result of the assessments in the GEIS, a number of impacts were determined to be generic to all nuclear power plants. These were designated as Category 1 impacts. An applicant for license renewal may adopt the conclusions contained in the GEIS for Category 1 impacts in the absence of new and significant information that may cause the conclusions to fall outside those of the GEIS. Category 2 impacts are those impacts that have been determined to be plant-specific and are required to be addressed in the applicant's ER.

The Commission determined that the NRC does not have a role in energy planning decision-making for existing plants, which should be left to State regulators and utility officials. Therefore, an applicant for license renewal need not provide an analysis of the need for power, or the economic costs and economic benefits of the proposed action. Additionally, the Commission determined that the ER need not discuss any aspect of storage of spent fuel for the facility. This determination was based on the Nuclear Waste Policy Act of 1982 and the Commission's Waste Confidence Rule, 10 CFR 51.23.

On August 23, 2001, the NRC published a Notice of Intent in the *Federal Register* (66 FR 44386), to notify the public of the NRC's intent to prepare a plant-specific supplement to the GEIS to support the review of the renewal application for the McGuire operating licenses. The plant-specific supplement to the GEIS will be prepared in accordance with NEPA, CEQ guidelines, and 10 CFR Part 51. As outlined by NEPA, the NRC initiated the scoping process with the issuance of the *Federal Register* Notice. The NRC invited the applicant; Federal, State, and local government agencies; local organizations; and individuals to participate in the scoping process by providing oral comments at the scheduled public meetings and/or submitting written suggestions and comments no later than October 15, 2001. The scoping process included two public scoping meetings, which were held at the Central Piedmont Community College, North Campus in Huntersville, North Carolina, on September 25, 2001. The NRC announced the meetings in local newspapers (The Lake Norman Times and The Charlotte Observer), issued press releases, and distributed flyers locally. More than 100 individuals attended the meetings. Both sessions began with NRC staff members providing a brief overview of the license renewal process and the NEPA process. Following the NRC's prepared statements, the meetings were open for public comments. Twenty-six (26)

commenters (five of whom spoke at both meetings) provided either oral comments or written statements that were recorded and transcribed by a certified court reporter. In addition to the comments provided during the public meetings, five comment letters were received by the NRC via electronic mail. The meeting transcripts (accession #ML012850194) and comment e-mail are available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm.htm> (the Public Electronic Reading Room).

The scoping process provides an opportunity for public participation to identify issues to be addressed in the plant-specific supplement to the GEIS and to highlight public concerns and issues. The Notice of Intent identified the following objectives of the scoping process:

- Define the proposed action
- Determine the scope of the supplement to the GEIS and identify significant issues to be analyzed in depth
- Identify and eliminate peripheral issues
- Identify any environmental assessments and other environmental impact statements being prepared that are related to the supplement to the GEIS
- Identify other environmental review and consultation requirements
- Indicate the schedule for preparation of the supplement to the GEIS
- Identify any cooperating agencies
- Describe how the supplement to the GEIS will be prepared

At the conclusion of the scoping period, the NRC staff and its contractor reviewed the transcripts and all written material received, and identified individual comments. All comments and suggestions received orally during the scoping meetings or in writing were considered. Each set of comments from a given commenter was given a unique alpha identifier (Commenter ID letter), allowing each set of comments from a commenter to be traced back to the transcript, letter, or email in which the comments were submitted. Several commenters submitted comments through multiple sources (e.g., afternoon and evening scoping meetings). Table 1 identifies the individuals providing comments and the Commenter ID letter associated with each person's set(s) of comments. The individuals are listed in the order in which they spoke at the public meeting, and random order for the comments received by letter or email.

Comments were consolidated and categorized according to the topic within the proposed supplement to the GEIS or according to the general topic if outside the scope of the GEIS. Comments with similar specific objectives were combined to capture the common essential

issues that had been raised in the source comments. Once comments were grouped according to subject area, the staff and contractor determined the appropriate action for the comment. The staff determined that each comment fit into one the following categories:

- a comment that was either related to support or opposition of license renewal in general (or specifically, McGuire) or that made a general statement about the license renewal process. It may have made only a general statement regarding Category 1 and/or Category 2 issues. In addition, it provided no new information and did not pertain to 10 CFR Part 54.
- a comment about a Category 1 issue that
 - provided new information that required evaluation during the review, or
 - provided no new information
- a comment about a Category 2 issue that
 - provided information that required evaluation during the review, or
 - provided no such information
- a comment that raised an environmental issue that was not addressed in the GEIS, or
- a comment regarding Alternatives to the proposed action
- a comment regarding related Federal projects
- a comment regarding environmental justice
- a comment regarding safety issues within the scope of 10 CFR Part 54, but outside the scope of 10 CFR Part 51
- a comment outside the scope of license renewal (not related to 10 CFR Parts 51 or 54), which include
 - a comment regarding emergency response and planning
 - a comment regarding MOX fuel issues
 - a comment regarding operational safety issues
 - a comment regarding safeguards and security
- a comment that was actually a question and introduced no new information.

Each comment is summarized in the following pages. For reference, the unique identifier for each comment (Commenter ID letter listed in Table 1 plus the comment number) is provided. In those cases where no new information was provided by the commenter, no further evaluation will be performed.

The preparation of the plant-specific supplement to the GEIS (which is the SEIS) will take into account all the relevant issues raised during the scoping process. The SEIS will address both Category 1 and 2 issues, along with any new information identified as a result of scoping. The SEIS will rely on conclusions supported by information in the GEIS for Category 1 issues, and will include the analysis of Category 2 issues and any new and significant information. The draft plant-specific supplement to the GEIS will be available for public comment. The comment period will offer the next opportunity for the applicant, interested Federal, State, and local government agencies; local organizations; and members of the public to provide input to the NRC's environmental review process. The comments received on the draft SEIS will be considered in the preparation of the final SEIS. The final SEIS, along with the staff's Safety Evaluation Report (SER), will provide much of the basis for the NRC's decision regarding the McGuire license renewal.

TABLE 1 - Individuals Providing Comments During Scoping Comment Period

Commenter ID	Commenter	Affiliation (If Stated)	Comment Source
A	James Harrill	Mayor, Stanley, NC	Afternoon Scoping Meeting
B	Wayne Broome	Director, Charlotte-Mecklenburg Emergency Management	Afternoon Scoping Meeting
C	Larry Dickerson	Iredell County Emergency Management	Afternoon Scoping Meeting
D	Thurman Ross	Cornelius, NC	Afternoon Scoping Meeting
E	Brew Barron	Site Vice President, McGuire Nuclear Station	Afternoon Scoping Meeting
F	Dayna Herrick	Engineering Supervisor, McGuire Nuclear Station	Afternoon Scoping Meeting
G	Melanie O'Connell-Underwood	Mooresville-South Iredell Chamber of Commerce	Afternoon Scoping Meeting
H	John Gibb		Afternoon Scoping Meeting
I	Rosemary Hubbard	Charlotte Women for Environmental Justice/Blue Ridge Environmental Defense League	Afternoon Scoping Meeting
J	Allen Hubbard		Afternoon Scoping Meeting
K	Scott Hinkle	Executive Director, Lake Norman Times	Afternoon Scoping Meeting
L	Sally Ashworth	Chairwoman, Lake Norman Convention and Visitors Bureau	Afternoon Scoping Meeting
M	Constance Kolpitcke		Afternoon Scoping Meeting
N	Catherine Mitchell	Blue Ridge Environmental Defense League	Afternoon Scoping Meeting
O	Joan Bodonheimer	Teacher, Long Creek Elementary School	Afternoon Scoping Meeting
P	Don Moniak	Organizer, Blue Ridge Environmental Defense League	Afternoon Scoping Meeting
Q	Lou Zeller	Community Organizer, Blue Ridge Environmental Defense League	Afternoon Scoping Meeting

R	Don Moniak	Organizer, Blue Ridge Environmental Defense League	Evening Scoping Meeting
S	Tommy Almond	Deputy Fire Marshall, Gaston County Emergency Management	Evening Scoping Meeting
T	Brew Barron	Site Vice President, McGuire Nuclear Station	Evening Scoping Meeting
U	Dayna Herrick	Engineering Supervisor, McGuire Nuclear Station	Evening Scoping Meeting
V	Tim Gestwicki	North Carolina Wildlife Federation	Evening Scoping Meeting
W	Lou Zeller	Community Organizer, Blue Ridge Environmental Defense League	Evening Scoping Meeting
X	Donna Lizenby	Catawba Riverkeeper	Evening Scoping Meeting
Y	Bill Russell	President, Lake Norman Chamber of Commerce	Evening Scoping Meeting
Z	Paul Smith	President, Mooresville-South Iredell Chamber of Commerce	Evening Scoping Meeting
AA	Mitch Eisner	Principal, Catawba Springs Elementary School	Evening Scoping Meeting
AB	Catherine Mithchell	Blue Ridge Environmental Defense League	Evening Scoping Meeting
AC	Jim Gilpin	Private Environmental Consultant	Evening Scoping Meeting
AD	Bob Mahood		Evening Scoping Meeting
AE	Dan Faris		Evening Scoping Meeting
AF	Alton Beasley		Electronic mail
AG	Dottie Toney		Electronic mail
AH	Mark Gilliss	Mechanical Engineer	Electronic mail
AI	Jim Matthews		Electronic mail
AJ	Hager		Electronic mail

McGuire Nuclear Station, Units 1 and 2 Public Scoping Meeting and Written Input Comments and Responses

The following pages summarize the comments and suggestions received as part of the scoping process, and discuss their disposition. Parenthetical numbers after each comment refer to the Commenter ID letter and the comment number. Comments can be tracked to the commenter and the source document through the ID letter and comment number listed in Table 1. Comments are grouped by category. The categories are as follows:

1. Comments in Support of License Renewal and its Processes
2. Comments in Opposition to License Renewal and its Processes
3. Comments in Support of License Renewal at McGuire Nuclear Station, Units 1 and 2
4. Comments Concerning Surface Water Quality, Hydrology, and Use Issues
5. Comments Concerning Aquatic Ecology Issues
6. Comments Concerning Terrestrial Resource Issues
7. Comments Concerning Threatened and Endangered Species Issues
8. Comments Concerning Air Quality Issues
9. Comments Concerning Socioeconomic Issues
10. Comments Concerning Postulated Accident Issues
11. Comments Concerning Uranium Fuel Cycle and Waste Management Issues
12. Comments Concerning Alternative Energy Sources
13. Comments Concerning Environmental Justice
14. Comments Concerning Related Federal Projects
15. Comments Concerning Safety Issues Within the Scope of License Renewal
16. Comments Concerning Issues Outside the Scope of License Renewal: Emergency Response and Planning, MOX Fuel, Operational Safety, and Safeguards and Security
17. Requests for Information

Comments

1. Comments in Support of License Renewal and its Processes

Comment: We believe that license renewal is the right answer for our customers, for our neighbors, and for the community in which we live. (E-6)

Comment: We reached the conclusion, by looking at existing data, and talking to a number, and receiving input from a number of recognized subject matter experts, that there will be no significant environmental impact to the renewing the license for McGuire Nuclear Station. (E-8)

Comment: We reviewed these 20-plus years of data, and we consulted with environmental resource and regulatory agencies to make sure that we fully considered all of the relevant issues necessary for McGuire's continued operation. (F-1)

Comment: When it comes to the relicensing of a plant that is already there, and of course the tremendous capital resources that it would take to replace that generation with another plant, or in another part of our country, it makes absolutely no sense not to relicense the units at McGuire. (K-8)

Comment: I sincerely hope that you grant McGuire Nuclear Plant an opportunity to extend their license at the Lake Norman area, and I thank you for my time. (L-5)

Comment: And a lot of these people still work at the site today. And when I say I trust McGuire to operate safely for another 20 years, I'm saying basically I trust my neighbors, and I really do. (S-1)

Comment: We made sure there were no questions left unanswered about the ability of McGuire to operate safely for an additional 20 years, and answer those questions for ourselves, before we submitted that application to the NRC. (T-5)

Comment: We concluded that license renewal for McGuire Nuclear Station, based on existing data, and a careful review of input by subject matter experts, would have no significant environmental impact on the Lake Norman community, on our community, on the community in which we live, in which we play, as well as in which we work. (T-8)

Comment: It is this 20 years' worth of monitoring data that we looked at, as well as consulting with environmental resource, and regulatory agencies, to make sure that we fully considered all the issues that were relevant to McGuire's continued operations. (U-1)

Response: *The comments are noted. The comments are supportive of license renewal in general or specific parts of the license renewal process, and are general in nature. The comments provide no new information and, therefore, will not be evaluated further.*

2. Comments in Opposition to License Renewal and its Processes

Comment: Okay. Well, within that concept, Duke submitted a request for an exemption from the rules for renewals of licensing in May of 1999, I believe, and it was granted in October 1999, and it is referenced on the first page of their application. Unfortunately there is no reference to where a person can find both documents. How -- the question about this exemption is, why didn't you begin this process when you knew that Duke intended to submit one early, at least a scoping process? It has been two years since they indicated their intention to submit a license renewal early. Otherwise they wouldn't have gone through that burdensome exemption process, I assume. (R-2)

Response: *The Supplemental Environmental Impact Statement (SEIS) that is written by the NRC staff is based on the environmental report (ER) that is submitted by the licensee, in this case Duke Energy Corporation (Duke). Pursuant to 10 CFR 54.23 and 51.53(c), Duke submitted an ER, which was received by the NRC on June 14, 2001. The ER included Duke's analysis of the environmental impacts associated with the proposed action, considered alternatives to the proposed action, and evaluated any alternatives for reducing adverse environmental effects. This comment provides no additional information and will not be evaluated further.*

Comment: The proposed action in the application is to renew the licenses of Catawba and McGuire, right? So why are you doing separate Environmental Impact Statement for McGuire and Catawba, instead of doing one that considers all four reactors? That seems like it is a burden upon the public to have to comment on two separate documents. Are comments about the McGuire reactors going to be considered within the Catawba? So somebody who lives right in the middle, which a lot of people do, have to comment on both of them? (R-5)

Response: *NEPA requires a site specific analysis. McGuire and Catawba are located on two different sites, approximately 45 kms (30 miles) apart. Therefore two separate SEIS's are required. This comment provides no additional information and will not be evaluated further.*

Comment: I think it might be time to re-evaluate the future of nuclear energy in this country, and I would ask that the NRC, Duke Energy, and all of those involved in this license process, please listen to those in the community, and pay attention to what we have already known for decades. (N-5)

Comment: And in this EIS you should tell us what you don't know, and what hasn't been reported. Because Duke is no different than any other utility that is regulated. There are regulations that it has to follow, and there is a lot of gray areas in those regulations as to whether they are required to report an incident or not. And every company that is regulated debates whether an incident is reportable or not. Because reporting it creates a paper trail, and the paper trail costs money. (R-9)

Comment: Under the license renewal rule members of the public cannot challenge the sufficiency, or question the compliance with the reactor's design basis. When a reactor applies to renew its license, the NRC is neither going to review these documents, nor confirm that the reactor is in compliance with the regulations imposed under the current license. (W-1)

Comment: In conclusion I would like to say that the plant performance review process, we have made comments on that over the several years, and the reduction of information provided to the public, report provided by a public citizen I think elucidates an ongoing problem within not only the nuclear industry, but also within the Nuclear Regulatory Commission's license renewal process. (W-6)

Comment: I ask the NRC not to rubber stamp Duke's licenses renewal for McGuire. If they are granted a renewal, make them earn it. If they are not granted a licenses renewal, it may be the best thing for the people of North Carolina. (AI-9)

Response: *The comments are noted. These comments oppose license renewal and its processes in general, but do not provide new information. The Commission has established a process, by rule, for the environmental and safety reviews to be conducted to review a license renewal application. While the comments listed above criticize the process, they do not raise any issues within the scope of this license renewal review. Therefore, the comments regarding opposition to license renewal and its processes will not be evaluated further.*

3. Comments in Support of License Renewal at McGuire Nuclear Station, Units 1 and 2

Comment: I appreciate the opportunity today to stand here and tell Duke Power, NRC, how grateful we are to have Duke Power, and have McGuire Station here. (A-1)

Comment: We are just glad to have Duke Power as a neighbor. (D-4)

Comment: At McGuire we consider ourselves to be valued members of this community, good neighbors. (E-1)

Comment: It has been said that McGuire Nuclear Station is a good neighbor. And I can't say that enough, I can't stress that enough. I have seen first-hand, the work that its employees do in our community, at our local schools. (K-1)

Comment: When it comes to the people that work at the plant, I must admit that I turn to them, and their expertise at times, before I turn to folks that work in our institutions of higher learning, regionally. The incredible mind force of people that work on the island at McGuire, and their incredible library of knowledge when it comes to zoology, and herbology, and the aquatic life of the streams and rivers where their facilities impact, is remarkable. (K-3)

Comment: Do I trust middle east oil cartels to provide the energy of this nation, or do I trust a publicly traded corporation with almost a century of safe operation? Well, there is no question. I trust the folks at Duke Energy and I trust the folks at McGuire Nuclear Station. (K-4)

Comment: Finally I would like to say that, you know, I trust Brew Barron and his staff. Like every American I look at the professionals at the NRC and our government to ensure safe operation of nuclear facilities. But, here locally, I trust the people I know, they are my neighbors. I trust Brew, and I trust his very capable staff and the job that they do each and every day to supply our region with clean, economical energy. (K-6)

Comment: The employees of McGuire spoke to us specifically with each role that they did, and as many precautions as they take as far as making McGuire remain as an efficient plant, but also one with a partner of our local environment. (L-3)

Comment: McGuire has been very supportive not only of Gaston County, but also the surrounding counties, and to the state of North Carolina. There is a big partnership that we have, in a sense. I have been invited to tour the plant and meet the staff and personnel. I have been invited to go down to Charlotte and visit the joint information center, and the emergency operation facilities. And I have witnessed, first-hand, Duke's training sessions and their exercises. And I have been very impressed with not only their professionalism, but in the manner of detail and the seriousness that they put forth just in a drill. I have seen, first-hand, how Duke operates internally, and also how McGuire, and also the Catawba plant that was mentioned, how those staff support one another. (S-2)

Comment: I have seen Duke strive for perfection, and they do not settle on just doing things right. They are the type of people that we need running a nuclear power plant. (S-3)

Comment: And I stand before you not only as an emergency responder and preparer, but also as a resident, and I support their request. (S-5)

Comment: At McGuire we consider ourselves a part of the Lake Norman community, a part of the community, and a neighbor, as Mr. Almond said. (T-1)

Comment: We concluded that renewing McGuire's license was the right decision. It was the right decision for our community, and it was the right decision for our customers, and the environment. (T-6)

Comment: Well, I do stand on the side of Duke Power, because they've earned my trust, they are responsible, they are professional people, and they are good corporate citizens. (Y-2)

Comment: Our confidence level at Lake Norman Regional Medical Center, with McGuire Nuclear Station, is therefore more reinforced. (Z-1)

Comment: As far as my concern, obviously I'm a supporter of McGuire, and believe they are a supporter of the community. (AA-3)

Comment: And I think that Duke's support of the Boy Scouts of America underscores the fact of their concern for environmental impact. (AC-1)

Comment: Just finally, I agree with what a lot of other people said. Duke Energy has added a lot to our community. I mean, we are here with power. And, evidently, they have added a lot to the communities that they are in. (AE-7)

Response: *The comments are noted. The comments are supportive of license renewal at McGuire Nuclear Station, Units 1 and 2, and are general in nature. The comments provide no new information, therefore, they will not be evaluated further.*

4. Comments Concerning Surface Water Quality, Hydrology, and Use Issues

As stated in 10 CFR Part 51, Table B-1, Category 1 water quality issues include:

- Impacts of refurbishment on surface water quality
- Impacts of refurbishment on surface water use
- Altered current patterns at intake and discharge structures
- Altered salinity gradients
- Altered thermal stratification of lakes
- Temperature effects on sediment transport capacity
- Scouring caused by discharged cooling water
- Eutrophication
- Discharge of chlorine or other biocides
- Discharge of sanitary wastes and minor chemical spills
- Discharge of other metals in waste water
- Water use conflicts (plants with once-through cooling systems)

Comment: Duke Energy has conducted water quality and aquatic ecology testing on Lake Norman since the early 1970s. The areas that we study include water quality, water flow at the intake and discharge structures, and aquatic ecology. (F-2)

Comment: We had clean water and clean air. Over these many years, however, we have seen a tremendous degradation of our groundwater, our rivers, our streams, and our air. And Duke Energy has been a great contributor to that. (I-3)

Comment: In terms of the environmental impact of the plant, which is incredibly, and remarkably negligible, Lake Norman is among the most cleanest, it is among the most cleanest and environmentally sound bodies of water in the eastern United States. It is a wonderful resource for thousands of people, if not hundreds of thousands of people use each and every day. It is an incredibly clean source of drinking water for our communities. (K-2)

Comment: The areas that we routinely study include water quality, water flow at the intake and discharge structures, and aquatic ecology. (U-2)

Response: *The comments are noted. Surface water quality is a Category 1 issue and will be discussed in Chapter 2 of the SEIS. The comments provide no new information; therefore, the comments will not be evaluated further.*

5. Comments Concerning Aquatic Ecology Issues

As stated in 10 CFR Part 51, Table B-1, Category 1 and 2 aquatic ecology issues include:

Category 1

- Accumulation of contaminants in sediments or biota
- Entrainment of phytoplankton and zooplankton
- Cold shock
- Thermal plume barrier to migrating fish
- Distribution of aquatic organisms
- Premature emergence of aquatic insects
- Gas supersaturation (gas bubble disease)
- Low dissolved oxygen in the discharge
- Losses from predation, parasitism, and disease among organisms exposed to sublethal stresses
- Stimulation of nuisance organisms

Category 2

- Entrainment of fish and shellfish in early life stages
- Impingement of fish and shellfish
- Heat shock

Comment: Our evaluation of the historical data has indicated that we have made no changes to the aquatic resources on Lake Norman. And our continued operation will not have an adverse impact on the lake or the river. (F-3)

Comment: Our evaluation of this data has shown that we have made no changes to Lake Norman's aquatic resources, and our continued operations will continue that. We will not adversely impact the lake or the river. (U-3)

Comment: The second point I would like to address is the protection of the water resources. Duke has taken several steps to preserve this resource through continuing biological studies of the lakes. (AC-3)

Response: *The comments are noted and are supportive of license renewal at McGuire. Aquatic ecology will be discussed in Chapter 2 and Chapter 4 of the SEIS. The comments provide no new information; therefore, they will not be evaluated further.*

Comment: First of all, McGuire Nuclear does not have cooling water structures of any kind. It was built several years before Catawba. Catawba has cooling water structures. And so some kind of cooling water structure on McGuire would profoundly decrease the thermal shock, and the chronic thermal temperature impacts on Lake Norman. Finally, I wanted to bring to your attention that I believe the failure to have any kind of cooling water intake, a cooling water structure on McGuire is an inequitable application of the law in the United States. Many other

nuclear facilities are required to have cooling water structures. Catawba has them, and particularly in the southeast where our temperatures are high in the summertime, we need some kind of cooling water structure on McGuire Nuclear. A substantial component of the -- it should revolve around, not if cooling structures are needed, but should be required as a condition of the relicense. (X-1)

Comment: Duke Energy, Duke Power also has an NPDES, which is national pollution discharge elimination system permit variance for their delta T above state standards for hot water discharge. And also above EPA recommended levels for hot water discharges. McGuire has, I believe, and you all correct me if I'm wrong, but you all have, the NPDES permit provides an unlimited discharge of non-contact cooling water for North Carolina, is that right? No, I'm talking volume, not temperature. I'm pretty sure it is an unlimited discharge volume metrically. I just wanted to say that there are profound environmental impacts on aquatic life due to chronic effects of thermal impact from hot water into the aquatic environment. And I will give everyone here three brief examples that are well noted in the literature. Let's take, for example, the zooplankton *Ceriodaphnia*. *Ceriodaphnia* can survive about 108 days when water temperature is approximately 45 degrees. However, they only typically survive about 26 days when water temperature is about 82 degrees. I take the Riverkeeper patrol boat into the discharge areas of all of McGuire's plants, and we call them hot holes, here locally. And there are a lot of fishermen there, typically. And it is not uncommon for me to see water coming out of those hot water discharges at 95 degrees. And that is a profound environmental impact. Not only does it affect zooplankton, and provide lethal thermal shock, as well as chronic lethal effects, it also affects reproduction, and has lethal impacts for other aquatic species. For example, the upper lethal limit for bass is about 85 degrees Fahrenheit. And, typically, as I've said in the summertime it is not uncommon, and even in the winter, for me to find the water coming out of many of Duke's plants above 90 degrees. Hot water discharges also affects reproductivities of aquatic life. For example, the release of glochidia from *Corbicula*. And for those non-science people, the release of immature young from clams relies on environmental cues. Specifically they rely on water temperature cues, as they rise in the spring, it triggers reproduction. And so hot water discharges, like the one from McGuire, can create a profound environmental impact. Additionally cooling water structures provide for recycling of water. The intake structures are huge, and the outflow structures are huge. And when there is a cooling water intake structure, a cooling water structure of some kind that cools the non-contact water, what happens is that the water, because it is non-contact, can be recirculated, rather than having to continuously withdraw water from the Catawba river, run it through the system once, and discharge it. And so some kind of cooling water structure on McGuire would profoundly decrease the thermal shock, and the chronic thermal temperature impacts on Lake Norman. (X-2)

Comment: When we also look at McGuire nuclear in relation to its cumulative impact on Lake Norman, we find that Marshall steam station has a very large hot water discharge above McGuire. And so the EIS, and the relicensing process, should take into account the impact of Marshall. It should take into account the cumulative impact to all of Lake Norman, considering the other thermal impacts from other discharges in the Lake Norman reservoir. Finally I would also like to ask the Nuclear Regulatory Commission to do a detailed analysis for the thermal impacts, and the need for cooling structure at McGuire, including the cumulative impacts of Marshall upstream. (X-3)

Comment: In talking with the gentlemen from Duke, they indicated that the proper venue for this discussion of thermal impacts was through the NPDES permitting process. I respectfully disagree with the gentlemen, and I believe it should be included in the relicensing discussions and documentation, and the environmental scoping documents, the impact statements, and would like to see that included. (X-4)

Comment: I think Donna's comments were pretty much on mark, of looking at the possibility of cooling water, and cooling towers. (AC-4)

Comment: The high temperature of the water discharged into Lake Norman is a negative effect that cannot be ignored. Instead of fixing the problem, Duke merely lobbied for an exemption from the law. Skirting the law is becoming all too common for Duke Energy. (AI-4)

Response: *The comments are noted. The comments pertain to heat shock which is a Category 2 issue and will be addressed in Chapter 4 of the McGuire SEIS.*

6. Comments Concerning Terrestrial Resource Issues

As stated in 10 CFR Part 51, Table B-1, Category 1 terrestrial resource issues include:

- Cooling tower impacts on crops and ornamental vegetation
- Cooling tower impacts on native plants
- Bird collisions with cooling towers
- Cooling pond impacts on terrestrial resources
- Power line rights-of-way management (cutting and herbicide application)
- Bird collisions with power lines
- Impacts of electromagnetic fields on flora and fauna (plants, agricultural crops, honeybees, wildlife, livestock)
- Floodplains and wetland on power line rights-of-way

Comment: And I can tell you that they are very viable, and apparently very healthy members of the accipiter family, buteo family, as well as the osprey, along Lake Norman, along Lake Wiley. So from my personal observations, at least as far as the birds of prey are concerned, not only are they viable, but they are healthy. (C-2)

Comment: However, McGuire has a thriving population of osprey, wild turkey, deer, and numerous other species. And we have many ongoing environmental initiatives that we manage in cooperation with the North Carolina Wildlife Resources Commission, the Wildlife Federation, Mecklenburg County Parks and Rec, and the Wild Turkey Federation. We are also wildlife and industry, together, certified by the North Carolina Wildlife Federation. We have a certified backyard habitat. We have a wood duck pond, a blue bird trail, an herbivore pond, a fish friendly pier, and numerous other wildlife areas on-site. Based on our review of our operating history, and a look at our continued operation, we have concluded that we will not adversely impact the plants and animals on-site (F-5)

Comment: However, we do have a thriving population of wild turkey, osprey, deer, and numerous other species. We have many ongoing environmental initiatives that we manage in cooperation with the North Carolina Wildlife Resources Commission, the Wildlife Federation, Mecklenburg County Parks and Rec, and Wild Turkey Federation. We are wildlife and industry together certified by the North Carolina Wildlife Federation. We have a certified backyard habitat, bluebird trails, wildlife food plots, a herbivore pond, a fish friendly pier, and I can go on, the wildlife areas that we maintain on the McGuire site. Based on our review of our operating history, and a look at continued operation, again, we conclude that we will not adversely impact plants and animals at McGuire. (U-5)

Comment: McGuire Nuclear Station is the second corporate site in North Carolina to be certified as a Wildlife and Industry Together Site. This unique program recognizes companies across our state that exhibit wildlife stewardship on their properties. For example at McGuire instead of excess parking lots, there are planted food plots for turkey and deer. Instead of underutilized fescue acreage, there are butterfly gardens, songbird meadows, and bluebird, owl and hawk nesting boxes. An osprey platform has also been erected down by the lake (V-1)

Comment: Most importantly McGuire has fostered relationships with the communities in the area. McGuire allows public wildlife viewing, and educational opportunities in the areas throughout their site. Just one example is McGuire's nature trail, which coincidentally goes through one of the first areas ever designated by the National Audubon Society as a very important bird designation area. I think that the signs at the front entrance of McGuire tell it all. They proudly proclaim, in big bold letters, wildlife habitat enhancement program, and wildlife and industry together. (V-3)

Comment: Simply put the folks at McGuire have embraced their surroundings. They have sought to enhance their property, and their community relations through wildlife enhancement and education. They have realized that these concerns serve not only the betterment of wildlife itself, but of the community as a whole. (V-4)

Response: *The comments are noted. The comments discuss the participation of Duke in programs to protect the environment. They provide no new information and will not be evaluated further. The appropriate descriptive information regarding the plant-specific ecology of the site will be addressed in Chapters 2 and 4 of the McGuire SEIS.*

7. Comments Concerning Threatened and Endangered Species Issues

As stated in 10 CFR Part 51, Table B-1, Category 2 threatened or endangered species issues are:

- Threatened or endangered species

Comment: As part of our study Duke Energy worked with Dr. L.L. "Chick" Gaddy, a well known environmental scientist, to conduct a survey of threatened and endangered species around the McGuire site. And the results of that study showed that there are no endangered or threatened species at the McGuire site. (F-4)

Comment: The second category is plants and animals. As part of our study we worked with Dr. L. L. "Chick" Gaddy, a well-known environmental scientist, to do a survey of threatened and endangered species around McGuire. The results of that study is that there are no federally or state listed threatened or endangered species on the McGuire site. (U-4)

Response: *The comments are noted. They provide no new information and will not be evaluated further. The appropriate descriptive information regarding the plant-specific ecology of the site will be addressed in Chapters 2 and 4 of the SEIS.*

8. Comments Concerning Air Quality Issues

As stated in 10 CFR Part 51, Table B-1, Category 1 air quality issues include:

- Air quality effects of transmission lines

Comment: The third category we looked at was air quality. For the past 20 years McGuire has not adversely impacted the air quality in this region. And there is nothing associated with license renewal that would change that. (F-6)

Comment: We had clean water and clean air. Over these many years, however, we have seen a tremendous degradation of our groundwater, our rivers, our streams, and our air. And Duke Energy has been a great contributor to that. (I-3)

Comment: The third category we looked at was air quality. You may not know, but nuclear power provides almost 50 percent of Duke Energy's total electric generation in the Piedmont Carolinas, and because of that overall emissions from that generation system are well below the national average. For the past 20 years McGuire has not adversely impacted the air quality in this region, and there is nothing about continued operations, or license renewal that will change that. (U-6)

Comment: And then this happens. Going and lobbying and saying, let's not have these stringent regulations, we don't have to have air that clean. So that shakes me. (AD-3)

Response: *The comments are noted. Air quality impacts from plant operations were evaluated in the GEIS and found to be minimal. These emissions are regulated through permits issued by the U.S. Environmental Protection Agency and the State. Air quality effects are a Category 1 issue as evaluated in the GEIS and will be discussed in Chapter 2 of the SEIS. The comments provide no new information and therefore will not be evaluated further.*

9. Comments Concerning Socioeconomic Issues

As stated in 10 CFR Part 51, Table B-1, Category 1 and 2 socioeconomic issues include:

Category 1

- Public services: public safety, social services, and tourism and recreation

- Public services, education (license renewal term)
- Aesthetics impacts (refurbishment)
- Aesthetics impacts (license renewal)
- Aesthetics impacts of transmission lines (license renewal term)

Category 2

- Housing impacts
- Public services: public utilities
- Public services, education (refurbishment)
- Offsite land use (refurbishment)
- Offsite land use (license renewal term)
- Public services, transportation
- Historic and archaeological resources

Comment: So from a personal point I think they are good neighbors. We have even been out to their grounds for gatherings, family gatherings, and church gatherings. (D-1)

Comment: We do a number, they participate in a number of community support activities. Catawba Spring School, Long Creek Elementary School, clean cast fishing events for local children, Boy Scouts and Girl Scouts events, United Way and Arts and Science Council campaigns. Supporting the community is a priority for them. (E-4)

Comment: As Brew mentioned earlier, our employees spend thousand of hours, every year, volunteering for school, and civic, and church programs, and groups. We are proud to be part of this community (F-9)

Comment: I cannot tell you the impact, as far as economic impact, that Duke Power does, and represents with our hospitality industry We are looking at exit 36 to exit 18. (L-1)

Comment: And the economic impact that they do on our hospitality industry, and as Scott Hinkle has just said, with the tragedy that happened two weeks ago, it still remains, we have to have somebody like that, that keeps our hotels running as well as they have. (L-4)

Comment: About five years ago Duke Power adopted our school and initiated a Pony Express writing program, where the students have a pen pal. As you can see, Duke Power is very actively involved I our community, and it is a very important part of our school at Long Creek Elementary. (O-1)

Comment: At Christmas time the pen pals come to our school bringing gifts for each child. They also have expanded their program to help needy families at our school. (O-2)

Comment: We do a lot of things in the community. Our employees give a lot of their time to the betterment of their communities and their neighbors. We have had an 11-year partnership with the Catawba Springs Elementary School providing help in math and reading and computer skills; a pen pal partnership with the Long Creek Elementary School; we hold clean cast fishing events

for local children; we hold Boy Scouts and Girl Scouts events; we hold annual United Way and Arts and Science Council drives. Last year the McGuire employees contributed 160,000 dollars to their communities through United Way agencies, and the United Way campaign. (T-4)

Comment: As Brew mentioned earlier, our employees spend thousands of hours every year volunteering for church, community, school, civic groups, and programs. We are proud to be part of this community. (U-9)

Comment: McGuire has been instrumental in creating many of these learning opportunities. Opportunities such as learning about wildlife habitat, and then actually putting that knowledge to use, like the students at East Lincoln High School, who created a backyard wildlife habitat at McGuire, and were subsequently recognized by the National Wildlife Federation for this honor. And all the kids that get to learn about water quality and fishing do collaborative family fishing days that McGuire hosts. And the kids that are introduced to safe, ethical sportsmen activities through the nationally recognized JAKES, juniors acquiring knowledge, ethics, and sportsmanship, also hosted and sponsored by McGuire. These wildlife education programs require a commitment and rely on enduring partnerships. That is why McGuire is recognized as a Wildlife and Industry Together Site. McGuire has developed and sustained partnerships that allow continuing wildlife projects, such as the annual butterfly and bird inventories with Mecklenburg Parks, hosting composting workshops with county waste reduction, hosting environmental workshops for our state's educators, in conjunction with the state, through project WILD. (V-2)

Comment: In addition to assisting with the business and industry recruitment, McGuire has been an annual sponsor of the Chamber's leadership program by inviting participants to spend a day on-site learning about electric supply and the McGuire station. (Z-3)

Comment: Furthermore, Duke Energy, McGuire, we've had a partnership for 11 years now, with our school. We have seen many individuals come to our school from McGuire in many capacities, helping the children. They have provided assistance with grant opportunities for the school systems. They have provided assistance in developing a computer lab, provided coats for children, assisted in grading our land. They've assisted with volunteers in our school. (AA-2)

Response: *The comments are noted. The comments are supportive of license renewal at McGuire. Public services were evaluated in the GEIS and determined to be a Category 1 issue. Information regarding the impact on education will be discussed in Chapter 4 of the SEIS. Socioeconomic issues will be addressed in Chapters 2 and 4 of the SEIS. The comments provide no new information; therefore the comments will not be evaluated further.*

Comment: It (McGuire) is a great impact on our economy. It brings in a lot of money, a lot of good employees in this area. (A-2)

Comment: As far as the economic around here, I have a lot of friends that work at Duke Power. They have been at Duke Power for a while, and it is a huge impact on the economy. (D-3)

Comment: Over the last five years we've paid nine million annually in property taxes to Mecklenburg County. We have 1,100 employees that helped maintain a strong economy in the

area. And our annual payroll of over 77 million, helps to support local business and industry. (F-8)

Comment: The McGuire nuclear plant employs over 1,000 employees. And I'm a little off in the statistics you just gave, but approximately 80 percent of these employees live within a 30 mile drive of the facility. Their payroll alone, which is close to 80 million, only multiplies as it is spent in our community (G-2)

Comment: The property taxes to our neighboring county, Mecklenburg, of now eight million, are paying significant contributions in our schools, roads, libraries, police, fire, and it just keeps going. (G-3)

Comment: In addition to being safely operated we provide many benefits to the community. Over the last five years we've paid nine million, annually in property taxes to Mecklenburg county. We have 1,100 employees who help to maintain a strong economy in this area. And our annual payroll of over 77 million helps to support local business and industry. (U-8)

Comment: As President of the Chamber I'm very interested in attracting new business to our area. Reliable and affordable electricity is always a major factor for business who are considering a location. Duke Power has attractive rates, and the power has been reliable for Lake Norman Regional. My understanding from Duke is that 20 percent of their generation comes from McGuire. It makes good business sense to keep that supply source around for an additional 20 years. (Z-2)

Response: *The comments are noted. The comments are supportive of license renewal at McGuire. Socioeconomic issues specific to the plant are Category 2 issues and will be addressed in Chapter 4 of the SEIS. The comments provide no new information; therefore the comments will not be evaluated further.*

10. Comments Concerning Postulated Accident Issues

As stated in 10 CFR Part 51, Table B-1, Category 1, postulated accidents issues include:

- Design basis accidents
- Severe accidents

The environmental impacts of design basis accidents is a Category 1 issue in the GEIS. Also, the Commission has determined that the probability-weighted environmental consequences from severe accidents (i.e., beyond design basis accidents) are small for all plants but that alternatives to mitigate severe accidents must be considered for all plants that have not considered such alternatives. See 10 CFR 51.53(c)(3)(iii)(L).

Comment: In the event of a severe accident, when the reactor fuel melts, the risk that reactor containment will rupture, and large releases of radioactive material get into the environment, will occur at significantly greater at Catawba and McGuire than at other pressured water reactors with other types of containment. There is no backup system for reactor containment. The steel containment vessel is the only one. Other plant systems may have backups. (Q-7)

Response: *The comment is noted. Severe accidents were evaluated in the GEIS and the impacts were determined to be small for all plants. A site-specific analysis of Severe Accident Mitigation Alternatives will be performed by the NRC staff in the SEIS for McGuire. The comment provides no new information; therefore, the comment will not be evaluated further.*

11. Comments Concerning Uranium Fuel Cycle and Waste Management Issues

As stated in 10 CFR Part 51, Table B-1, Category 1 uranium fuel cycle and waste management issues include:

- Offsite radiological impacts (individual effects from other than the disposal of spent fuel and high level waste)
- Offsite radiological impacts (collective effects)
- Offsite radiological impacts (spent fuel and high level waste disposal)
- Nonradiological impacts of the uranium fuel cycle
- Low level waste storage and disposal
- Mixed waste storage and disposal
- On-site spent fuel
- Nonradiological waste
- Transportation

Comment: I don't think we should renew any of our nuclear plants licenses across the country until there has been a solution of what to do with the nuclear radioactive waste that is accumulating. There is nothing to be done with it. So if you don't have a solution to a problem, why keep adding to the problem and keep creating more waste, with nobody knowing what to do with it? (M-1)

Comment: It (spent fuel) is a potential fire bomb if a terrorist comes in with a plane and just suicides, kamikaze-like, into these ceramic, whatever enclosures are housing this waste, that as I understand is sitting outdoors on concrete pads. But let's don't sacrifice the lives of our posterity. Maybe it won't happen for another 100, 200, 300 years, but do we want to be responsible for letting some disaster happen, when we don't have to? (M-2)

Comment: Spent fuel, is that within the scope of the EIS, or outside? (R-15)

Comment: The first is the long-term handling and storage of the radioactive waste, particularly the high level radioactive waste generated with the spent fuel rod assemblies. I have asked the question, and you have heard from others here, how open Duke Power is on asking questions, and their answering them. I asked the question, I said, how good is your long term storage? And here is the reply I got. Approximately 50 fuel rod assemblies are replaced each year, although not every 365 days, but on a different schedule. And they are currently permitted at the McGuire site for on-site storage for up to about 2,200 fuel rod assemblies. If one does a quick math, you can figure out that they've got just about a 40 year permitted area for the spent fuel rods on-site. And that does not include the possible disposal of central facility, that we have already talked about, with Yucca Mountain. (AC-2)

Comment: Is the waste stored inside the reactor shell which is so strong, and all that, or is it in another building, or is it in fact sitting around outdoors, the way it is at some nuclear plants? (AD-6)

Comment: The spent fuel storage problem is reason enough to decline the license renewal request. The Nitrogen-16 EMF radiation detectors at McGuire are picking up gamma rays from the spent fuel dry casks. This was not supposed to happen. What other little surprises will develop from storing spent fueling dry casks? The problem is not getting better; it is getting worse. (AI-8)

Response: *The comments are noted. Onsite storage and offsite disposal of spent nuclear fuel are Category 1 issues. The safety and environmental effects of long-term storage of spent fuel onsite has been evaluated by the NRC and, as set forth in the Waste Confidence Rule, the NRC generically determined that such storage could be accomplished without significant environmental impact. In the Waste Confidence Rule, the Commission determined that spent fuel can be stored onsite for at least 30 years beyond the licensed operating life, which may include the term of a renewed license. At or before the end of that period, the fuel would be moved to a permanent repository. The GEIS is based upon the assumption that storage of the spent fuel onsite is not permanent. The plant-specific supplement to the GEIS regarding license renewal for Catawba will be prepared based on the same assumption. The comments provide no new information; therefore, the comments will not be evaluated further.*

12. Comments Concerning Alternative Energy Sources

Comment: And part of this analysis we reviewed various alternatives to license renewal. We looked at solar, wind, conventional fossil generation, as methods to be able to replace McGuire. But none of those alternatives were selected. We didn't select them because of their high cost, relatively low electrical output, land use impacts, and other environmental impacts. (E-7)

Comment: I believe in nuclear generation, I believe it is the environmentally responsible way to create electricity. It is obviously, cleaner than fossil. And it is, obviously, an economical way to create electricity. (K-7)

Comment: I think we need to concentrate on developing alternative energy sources. A gentleman spoke that they had eliminated, they had looked at solar, and other forms of energy, and had discounted it. Maybe it will cost us more, maybe we will have to pay more for our energy. Maybe we will have to conserve, maybe we will have to share rides, maybe we will have to walk, maybe we will have to move closer to our jobs .Let's put our resources into developing the sustainable energy resources. (M-3)

Comment: Duke says that they believe that combined cycle technology is the most economically attractive baseload technology. I think that this is -- I don't know what economically attractive means to anyone in the room here, but I don't think that Duke did a sufficient analysis to be able to tell us if their comparison with other forms of renewable energy, including wind power, and solar power, had been compared alongside of the continued use of the Catawba or the McGuire reactors, in this case. (Q-1)

Comment: I might point out, as a dramatic point, that the consideration of safety issues in terrorism with regards to wind powered generators almost seems ridiculous, because there are no issues with regard to safety and terrorism, with regard to wind energy generators. This is a significant omission in their application process (Q-2)

Comment: As for alternative sources of energy, Duke did not conduct an analysis that looked into the future. They looked at existing sources of energy and the current technologies. But just as the United States essentially subsidized the entire nuclear energy industry with its research and development, now they are sinking tens of millions of dollars into this thing called clean coal. Well, what does clean coal mean, and what would a clean coal plant mean? And that needs to be in this EIS, what would be the environmental impacts of a clean coal plant, because I'm really dying to find out what they are. I've only seen it kind of talked about in vague terms by the labs. (R-14)

Comment: We evaluated alternatives, we evaluated replacing McGuire's economical baseload electric generation with other sources of power. We looked at wind, we looked at solar, we looked at other forms of conventional fossil generation. We did not select those alternatives. We did not select them based on their cost, based on their limited electrical output, and relative basis, on their land use requirements, and on other environmental impacts. (T-7)

Comment: Okay, now to the questions. If the license is not renewed, would the nuclear plants be total write-offs, or could they be converted to operation by gas as a fuel, or some other form of energy? (AD-4)

Comment: This point is one I already made, so I won't make it again. The final point is, I think we are reaching a new era. A power plant that works on wave power. Solar power suggestions as well. (AD-11)

Response: *The comments are noted. The GEIS included an extensive discussion of alternative energy sources. Environmental impacts associated with various reasonable alternatives to renewal of the operating licenses for McGuire Nuclear Station, Units 1 and 2, will be discussed in Chapter 8 of the SEIS.*

13. Comments Concerning Environmental Justice

Comment: But nonetheless there are tens, and tens of thousands of families who are very poor, not as well educated as we would like Americans to be, living in this most polluted part of town. We are also home, mostly, to poor whites, blacks, and Latinos. The NRC begged you to consider all this, because you will further burden these many scores of thousands of families, unless you rein in Duke Power's ability to carry out their plans for using this plutonium. (I-4)

Response: *The comment is noted. Environmental Justice is an issue specific to the plant and will be addressed in Chapter 4 of the SEIS.*

14. Comments Concerning Related Federal Projects

Comment: And my understanding was the license originally was that Duke Energy had the right to dam the Catawba River at Lake Wiley, and Lake Norman, to produce energy. And since this was given by the federal government, the citizens gave them that right to do that, they had certain responsibilities about the water, and the land surrounding those lakes that they created, and where they were creating power. And I'm not sure, in today's nuclear age, how that original license fits into what this process is talking about today, about these two units. Because my concerns are about the environmental impact. So this is talking about two units, I'm talking about the whole picture for relicensing, which involves Duke Energy's responsibility to the citizens that gave them the right to dam the rivers and produce energy. (AE-1)

Comment: When I was growing up I had friends who had a lease on property on Lake Wiley, we loved to go out there, had a great time growing up as a child. We were known as river rats. Some of you have heard that expression before. And we just had a wonderful time. My understanding is the license doesn't just apply to these plants on the lakes. When the original license was given Duke had the responsibility of helping maintain the water, and the land adjacent to the lakes. And this is a question. It seems to me they lost that power to control the quality of the water, and maybe some of the air, too. When instead of having these leases they started selling off the land to private owners. And so now you heard the people talking about all the wonderful things they are doing at the sites, the sites, the sites. Well, yes, because I guess they don't have control of the property right on the lakes, and so the local governments are trying to get buffers now, get people to agree to buffers. So my question is, has Duke inadvertently abandoned what the federal government licensed them to do by giving up this buffer of leasing? If someone is not doing what they should be doing as far as protecting the water and so forth in their lease, it seems to me Duke could have some say so, I don't know, I'm just asking that question. (AE-2)

Response: *The comments are noted. These comments relate to Duke Energy Corporation (Duke) hydro power operations that fall under the authority of the Federal Energy Regulatory Commission (FERC). Related Federal projects such as the FERC license will be discussed in Chapter 2 of the SEIS.*

15. Comments Concerning Safety Issues Within the Scope of License Renewal

Comment: Neutron bombardment, silting from fission reaction degrades the metal parts of the reactor, the metal becomes brittle. Reactor embrittlement increases with age. And an embrittled reactor may look unchanged, but it will not perform as well under extreme conditions. In the event of a drop in the level of reactor coolant, the heated water is replaced by cold water from outside the reactor. The cold water can cause embrittled reactor parts to fail, and minor reactor failure becomes a major one. Embrittlement of reactor parts is a well known phenomenon, and has caused premature closing of commercial power reactors. (W-5)

Comment: Is three feet several feet? Because I never thought that three feet was more than a few. I'm talking about the thickness of the reactor shell. (AD-5)

Comment: Having directly been involved with the design and installation of nuclear power plants I can testify that the original design was never intended to operate beyond a 40 year life. Operating these plants beyond the design life is clearly an experiment in stress and corrosion

analysis, cycling fatigue and resulting fatigue failure. The granting of operating licenses to extend the life of a nuclear power plant within close proximity of densely populated area is analogous to playing Russian roulette with the health and safety of the public. (AH-1)

Response: *The comments are noted. The NRC's environmental review is confined to environmental matters relevant to the extended period of operation requested by the applicant. To the extent that the comments pertain to safety of equipment and aging within the scope of license renewal, these issues will be addressed during the parallel safety analysis review performed under 10 CFR Part 54. Operational safety issues are outside the scope of 10 CFR Part 51 and will not be evaluated further in this SEIS. The comments provide no new information and, therefore, will not be evaluated further in the context of the environmental review. However, the comments will be forwarded to the project manager for the license renewal safety review for consideration.*

16. Comments Concerning Issues Outside the Scope of License Renewal: Emergency Response and Planning, MOX Fuel, Operational Safety, and Safeguards and Security

- **Emergency Response and Planning**

Comment: We initially started out with some situations where local government and Duke had to come to agreement, and we did. We don't always agree, but we always come to the conclusion that citizen safety is a primary factor that we must address. I think if you went through one of those facilities and looked at the security measures, if you saw how they were built, it may change a lot of opinions of people regarding nuclear power and nuclear industry. We should be, and are, working on a daily basis to make sure that the planning associated with an incident at McGuire is successful. And I don't speak to that because we are evaluated, each and every year, by outside organizations. It is not local government looking over our shoulder, it is not another organization looking over our shoulder, it is the federal government, the NRC in partnership looking over our shoulders to make sure that what we put in a book, is an emergency plan that works, and works for you, the citizens. (B-1)

Comment: And, again, to reiterate what Wayne said, we are looking at a number of safety issues here, and never, not a single time, has the issue of safety of citizens ever come into question. That has always been something that has been paramount not only in emergency management, but as well as the folks at Duke Energy. (C-1)

Comment: Could a situation ever occur at McGuire nuclear plant? It is possible. No one will ever stand here and tell you that it couldn't happen. In the event a situation would occur at McGuire, is Duke Power prepared? I have seen them train, and I can fully say, yes, they are. In the event a situation would ever occur at McGuire, or the surrounding counties, is the State of North Carolina prepared? I can truthfully say yes, because I am part of it. (S-4)

Comment: The other point that I would like to make in terms of the evaluation process of this Environmental Impact Evaluation, is that we have to look at the level of development that has sprung up around these reactors, is continuing to be pushed by the development arm of Duke Energy. I understand that there are a lot of good people working for this corporation. I understand that. I've talked with them, I understand that safety is a major issue. If that is the

case, please look at the impacts of the kind of growth we have been experiencing both around McGuire and Catawba reactors. (AB-3)

Comment: I was given a reassurance, and it felt good at the time, that nuclear accidents don't just go boom, like dropping an atomic bomb, they develop gradually, over a period of hours, and that gives everybody a chance to get away. That sounded good until I started trying to picture that. So you are in the control room and somebody says, temperature is getting in the red zone, maybe we better get that valve open. Oh, oh, it won't open up, what are we going to do about it? Let's start working on it. Would that be the moment, at the beginning of the several hours? Would that be the moment when they set off the sirens, or will they fight the problem for three or four hours before they give the alarm? I would like to know just how that works, and at what point, when you realize you are in trouble, or getting into trouble, or beginning to get into trouble, at what point do you alert the public? (AD-8)

Comment: And I wonder if there is ever going to be a point when Duke is going to put some advisory and say, look, we can't evacuate any more people than we have now. You better quit building, you better quit all this stuff. Or are you just going to let it go on and on? Another 20 years how many people will be in this area, will it be another 100,000, or will it be 200,000 more, or 300,000 or half a million more? I don't understand how you can want it both ways. Either you want your plant in an area that is sparsely enough populated, and well enough provided with roads to evacuate, or you don't want to operate the plant. The roads at the present time are totally inadequate for escape. The Mooresville Tribune reported that it would probably take 12 to 24 hours to evacuate the Rt. 150 area. The exit 28 intersection is dreadful, it goes into gridlock three or four times a day, and on special event days it goes into really tight gridlock. Also the I-77 is inadequate. All it takes is for a few pallets to fall off a truck and people sit on the highway for hours. I think the idea of evacuating is a joke, because of the excessive and irresponsible development that has taken place already, so near an atomic power plant. (AD-10)

Response: *The comments are noted. The staff evaluated impacts under current population conditions. Safety reviews and emergency preparedness are an ongoing process at all plants, including the McGuire Nuclear Station. Each nuclear plant must have approved emergency and safeguards contingency plans, per 10 CFR Part 50. Emergency and safeguards planning are part of the current operating license and do not pertain to the scope of the environmental analysis for license renewal as set forth in 10 CFR Part 51. Additionally, the comments provide no new information relating to license renewal and, therefore, will not be evaluated further.*

- **MOX Fuel Issues**

Comment: And now we learn that Duke Energy is about to use a very deadly substance (plutonium) in these plants. Now, you say, this does not have to do with the relicensing, that is separate. No, it isn't, I'm sorry. That is disingenuous for you to say that, because they are intimately connected. (I-2)

Comment: Tell me how it is that you think that this plutonium that is being used in these plants that Duke Energy wants to use, from our nuclear disarmament, cannot be a target of terrorism? You are going to be transporting it long distances, across the country, from a sparsely populated area, to a heavily populated area. (I-5)

Comment: I just want to make a few additional comments regarding the transportation of this mixed oxide uranium plutonium, which is planned to be used at the McGuire and Catawba plants. And, like she said, you will be going through heavily populated growing areas, wide open to attack, whether you truck it -- if you truck it you will have traffic jams on 77. The amount of this stuff you can't see, a lot of this stuff you can't see will kill you. And I don't want to be an alarmist. But I just think, you know, let sleeping dogs lie, leave the stuff in Arizona where it belongs, where it was generated, where it sits, and not ship it over here and put us all at risk with it. Duke is going to have a total security nightmare, the government will. If the government has generated most of the environmental laws I'm familiar with, the government is going to be ultimately responsible for this plutonium, no matter who gets it, or uses it, or does whatever, it is still the U.S. government that was the generator, and will have to oversee this all the way until it is no longer hazardous. But we are being asked, and not asked but forced, to take the same variety of risk that something awfully bad will happen to us. I mean, I know they are going special transports. I don't really know if it is going to be on the railway, or coming up from Barnwell on either I- 77, or on the tracks, I don't know how they are going to do it, but they will know where it is. And this all sounds very well and good but we are the ones, here in Charlotte, that are going to have to take it on the chin. And I just want to make you aware of this, and that a lot of us are really quite concerned about it. (J-1)

Comment: When it comes to the decision to possibly burn mixed oxide fuel and plutonium, do I trust the United States government, or do I trust the Russians to dispose of it? I think I trust the faces at Duke Energy to take advantage of a clean, safe fuel that is going to be there regardless. (K-5)

Comment: More recently we have spoken about the specific dangers of introducing plutonium to the equation and the proposed use of mixed oxide or plutonium fuel in these reactors. (N-1)

Comment: In addition I would like to say that the license renewal process has to include the use of plutonium fuel in these reactors, and the subsequent impact of this program on the region. And this would necessarily require both McGuire and Catawba to have very specific environmental impact assessments. To use a generic impact assessment would be false, misleading, and really completely unacceptable in light of our current situation. It is clear that Duke is intending to go forward with this. They have a signed contract with the Department of Energy. And this program, make no mistake about it, adds yet another level of unacceptable

risk to this region, and there is no way to avoid that, and it has to be considered in any kind of license renewal process, which is currently not on the table. (N-3)

Comment: Duke is planning to submit, later this year, a license amendment request related to the use of MOX fuel. Now, the NRC would have us believe that they can't do anything until they receive an application, but that is false. Because under the National Environmental Policy Act, which mandates agencies to begin environmental analysis at the earliest possible time, not at the convenience of licensees, or developers, under NEPA the NRC is obligated to start evaluating it now. There is no reason why this meeting cannot be considered within the broad context of using plutonium fuel in Duke reactors. And to do so is an utter abandonment of their commitment and their obligation to NEPA, which is National Environmental Policy. The use of plutonium fuel is mandated to be evaluated now, under contract to the Department of Energy. If the NRC was to evaluate it, within the context of this Environmental Impact Statement, it would save us all a lot of money and time, which is what NEPA is supposed to be about. Come forward, put forward your proposal, and quit delaying the process. Quit forcing regulatory burdens on the public, because the NRC feels that jaywalking through the NEPA process, it feels like it can get away with it. (P-2)

Comment: Mr. Moniak has also -- has already gone somewhat into the issue of segmentation of the process with regard to plutonium fuel. Duke is required, under 10CFR51, to submit a description of the proposed action, including the applicant's plans to modify the facility. We think that Duke wrongly dismisses the requirement to analyze these plants to modify the facility for use of plutonium fuel during the license renewal process, as required. They state in their application that one potential future change to the current licensing basis involves the use of mixed oxide fuel at McGuire and at Catawba. Duke is planning to submit, later this year, license amendment. Again, we rest our case. This is segmentation. They know they are going to do it, and there is already an existing contract to that effect. (Q-3)

Comment: There is only one containment vessel with the issues of embrittlement, which we see with a fuel like plutonium, with a higher neutron flux, it induces a whole new range of problems with regard to the continued reactor safety issues, much beyond 2021, or 2023. (Q-5)

Comment: Why has it been two years since the NRC started this process, especially considering there has been several related meetings over the past year or so, relating to Duke's use of plutonium fuel in their reactors? You don't need the application, all you need is the knowledge, under NEPA all you have to do, under the National Environmental Policy Act, even the fact that something like this is being considered, an agency can go forward from that point. And, granted, the Environmental Impact Statement can't be developed until you have an application. But you could combine the renewal process and the scoping process with all this other ongoing NEPA work, in order to be a little more efficient. (R-3)

Comment: You can consider all the comments made in Charlotte, May 8th, as part of the scoping for this, because they are all related to Duke reactors almost primarily, and use of plutonium fuel, as well as normal operations. (R-4)

Comment: So that brings me to the issue of mixed oxide plutonium uranium fuel, which Duke plans, has under contract with the Department of Energy, to put in its reactors. About a third of

the fuel will be this plutonium fuel, weapons grade plutonium from disassembled nuclear weapon parts called plutonium pits. They plan on burning about 25 tons at McGuire and Catawba, which about 13 and a half at Catawba, 11 and a half at McGuire, or 12. There is going to be 450 shipments of this fuel, and this too is going to raise the level of safeguards for that facility a great deal. And that needs to be analyzed in this EIS, not in the license amendment, and nowhere else. It needs to be now, and in this. And then you can say you have analyzed the bounding incidents. (R-13)

Comment: And if you are looking at level of risk assessment, you certainly have to look at how that level raises when you talk about adding plutonium to the equation in these reactors. You cannot leave that out of the equation. To do so is irresponsible. This environmental assessment, this evaluation has to include this, because Duke Energy has plans to go forward with the use of MOX fuel, they have stated the case, there is a signed contract. How can you look at a license renewal extension process without considering this? Because we are looking at something that is going to be moving into our area. If it proceeds within the next few years. So I think that if there is one point that I would really like to make tonight, above all others, it is that you cannot leave this out of the equation. (AB-1)

Comment: And not one of those stories, although these are not South Carolina TV stations and newspapers, not one of these stories linked the McGuire and Catawba connection, which are the only two plants that I know of, that are going to process that MOX fuel, or are going to use it, and therefore in a sense don't have the whole story. Why was this left out? I don't think it was an accident. And that kind of thing diminishes my confidence and my trust of Duke, when I sense this kind of subtle censorship going on. (AD-2)

Comment: I would like to know why it shouldn't be a state of the art nuclear plant that experiments with the MOX fuel. I understand that state of the art now means something called a pebble reactor. There is one being built in South Africa, that cannot melt down, it never reaches temperatures hot enough, cannot reach temperatures hot enough for a meltdown. Why not a state of the art reactor for a riskier fuel like MOX? I would like to know that. (AD-7)

Comment: My next is about the MOX, the use of plutonium grade fuel in two of the plants. First of all it seems like to be, to earn trust you have to be a responsible person, at least that is my feeling. And I know someone talked earlier about risk. And I think taking risk without being responsible is not safe, is not good, is not something that Duke wants to do, it is not something that the NRC wants to do. However, my question is, you know, if this used plutonium is going to be crossing the country in vehicles, these vehicles were described to me as being very safe, strong, safe, they can stand any kind of impact and wreck. But can they withstand terrorists taking them over? It may not even go, may not even need a plane to crash into a nuclear power plant. Just take, hijack one of these trucks and take it to a certain place, and blow it up, near Charlotte. So then these trucks are taking this to Savannah river plant to be mixed, or whatever, into MOX. And then it is going to be taken to the two plants to be used. And here, again, responsibility is a question. Because is it Duke's responsibility to get that stuff across the country to Savannah, and from Savannah to -- no, it is not their responsibility at all, they have no responsibility there, it is the Department of Energy's responsibility. So here you are getting this stuff, and I don't think, I may be wrong, I'm asking a question, that Duke is paying much, if anything, for this used plutonium. They are getting it pretty free. And in the information that was sent to me, that is for the public it says: DOE will reimburse Duke Power for all MOX fuel related

operating and maintenance expenditures, as well as capital expenditures necessary to modify the plants for MOX fuel use. So here we are being asked to trust the company, Duke Energy. They are getting all this reimbursement from DOE, they are not responsible for getting this dangerous stuff across the country to Savannah, they are not responsible, as far as I know, getting it from Savannah to McGuire, and they are not paying much at all, they are getting reimbursed. So it seems to me, if you are like most human beings, if you aren't given responsibility, you don't have to take much responsibility. And given the events of September 11th, what would keep a terrorist from hijacking one of these trucks, carrying this stuff, and blowing it up? Well, we are going on how many years now, and we still do not have a national repository, and Yucca has not been decided on yet, right? And in addition to that they say now, in this, it says instead of putting it in glass pellets they think it is a better idea to take this and use it up. Not all of it is used up. If you take plutonium and make MOX, and take it to the reactors, not all of the plutonium is used up. But it is better than leaving it lying around where it could be stolen and used by terrorists, or other rogue countries, to make nuclear weapons. And that sounds like a really good plan. However, given the events of September the 11th, is it? That is my question. (AE-3)

Comment: So my question is, has our tax money gone to Savannah to help produce a plant to make MOX before the NRC has even given approval to create this? But there is a plant being made with our tax dollars for this MOX? Has the construction started? (AE-5)

Comment: My concern is, if that is true, it is another factor about trust. If the NRC is already allowing MOX to be made before they even approve making it, and that money is coming from I don't know where, but it must be some tax money, I'm assuming, I'm not sure, then how can we trust? What is the relationship between the NRC and Duke Energy? Does this raise a question on some people's minds? (AE-6)

Comment: I have serious reservations about the use of MOX fuel at McGuire Nuclear Station. If there is a chance that MOX fuel will be used, the operating licenses for units one and two should NOT be extended. (AI-1)

Comment: Even disregarding terrorist attacks, shipping plutonium is still dangerous. What if a plutonium bearing truck collides head on with a tractor trailer and plunges into Lake Norman? The accident scenarios are endless. We do not need plutonium in North Carolina. (AI-3)

Response: *The comments are noted. The NRC staff has determined that MOX fuel issues are outside the scope of license renewal at McGuire. The use of MOX fuel will be addressed in a separate environmental review if and when an application to use MOX fuel at McGuire is received. The comments provide no new information relating to license renewal and, therefore, will not be evaluated further.*

- **Operational Safety**

Comment: As far as I've heard, and can tell, it is a very safety conscious company. And I think that is something that we all ought to be proud of. I don't know of any other company, or anybody that is that safety conscious, and that concerned. They are very, very safety minded, very conscious about the environment, about the working conditions. And after what happened last week, that is something we all have got to be very proud of, that they are safety conscious, and they are thinking about us, other than the economy. (A-3)

Comment: From the political side being a public official, safety is our number one concern for our citizens. And Duke Power has always shown to be safe with the standards they put in place (D-2)

Comment: We have been operating for 20 years and providing safe, reliable, and economical power to the community in which we live. (E-2)

Comment: Their prime mission is the safekeeping of their families, their friends, their neighbors, and the environment in which they all live and play. (E-3)

Comment: Again, we are members of this community, we live here, our families live here, and this is our number one mission, is protection of the area in which we live. (E-5)

Comment: McGuire has a national reputation as a well run station, and we are committed, every day, to protecting the safety and health of the public. (F-7)

Comment: How fortunate we are to emphatically be able to answer with a yes the question, is your power source safe and reliable? The McGuire Nuclear Plant has maintained this record for the past 20 years, and provided us with reliable power at a very reasonable cost. In closing I want to reiterate the fact that the McGuire nuclear plant has provided safe electricity to the residents of our community for over 20 years. (G-1)

Comment: In fact, when I was in Chicago several companies in my field were convicted of criminal activities regarding supplying of nuclear stations. I say this because I have heard some concern about your ice condenser cooling system. I cannot evaluate that, I'm not an engineer, I don't know. But I do know no matter how strong a chain is, it is only as strong as its weakest link. And I ask Duke to think about this, and the NRC to think about this. (H-1)

Comment: And from that experiment, as far as the tour that they provided us, as Brew was asking all of you all, if you all have not visited that facility, you need to. It is very safe -- the way that they work over there, the way that they explain to you what they do over there, both professionally, you just feel very safe. (L-2)

Comment: So that is what McGuire and Catawba are known for, is their vulnerabilities, because they have weak containment systems, and that is a fact.(Referencing February 2, 2001 meeting of NRC Advisory Committee on Nuclear Safeguards discussion about ice condensers) (P-1)

Comment: A major issue with regards to accident containment failures at the reactor have to do with the ice condenser issues. Hazards in nuclear plants are a combination of human and technical errors. Both types of error are noted in the Nuclear Regulatory Commission's plan performance reviews at both McGuire and Catawba. For example, the PPR notes shortcomings in ice condenser maintenance, and inspection; corrosion of service water pipes, auxiliary feedwater pipes, which are the only source of water for steam generators when the main feedwater system fails; and examples of poor engineering performance. Ice condensers simply must work during reactor emergency, as an airbag must work during an auto accident. Other plants, including the Cook Plant in Illinois, was shut down because of identified problems with ice condensers. Just for clarity sake, the ice is located behind a number of doors in these reactors. When pressure and containment reaches a certain level above pressure inside the ice condenser area, McGuire plant employees determined in 1997, that 10 of the 48 ice condenser inlet doors, in the lower containment, were incapable of opening with less force than specified in the plant's technical specifications, and may not have opened in an accident situation. (Q-4)

Comment: And all Duke nuclear power plants experience chronic maintenance problems. The forced shutdown rate, Duke power nuclear reactors experience higher than average unplanned, unforced shutdown rates through the data as of the end of 1992, when all of the data was readily available in one place. Plant efficiency and capacity factor. Duke's reactors have experienced average efficiency relative to the rest of the nuclear industry. McGuire 1 and 2, they are both in the 20th percentile. So between 40 and 60 percent, right in the middle. Even when looking at pressurized water reactors, McGuire actually rates lower than in the middle. Radiation safety, again, right about at the average, a little bit below, but nothing that is statistically significant. (R-8)

Comment: There is allegations of safety deficiencies alleged there, but also alleged a generic problem. Allegor alleges that he contacted somebody at Duke Power, at American Electric Power, the other utilities operating ice condenser plants, and told them of the problem of potential broken, or missing screws. He alleged they stated that they had encountered up to hundreds of screws in their melt system, but did not raise the issue to management because the plants were operating at the time. So it became a safety concern. Not a major one, but one that wasn't in the license evaluation reports, or the other NRC mandated reports. Problems with DC Cook ice containment, such as configuration and testing, were known but not reported by DC Cook, Watts Barr, McGuire, and Westinghouse. And it goes on. (R-10)

Comment: So here is one from March 6th, 2001, synopsis of the Office of Investigations regarding Duke Energy Corporation employee who may have falsified his training records. The Office of Investigation did not substantiate that the employee willfully falsified the training records. That is good, he did not willfully falsify them, but they were falsified, nonetheless. And that is not the only incident in which that happened. Now it is one thing, as I have said, when it is a low consequence operation going on, but this is a high consequence operation going on, that has to meet far higher levels of safety margins than other industries. Because if there is an accident much of the area around here could be uninhabitable. (R-11)

Comment: At the Nuclear Regulatory Commission's Advisory Committee, its February 2nd, 2001 meeting, the Advisory Committee on Nuclear Safeguards, these are the experts that have to review this, Mr. Powers is on the committee made the quote, statement: I just wonder if ice condensers had some peculiarity about them that I didn't know about, other than vulnerable

containment." And then they all laughed. Which really is not very funny, but to them it must have been. Mr. Kress, also a member, said: "You were reading my mind." And Mr. Powers said: "I saw you grinning over there". And Mr. Tim Johnson was there, at that meeting. In fact, you were making the presentation to them. (R-12)

Comment: We have been operating in the Lake Norman area, in the Lake Norman community, for over 20 years now. As I said, as a site we are a part of the community, but our employees are a part of this community as well. (T-2)

Comment: The mission of every McGuire employee is to operate McGuire Nuclear Station safely, and take care of the public and our friends around us, take care of our communities. (T-3)

Comment: We are committed every day to protecting the safety and health of the public. And that commitment will not change as long as we are part of this community. (U-7)

Comment: Much of this information comes from regulatory options from nuclear power plant license renewal NUREG-1317. Now, at McGuire Power Plant, they are listed in that three-year period five violations, five incidents where Duke Power Company operated McGuire 1 or 2 outside of its design basis. (W-2)

Comment: In addition to that the plant performance reviews note shortcomings in the ice condenser, maintenance, and inspection, corrosion of service water pipes, auxiliary feedwater pipes, and examples of poor engineering performance. (W-3)

Comment: Plant systems, safety structures and components within the scope of this power plant license renewal, the ice condenser is a safety related system, which is relied upon to prevent, or mitigate, the consequences of accidents that could result in off-site exposure above 10 CFR 100 guidelines. The aging ice condenser system, coupled with poor performance, reduces the safety margin of the reactor. (W-4)

Comment: It never really dawned on me to a great degree, that I would have to worry about the safety in the capacity that I have parents and children at my school, parents who work at McGuire, and also have children at my school. And I see the dedication those individuals have to their professionalism of the job they perform, at their job, the way they take care of their children, and how much they care about the community in which they serve. (AA-1)

Comment: The biggest threat to the environment and population is Duke's poor relationship with its employees. Morale has been going downhill for at least five years, and it continues to deteriorate each day. It is unreasonable to think that Duke's confrontational management style will never have an impact upon nuclear safety. Duke's management has proven that they cannot be trusted by breaking their word to long term employees. They broke benefits promises made for thirty years. (AI-5)

Comment: Duke has been cutting corners and making questionable business deals for at least five years. At what point will putting profits ahead of all else effect nuclear safety? Duke Energy is under investigation by the Federal Energy Regulatory Commission, the California attorney

general, the California Public Utility Commission, the Internal Revenue Service, the Department of Labor, the Equal Employment Opportunity Commission, the Treasury Department, the General Accounting Office, the North Carolina Utilities Commission, the South Carolina Utilities Commission, and the Environmental Protection Agency. And, Duke is facing numerous law suits. One does not get this many agencies on their trail by doing the right thing. (AI-6)

Response: *The comments are noted. Operational safety, including comments related to the original design of the facility, are outside the scope of the review. An NRC safety review for the license renewal period is conducted separately. Although a topic may not be within the scope of review for license renewal, the NRC is always concerned with protecting health and safety. Any matter potentially effecting safety can be addressed under processes currently available for existing operating license absent a license renewal application. The comments provide no new information and do not pertain to the scope of license renewal as set in 10 CFR Parts 51 and 54; therefore, they will not be evaluated further.*

- **Safeguards and Security**

Comment: What on earth is to keep a plane from plowing into these plants? (I-1)

Comment: And for this reason, and in light of the events of the last few weeks, I would like to begin by addressing the obvious. And that is nuclear power plants and nuclear shipments pose real and dangerous targets to those wishing to inflict the highest level of damage to this region. And any discussion of a license renewal should basically include this real and probable threat, and the security necessary to prevent strikes of this kind. (N-2)

Comment: At the same time I think that the NRC has to look to its own history of downplaying the role of terrorism against nuclear facilities, or shipments in this country. It is time for the NRC, and every utility and pertinent regulatory or investigative agency, to pay attention to these real and present dangers, and take appropriate action and stop misleading the American people, and Congress, about the oversight and safety of these reactors. Records of sabotage at nuclear plants in this country abound. This is not a new situation. And an exercises supervised by the Nuclear Regulatory Commission security guards at half of the nuclear power facilities in this country failed to repel mock terrorist attacks against safety systems that were designed to prevent a reactor meltdown. Yet the NRC has, in recent past, suggested weakening the security procedures that are in place in response to industry complaints. And, in fact, considered turning them over to the industries themselves to manage. This is unacceptable, especially at this time. Terrorist assaults of nuclear power plants has been on the radar, but it has been on the radar for years, it is not news. During the period of time surrounding the first World Trade Center bombing the FBI investigated, and raided, a terrorist training camp located a few miles from Three Mile Island. During this period of time the Three Mile Island was, did experience a security breach. The FBI did raid that camp. Shortly after the first World Trade Center bombing there was a letter that the FBI investigated, and verified, from a terrorist organization claiming 150 suicide death soldiers who were -- whose sole purpose was to attack nuclear power plants in this country. This is documented, this is on the record. And this is what we are facing right now. We cannot bury our heads. All the feel good images on this screen are not going to change what we are facing. And I think that we obviously have to look at that, and now is certainly the time in regard to relicensing nuclear power plants in this country. And I will try to wrap this up quickly. This morning Paul Leventhal, of the Nuclear Control Institute, released a report on nuclear

terrorism at the Washington Press Club. That should be available this afternoon, I would think, on the website. In which he stated: "A nuclear plant houses more than 1,000 times the radiation as released in an atomic bomb blast. The magnitude of a single attack could reach beyond 100,000 deaths, and the immediate loss of tens of billions of dollars, and irreversible damage. The lands and properties destroyed would remain useless for decades, and would become a stark monument reminding the world of the terrorist's ideology. I believe we understand those kinds of images now. Home owner insurance, I might add, does not cover such accidents, and the liabilities of these nuclear facilities is marginal, with industry trying, right now, to make it even more marginal. Meanwhile, we in the community sit here asking for accurate and realistic assessment of the risks associated with the operation of this plant. I would like to know if we are addressing these issues, are we prepared to create the kind of security that is going to be involved in protecting our communities from terrorist attacks on the over 100 nuclear reactors in this country. The first being that every nuclear reactor in the world is at risk for a terrorist attack. The second recommendation that came out from that conference was that every nuclear reactor in the world should be capable of maintaining anti-aircraft protection against terrorists attacks. (N-4)

Comment: Finally I would say this, after listening to many of the comments today, that to state that nuclear safety cannot be based on a handshake. Everything changed after September 11th. The NRC, and I advise Duke, must assume that someone will rattle the doors until they find one unlocked. A new approach to safety and security must begin today so that we may know that these plants do not present an extreme risk to the citizens of the Charlotte, Mecklenburg, Statesville, Catawba County, and who knows how far. (Q-6)

Comment: It is only three feet of concrete protecting that reactor. The nuclear generation station when asked, could they be protected from an event like what took down the World Trade Center they said, it is not designed to do that, they weren't required to do that. It would be very simple for Duke to simply say we are not required to build a structure that can contain a deadly amount of radiation from an intentional crash of a large jet. It is not their fault they are not required to, that is what the law says. But to say, to give the impression that they are somehow prepared to defend against such a thing is crazy. And in the scope of this Environmental Impact Statement it is time to analyze the impacts of total loss of containment, which is what you've always should have been doing, anyhow. And it is time to analyze the impacts of the strong possibility that every nuclear plant in this country is going to need a larger land area to provide for increased security and safeguards. (R-7)

Comment: When we talk about what happens, and what if scenarios, you could talk about a plane crashing into McGuire nuclear station. You could talk about a warhead, or some other kind of device, nuclear device launched anywhere else, or it doesn't even have to be launched. And we are glossing over what happens if there is germ warfare. What if a virus is let loose in our rivers and our streams? Are we going to continue to live in fear and trepidation that that might happen? I guess I put my faith in the security of my community through the Huntersville Police Department, and the other police departments, and in the U.S. Military, and in Duke power for their security. (Y-1)

Comment: The other point that I would like to make is that we cannot dismiss, you can make light of the situation regarding nuclear power plants, and bombs falling out of the air, or planes

flying into these nuclear plants, you can dismiss that all you want. You can, you can -- when a reporter puts a microphone in front of your face and you say, we can handle this, we could handle this type of situation at our nuclear plant, all I'm asking is that you make very sure that you are telling the truth to the people of this area. And I would like to see a situation where you can prove that to the people of this country, to the people of this area. I don't believe that that is the case. I don't believe that anybody today, who witnessed what happened last week, could sit here and in all honesty actually say that is possible. Just say it may not be possible, but we are going to take the risk. (AB-2)

Comment: Also they demonstrated very clearly that it would probably be a lot easier for 7, or 8, or 12 people to bust into the White House, or Fort Knox, than it would be to get into McGuire. I certainly couldn't think of any way that I could have a team of armed terrorists trying to rush that building and get in, I don't think I could. And there didn't seem to be any way to park a truck, or anything, anywhere near it, either. So I agree that they have gone to tremendous lengths with security. (AD-1)

Comment: I understand, from -- I talked with some people who say that they think that the three foot containment wall is so well reinforced, so well designed, that you couldn't crack it with an airplane. I find that hard to believe after seeing what airplanes could do, but would you have to, in order to produce a meltdown, would you have to crack the reactor? What if you just blew up the control building, or just zapped the water intake? Wouldn't that produce a meltdown? We understand it would. Would it, or wouldn't it? (AD-9)

Comment: Neither the new MOX project or the Duke reactors have been designed to withstand an airplane crash like the world trade center. If a crash should occur, vast amount of Plutonium could be released (Chernobyl). These plants should be re-designed before use. These cost should be added to the project now. It should be re-analyzed to see if it will be cost effective with these changes. Who will pay DOE or Duke customers? (AF-1)

Comment: If the US has decided not to build any more nuclear power plants, there must be a good reason. I would like to phase out the ones in existence! They are obviously considered a prime target for terrorists and we certainly do not need any more targets. A power plant can be rebuilt....a nuclear power plant would endanger so many people if anything happened to it. Let's use a safer type of energy. (AG-1)

Comment: The MOX Scoping Report did not consider the threat of terrorist attacks on plutonium fuel. After the September eleventh terrorist attacks in New York and Washington D. C., I do not think the NRC can afford to be so complacent. (AI-2)

Comment: Duke's spokespeople twist, distort, and manipulate the facts at every opportunity. One of the most blatant statements made by a spokesperson was that a jetliner crashing into a nuclear reactor would produce no consequences! The spokesperson then said that the security force could handle all emergencies! This comes very close to outright lying to the public. How can the NRC possibility trust them? (AI-7)

Comment: Anyone, on any given day can drive their boats right up to the plant from the lake. Talk about a terrorist target! There ought to be a safe area constructed from the lake side and

armed guards at the entrance. Background checks need to be rechecked. It seems to me that all you all care about is money and not the safety of the people. When are the plants operators and the government going to do something to protect us citizens. This is totally ridiculous. (AJ-1)

Response: *The comments are noted. The NRC's environmental review is confined to environmental matters relevant to the extended period of operation requested by the applicant. Safety matters are outside the scope of this review. An NRC safety review for the license renewal period is conducted separately. In addition, each nuclear plant must have approved emergency and safeguards contingency plans, per 10 CFR Parts 50 and 73. Emergency and safeguards planning are part of the current operating license and are outside the scope of license renewal. Any required changes to emergency and safeguards contingency plans related to terrorist events that may be necessary will be incorporated under the operating license. The comments provide no new information, and do not pertain to the scope of license renewal as set in 10 CFR Part 51 and Part 54. Therefore they will not be evaluated further under this review.*

17. Requests for Information

Comment: You just stated that current regulations are adequate to address things that you are not going to address in the EIS. What if the regulations change, how can you predict what the regulations are going to be in 20 years? (R-1)

Response: *Current regulations are adequate for assessing the effectiveness or performance of components and structures. 10 CFR Part 50 requires that plants have a quality assurance program, corrective action programs, such that when they find problems, performance problems, failures, degraded equipment, they are required to take corrective actions to prevent recurrence.*

Comment: Are you going to consider the cumulative impacts as if all four reactors were running at once? (R-6)

Response: *The SEIS will include a consideration of cumulative impacts considering both the two-unit McGuire plant and the two-unit Catawba plant.*

Comment: One other thing, and this is another about responsibility. It is not Duke's responsibility, but they are the beneficiaries. It is my understanding that the NRC has not given a license to anyone to do, to create MOX in this country, is that correct? (AE-4)

Response: *The NRC has not licensed a facility to create MOX fuel.*

Summary

The preparation of the plant-specific supplement to the GEIS will take into account all the relevant issues raised during the scoping process that are described above. Concerns related to the environmental license renewal review of McGuire will be considered during the development of the draft SEIS for McGuire Nuclear Station, Units 1 and 2. The draft SEIS will be available for public comment. Interested Federal, State, and local government agencies, local organizations, and members of the public will be given the opportunity to provide comments to be considered during the development of the final SEIS.

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