

Appendix A

Comments Received on the Environmental Review

Appendix A: Comments Received on the Environmental Review

Part I—Comments Received During Scoping

On June 2, 2005, the U.S. Nuclear Regulatory Commission (NRC) published a Notice of Intent in the Federal Register (70 FR 32381), to notify the public of the staff's intent to prepare a plant-specific supplement to the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (GEIS), NUREG-1437, Volumes 1 and 2, to support the renewal application for the Monticello Nuclear Generating Plant operating license and to conduct scoping. The plant-specific supplement to the GEIS has been prepared in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) guidance, 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; Native American tribal organizations; 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 August 2, 2005.

The scoping process included two public scoping meetings, which were held at the Monticello Community Center in Monticello, Minnesota on June 30, 2005. Approximately 50 members of the public attended the meetings. Both sessions began with NRC staff members providing a brief overview of the license renewal process and the NEPA process. After the NRC's prepared statements, the meetings were open for public comments. Ten attendees provided oral statements that were recorded and transcribed by a certified court reporter. The meeting transcripts are an attachment to the July 28, 2005, Scoping Meeting Summary. In addition to the comments received during the public meetings, thirteen comment letters and seven e-mail messages were received by the NRC in response to the Notice of Intent.

At the conclusion of the scoping period, the NRC staff and its contractors reviewed the transcripts and all written material to identify specific comments and issues. Each set of comments from a given commenter was given a unique identifier (Commenter ID), so that each set of comments from a commenter could be traced back to the transcript or letter by which the comments were submitted. Specific comments were numbered sequentially within each comment set. Several commenters submitted comments through multiple sources (e.g., afternoon and evening scoping meetings). All of the comments received and the staff responses are included in the Monticello Scoping Summary Report dated October 7, 2005.

Table A-1 identifies the individuals who provided comments applicable to the environmental review and the Commenter ID associated with each person's set of comments. The individuals are listed in the order in which they spoke at the public meeting. To maintain consistency with the Scoping Summary Report, the unique identifier used in that report for each set of comments is retained in this appendix.

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Specific comments were categorized and consolidated by topic. Comments with similar specific objectives were combined to capture the common essential issues raised by the commenters. The comments fall into one of the following general groups:

- Specific comments that address environmental issues within the purview of the NRC environmental regulations related to license renewal. These comments address Category 1 or Category 2 issues or issues that were not addressed in the GEIS. They also address alternatives and related Federal actions.
- General comments (1) in support of or opposed to nuclear power or license renewal or (2) on the renewal process, the NRC's regulations, and the regulatory process. These comments may or may not be specifically related to the Monticello license renewal application.
- Questions that do not provide new information.
- Specific comments that address issues that do not fall within or are specifically excluded from the purview of NRC environmental regulations related to license renewal. These comments typically address issues such as the need for power, emergency preparedness, security, current operational safety issues, and safety issues related to operation during the renewal period.

Table A-1. Individuals Providing Comments During Scoping Comment Period

Commenter ID	Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession Number^(a)
MS-A	John Grubb	Nuclear Management Company	Afternoon Scoping Meeting
MS-B	Charles Bomberger	Xcel Energy	Afternoon Scoping Meeting
MS-C	Wayne Mayer	Magic Moments Photographic Studio	Afternoon Scoping Meeting
MS-D	George Crocker	North American Water Office	Afternoon Scoping Meeting
MS-E	Lea Foushee	North American Water Office	Afternoon Scoping Meeting
MS-F	Kristen Eide-Tollefson	R-CURE	Afternoon Scoping Meeting
MS-G	Carol Overland	Overland Law Office	Afternoon Scoping Meeting
MS-H	Clint Herbst	City of Monticello	Evening Scoping Meeting

Commenter ID	Commenter	Affiliation (if stated)	Comment Source and ADAMS Accession Number^(a)
MS-I	Tom Palmisano	Nuclear Management Company	Evening Scoping Meeting
MS-J	Kent Larsen	Xcel Energy	Evening Scoping Meeting
MS-K	Joseph Steffel	City of Buffalo	Letter (ML051960028)
MS-L	Lynne Dahl-Fleming	DESIGN for PRINT [&Web!]	Letter (ML051810330)
MS-M	Alan Loch	Loch Jewelers	Letter (ML051810327)
MS-N	Mike Benedetto	Monticello Public Schools	Letter (ML051810325)
MS-O	Barbara Schwientek	Monticello-Big Lake Community Hospital District	Letter (ML051810324)
MS-P	Dan Olson	State Farm Insurance	Letter (ML051810543)
MS-Q	Mark Ourada	State of Minnesota Senate District 19	Letter (ML052090152)
MS-R	Susan Struckness	Monticello Chamber of Commerce	Letter (ML051810333)
MS-S	Julie Risser	Citizen of Edina, Minnesota	Email (ML052220380)
MS-T	Pat Sawatzke	Commissioner-District 2	Email (ML052220387)
MS-U	Susu Jeffrey	Citizen of Minneapolis	Email (ML052220381)
MS-V	Carol Overland	Overland Law Office	Email (ML052220353)
MS-W	George Crocker	North American Water Office	Email (ML052220384)
MS-X	Justin Eibenholz	Southeast Minneapolis Neighborhoods	Email (ML052220382)
MS-Y	Christine Ziebold	Citizen of Minneapolis	Email (ML052220355)
MS-Z	Bruce Anderson	Minnesota House of Representatives	Letter (ML052220378)
MS-AA	Don Orrock	Big Lake City Council	Letter (ML052220378)
MS-AB	Ewald Petersen	Big Lake Township Board of Supervisors	Letter (ML052220378)
MS-AC	Bruce Thielen	Monticello City Council	Letter (ML052220378)
MS-AD	Tom Fenski	Monticello Chamber of Commerce	Letter (ML052220378)

^(a) The afternoon and evening transcripts can be found as an attachment under accession number ML052030005.

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The subject areas the comments were grouped into are as follows:

1. Comments in Support of License Renewal at Monticello Nuclear Generating Plant
2. Comments in Opposition to License Renewal at Monticello Nuclear Generating Plant
3. General Comments Regarding License Renewal and Its Processes
4. Comments Concerning Water Quality and Use Issues
5. Comments Concerning Aquatic Ecology Issues
6. Comments Concerning Terrestrial Resource Issues
7. Comments Concerning Air Quality Issues
8. Comments Concerning Land Use Issues
9. Comments Concerning Human Health Issues
10. Comments Concerning Socioeconomic Issues
11. Comments Concerning Postulated Accidents
12. Comments Concerning Uranium Fuel Cycle and Waste Management Issues
13. Comments Concerning Alternatives
14. Comments Concerning Aging Management

Each comment is summarized in the following pages. For reference, the unique identifier for each comment (Commenter ID letter listed in Table A-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 made 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 on the Monticello license renewal application.

A.1 Comments and Responses

1. Comments in Support of License Renewal at Monticello Nuclear Generating Plant

Comment: I'm here today to provide my support for this request for license renewal from the Monticello station. The mission of everybody who works and supports Monticello is clear; and that's safe, reliable, economic operation of the plant. The safety of the public and the employees being the No. 1 priority. Two of our key values include being a good neighbor, a steward of the environment in which we operate. (MS-A-1)

Comment: In conclusion, the Monticello plant has been a productive contributor to the energy needs of the State of Minnesota and a valuable asset and good neighbor to the surrounding communities. We remain committed to operating safely, reliably, economically, and focus on being a good neighbor and a good steward of the environment. I and the rest of the employees at Monticello look forward to serving you and meeting the needs of the community for many years to come. (MS-A-8; MS-I-8)

Comment: And I would like to share why license renewal is the most economic and responsible energy choice for our million and a half customers here in the Upper Midwest. (MS-B-1; MS-J-1)

Comment: In closing, we believe that continued operation of Monticello is vitally important to the state's energy needs, important to the local economy, and important to more than 500 employees who keep it running every day. We look forward to operating Monticello safely for many years to come. (MS-B-9; MS-J-9)

Comment: The City looks forward to working with Xcel Energy into the future, especially as our city continues its growth and expands its boundaries towards the west. In closing, I would like to commend all personnel working at the Monticello nuclear generating facility for their excellent safety management. (MS-C-3)

Comment: I guess I was asked to come and speak just a little bit about what I feel Xcel has been for the community. And I kind of consider myself an expert, not as far as the day-to-day operations, but being that we moved here in 1972 and I've continued to raise my family here. Also, I feel that it's a very safe operation, a much needed operation, being that now I'm on the government side of it, to see what kind of impact Xcel does have on the community and what kind of impact they could potentially have on the community if there was any problem with relays and things.

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I feel very confident that I can speak for previous councils because this is an issue that came up quite some time ago, and Xcel kind of delayed it for some reason. They're looking at different things. But, past councils and the present council, I think are well behind Xcel, hoping that everything goes well, hoping that they stay a part of, a huge part of the community like they have been. (MS-H-1)

Comment: I'm here tonight to provide my support and comments on our request to renew the operating license for the Monticello plant. The mission of everyone who works at Monticello is very clear and very simple: safe, reliable, and economic operation of the plant. And, quite frankly, the safety of the public and the safety of our employees is the No. 1 priority and has been and continues to be as we operate. And as part of that, two of our key values includes being a good neighbor and a good steward of the environment in which we operate, and certainly that's very pertinent to tonight. (MS-I-1)

Comment: I would like to recommend to the U.S. Nuclear Regulatory Commission that Xcel Energy be granted an operating license renewal for the Monticello Nuclear Generating Plant. (MS-K-1)

Comment: I am writing to express my support for the relicensing of the Monticello Xcel (sic) Energy Nuclear Power Plant. I have been a resident of Monticello for over forty years. During that time, I have had ample opportunity to see the impact of the plant in our community. This impact has been nothing but positive throughout that time. (MS-L-1)

Comment: I am writing to give my support for the renewal of the license of the Xcel Energy Monticello plant. Loch Jewelers has been in Monticello since 1977. Our personal experience with the staff and employees of the Xcel plant has been very positive. They have always worked well with the business community, exhibiting good ethics and sound business practices and putting the safety of the community first. (MS-M-1)

Comment: Please accept this letter as our school district's [Monticello Public Schools] support for the license renewal of the Monticello Nuclear Plant. (MS-N-1)

Comment: The Monticello-Big Lake Community Hospital District Board of Directors and staff members support the license renewal for the Monticello Nuclear Generating Plant. (MS-O-1)

Comment: I have lived and worked in Monticello for the past twenty one years. I am writing you a letter in support of the license renewal for the Monticello plant. I cannot think of any local business who has been a better good neighbor than our local nuclear plant. (MS-P-1)

Comment: I would like to express my strong support for the license renewal application for the Monticello Nuclear Power Plant. (MS-Q-1)

Comment: BE IT RESOLVED, THAT the Monticello Chamber of Commerce, located in Monticello, Minnesota, does hereby take a position of support for the re-licensing of the

Monticello Nuclear Generating Plant. The Nuclear Plant and its employees are of great importance to the City of Monticello, and to Minnesota as a whole. (MS-R-1)

Comment: The Monticello Chamber of Commerce also is a strong supporter of nuclear energy as a power source for our State, thereby working to produce energy with no greenhouse gas effects. Nuclear is a clean, reliable source of energy for our state. (MS-R-3)

Comment: As a member of the Wright County Board of Commissioners that represents the area in which the plant exists, please let me extend my support to NMC in their efforts to re-license the Nuclear Power Plant in Monticello, Minnesota. (MS-T-4)

Comment: I write today in support of the Monticello Nuclear Generating Plant and advocate for a license extension for its continued operation. (MS-Z-1)

Comment: NOW THEREFORE BE IT RESOLVED by the City Council of the City of Big Lake, Minnesota, that the City of Big Lake go on record supporting construction of an Independent Spent Fuel Storage Installation, and License Renewal at the Monticello Nuclear Generating Plant. (MS-AA-5)

Comment: NOW, THEREFORE, BE IT RESOLVED that the Town of Big Lake, Sherburne County, supports the license renewal to continue operations for up to 20 years,... (MS-AB-3)

Comment: NOW THEREFORE BE IT RESOLVED, That the City of Monticello go on record supporting construction of an Independent Spent Fuel Storage Installation, and License Renewal at the Monticello Nuclear Generating Plant. (MS-AC-6)

Comment: We, the Monticello Chamber of Commerce, support construction of an Independent Spent Fuel Storage Installation, and License Renewal of our local Monticello Nuclear Generating Plant, owned by Xcel Energy and managed by Nuclear Management Company. (MS-AD-1)

Comment: NOW THEREFORE BE IT RESOLVED, that the Monticello Chamber of Commerce Board of Directors, go on record supporting construction of an Independent Spent Fuel Installation, and License Renewal at the Monticello Nuclear Generating Plant. (MS-AD-6)

Response: *The comments are supportive of license renewal at Monticello Nuclear Generating Plant and are general in nature. The comments provide no new and significant information; therefore, the comments will not be evaluated further.*

2. Comments in Opposition to License Renewal at Monticello Nuclear Generation Plant

Comment: And you're going to find that the political support for the commercial nuclear industry may be broad, but it's skin deep. And when that event happens, and when you've

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made the commitment to keep us committed to nuclear operations, what will happen then is we'll have chaos in the utility industry because we can't use the reactors anymore, and that will be piled on top of somebody's nuclear nightmare. (MS-D-14)

Comment: Extending the license to operate until 2030 will mean future generations will have to spend valuable resources safeguarding and storing more spent nuclear fuel; this is hardly beneficial to environmental resources. (MS-S-11)

Comment: Remaining dependent on nuclear power puts Minnesotans at risk for bearing the environmental and economic costs of maintaining toxic waste for centuries; the economic cost of maintaining this waste outweighs the value of the energy generated by it. (MS-S-19)

Comment: Given the location of the Monticello plant upstream from a densely populated urban area, the fact that Minnesota's current economic and political climate is weak, the fact that political leaders from the two major parties cannot function adequately to keep the government running under normal circumstances, and the fact that the soils at Monticello raise the prospects of groundwater contamination, it is clear that relicensing Monticello is inappropriate and irresponsible at this time. The NRC should reject Xcel Energy's application for license renewal. (MS-S-27)

Comment: We have no guarantees. We do however have a rising cancer rate, relative disincentives for alternative, decentralized energy production, and huge inefficiencies in energy use accounting for about half of the energy produced according to experts. It would be safer and cheaper to become efficient. Where is the leadership for tightening-up? (MS-U-6)

Comment: Nuclear technology is dinosauric it's from the last millennium. It's too big, inappropriate, uncontrollable. Transmitting electricity from big generating stations is wasteful, destructive of the environment, and extremely profitable until something goes wrong. (MS-U-8)

Comment: Are you the heroes who will say no to nukes and yes to progressive, decentralized, safe energy production? This is America. We invented modern citizen democracy. We are an inventive society. We can supply the world with smart power tools or continue our decline and deliver to ourselves a dirty bomb of our own making. "The peaceful atom is a bomb." (MS-U-10)

Comment: NRC currently gravely underestimates the risk of Monticello's operations to human and ecosystem health, uses outdated non-protective radiation standards, procures no tracking of health effects, provides lax oversight over safety and security, and by delivering a flawed alternatives-analysis seeks to ensure Xcel Energy's continued nuclear power operations. (MS-Y-41)

Response: *The comments oppose license renewal at Monticello Nuclear Generating Plant and are general in nature. The comments provide no new and significant information; therefore, the comments will not be evaluated further.*

3. General Comments Regarding License Renewal and Its Processes

Comment: Because the scope of public outreach was limited to Buffalo, Minnesota and Monticello, Minnesota the Nuclear Regulatory Commission (NRC) failed to provide residents of other effected communities with information and opportunities to participate in the EIS Scoping process; people were denied the chance to weigh in on whether or not the Monticello nuclear power plant should be relicensed. Furthermore the NRC appears to have intensionally (sic) undermined the process for allowing the public to participate at the public meetings that it did hold in Monticello to discuss the EIS Scoping. (MS-S-1)

Comment: The residents of the Twin Cities Metro Area have a vested interest in this resource it is a fundamental component of their survival - and they need to be included in public discussion about license renewal for Monticello. (MS-S-4)

Comment: The NRC failed to hold one public meeting in the Twin Cities during the EIS Scoping period.

The NRC failed to publish information about the Open Houses that it held in Monticello, MN on June 30th in both the Minneapolis Star Tribune and the Saint Paul Pioneer Press.

The NRC failed to get any local television stations to provide information about the Open Houses in Monticello.

The NRC failed to get any radio stations to provide information about the Open Houses in Monticello.

The NRC failed to provide transport from the Twin Cities to Monticello for those who do not own cars or have the financial resources to take a taxi to Monticello. (MS-S-5)

Comment: During the EIS Scoping period the NRC failed to provide libraries in the Twin Cities Metro Area with any documentation regarding the license renewal for Monticello; the NRC made this documentation available only at public libraries in Buffalo and Monticello.

People who learned about the Open Houses were instructed to contact Jennifer A. Davis 301-415-3835 or Jason Flemming 301-415-5787. I called Jason Flemming long-distance and left messages twice. Jason Flemming never returned my calls even though I clearly stated in both messages that I wanted to participate in the Monticello Open House as a concerned member of the public.

The NRC failed to provide people with a toll-free number so they could learn about the forum; public comments are likely to be skewed toward views of the middle-class and wealthy the poor were not provided a means to participate in this basic dialog.

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The NRC failed to provide people with contacts who would respond to their questions in a timely way; the NRC undermined the ability of the public to participate.

People who were able to make it to the June 30th Open House in Monticello were given a handout "Welcome to the NRC's Open House Associated with the Environmental Review for License Renewal at the Monticello Nuclear Generating Plant" that clearly stated in the first sentence of the second paragraph that the NRC was seeking comments supporting relicensing: "The NRC is gathering information necessary to prepare an Environmental Impact Statement (EIS) *in support of* the proposed renewal of the operating license for the Monticello Nuclear Generating Plant" (I have added the italics). This sentence alone may have discouraged members of the public who showed up intending to make a statement against the relicensing from voicing their concerns or entering them into the record.

In the "Welcome to the NRC's Open House Associated with the Environmental Review for License Renewal at the Monticello Nuclear Generating Plant" the first sentence of the second paragraph makes it clear that the EIS Scoping period was not a time for the NRC to consider the pros and cons of relicensing; for the NRC it was a time to gather information that supported a predetermined course of action relicense the plant. (MS-S-6)

Comment: Because the NRC failed to inform large communities that will be effected by the relicensing of Monticello about the EIS Scoping, because the NRC did not demonstrate a credible effort to engage members of the public in the EIS Scoping process, and because the NRC appears to have consciously set out to undermine participation from members of the public who are against the relicensing of Monticello the entire EIS Scoping Process needs to start over. To fail to do so will result in damage to Xcel Energy's reputation and damage to the credibility of all relicensing efforts for nuclear reactors throughout the United States. At this point in our nation's history undermining the democratic process for something as serious as relicensing nuclear power plants could have significant and harmful negative fallout as far as public confidence in the government's ability to put the long-term needs of the people before corporate desires for profit and gaining market share is concerned. Failure to engage in honest dialog regarding relicensing the plant creates the very real possibility that Monticello will be relicensed without the public or the NRC considering very serious problems; this is public policy at its worst. (MS-S-8)

Comment: I wish to underscore the opening comments made by Christine Ziebold, MD, PhD, MPH, and Julie Risser, who both pointed out ways in which the NRC, and NRC process, worked against public participation. I have an anecdote of my own: I emailed the contact person listed, Jennifer Davis, a day or two prior to the June 30 meeting to verify place and time because it was listed as "tentative" on the site, and did not receive a response until July 5! I live in Red Wing, and Monticello is a ways away, and I had no way to confirm.

It was not clarified for the audience the purpose of the meeting, that it is for determining the scope of the EIS, and what that meant, what types of Comments were specifically being solicited. Because this is not clear, the record contains comments from people supporting

nuclear power (!) and Monticello, but not offering anything relevant to the comment purpose. People attending the meeting were not able to tailor their comments to be effective. (MS-V-1)

Comment: The Nuclear Regulatory Commission's (NRC) relicensing process has dramatically deteriorated over the past decade.

NRC needs to clearly communicate, best establish a SEARCHABLE website, indexed on major search engines regarding Monticello. NRC's EIS scoping is a non-transparent process, EXTREMELY poorly communicated through the media. The search engine on NRC's website will not retrieve the website for Monticello on the first 20 hits, and neither will Google. If NRC wants to enjoy any credibility for its "seeking public involvement" it needs to fix this problem. (MS-Y-1)

Comment: NRC needs to honestly relate information about realistic health and environmental concerns due to the routine release of fission products to air, water and land and the unsolved long term storage situation, aside from issues due to catastrophic events. The NRC EIS scoping process as is and NRC communications in general keep the public at large uninformed. In my experience NRC meetings are tightly controlled and orchestrated. NRC's public relations have replaced solid information or even public health education. The process is virtually exclusive of the public at large. (MS-Y-3)

Comment: I kindly request that NRC hold another EIS scoping meeting in the Twin Cities ASAP.

The Monticello meeting on June 30, 2005 serves as a case in point. The public meeting (which really was one, not two as stated in the NRC press release, even though there might have been two basically back to back sessions within the same 12 hours) took place at the virtual exclusion of Twin Cities stakeholders, due to its location at Monticello and its timing. Twin Cities residents are stakeholders too, since a catastrophic event would affect a disproportionately larger number of us. (MS-Y-4)

Response: *As outlined in the Introduction section, the NRC published a Notice of Intent in the Federal Register (70 FR 32381) on June 2, 2005. This was the official notice to inform the public of its opportunity to participate as the NRC undertakes the environmental review of the request to renew the operating license of the Monticello Nuclear Generating Plant. Every Federal agency is required to publish its notices in the Federal Register, which is issued every work day, to ensure that the public is informed of its opportunity to participate in the work of the Federal Government. In the Notice of Intent, the NRC invited the applicant; Federal, State, and local government agencies; local organizations; and individuals to participate in the scoping process and to provide comments to the NRC about the scope of the environmental review no later than August 2, 2005. The NRC staff is supported by its contractors and any interested member of the public in undertaking this environmental review. The outcome is not predetermined, but an environmental review will be performed and an EIS will be prepared to support the review whether or not the request to renew the license is granted. The NRC*

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provided the public with information on the application located 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 www.nrc.gov/reading-rm.html, the Public Electronic Reading Room. Toll free telephone numbers were provided in the Notice to assist the public with the use of ADAMS and in contacting key NRC personnel on the project.

Although not required by NEPA, the NRC has elected to take steps during the scoping process to ensure that interested parties have additional opportunities to become informed about the project and to gain access to process and site-specific information to enhance their participation at the level they so choose. In addition to the official source of information in the NRC Public Document Room and ADAMS, the NRC believed that it would be useful to the public to provide a copy of the environmental information associated with the application for inspection at a public library close to the site area; for the Monticello project, two public libraries (Monticello and Buffalo) were kind enough to support our effort. The local libraries also have information to assist the public in using ADAMS if an individual does not have internet access from another source. Consequently, any individual who is interested in obtaining information from the NRC related to any environmental review for any license renewal project can go to any public library and use library resources to obtain access.

The NRC has established an open process to permit all members of the public to participate in the scoping process. Comments can be provided to the NRC in person, by mail, and by e-mail. In addition, the NRC has elected to conduct public meetings during the scoping process to ensure that interested parties have an additional opportunity to gain access to information about the project and the process to effectively participate. The NRC provided the information about the public meetings in the Federal Register Notice and posted the meeting time and location at the NRC's website (www.nrc.gov). The NRC also published a press release to inform the media about the purpose, time and location of the meetings, but the NRC does not control the actions of the media; consequently, the NRC also pays for advertisements in a reasonable set of local newspapers (the St. Cloud Times and the Monticello Times) to share the information with the public. The NRC meetings were facilitated and, in advance of the meetings, the facilitator contacted elected and appointed officials as well as known representatives of interest groups so that they could inform their constituencies of the opportunity to participate in the meetings. Finally, the NRC placed posters about the meeting in public places in the Monticello site area.

Two meetings were held on the same day to make it convenient for interested parties who had obligations (e.g., work or family) to choose whether they would participate in one or both meetings. Preregistering for either of the meetings assists the staff in determining the quantity of materials that it should bring to enhance the level of understanding and participation. During the days leading up to the meetings, the environmental review team generally conducts an audit in the site area and may no longer have access to office resources; consequently, the public was encouraged to contact the staff by June 23, 2005, to preregister. However, the NRC attempts to accommodate all interested parties at the public meetings whether they were preregistered or not. No member of the public was denied the opportunity to participate in the

scoping process. If an individual made the effort to attend the public meeting, then she or he was given the opportunity to share her or his views on the record to ensure that it would be captured by the NRC and treated equally as any written comment submitted by August 2, 2005. If an individual was unable to attend the meeting or elected to defer offering her or his comments at that time, then she or he still had the opportunity to share views with the NRC through the end of the comment period as outlined in the Notice. Those who provided comments at the public meetings were not precluded in any way from providing additional comments through the end of the comment period.

The comments raised concerns about the additional opportunities provided by the NRC to comment during the scoping process, but do not provide new and significant information. Therefore, the comments will not be evaluated further.

Comment: In a telephone conversation with Jennifer Davis, NRC contact for Monticello on 8/1/05 at 3pm CST I learned that NRC has a generic EIS for all nuclear plants and that "2/3 of the issues contained therein won't be revisited." Even if true, this was not a great motivation to submit comment. This generic EIS however is NOT posted under "Documents Available for Comment" which is the hyperlink provided for Public Involvement on NRC's Monticello website, which I only found today. (MS-Y-2)

Response: *The impact evaluation performed by the staff and presented in the Generic Environmental Impact Statement for License Renewal of Nuclear Plants NUREG-1437 (GEIS) identified 92 environmental issues that were considered within the scope of a license renewal review. For each of the 92 issues, the staff evaluated existing data from the nuclear power plants throughout the U.S. From this evaluation, the staff determined which issues were amenable to generic consideration and which issues can only be resolved on a site-specific basis. Sixty-nine of the issues were found to be generic to all sites, whereas, 23 of the issues would require a site-specific analysis. Generic issues are termed Category 1 because the conclusions related to their environmental impacts were found to be common to all plants or all plants with certain design features (e.g., cooling towers), mitigation of adverse impacts was considered, and it has been determined that additional mitigation measures are likely not to be beneficial to warrant implementation. Absent "new and significant information" that the NRC may obtain during its independent site-specific review, which includes public comments in the scoping process, Category 1 issues are not reevaluated in the site-specific EIS. Nevertheless, the conclusions from the applicable 69 Category 1 issues are adopted (using a NEPA concept known as tiering) in the site-specific EIS.*

Category 2 issues are those that require a site-specific review, prepared in the staff's site specific supplement to the GEIS. The NRC staff evaluates site-specific data provided by the applicant, other Federal Agencies, State agencies, tribal and local governments, as well as information from members of the public.

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The GEIS is available on the NRC's website at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437/>. The comment provides no new and significant information; therefore, the comment will not be evaluated further.

Comment: The NRC must evaluate the environmental impact of ownership and operation scheme, in this case, where Xcel is the owner of the plant with full liability for operations as conducted by NMC.

The application was made in the name of Nuclear Management Company, LLC. Xcel Energy, the owner of Monticello, should also be an applicant. (MS-V-6)

Response: *Nuclear Management Company (NMC) is the holder of the operating license, and has applied for license renewal of the operating license of Monticello Nuclear Generating Plant. NMC submitted the application, dated March 16, 2005, individually and as agent for the owner of the plant, Northern States Power Company, a wholly owned subsidiary of Xcel Energy Corporation.*

4. Comments Concerning Water Quality and Use Issues

Comment: There is (sic) some thermal issues. They may be generic, but they may be pretty specific to Monticello, being as Monticello is really on the upper waters of the Mississippi River. You cannot count on the cooling that this river has historically provided over the forecast period for a re-licensing period. (MS-D-10)

Comment: The NRC analysis on water quality and surface runoff fails to adequately address issues concerning erosion, changing weather patterns we are experiencing in Minnesota, and the risks to ground water contamination. (MS-S-23)

Comment: The EIS needs to define the impact on water. The EIS needs to assess in detail how reactor operations impacts water contamination. (MS-Y-33)

Response: *Temperature effects and other water quality issues were evaluated in the GEIS and determined to be Category 1 issues. Water quality will be discussed in Chapters 2 and 4 of the SEIS.*

Comment: And it was '95 -- or '85 or '86, maybe it was '87 when we did experience extremely low flow. Some of you who were here at the plant at that time remember those low flows. 7Q10 I believe it's called, is what we named it. Very, very close to opening up some of the reservoirs in the dams upstream from Monticello certainly, upstream from the Twin Cities to provide greater flows. We're going to see more and more of that. We're going to see less flows with higher temperatures. We know what happened a year ago in France when they had very, very high temperatures and the waters were too hot to take the cooling water from the reactors, and they had to shut the reactors down. Your EIS needs to take much more account of that than I think we historically have. (MS-D-11)

Comment: The NRC does not address the fact that while torrential down pours followed by days of hot dry weather used to be unusual in the state ten years ago, they have become common; cities are scrambling to address rapidly changing water levels that fluctuate from unusually high to unusually low. (MS-S-24)

Comment: Item 12 & 13, Physical Impacts on Water resources, Water Use. Xcel Energy uses water to cool reactors and this topic should be addressed in the EIS, because of the definite and apparent impacts on local aquifers and water resources. (MS-X-4)

Comment: The EIS needs to tabulate concisely how much of which contaminant is estimated to have been released for the past 2 decades of operation. The EIS needs to show water flow rates and respective volumes in which continuous and batch releases have and are expected to occur, and model the effects of these releases, taking into consideration latest scientific evidence (see 3,4,5)- not the references from 10 years ago as in the generic EIS. This modeling should include mitigating factors related to global climate change, such as volatile changes in available water quantity, especially of the Mississippi River. The EIS needs to show how adequate water monitoring would be performed, by whom and who would pay for it. (MS-Y-35)

Response: *The specific impacts of climate change within a particular region or watershed are highly speculative, and are therefore beyond the scope of a NEPA review for reactor license renewal. Furthermore, any changes in watershed characteristics would likely be gradual, allowing water use conflicts to be resolved as needed. Operating license holders are required to submit Annual Effluent Monitoring Reports and are also required to submit event reports during abnormal conditions. Water use conflicts will be discussed in Chapter 4 of the SEIS.*

5. Comments Concerning Aquatic Ecology Issues

Comment: The EIS must consider the impact of hot water discharges into the Mississippi river on aquatic plant, animal and human life. (MS-V-10)

Response: *The comment is related to aquatic ecology. Impacts to aquatic species will be addressed in Chapter 4 of the SEIS.*

6. Comments Concerning Terrestrial Resource Issues

Comment: Monticello is a strong supporter of the environment. We take great care in our daily activities to ensure that the environment is well protected. Our employees feel fortunate that the location of Monticello rests on the bank of the Mississippi River within the reaches of the Montissippi County Park and the Lake Maria State Park. The site is home to numerous wildlife, aquatic species and plant life. Our efforts have made Monticello a safe and sound habitat for many years, and it remains our commitment to maintain that for years to come. (MS-A-6; MS-I-6)

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Comment: Item 25, Nearby resources. First glance appears to be an incomplete list which does not include resources identified by the local community other than one "biologically sensitive area." This section also needs more discussion about impacts in the event of a release or accident. (MS-X-8)

Response: *The comments are related to terrestrial resource issues, which will be addressed in Chapters 2 and 4 of the SEIS.*

7. Comments Concerning Air Quality Issues

Comment: The next thing I would like to just mention briefly is that we are moving into a totally different climate paradigm. Global warming is on us. Nuclear reactors were not designed and built, and the functions that are provided within the redundant safety systems and so forth were not designed for the brave, new global warming world. (MS-D-9)

Comment: The EIS must consider the CO₂ releases of the nuclear cycle in comparison with other generation fuels, including uranium mining, milling, and other aspects of fuel production, transportation and concrete CO₂ emissions. (MS-V-9)

Comment: Item 22, Vehicle Emissions. More discussion is needed as this is the only identifiable source of air emissions. Trucks, hauling equipment, and vehicles used to perform ongoing maintenance need to be quantified and compared to USEPA guidelines especially considering the fact that this area is in danger of falling out of "attainment" for ozone. Vehicle emissions are a primary source of ozone precursors as identified by the Minnesota Pollution Control Agency and Xcel Energy in various publications. (MS-X-6)

Comment: Item 23, Stationary Source Emissions. This topic should include a more complete discussion of the radioactive emissions and also the impacts of particulate from construction of cask storage facilities and other activities related to plant operation that are on-going (back up systems for heating, cooling, etc). (MS-X-7)

Comment: The EIS needs to describe the impact on air quality and green house gas emissions.

The specific EIS needs to consider CO₂ production. The EIS needs to include data on CO₂ production numbers by the nuclear fuel cycle. (how much has been released should be concisely presented in table format for the past 2 decades of operation). In comparison to renewable energy, energy from nuclear power releases 4-5 times more CO₂ per unit of energy produced. Contrary to the generic EIS and public belief, CO₂ is emitted at every stage of the 7 stages of the nuclear fuel cycle: mining uranium milling, conversion, enrichment (90% of CO₂ production), fabrication into fuel rods, reactor operations and finally waste "disposal". (MS-Y-36)

Comment: The EIS needs to quantify air releases, show how adequate air monitoring would be performed, by whom and who would pay for it. The generic EIS only admits that small amounts of ozone and smaller amounts of oxides of nitrogen are produced by transmission lines (how much should be concisely presented in table format for the past 2 decades of operation). (MS-Y-37)

Comment: The power created is clean, with virtually no harmful air emissions. (MS-Z-3)

Response: *Air quality issues were evaluated in the GEIS and determined to be Category 1 issues. The comments provide no new and significant information on air quality and will, therefore, not be evaluated further.*

8. Comments Concerning Land Use Issues

Comment: The EIS must consider the impact of the growth of the Metropolitan area, which is now encroaching on the plant, putting more people in harms way, downwind and downriver. (MS-V-11)

Response: *Land use issues were evaluated in the GEIS and determined to be Category 1 issues. The comment provides no new and significant information on land use and will, therefore, not be evaluated further.*

9. Comments Concerning Human Health Issues

Comment: The second issue I would like to address has to do with, well, this new information out. As we spoke yesterday or the day before, the National Academy of Scientists, it's not the BEIR [Biological Effects of Ionizing Radiation] reports anymore. They don't call them the BEIR, but the panel of the National Academy of Science that looks at biological consequences of long-term, low-level exposure released the next round. And they confirm that there is no safe threshold. In other words, if you are exposed to the degree that you are exposed, particularly we will find if the exposure is not background, but rather internal because then it's ongoing, it doesn't stop. It never stops if it's internal. And you can't escape it if it's internal, if you've ingested or inhaled beta in particular. There is no safe threshold for that; and the degree of exposure, the symptoms that will be exhibited increase proportional to the amount of exposure that has happened all the way down to zero.

So based on that knowledge, why, we have a problem, in my opinion, with the monitoring that goes on because we don't know -- we do know that these reactors as they explode uranium atoms and provide the entire periodic chart of other elements, including all of their radioactive sons and daughters. And then we release many of them because they're gases in particular.

And we store them for a while. And then we wait for a while. And then at some point we decide it's time to let them go. And they report them to the NRC, and we've got a boxful of reports as to how many curies of this and that went out. And the monitoring looks very convincing if you

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don't know what you're looking at because it's dominated with TLD's, thermoluminescent dosimeters, which are gamma ray detectors.

Well, that's fine. We have a monitoring system that essentially will tell us when we have an accident. We shouldn't need a monitoring system to tell us that. We should know that from other sources. And what we should know is where are the reported releases going? Because unless we know where they go, we don't know where the receptors are. And unless we know where the receptors are, we don't know what the biological consequences of that reception are.

And so the scope of this EIS needs to include a requirement -- you need to have data included in this EIS if what you're talking about is whether the consequences -- I saw it on the slide. What are the consequences of continued operation? You need to know before you can say with any veracity what the consequences of continued operations are. You need to know where do reported releases go? If you don't know that and if the EIS can't say that, you have no business making any conclusions on whether the consequences, the environmental consequences of your continued operations. (MS-D-7)

Comment: Extending operations at Monticello for 20 more years will also mean more cancer-causing radiation emissions will be pumped into the atmosphere. (MS-S-10)

Comment: As with problems surrounding public involvement, problems surrounding environmental concerns reveal broad segments of the population have been ignored by the NRC. The NRC relies on studies that assume a healthy adult male who weighs approximately 150 pounds is the recipient of radiation emissions. (MS-S-12)

Comment: The NRC does not consider how radiation effects women, children, developing fetuses, the elderly, people with immune deficiency problems, people who are obese, and people who are underweight. The studies of radiation used by the NRC reveals a clear discrimination against well over 50% of the population; it is sexist, ageist, and elitist. On this latter point subjects are assumed to be healthy, i.e., individuals who have the resources to care for their bodies and their diets. (MS-S-14)

Comment: The NRC does not consider long-term radiation exposure. It does not weigh basic facts about human physiology. For example girls are born with all of their eggs intact. What is the effect of long-term exposure to human eggs? Will there be decline in human health and abilities over the next two to ten generations? (MS-S-15)

Comment: Generating electricity from nuclear material requires tremendous amounts of energy to process the uranium. Much of this electricity comes from coal plants which produce high levels of global warming carbon dioxide and high levels of mercury emissions which ultimately end up in human bodies; the EPA now estimates that one in six pregnant women have levels of mercury in their bodies high enough to jeopardize the development of the fetal nervous system. (MS-S-17)

Comment: The EIS needs to acknowledge that there is no safe threshold for radiation exposure. The widely acknowledged absence of a "safe" threshold for radiation exposure should provide a strong reason for NRC not to renew Xcel Energy's reactor license. Its routine operations cause radioactive pollution. "The fact that humans cannot escape exposure to ionizing radiation from various natural sources, is no reason to let human activities increase the exposure." (MS-Y-5)

Comment: The EIS needs to accurately reflect actual radiation exposure.

The EIS needs to consider the so-called "routine radioactive releases" for Monticello specifically. During Monticello's operation radioactivity is both continuously emitted and periodically batch-released to air and water. It is unclear in what quantities, and how often. These data should be presented in concise table format for the past two decades of operation. Dilution with large volumes of station circulating water into reservoirs, rivers and lakes makes the releases "disappear." This is not "natural background" radiation. (MS-Y-6)

Comment: The EIS needs to consider that NRC does not tightly regulate radioactive releases. NRC only asks Xcel Energy to "make every reasonable effort to maintain radiation exposures, and releases of radioactive materials in effluents to unrestricted areas, as low as reasonably achievable" (ALARA, 10 CFR 20). This is unacceptably vague and not considered a standard procedure for health risk limit settings in regulatory toxicology. (MS-Y-7)

Comment: The EIS needs to consider, and if none is available or found, fund the collection of up-to-date, in vivo radiation exposure data. NRC's generic EIS at 4.6.2 "Public Radiation Doses" presents unacceptably outdated, crudely modeled and ultimately uninformative data of "maximally exposed individuals" from 1985-87. NRC's so-called "latest" report, *Population Dose Commitments Due to Radioactive Releases from Nuclear Power Plant Sites* (1989), is 16 years old. None of the data are actual in-vivo measurements. (MS-Y-8)

Comment: The EIS must not exclusively rely on projections of radiation exposures. NRC needs to review the population density around the plant. NRC need to review and reference recent health studies that would confirm any low cancer incidence it assumes in the generic EIS. (MS-Y-9)

Comment: The EIS for Monticello needs to use a dose commitment that integrates radiation dose over time. NRC calculates radiation exposure only for the year of radiation release. In contrast, most European nations use a dose commitment that integrates dose over time, rather than only a one-time release. This non-dynamic modeling is akin to determining the cost of a loan merely on the basis of the principal. (MS-Y-10)

Comment: The EIS needs to consider the effects and costs of long-term exposures by several radionuclides including tritium. While most radionuclides emitted from Monticellos' nuclear power reactor are relatively short-lived, there are some with long half-lives (like C14), and some with infinitely long half lives (Ur238, 4.5 billion years) that can deliver harmful exposures for

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months, years, thousands and millions of years. Despite of its relatively short half-life (12 y) tritium is of high concern. It is a highly mobile radionuclide moving anywhere hydrogen does. While it is a relatively weak beta emitter, humans can inhale, ingest and absorb tritiated water and food, where it becomes an internal hazard, irradiating the tissue. Tritium can bioaccumulate through the aquatic foodchain. However, NRC 's generic EIS at 4.6.1.1 (Radionuclide Deposition) argues on the one hand that Tritium is not known to build up, but admits on the other hand that buildup is not explicitly accounted for in the aquatic food pathway. NRC 's tritium release limits remain lax, despite animal, human cell and DNA studies indicating its toxicity. Paragraph 4.6.1 on public exposure falls woefully short on what needs to be considered at Monticello, and seems more intent to deliver assurances than science based information. (MS-Y-11)

Comment: The EIS needs to consider physiological or ecological interactions that would mitigate exposures. Radionuclides can unite with carbon in the human body, plants, or animals. Even though Tritium passes through the human body in 12 days, some becomes organically bound and can remain in a person for much longer (450 to 650 days). One study even found traces of tritium in the body 10 years after exposure. Similar processes happen in the natural environment: As released radioactive gases decay, some form particulate and join other persistent radioactive isotopes released as fallout. Long-lived isotopes persist, accumulate and "bio-magnify" in biota through the food chain. (MS-Y-12)

Comment: The EIS needs to accurately estimate radiation-induced health risks in the general population both at Monticello and the larger region.

NRC needs to include emerging evidence on health effects in its EIS. More specifically the 1992 Energy Policy Act requires EPA to set public health and safety standards "based upon and consistent with" the recommendations of the National Academy of Sciences. NAS just published their latest report on radiation risk in June 2005 (BEIR VII report). Sixty years after Hiroshima, the full scope of effects of radiation on human beings is still incompletely understood, but progress has been made in the past 10 years since writing of NRC's (sic) generic EIS. (MS-Y-14)

Comment: The EIS needs to consider that NRC's radiation protection standards are not protective of the majority of the US population. (MS-Y-16)

Comment: The EIS needs to consider that cancer risks from radiation exposure are higher than previously estimated. The BEIR VII report is an improvement in so far as it estimates cancer incidence and mortality according to age of exposure, gender and by cancer type. The average risks to the population are estimated to be 10-15 % higher than the reference value currently used for radiation protection of the general population (565 cancer fatalities per million rem exposure in BEIR VII compared to 500). (MS-Y-17)

Comment: The EIS needs to consider non-cancer health risks. Newly emerging evidence points to the fact that radiation can cause a spectrum of effects, such as reproductive and

cognitive impairment. We now know that certain life stages and situations exist, when exposure to both radiation and hormonally-active compounds pose an increased risk to human health. As the BEIR VII report does not touch on publications after 2000, it is likely still underestimating the true health impact. See below. (MS-Y-18)

Comment: The EIS needs to show how NRC intends to monitor for health effects in the general population. The EIS needs to specify how NRC would achieve the monitoring rather than relying on projections assisted by third parties with significant interest in a downplaying of effects. *In the absence of other tracking systems in Minnesota this should include at a minimum an annual review of data from the state's cancer surveillance and birth defect registry, and the specification as to who would pay for the monitoring of health effects.* (MS-Y-19)

Comment: The EIS needs to account for sensitive subpopulations. NRC models still use a hypothetical 154-lb. adult white male for dosimetric modeling and protection standard setting. This does not take sensitive or divergent populations into account, such as

- a) women
- b) infants and children
- c) the unborn
- d) the elderly
- e) immunocompromised (MS-Y-20)

Comment: The EIS needs to account for women's increased vulnerability. Women's critical organ doses and effective doses (as defined in International Commission on Radiological Protection 60) are about 25% higher than for men. Women's gonad doses may even be as much as factors of 10-30 higher than in men. The risk for women to contract solid tumors like lung, breast, kidney, and liver cancer due to radiation exposure is about double those for men. The cancer mortality risks for females are 38% higher. Only for a few cancers, including leukemia, the risk estimates for men are higher. The special hormonal status of females increases cancer risk from exposure to ionizing radiation. Pregnant women appear to have an increased risk of cancer. Furthermore, research in both humans and animals has shown that interactions between hormonally-active chemicals and ionizing radiation may increase some types of cancer. For instance, low doses of neutrons were more effective in inducing breast cancer in female rats in combination with prolactin than without it. Hence radiation during pregnancy, when prolactin is increased is adding to the cancer risk. (MS-Y-21)

Comment: The EIS needs to account for infants and children's increased vulnerability. Current NRC standards and models do not consider newborn's special vulnerability to radiation. Many radionuclides are excreted in breast milk, providing a special exposure pathway for infants. The brain continues to develop during the first 2 years of life. Numerous studies show

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that ionizing radiation can impair the developing human brain and affect cognitive processes. Further evidence is from children treated for leukemia or brain tumors, although confounding factors cloud the issue somewhat. A recent study from Sweden examined 3000 men who received irradiation for a skin problem as young children. It clearly demonstrated a significant dose-response relationship for all cognitive tests at doses equivalent to those from computed tomography of the skull. IQ loss is a lifelong health effect. Several longitudinal birth cohort studies have shown that optimal brain development in utero and in the first years of life are a determinant for how well cognitive abilities are preserved in old age. In other words brain development impaired through radiation exposure during infancy and early childhood predicts cognitive decline in old age. Therefore costs from this health effect accrue over a long time. The risk for children to contract radiation-induced cancer is high, even higher than for women. For instance, the same radiation in the first year of life for boys produces 3-4 times the cancer risk as exposure between age 20 and 50. Female infants have almost double the risk as male infants. A study in the August 2003 issue of the Archives of Environmental Health showed that children growing up in regions with nuclear power plants develop cancer twice as frequently as controls/the national average. Milk teeth from the 47 cancer-stricken children contained higher levels of Sr-90. Radiation induced child health effects that need to be considered in the EIS are not merely loss of life and cancer, like leukemia later in life, but also chronic health conditions, such as an increased chance of birth defects, impaired fertility or IQ loss. The societal impacts and costs due to lost earning potential and mental retardation deserve NRC's special consideration. Unfortunately NRC de facto ignores the risk of low dose radiation in its protection standards. (MS-Y-22)

Comment: The EIS needs to account for the increased vulnerability of the developing fetus. Since the bombing of Hiroshima and Nagasaki it is well known that the unborn child is very sensitive to the effects of radiation. One reason is that the cells of the embryo are rapidly dividing and growing into specialized cells and tissues. This is accomplished through a complicated orchestration of high-level hormonal activity. A growing body of literature informs on synergism between hormonally-active compounds and radiation. The hypothalamo pituitary axis is a major regulator for endocrine activities, which are increasingly impacted by ubiquitous endocrine disrupting chemicals. There is general support for the view that development and programming of this axis during fetal life is the most sensitive window to permanently alter the homeostatic mechanisms of the endocrine system, including the mature reproductive system. Prenatal radiation exposures clearly are causes of endocrine-related cancers or susceptibility thereto. Low doses of X-rays to the fetus, especially during the last trimester, cause an increased risk of leukemia and all other types of cancer during childhood. Even use of therapeutic X ray of infants is associated with thyroid and breast cancer later in life. It is my understanding that current models to calculate internal radiation doses do not permit adequate modeling of the dose to individual organs within the fetus, even though this would obviously be quite important for safety assessments. Very few authors have attempted to make such individual organ dose estimates. However, with each additional study it is becoming clearer that placental transfer and fetal dose estimates have historically been underestimated. For example, the fetus is cradled above and behind the mother's bladder, which concentrates radionuclides and can provide additional radiation exposure, a source previously discounted.

Despite available evidence the quantification of the unborn child's health risks from exposure of parents to radiation is a task that NAS still has to tackle. Yet, NRC cannot afford to wait another 15 years for the next NAS report. NRC needs to err on the side of caution and consider birth defects, intellectual and reproductive impairment as radiation related health effect in its impact analysis. (MS-Y-23)

Comment: The EIS needs to account for the increased vulnerability of the elderly. Older age radiation exposures are associated with higher cancer mortality. (MS-Y-24)

Comment: The EIS needs to account for the increased vulnerability of the immunocompromised. Radiation-induced cell damages are less likely to be repaired by a person with an incompetent immune system as can be gleaned from the secondary cancer rate in cancer survivors after radiation therapy. The number of people whose immune system is compromised is rapidly increasing in our region due to immunosuppressive medical treatments and increased survival of people with infections and congenital immune deficiencies. (MS-Y-25)

Response: *The comments are related to human health issues. Human health issues were evaluated in the GEIS and were determined to be Category 1 issues. The GEIS evaluated radiation exposures to the public for all plants including Monticello; and concluded that the impact was small. During the plant-specific environmental review of Monticello, the NRC will determine whether there is any new and significant information bearing on the previous analysis in the GEIS. The information provided by the comments will be reviewed as part of that search. In addition, evaluation of new studies and analyses of the health effects of radiation exposure, such as BEIR VII, is an ongoing effort at the NRC. If significant new information is found, the NRC will perform a plant-specific analysis of this environmental impact. This issue will be addressed in Chapter 4 of the SEIS.*

10. Comments Concerning Socioeconomic Issues

Comment: On a different note, Monticello is more than a power plant operated by highly skilled workers. Monticello is part of this community. Not only does the plant rely upon many local companies for goods and services, but our employees live in and contribute to these communities and the surrounding communities on a daily basis.

We're proud to participate and give back to the community in a variety of ways, including serving on city and town boards, as leaders in civic and community organizations, as sports coaches, on church committees, boards and councils, and as members of charitable organizations. Our employees also help raise money for our local United Way organizations, the Relay for Life, the American Cancer Society, the Rotary Club, STARS Hockey Association, just to list a few. (MS-A-7; MS-I-7)

Comment: Monticello provides significant benefits, as John has pointed out, to the local and state economies by providing more than 500 full-time, family-supporting jobs. The plants and

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its employees purchase numerous goods and services from the local businesses and contribute and support the local charities and community organizations.

The plant also provides significant tax support to the local community. Xcel Energy is committed to being a good neighbor and fostering those continued economic growth in the region. (MS-B-8; MS-J-8)

Comment: This facility with the 500 jobs it does offer our community offers excellent career growth and retirement for the residents. It brings about economic vitality to all of our community.

Xcel closely works with city officials and county officials dealing with safety and security issues. During refueling, hundreds more contractors and subcontractors frequent our hotel, motels and restaurants, bringing more economic vitality to our community. (MS-C-1)

Comment: Previously you heard many examples of Xcel being a good neighbor. Another example is its commitment to youth and actually other older residents, such as myself. They have provided excellent softball and youth league baseball/softball facilities. It's a modern facility where many residents and non-resident families come to spend quality time. Prior to this location, NSP had provided a men's softball complex adjacent to Montissippi Park. This has now been converted to an area for radio-controlled model airplane enthusiasts. (MS-C-2)

Comment: The plant has provided stable good paying jobs for many people in the community and has aided the community in this respect by bringing many people to Monticello for employment. A great number of these individuals have contributed much to the town in terms of leadership and volunteerism. (MS-L-2)

Comment: Xcel (sic) has made it a policy to aggressively seek to provide sponsorship for a great for a large number of community activities designed to make Monticello a cleaner, safer and better place to live. Their contribution to Monticello's tax base alone has also assisted many community residents by lowering property taxes. (MS-L-4)

Comment: The Monticello Nuclear Plant has been an excellent neighbor to our community and school district for more than 35 years. Over the years many of the employees have resided in our community and sent their children to our schools. In addition, the employees have been civic minded members of our community. Numerous employees have joined local organizations and have served as community volunteers. Members of the Monticello Nuclear Plant have historically supported various community events such as the United Way and the annual River Fest Celebration. (MS-N-2)

Comment: The plant has also provided the area with a substantial tax base for our city, township and school district. (MS-N-4)

Comment: The Hospital District provides several programs such as Home Delivered Meals, Childbirth Education Classes, and music therapy for our Nursing Home residents that receive financial support from the United Way. Employees of the nuclear plant have supported the United Way. Plant employees are a part of our volunteer activities for our patients and residents. The local economy is better with the tax support provided by the nuclear plant. Monticello is growing rapidly and having the license renewal for the nuclear plant will provide stability for our community. (MS-O-3)

Comment: I also operate a local business and we say that many of our best customers are employees of the plant. They have been known to hire first class people and pay a very nice wage. In addition you will find employees to be active in local churches, coaching a youth hockey and baseball team, president of a local group like rotary. They do a wonderful job of having a quiet and almost invisible physical location while being very visible around the community. In addition to the employees it is easy to see and notice how the plant itself prides itself in supporting a whole variety of local efforts and charitable type events. (MS-P-3)

Comment: Last but not least is that I know they pay a whole lot of money in taxes. This is critical for all of us locally here in Monticello, but also spreads much further throughout all of Minnesota. (MS-P-4)

Comment: The plant employs nearly 500 people with an annual payroll of over \$50 million dollars, which is of course of great benefit to our community. But these employees are also a wonderful asset to the spirit of Monticello with their generosity, volunteerism and support of our local business and school district. Both the employees and the Company have been extremely generous to the United Way and many additional local charities in our continuing quest for an active and vibrant community. (MS-R-2)

Comment: Beyond this fact, there are many local benefits to the Nuclear Plant in Monticello. It plays an important role in the local economy, both as an employer and taxpayer to local families and governments. The company and its employees have demonstrated their support to the community through donations and volunteer efforts to various local groups, organizations and charities. (MS-T-2)

Comment: The plant is a vital asset to our state and important to my community. More than 500 people are employed full time at the plant. (MS-Z-2)

Comment: WHEREAS, a reliable, low cost and environmentally sound electric supply with a diverse energy mix is critical to economic well-being; (MS-AA-1; MS-AC-1)

Comment: WHEREAS, the Monticello Nuclear Generating Plant provides nearly 500 full-time jobs and contributes significantly to the local and state economy; (MS-AA-3; MS-AC-3; MS-AD-4)

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Comment: WHEREAS, the Monticello Nuclear Generating Plant is now, and will continue to be, a significant contributor to the local tax base, ... (MS-AC-5)

Comment: WHEREAS, nuclear power is a reliable, low cost and environmentally sound source of electricity, and is an important factor in a diverse energy mix that is critical to our economic well-being; (MS-AD-2)

Response: *The comments are supportive of license renewal at Monticello Nuclear Generating Plant, and are general in nature. The comments provide no new and significant information on socioeconomic issues, and therefore, will not be evaluated further.*

Comment: The EIS needs to assess the negative socioeconomic impacts on Monticello

- a) The EIS should specify Monticello nuclear plant tax payments as the percentage of the total city and county revenue. The data under 4.7.2 Taxes in the generic EIS show tremendous variation and are not helpful (<1 - 88%).
- b) The EIS should specify how many jobs and how many families depend on the Monticello nuclear plant as the percentage of the total city and county population. This would better illustrate an impact that needs to be explicitly considered, not projected. Dependence on the nuclear plant is a risk factor to the region.
- c) The EIS should provide actual details about the change in land use pattern since licensing of the reactor. The generic EIS paragraph 4.7.4 Off-Site Land Use is insufficient in judging whether sprawl with all its negative human and ecosystem health impacts is a result of the plant. The area to the immediate southeast of the reactor is one of the fastest growing communities in Minnesota. (MS-Y-32)

Response: *The comment is related to socioeconomic impacts on taxes, employment, and land use issues specific to Monticello. Socioeconomic impacts such as taxes, employment, and land use are Category 2 issues. These issues will be addressed in Chapters 2 and 4 of the SEIS.*

Comment: It's interesting as the severe accident mitigation alternatives, whatever that is, we have a substantial southeast Asian immigrant population in Minnesota, and they don't speak English and they eat a lot of fish. And so if we have a severe accident at Monticello and we contaminate a stretch of the river, we need to have a specific methodology of notification of all those communities and those individuals that may fish in the upper reaches of the Mississippi.

And so that includes like four southeast Asian languages and all that type of thing. And they don't necessarily follow the strict rules and regulations that we might have. And so it's going to be a substantial effort of notification. Otherwise you're going to have missed a large population that would be directly impacted. And also a large Hispanic, Latino community as well that in fact probably also does not speak English. And so you have all these groups that you must include in your analysis. (MS-E-3)

Comment: The NRC also fails to address how low-income people in the Twin Cities Metro area would be able to procure safe drinking water in the event that the Mississippi River became contaminated by nuclear material. (MS-S-13)

Response: *Environmental justice is an issue specific to Monticello and will be discussed in Chapter 4 of the SEIS.*

11. Comments Concerning Postulated Accidents

Comment: I also work with the North American Water Office, and my primary interest is that the Monticello Nuclear Facility is upstream from water intake, drinking water intake, for the Minneapolis city. And it is the only source of drinking water.

And so I would charge the NRC in their EIS analysis if there is an accident and there is a substantive discharge into that waterway, we have no alternative drinking water. And I would charge you that it is a severe environmental justice issue because people can't go and buy bottled water. Who is going to supply the water supply for 2 million people? And what are the costs of that, and how are you going to protect the water supply of Minneapolis?

St. Paul also gets a substantive percentage of its water from the Mississippi. They do have some deep wells and some lakes that they can also -- that they do also use. And so there is an additional exposure for St. Paul that you must consider. (MS-E-1)

Comment: So I'm inquiring about the severe accident mitigation alternatives. I found the analysis in they call it consequence bins quite helpful and, you know, easy to follow. But what was very unclear to me when the EIS explained these different categories of release potential, extreme, more than 50 percent of the inventory of cesium iodine being released. And then large, between 20 and 50 percent, which, of course, is really a huge range I think in terms of impact. Medium, small and negligible.

It explained that the severity depends upon the amount of the release in relation to the time in which general emergency was declared and people were alerted and were able to be, mitigation measures were able to be taken.

What was completely unclear to me in the environmental review is whether or not the NRC has any specific standards for this. How that decision is made? Who makes the decision as to whether the general emergency is declared? When people are notified? Whether they're -- and I think this bears upon the question of the water supply as well. I became aware of this question when I was sitting in on a technical representatives meeting, which they have monthly in the Environmental Quality Board.

And I think it's the Health Department. I'm not sure if it's the Health Department or the PCA, but many of the agencies are involved right now in a review of protections for service waters that serve as drinking waters under the EPA requirement, voluntary requirement.

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And there were ten -- this has been like a six-month or eight-month, year-long process identifying the inventory, the service water inventories. And then determining what the priority contaminants were that they were going to consider. And one of those priority contaminants was specifically radioactive contamination from Monticello plant. And so this is something that is on the docket in this review, EPA review. (MS-F-1)

Comment: The Monticello nuclear power plant is located upstream from the Twin Cities on the Mississippi River. Residents of Minneapolis, St. Paul, as well as substantial numbers of people who live in sections of first-ring suburbs such as Edina get their drinking water from the Mississippi. (MS-S-2)

Comment: The NRC has failed to adequately address risks to ground water contamination. According to the NRC's own study the soils at the Monticello site are primarily Hubbards which are highly permeable and also have limited available water capacity. These soils readily transmit rainwater and surface water to groundwater supplies. In the event of radio-active material seeping out of containment units it is quite likely that groundwater sources and even aquifers could become contaminated. (MS-S-25)

Response: *The comments are related to the impacts of design basis accidents and severe accidents. The impacts of design basis accidents were evaluated in the GEIS and determined to be small for all plants; therefore, it is a Category 1 issue. The GEIS evaluated severe accidents for all plants including Monticello, and concluded that the impact was small. However, alternatives to mitigate severe accidents must be considered for all plants that have not considered such alternatives. During the plant-specific environmental review of Monticello, the NRC will determine whether there is any new and significant information bearing on the previous analysis in the GEIS. Section 5.1.2 of the plant-specific SEIS for Monticello will address severe accidents. The applicant provided a severe accident mitigation alternatives (SAMA) analysis as part of the license renewal application for Monticello. The NRC staff's review of the SAMA analysis will be discussed in Section 5.2 of the plant-specific SEIS for Monticello.*

12. Comments Concerning Uranium Fuel Cycle and Waste Management Issues

Comment: Relicensing Monticello will result in more spent nuclear waste being generated near this valuable water resource. (MS-S-3)

Comment: The NRC makes no provisions to ensure that the energy needed to process uranium, and extract uranium is generated by sources such as wind or solar that do not produce harmful mercury, carbon dioxide, and nitrogen oxide emissions. (MS-S-18)

Comment: The NRC fails to acknowledge that there is no way to access accurately the true cost of securing and storing spent nuclear fuel for future taxpayers. Such an exercise is futile as there is no way to know how strong future economies will be.

The NRC fails to acknowledge that a large percentage of our financial resources will be diverted from other areas in order to provide financial resources for securing nuclear facilities and storing nuclear waste. (MS-S-20)

Comment: An obscure amendment to the federal energy bill (S706, HR2189) just passed 7/29/05, eases the restriction on overseas export of bomb grade uranium. (Sorry, I don't have the section number.) Exporting toxic and hazardous waste is a common practice for a rich country such as ours.

With the clear and present threat of nuclear terrorism, exporting bomb grade uranium would be unthinkable if it were not real. Amassing deadly bomb-grade materials tempts corporate decision-makers to take the export "solution." What guarantees exist to keep this waste in our own state or nation? (MS-U-1)

Comment: There is an assumption that the federal government will somehow "take care of" the N-waste. However, since the last century when nuclear weapons/power came on-line there is no clear solution about long term storage. There has been a lot of money spent and rhetoric said, but nothing is settled. (MS-U-5)

Comment: The EIS must address the environmental impact due to continued operation for an extended (sic) license term, where there is more radioactive material to be stored, higher burnup rate waste is dangerous for longer periods, more casks needed, etc. Assemblies will increase from 1630 to 4512, nearly tripled, by 2030. (MS-V-8)

Comment: Is this temporary or permanent storage? The EIS must determine what will happen to the nuclear waste at the end of the term of licensure. If there is no answer, a number of reasonable scenarios must be fully analyzed, with caretaking of waste and maintenance of casks and facility assured to end point. (MS-V-13)

Comment: Additionally, due to the fact that a long-term storage facility is unlikely to be built anytime soon, and that facility will not have room for additional waste from Monticello, this issue will be affecting generations of Minnesotans and metro residents. (MS-X-1)

Comment: Item 28, Infrastructure impacts. More information needs to be included including impacts of transporting nuclear fuel to the facility by truck or rail and explanation of why the plant needs electricity, it is a nuclear power plant after all. (MS-X-9)

Comment: Item 30, Social, Economic, and Community impacts (Other). There needs to be a discussion of the larger impacts of transporting nuclear fuel into the Monticello Community and metro area, the ongoing operations of the plant, and the long term impacts of storing highly reactive nuclear waste at a site for 200-10,000 years. (MS-X-11)

Comment: The long-term ability of humans to store, contain, and manage nuclear waste is something yet untested. While some may argue that we have done so effectively for the most

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of the last 50 years there are numerous case studies to argue the opposite point (e.g. Three Mile Island, Chernoble Disaster). Since the production of nuclear electricity is non-sustainable in its current form and since there are no methods to properly address long-term storage of deadly nuclear waste we think it is fairly myopic and somewhat reckless to move forward unless all risks are clearly delineated in the public's view. (MS-X-12)

Comment: The EIS needs to consider transportation accidents involving nuclear material. (MS-Y-27)

Response: *The comments are related to the environmental impacts associated with the uranium fuel cycle, which were evaluated in the GEIS and determined to be Category 1 issues. The GEIS evaluated impacts associated with the uranium fuel cycle for all plants including Monticello, and determined that the impact was small. During the plant-specific environmental review of Monticello, the NRC will determine whether there is any new and significant information bearing on the previous analysis in the GEIS. If significant new information is found, the NRC will perform a plant-specific analysis of these environmental impacts. Chapter 6.0 of the plant-specific SEIS for Monticello will address these issues. The comments provide no new information and, therefore, will not be evaluated further.*

13. Comments Concerning Alternatives

Comment: Our analyses show that keeping Monticello and Prairie Island as part of that diverse energy mix will benefit our customers by an estimated \$1 billion in today's dollars during the life extension periods, compared with the next best replacement options. Our analysis also shows that keeping the plants running will result in significantly lower air emissions than would occur if they were shut down and replaced with the only realistic alternatives, which are coal or natural gas-fired plants. (MS-B-5; MS-J-5)

Comment: And it's incumbent upon the Nuclear Regulatory Commission in its scoping of a commitment for an additional 20 years of reactor operations to at least be mindful of what's happening in the next five years relative to how electric utility services are going to be delivered.

CBED stands for Community Based Energy Development. And what it means is that we have an opportunity of taking advantage of the modern technologies, as opposed to the obsolete ones, which we're talking about here today, to look at the distributed dispersed capacity that can and will be coming on-line very rapidly in the next five years.

CBED enables those energy systems to come on line in a way that we've never experienced before. It provides a negotiating framework for the power companies to negotiate power purchase agreements with independent qualifying producers of energy. Locally owned, community-based energy. The type of energy development that will have to happen if we are ever to get out of our commitments to central station power and all of the problems that that represents in terms of how you manage nuclear waste for 140,000 years or more. What do we do about the mercury contamination? What do we do about global warming in particular from

the coal chain? What about all the security threats from the nukes and all of the routine releases from the nukes and the catastrophic threats that nuclear power represents?

If we're going to work out of those binds, we will need to make a transition. And CBED is a profound tool that will enable that transition to happen. Right now it's true. It's for wind, and we recognize that wind can be an intermittent resource, not a base-load resource. And we all like to have the lights turned on even when the wind isn't blowing.

But it's also true that CBED projects provide an opportunity for us to now move forward to the hybrid systems where wind is married to combustion technologies. And right now -- well, there is the Public Utilities Commission meets next week, where we will be authorizing a test burn of a 2-megawatt diesel generator to a wind system in Southwest Minnesota in Rock County by Luverne.

And what will happen there is we're going to figure out how, as the wind tapers off, the combustion capacity can come on. And before very long, before this year is out, we'll have a pretty good handle on how to handle about 600 megawatts of peak during the year, which will be extremely lucrative to power producers because having 600 megawatts -- 600 hours, having a megawatt available on demand for 600 hours a year, your call utility, that's worth about six or seven thousand dollars a month, in addition to the energy, to have the capacity.

So we have the economic opportunity for this development to happen. And before two or three years are up, we'll be down on the shoulders of that peak. We'll be up to 14, 16, 1800 hours a year. And before this plant gets renewed, we're going to be swinging with a load duration curve just like Sherco 3 does. And then we're in business. (MS-D-3)

Comment: And as an afterthought, we go through the IRP, the Integrated Resource Planning process, to figure something out about conservation, because that's in the public good. Well, we're going to figure out at some point it is my fondest hope -- well, maybe second fondest -- that we figure out how to tie the financial health of the utility systems to what we all really want, which is the efficient use of resources, rather than the wasteful consumption.

And when we do that, we're going to find that we're wasting right now well over 50, 60, 70 percent of all of the kilowatt hours we consume. We don't need to if what we're focused on is how to get us the light that we want, or the refrigeration that we want, or the industrial drive that we want, rather than just selling bulk kilowatt hours.

So these are changes that are coming at you, NRC, in the time period that you're looking at for renewing this license. And I'm just really, I'm confused as to how you are going to evaluate that. (MS-D-5)

Comment: But when you consider alternatives, which you need to do, I would like to urge you to consider putting coal gasification that is slated to go elsewhere in Minnesota down here

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instead of nuclear. You preserve the jobs. You get rid of nuclear. You don't have to deal with those types of environmental issues, and I'll submit information in detail about that. (MS-G-1)

Comment: I am also concerned about alternatives. And again I live in Red Wing, which is right by Prairie Island, down river from Prairie Island, and also down river from this plant. So I would urge you to consider everything that Kristen particularly was talking about, and I will just give details on this later. But in alternatives, there are options being considered for Minnesota that would work really well here. This site is set up for it. It's time to consider some of those. (MS-G-3)

Comment: The "permanent" solution is transition to gasification, wind, solar roof panels, weather stripping, tighter windows a thousand improvements to improve our quality of life and also boost local employment. (MS-U-9)

Comment: No Action Alternative. Comment 1: EIS must consider current levels of load and generation in the region and state.

Comment 2: EIS must consider load and generation to evaluate impact of no action alternative:

MAPP 2004 Load and Capability Report

MAPP Form 3 (most recent version)

NERC 2004 Long-Term Reliability Assessment Report

CapX2020 Report

Rationale for Comments 1 and 2: The *Federal Register* notes that the "No Action" alternative will be considered. As a part of this alternative analysis, the NRC must consider the current levels of load and generation in the region and state to put the "No Action" alternative in context, including, but not limited to the MAPP 2004 Load and Capability Report and the MAPP Form 3 list of generation, the 2004 NERC Reliability Assessment Report, particularly the MAPP and MAIN sections, and the CapX2020 report claiming a "need" of 6,000 MW and the MISO queue with 16,712 MW in generation waiting in line. (MS-V-2)

Comment: Reasonable Alternative Energy Sources. Comment 3: The EIS must consider reasonable alternatives including natural gas fueled combined cycle plant as a reasonable alternative to Monticello.

Comment 4: The EIS must consider the Mesaba coal gasification plant as replacement, electrically and physically, for Monticello.

Comment 5: The EIS must consider the efficiencies and environmental benefits of utilizing pre-existing infrastructure and plant components in replacing Monticello with the Mesaba coal

gasification generation balanced against continuation of Monticello nuclear generation and construction and operation of Mesaba elsewhere. —

Comment 6: The EIS must consider system wide distributed, renewable generation as a reasonable alternative to Monticello.

Rationale for Comments 3, 4, 5 and 6: Rationale: Xcel claims it needs generation and that it should rely on coal and nuclear. The coal gasification option was mandated by the legislature, yet because of the market realities of high electrical availability, a power contract was also mandated. Because of these mandates, Mesaba should be analyzed as the first replacement option for nuclear power. Monticello relicensing is before us right now, and the Mesaba application to the EQB is imminent. (MS-V-3)

Comment: Comment 7: The NRC must evaluate, as reasonable alternatives, combinations of different intermittent generation, such as wind with gas and/or biomass, to give capacity equivalent to capacity percentages of "baseload" coal and nuclear.

Rationale for Comment 7: Xcel unreasonably relies exclusively on coal and nuclear when combinations of other fuel options could provide generation equal to, for example, the 70% or so availability of Monticello (40% wind plus just 30% gas = 70% capacity! See, that wasn't so hard.). (MS-V-4)

Comment: We would also suggest that alternatives to continued operations at the Monticello facility be properly evaluated, particularly part 5 titled "Systemwide Renewable, distributed generation" which could include the construction of wind farms, solar farms, or other renewable energy sources where the fuel is present locally and the method of generation not inherently dangerous. The # four option of "Wind and Gas" would also be a much more benign scenario to continued operations and infinitely long storage of nuclear waste on-site. (MS-X-3)

Comment: WHEREAS, replacement of the Monticello Nuclear Generating Plant would result in an electric rate increase and significantly increased emissions of carbon dioxide, nitrogen oxides, and sulfur dioxide. (MS-AA-4)

Comment: WHEREAS, replacement of the Monticello Nuclear Generating Plant would result in an electric rate increase and significant increased emissions of carbon dioxide, nitrogen oxides and sulfur dioxide... (MS-AC-4; MS-AD-5)

Response: *The comments are related to the environmental impacts of alternatives to license renewal at Monticello. The GEIS included a discussion of alternative energy sources. Environmental impacts associated with various reasonable alternatives to renewal of the Monticello operating license will be evaluated in Chapter 8 of the SEIS.*

Comment: The latest scientific evidence needs to be researched and referenced. The references of the generic EIS are testimony that the document is at the minimum 11 years old

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and largely outdated when it comes to renewable energy literature. The EIS needs to show, for example, that solar power holds tremendous promise in our region now, as there is increased PV efficiency, state governmental support, and PV panel costs continue to decline an average of 5% annually. The argument of land use and solar is incredibly exaggerated, as PV-panels in urban areas are readily mounted on existing buildings. Solar energy has one of the highest job intensities per unit of output of any energy technology, and thus has huge benefits to the local economies that adopt them. In addition to jobs from the contractors that install systems, the Minnesota economy is projected to benefit from an expanding solar energy manufacturing industry including growth in such areas as semiconductors, plastic films, electronic equipment, instrument measuring, switchgear and switchboard apparatus, wiring, storage batteries, sheet metal, and flat glass. (MS-Y-39)

Response: *The GEIS is subject to periodic review and update; in 2003, the NRC initiated an effort to update the GEIS. As new information becomes available, the NRC determines whether it is sufficiently significant to change a position. In Section 8.3 of the GEIS, the staff described the alternative energy technologies and evaluated the environmental impacts of supply and demand alternatives with the focus of "... the purpose and need of the proposed action [i.e., to provide an option that allows for power generation capability beyond the term of a current nuclear power plant operating license to meet future system generating needs as such needs may be determined by state, utility, and, where authorized, federal (other than NRC) decision makers]...." The staff focus is on the power generation capability of a baseload nuclear power plant. Alternative energy sources will be discussed in Chapter 8 of the SEIS.*

Comment: The EIS needs to be sensitive to the issue of CO₂ reduction. (MS-Y-40)

Response: *The comment raises issues related to alternative energy sources, which will be evaluated in Chapter 8 of the SEIS.*

Comment: The EIS needs to present a fair and accurate alternatives analysis..

The energy alternatives need to be discussed in an impartial manner. The generic EIS has a definite inherent pro-nuclear spin. Could it be because the nuclear power industry has been given more taxpayer dollars for research and development than any other energy sector? (MS-Y-38)

Response: *The comment is outside the scope of license renewal related environmental impacts. The NRC's regulations in 10 CFR Part 51 require the NRC to consider all reasonable alternatives to a proposed action as part of its NEPA review. The license renewal review evaluates a reasonable range of alternatives to supply baseload electric power generation. The analysis of alternatives to license renewal presented in the GEIS will be supplemented by a plant-specific alternatives analysis of license renewal at Monticello. The comment fails to provide any new and significant information, and will not be evaluated further.*

14. Comments Concerning Aging Management

Comment: The Monticello plant has also been well maintained over its lifetime. Approximately every two years we perform a refueling and maintenance outage, in which we typically carry out over 2,500 individual maintenance and inspection activities. This is in addition to the ongoing maintenance, inspection, and rigorous testing activities that are performed at the time the plant is operating on-line.

Over on the years, we have continued to invest in a wide range of equipment improvements to take advantage of technology and materials to ensure future reliable and safe operation. As computer training methods have evolved, we are able to broaden the training available. As we move forward, we will continue to upgrade the equipment and technology at the station.

(MS-A-4; MS-J-4)

Comment: And then we get to the aging issues for these reactors. Now, I understand, as I said in my opening remarks, I understand the commitment of the work force and the intent of the work force. But I also know that we have part of the fail-safe systems bolted to the packing crate at Monticello as well as at Duane Arnold for 35 years before it was discovered. Never took the bolts off.

So just because you're good and paying attention doesn't mean things can't happen. I know what happened at Davis Besse, where they were looking really hard, and they didn't find it because they weren't looking in the right place. I know it happened at Point Beach when the nuclear physicists forgot their high school chemistry and they caused an explosion in a cask. Damned near tipped the lid into the pool, which could have drained the pool; and then we would have some fire works. It didn't happen, fortunately.

But these are all examples; and there is many, many more. NRC knows them, so I won't bore you with them, but we're pushing the envelope with all of this stuff. You guys got to do a better job of figuring out where to look when. You have to have more different ways of -- you have to find more diverse ways of looking at things. You've got to figure out not only where to look, but when to look. And you have to do that in a way that provides more assurance, than we have in the past, you're not overlooking things.

Things age. As things age, I mean it's the bathtub curve. Are you familiar with the bathtub curve concept? Things of life where in the early -- using a human example, there is a death mortality rate for infants which is higher than for juveniles and adults. And then it goes up again at the end, and in the long run we'll all be dead.

Well, the same with reactors or any other piece of equipment. It goes through a curve. And now that we're doing re-licensing, you see we're getting into the tail end of that curve, and that's why we look at aging things. But you're not looking at them good enough is the point. And the unfortunate point is that there is no way that you can look at it good enough because you can't always look everywhere. (MS-D-12)

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Comment: Objectively, relicensing an old nuclear power plant beyond its expected peak performance is an accident waiting to happen. Picture a Bell Curve, problems with a complicated energy plant occur at the beginning and end of its production-time. Where is Monticello on that curve? Three Mile Island, Chernobyl the lesson will be repeated until it is learned. (MS-U-7)

Response: *The NRC's environmental review focuses on environmental impacts relevant to the extended period of operation requested by the applicant. Safety matters related to aging are outside the scope of this review. An NRC safety review for the license renewal period is conducted separately, and will be documented in an NRC staff Safety Evaluation Report. The comments provide no new information and 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.*

Comment: In addition, it has recently come to our attention that there are some age related component degradation (sic) issues the EIS needs to address. Specifically, the potential of mounting base plates, grout, and/or mounting hardware for pumps, heat exchangers, compressors, tanks, turbines and motors to fail due to age-related degradation needs to be examined.

Further, valve stem and pump shaft packing and gasket material, and other sealing materials required to prevent system leakage to the environment where shafts penetrate through a pump casings, valve body/bonnets, and other components needs to be analyzed for age-related degradation.

Further, consumables such as lubrication media including oils and greases must be analyzed from the perspective of age-related degradation.

Finally, valve internals flow isolation sealing subcomponents such as valve discs, plugs, and/or gates must be analyzed from an aging management program perspective. (MS-W-1)

Response: *The NRC's environmental review focuses on environmental impacts relevant to the extended period of operation requested by the applicant. Safety matters related to aging are outside the scope of this review. An NRC safety review for the license renewal period is conducted separately, and will be documented in an NRC staff Safety Evaluation Report. The safety review looks at the applicant's aging management programs for passive long-lived systems, structures and components. The comments provide no new information and 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.*

Part II – Comments Received on the Draft SEIS

Pursuant to 10 Code of Federal Regulations (CFR) Part 51, the staff transmitted the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding Monticello Nuclear Generating Plant, Draft Report for Comment* (NUREG-1437, Supplement 26, referred to as the draft SEIS) to Federal, State, Native American Tribal, local government agencies, and interested members of the public. As part of the process to solicit public comments on the draft SEIS, the staff:

- placed a copy of the draft SEIS into the U.S. Nuclear Regulatory Commission's (NRC's) Public Electronic Reading Room, its license renewal website, and at the Monticello Public Library, located in Monticello, Minnesota, and at the Buffalo Public Library, located in Buffalo, Minnesota;
- sent copies of the draft SEIS to the applicant, members of the public who requested copies, and certain Federal, Native American Tribal, State, and local agencies;
- published a notice of availability of the draft SEIS in the *Federal Register* on February 2, 2006 (71 *Federal Register* 5694);
- issued public announcements, such as advertisements in local newspapers and postings in public places, of the availability of the draft SEIS;
- announced and held two public meetings in Monticello, Minnesota, on March 22, 2006, to describe the results of the environmental review and answer related questions;
- issued public service announcements and press releases announcing the issuance of the draft SEIS, the public meetings, and instructions on how to comment on the draft SEIS; and
- established an email address to receive comments on the draft SEIS through the Internet.

During the draft SEIS comment period, the staff received a total of six comment letters and emails in addition to the comments received during the public meetings. The staff reviewed the public meeting transcripts and the six comment letters that are part of the docket file for the application, all of which are available in the NRC's Agencywide Documents Access Management System (ADAMS). ADAMS is accessible at <http://www.nrc.gov/reading-rm/adams.html>. The ADAMS accession number for the public meeting summary, which includes the complete meeting transcripts, is ML061380004. Appendix A, Part II, Section A.2 contains a summary of the comments and the staff's responses. Appendix A, Part II, Section A.3 contains copies of the March 22, 2006, public meeting transcripts and comment letters.

Appendix A

Each comment identified by the staff was assigned a specific alpha-numeric identifier (marker). That identifier is typed in the margin of the letter at the beginning of the discussion of the comment. A cross-reference of the alpha-numeric identifiers, the author of the comment, the page where the comment can be found, and the section(s) of this report in which the comment is addressed is provided in Table A-2. The six comment letters are identified by the letters D through I. The accession number is provided for the written comments after the letter date to facilitate access to the document through ADAMS.

Table A-2. Comments Received on the Draft SEIS

Comment ID	Commenter	Comment Source and ADAMS Accession Number	Page of Comment	Section(s) Where Addressed
A-1	Todd	Afternoon Transcript, ML061380007	A-53	A.2.17
A-2	Todd	Afternoon Transcript, ML061380007	A-53	A.2.17
A-3	Todd	Afternoon Transcript, ML061380007	A-43	A.2.4
A-4	Todd	Afternoon Transcript, ML061380007	A-42	A.2.2
A-5	Todd	Afternoon Transcript, ML061380007	A-53	A.2.17
B-1	Crocker	Evening Transcript, ML061380008	A-43	A.2.5
B-2	Crocker	Evening Transcript, ML061380008	A-47	A.2.11
B-3	Crocker	Evening Transcript, ML061380008	A-53	A.2.17
B-4	Crocker	Evening Transcript, ML061380008	A-42	A.2.1
C-1	Conway	Evening Transcript, ML061380008	A-43	A.2.4
C-2	Conway	Evening Transcript, ML061380008	A-46	A.2.9
C-3	Conway	Evening Transcript, ML061380008	A-58	A.2.19
C-4	Conway	Evening Transcript, ML061380008	A-43	A.2.4
D-1	Lodermeier	Email, ML061220619	A-59	A.2.19
D-2	Lodermeier	Email, ML061220619	A-42	A.2.3
E-1	Rykken	Email, ML061220611	A-43	A.2.4
E-2	Rykken	Email, ML061220611	A-59	A.2.19
E-3	Rykken	Email, ML061220611	A-53	A.2.17

Table A-2. (contd)

Comment ID	Commenter	Comment Source and ADAMS Accession Number	Page of Comment	Section(s) Where Addressed
F-1	NMC	Letter, ML061210175	A-56	A.2.18
F-2	NMC	Letter, ML061210175	A-56	A.2.18
F-3	NMC	Letter, ML061210175	A-56	A.2.18
F-4	NMC	Letter, ML061210175	A-44	A.2.6
F-5	NMC	Letter, ML061210175	A-45	A.2.6
F-6	NMC	Letter, ML061210175	A-45	A.2.6
F-7	NMC	Letter, ML061210175	A-45	A.2.6
F-8	NMC	Letter, ML061210175	A-57	A.2.18
F-9	NMC	Letter, ML061210175	A-57	A.2.18
F-10	NMC	Letter, ML061210175	A-57	A.2.18
F-11	NMC	Letter, ML061210175	A-57	A.2.18
F-12	NMC	Letter, ML061210175	A-45	A.2.6
F-13	NMC	Letter, ML061210175	A-45	A.2.6
F-14	NMC	Letter, ML061210175	A-45	A.2.6
F-15	NMC	Letter, ML061210175	A-45	A.2.7
F-16	NMC	Letter, ML061210175	A-45	A.2.8
F-17	NMC	Letter, ML061210175	A-49	A.2.12
F-18	NMC	Letter, ML061210175	A-49	A.2.12
F-19	NMC	Letter, ML061210175	A-46	A.2.10
F-20	NMC	Letter, ML061210175	A-49	A.2.13
F-21	NMC	Letter, ML061210175	A-57	A.2.18
F-22	NMC	Letter, ML061210175	A-50	A.2.14
F-23	NMC	Letter, ML061210175	A-57	A.2.18
F-24	NMC	Letter, ML061210175	A-57	A.2.18

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Table A-2. (contd)

Comment ID	Commenter	Comment Source and ADAMS Accession Number	Page of Comment	Section(s) Where Addressed
F-25	NMC	Letter, ML061210175	A-57	A.2.18
F-26	NMC	Letter, ML061210175	A-58	A.2.18
F-27	NMC	Letter, ML061210175	A-58	A.2.18
F-28	NMC	Letter, ML061210175	A-58	A.2.18
F-29	NMC	Letter, ML061210175	A-58	A.2.18
F-30	NMC	Letter, ML061210175	A-58	A.2.18
F-31	NMC	Letter, ML061210175	A-58	A.2.18
G-1	Chezik	Letter, ML061320037	A-45	A.2.8
H-1	Westlake	Letter, ML061370511	A-49	A.2.13
H-2	Westlake	Letter, ML061370511	A-48	A.2.11
H-3	Westlake	Letter, ML061370511	A-59	A.2.19
H-4	Westlake	Letter, ML061370511	A-50	A.2.15
H-5	Westlake	Letter, ML061370511	A-51	A.2.15
H-6	Westlake	Letter, ML061370511	A-51	A.2.15
H-7	Westlake	Letter, ML061370511	A-51	A.2.15
H-8	Westlake	Letter, ML061370511	A-50	A.2.14
H-9	Westlake	Letter, ML061370511	A-52	A.2.15
H-10	Westlake	Letter, ML061370511	A-52	A.2.15
H-11	Westlake	Letter, ML061370511	A-52	A.2.16
H-12	Westlake	Letter, ML061370511	A-54	A.2.17
H-13	Westlake	Letter, ML061370511	A-54	A.2.17
H-14	Westlake	Letter, ML061370511	A-55	A.2.17
H-15	Westlake	Letter, ML061370511	A-55	A.2.17
H-16	Westlake	Letter, ML061370511	A-55	A.2.17
H-17	Westlake	Letter, ML061370511	A-56	A.2.17

Table A-2. (contd)

Comment ID	Commenter	Comment Source and ADAMS Accession Number	Page of Comment	Section(s) Where Addressed
H-18	Westlake	Letter, ML061370511	A-56	A.2.17
I-1	Bloomberg	Letter, ML061520200	A-44	A.2.5

A.2 Comments and Responses

Comments in this section are grouped in the following categories:

- A.2.1 General Comments in Opposition of Nuclear Power
- A.2.2 General Comments in Support of Nuclear Power
- A.2.3 General Comments in Opposition to License Renewal at Monticello
- A.2.4 General Comments in Support of License Renewal at Monticello
- A.2.5 Comments Related to License Renewal and Its Processes
- A.2.6 Comments Concerning Water Use and Quality
- A.2.7 Comments Concerning Air Quality
- A.2.8 Comments Concerning Aquatic Resources
- A.2.9 Comments Concerning Terrestrial Resources
- A.2.10 Comments Concerning Threatened and Endangered Species
- A.2.11 Comments Concerning Human Health Issues
- A.2.12 Comments Concerning Socioeconomic Issues
- A.2.13 Comments Concerning Cumulative Impacts
- A.2.14 Comments Concerning Postulated Accidents
- A.2.15 Comments Concerning Uranium Fuel Cycle and Waste Management
- A.2.16 Comments Concerning Decommissioning

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A.2.17 Comments Concerning Alternatives

A.2.18 Editorial Comments

A.2.19 Comments Concerning Issues Outside the Scope of License Renewal: Aging Management and the Independent Spent Fuel Storage Installation (ISFSI)

A.2.1 General Comments in Opposition of Nuclear Power

Comment: That is also behavior, institutional behavior that is typical of failing institutions. And the real tragedy here is that the technology you are managing is so terribly unforgiving. (B-4)

Response: *The comment opposes nuclear power and is general in nature. The comment provides no new and significant information; therefore, no changes were made to the SEIS text.*

A.2.2 General Comments in Support of Nuclear Power

Comment: The other thing I want to talk about is to be able to congratulate the people in Monticello that had the foresight to allow NSP to build this facility in the first place. Because myself, I think I was probably a little bit critical at the time that it was being proposed—we really didn't understand what nuclear energy was all about—where today I'm almost on the other side that I think we have to expand nuclear energy all over the United States. In fact, I'm thinking we probably will need at least 500 nuclear plants by this 2030 date, so I can see that you're going to be a very busy group here trying to get that accomplished. And the reason that I say that is there is no reason—no way that we can get from a 15-trillion- to 20-trillion-dollar economy in this country without nuclear power. (A-4)

Response: *The comment supports nuclear power and is general in nature. The comment provides no new and significant information; therefore, no changes were made to the SEIS text.*

A.2.3 General Comments in Opposition to License Renewal at Monticello

Comment: I cant belive (sic) Xcel energy, holding people hostage at the end of an extension cord to get their way. It's no wonder they want to "get this one under the radar screen", the whole thought scares the living daylight out of me. I say shut 'em down and put up wind generating towers on the same property! (D-2)

Response: *The comment opposes license renewal at Monticello, and is general in nature. The comment provides no new and significant information; therefore, no changes were made to the SEIS text.*

A.2.4 General Comments in Support of License Renewal at Monticello

Comment: I'm here today and I'm going to speak in favor of the Monticello Nuclear Plant being extended, because I believe that if the Monticello plant has to be shut down in 2010, it will have an adverse effect on central Minnesota. (A-3)

Comment: Nuclear Management Company supports the conclusions contained in the Draft Supplemental Environmental Impact Statement. The rigorous audits and inspections conducted by the Nuclear Regulatory Commission have led to a report confirming our own conclusions that continued operation of the plant will have minimal impact to the environment. The Draft Impact Statement supports the key elements of our mission at the facility, namely, the safe, reliable, and economical operation in that order of priority, with safety of the public, our employees, and the environment being the top priority. We value and expect our organization to be both a good neighbor and a responsible steward of the environment in which we operate. Our 500 highly-experienced and well-trained employees take great care in their daily activities to ensure that the environment is well protected. (C-1)

Comment: In conclusion, the Monticello plant has been a productive contributor to the energy needs of the State of Minnesota and a valuable asset and good neighbor to the surrounding communities and environment. But we remain committed to operating safely, reliably, and economically, primarily being focused on being a good neighbor and a good steward of the environment. As I mentioned previously, it's the safety of the public, our employees, and the environment that remain our highest priority. I and the rest of the employees at Monticello look forward to serving the community in that regard for many years to come. (C-4)

Comment: I am in favor of making full utilization of existing nuclear plant by re-licensing. I have toured this facility personally, albeit before 9/11 security restraints. Their record of error free operation warrants continued operation for as long as the facility can be safely operated with prudent maintenance. (E-1)

Response: *The comments are supportive of license renewal at Monticello and are general in nature. The comments provide no new and significant information; therefore, no changes were made to the SEIS text.*

A.2.5 Comments Related to License Renewal and Its Processes

Comment: In my experience environmental impact statements are usually decision-informing documents. What I've reviewed is a rationalization for a decision that's already made. I realize there's nothing I can do or say to make this better, because I don't think you care. So this is sort of a fool's errand that I'm on; and not really liking being a fool, I'm going to make it short. Your significance levels—small, moderate, large—appallingly subjective. Rational people looking at the same facts could come to dramatically different conclusions about what's small, about what's moderate, about what's large. Small means not detectable, not noticeable? By whom? Using what? (B-1)

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Response: *Many of the impacts due to an activity are by nature subjective and qualitative; for example aesthetic impacts. The staff used qualitative measures of impacts where possible. The NRC's standard of significance for impacts was established using the Council on Environmental Quality (CEQ) terminology for "significantly" (40 CFR 1508.27, which requires consideration of both "context" and "intensity"). Context is the geographic, biophysical, and social context in which the effects will occur. Intensity refers to the severity of the impact, in whatever context it occurs. Using the CEQ terminology, the NRC established three significance levels - SMALL, MODERATE, or LARGE. The definitions of the three significance levels are set forth in the footnotes to Table B-1 of 10 CFR Part 51, Subpart A, Appendix B, as follows:*

SMALL—Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource.

MODERATE—Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource.

LARGE—Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

For Category 1 issues, the NRC staff assigned a significance level to each environmental issue analyzed in the Generic Environmental Impact Statement for License Renewal (GEIS). The discussion of each environmental issue in the GEIS includes an explanation of how the significance category was determined. The determination of the significance category was made independently of the consideration of the potential benefit of additional mitigation.

For Category 2 issues, the uncategorized issues, and the newly identified issues, the NRC will assign the significance level after an in-depth evaluation.

This comment does not provide new and significant information; therefore, no changes were made to the SEIS text.

Comment: As you know, you consulted with our office regarding the undertaking in 2005, and we concluded at that time that no historic properties would be affected. Based on our review of the information recently submitted, we see no reason to alter that conclusion. (I-1)

Response: *This comment does not provide new and significant information; therefore, no changes were made to the SEIS text.*

A.2.6 Comments Concerning Water Use and Quality

Comment: Page 2-4, Line 26: Change "Four" to "Five". (F-4)

Comment: Page 2-7, Line 21: Remove "two of". NMGP typically runs three service water pumps in the summer. Plans are to replace service water pumps with higher capacity pumps so the plant will only have to run 2 out of 3 in the summer. (F-5)

Comment: Page 2-8, Line 9: Change "Four" to "Five". (F-6)

Response: *The text in Section 2.1.3 of this SEIS has been changed based on the information provided in these comments.*

Comment: Page 2-8, Line 9: Change "two" to "three". (F-7)

Response: *Line 9 on page 2-8 of the draft SEIS does not contain the word "two." Therefore, no changes were made to the SEIS text.*

Comment: Page 2-16, Line 9: Change "Four" to "Five". (F-12)

Comment: Page 2-16, Line 17: Change "The other two wells" to "Two other wells". (F-13)

Comment: Page 2-16, Line 18: Add sentence which reads: "The fifth well, equipped with a 10-gpm pump, provides domestic water to a security training facility". (F-14)

Response: *The text in Section 2.2.2 of this SEIS has been changed based on the information provided in these comments.*

A.2.7 Comments Concerning Air Quality

Comment: Page 2-18, Line 24 Replace "EO 008" with "EU 008". (F-15)

Response: *The text has been changed based on the information provided in this comment.*

A.2.8 Comments Concerning Aquatic Resources

Comment: Page 2-22, Line 20-22: Corbicula (sic) have been found in the vicinity of Monticello, present in the baskets during 316(b) studies. They have also been recently found in the discharge canal, but none were present in the traveling screen forebays that were recently dredged. (F-16)

Comment: On page 2-22, line 16, the statement that "To date, populations of the zebra mussel within the Mississippi River have not been found above the Twin Cities area (St. Anthony Falls Lock and Dam) (MNDNR 2005)" is no longer correct. On Oct. 19, 2005, the MNDNR issued a news release confirming the presence of zebra mussels within Rice Lake, an impoundment within the Mississippi River near the City of Brainerd in Crow Wing County. Brainerd is approximately 94 miles upstream of Monticello. (G-1)

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Response: *The text in Section 2.2.5 of this SEIS has been changed based on the information provided in these comments.*

A.2.9 Comments Concerning Terrestrial Resources

Comment: We feel fortunate that the location of the Monticello plant rests on the banks of the Mississippi River within close proximity of the Montissippi County Park and the Lake Mariah State Park. The site is home to a wide variety of wildlife, aquatic species, and plant life. Our efforts have made the site a safe and sound habitat for many years, and it remains our commitment to maintaining that for the years to come. (C-2)

Response: *This comment is supportive of NMC's management of the existing surrounding habitat and is general in nature. This comment does not provide new and significant information; therefore, no changes were made to the SEIS text.*

A.2.10 Comments Concerning Threatened and Endangered Species

Comment: Page 4-43, Line 15: The MOU that Xcel has entered into is with the FWS only, not the MNDNR. Remove "and MNDNR". (F-19)

Response: *The text in Section 4.6.2 of this SEIS has been changed based on the information provided in this comment.*

A.2.11 Comments Concerning Human Health Issues

Comment: Let's just look at how we monitor for radiation releases as an example. Acknowledging that the radionuclides are released, where do they go? You haven't a clue. Your monitoring doesn't tell you where they go. Your monitoring says where you don't find them, but you're not looking for where they are. They're out there. You let them go.

And all you have to define what happens after you release them are some calculations and some modeling that tell us nothing about where they go. Well, the Bier VII says that there's no such thing as a safe dose. You acknowledge that you're releasing radionuclides, and it is absolutely untenable to conclude, with no data and only calculations, that none of them are inhaled or ingested by humans. You have no scientific basis, no factual basis, no data to support such a contention. You have calculations and dispersion models, and that's all you have. Where do they go? So you don't look for where they are, you don't find them, and therefore it's not detectable, therefore it's small.

You see, quite arguably what this means is that while you're looking at this as a dispersion, dilution being a solution, what another I would say more rational person could argue is that what you've created is a very efficient distribution mechanism in which the maximum number of people can have the opportunity to get enough of it inside of them to cause the cancers. And it

turns out that we don't have the cancer registries on a county-by-county basis to really allow us to come to those conclusions because of the way they're compared. But if you look at it the way it could be, you will see elevated concentrations of particulate cancers in communities that are in close proximity to the reactors. But you don't look at that, so it's small. Small compared to what? Small compared to background?

Well, you see some of us now finally understand the difference between background radiation and the insult when the radiation is ingested or inhaled. Entirely different things. Background is background. Why do you think your thigh bones are so big? It's to keep the background out. But once it's inside of you each radionuclide becomes very, very efficient at causing the destruction that ultimately leads to the cancer. Small. No facts. Conjecture. Subjective. (B-2)

Response: *The amounts of radioactive isotopes released from Monticello in liquid and gaseous effluents are constantly monitored and recorded by NMC. The meteorological conditions at the site are also constantly monitored and recorded. NRC health physics experts routinely inspect these monitoring programs to ensure that they are being properly conducted. All of this information is fed into calculational models that estimate the amount of radiation dose a member of the public might receive. The calculational models are in the ODCM and have been reviewed and approved by the NRC. These models include estimates of dose from internally deposited radioactive isotopes as well as direct radiation exposure. In addition, NMC conducts an environmental radiological monitoring program in the area around Monticello. The program samples and measures the amount of radioactive isotopes in the air, water, soil, and agricultural products and measures direct radiation from the plant. This program confirms that the levels of radioactive isotopes in the environment that are predicted by the computer dose models. The State of Minnesota also conducts an environmental radiological monitoring program around Monticello that confirms the results of NMC's program. These programs show that the radiation doses to members of the public from operation of Monticello are very low, well within the limits set by NRC and EPA, and very small compared the dose from natural background sources of radiation.*

In spring 2006, the National Research Council of the National Academies published, "Health Risks from Exposure to Low Levels of Ionizing Radiation, BEIR VII Phase 2." A pre-publication version of the report was made public in June 2005. The major conclusion of the report is that current scientific evidence is consistent with the hypothesis that there is a linear, no-threshold dose response relationship between exposure to ionizing radiation and the development of cancer in humans. This conclusion is consistent with the system of radiological protection that the NRC uses to develop its regulations. Therefore, the NRC's regulations continue to be adequately protective of public health and safety and the environment. None of the findings in the BEIR VII report warrant changes to the NRC regulations. The BEIR VII report does not say there is no safe level of exposure to radiation; it does not address "safe versus not safe". It does continue to support the conclusion that there is some amount of cancer risk associated with any amount of radiation exposure and that risk increases with exposure and exposure rate. It does also conclude that risk of cancer induction at the dose levels in NRC's and EPA's radiation standards is very small. Similar conclusions have been made in all of the associated

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BEIR reports since 1972 (BEIR I, III, and V); the BEIR VII report does not constitute new and significant information. The comment provides no new and significant information; therefore, no changes were made to the SEIS text.

Comment: We are concerned about the abnormal releases mentioned in the Draft SEIS. The Draft SEIS references abnormal releases of fission and activation products and tritium during the period from 2001 to 2004 (page 2-9). This is the only place these releases are discussed in the document, and their mention raises questions that are not addressed. Information on the abnormal releases is unclear. For example, it is not clear whether there was one releases event or more, or where the event occurred. In addition, while the concentration of the release(s) is given, readers are referred elsewhere in the document and regulations to determine for themselves whether this is within effluent limits or how this impacts the public or the environment. This section implies that occasional abnormal releases are expected during the renewal period. The Final SEIS needs to explain the past and future expected frequency of these releases. Finally, the Draft SEIS also claims that if future abnormal release occur, they will be below design dose objectives. It is not clear how this statement could be supported for hypothetical incidents. We also note that abnormal releases are not discussed in sections on radiological impacts or water quality, presuming that these abnormal releases were issued to a water body.

With the GEIS approach, NRC generally does not include an analysis of impacts where staff reviewers have not found new or significant information. We believe that past abnormal releases, and the potential for future abnormal releases, qualify as new and significant information: We therefore recommend that the subsequent Final SEIS discuss the abnormal releases fully and in context to the environmental impacts analyses. We recommend including a discussion of past or potential future releases and steps to prevent releases. Specifically, the Final SEIS needs to explain the number of releases and where releases occurred (i.e., describe whether the release was effluent into the Mississippi River, an on-site spill, or some other release). It should clarify how abnormal releases are difference from liquid effluent releases, if this is the case. We recommend that where concentrations are mentioned, the document place these concentrations in context by giving effluent limits, dose limits, or other relevant measurements. We also recommend that abnormal releases be discussed in *Chapter 4.0 Environmental Impacts of Operation*. (H-2)

Response: *The releases that occurred between 2001 and 2004 are listed as "abnormal" by NMC because Monticello is a "zero-liquid-release facility," which means that the goal of NMC is to have zero liquid radioactive discharges to the Mississippi River. Although NMC's goal is zero-liquid release, under the terms of its operating license, NMC is allowed by NRC regulations to periodically release liquid effluents to the Mississippi River, provided that the releases are below regulatory limits. Future releases of tritium, as well as other isotopes, are possible during the renewal period. The releases that were mentioned in Section 2.1.4.1 of the draft SEIS were monitored, and the concentrations of all liquid releases were well below regulatory limits. The text in Section 2.1.4.1 of this SEIS has been clarified to reflect the above information.*

A.2.12 Comments Concerning Socioeconomic Issues

Comment: Page 4-32, Line 8: Add "In the bounding analysis, Monticello assumes..." This should eliminate any confusion with 4-31, line 25. (F-17)

Response: *The text in Section 4.4.2 of this SEIS has been changed based on the information provided in this comment.*

Comment: Page 4-35, Line 27: Change "procedures that will be in place" to "procedures that are in place". (F-18)

Response: *The text in Section 4.4.5 of this SEIS has been changed based on the information provided in this comment.*

A.2.13 Comments Concerning Cumulative Impacts

Comment: Page 4-48, Line 16-17: Change sentence to read: "Three other wells have an annual usage of under 1.9 gpm and do not require appropriations permits." (See page 2-16) (F-20)

Response: *The text in Section 4.8.5 of this SEIS has been changed based on the information provided in this comment.*

Comment: We are concerned that the Draft SEIS does not discuss potential power uprates at Monticello or estimate resulting increases in radiological emissions, spent fuel, and other emissions. We recognize that NRC's regulations (10 C.F.R Section 51.53(c)(2)) state that an applicant's environmental report need not discuss the demand for power, and we are not asking for an assessment of need. Separate from purpose and need, we consider power uprates to be reasonably foreseeable actions that contribute to a cumulative radiological impact, under 40 C.F.R Section 1508.7, and therefore should be discussed in NRC's final SEIS. (H-1)

Response: *The Commission has stated that for NEPA purposes, a possible future action "must at least constitute a proposal pending before the agency" for it to be considered along with the proposed action, which here is license renewal. The Commission's decision was set forth in the following case: Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2) CLI-02-14, 55 NRC 278, 294-297 (2002). Since NMC does not at this time have a proposal pending before the NRC that relates to a power uprate for Monticello, the SEIS does not address future power uprates in the evaluation of the impacts of license renewal on individual issues or on cumulative impacts. In addition, the Commission in the aforementioned case stated that, for the license renewal action and a separate proposal (such as a power uprate application) to be considered together, both actions must be "interdependent," such that one cannot go forward without the other. License renewal does not depend on a power uprate, and a power uprate does not depend on license renewal; each action has separate utility. Should a power uprate amendment for Monticello be filed, the staff*

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would be required to conduct an environmental assessment and would consider whether there are cumulative impacts associated with the power uprate.

A.2.14 Comments Concerning Postulated Accidents

Comment: Page 5-5 & 5-7, Lines 32-34 and 1-14: Replace this text with the text in Appendix G on page G-3, lines 16-31 and page G-4, lines 1-17. The information is correct in Appendix G but not in Chapter 5. Specifically, the distinction between “early” and “late” releases is based on the delay between declaration of general emergency and containment failure, not between accident initiation and containment failure. (F-22)

Response: *The discussion of timing of releases in Section 5.2.2 of the SEIS has been changed based on the information provided in this comment. The detailed discussions noted in the comment have not been moved, since Chapter 5 is intended to be a brief summary of the staff's analyses discussed in Appendix G.*

Comment: Section 5.2.2, *Estimate of Risk*, page 5-6. The Draft SEIS states that the baseline core damage frequency (CDF) for the purpose of the severe accident mitigation alternatives (SAMA) is approximately 4.5×10^{-5} per year. This CDF is based on the risk assessment for internally-initiated events. The Draft SEIS does not include the contribution to risk from external events with the Monticello risk estimates; however it does account for the potential risk reduction benefits associated with external events by increasing the estimated benefits for internal events by a factor of two. The estimates for risks from both areas should be evaluated and presented along with a rationale for not basing risk decisions on the external events or including them in the considerations as necessary to get an accurate portrayal of the risk of the licensing renewal. (H-8)

Response: *Risk estimates for both internal and external events are presented and discussed in Section G.2 of Appendix G of the SEIS. The risk from external events at Monticello is much lower than from internal events (e.g., 7.8×10^{-6} per year for fire events compared to 4.5×10^{-5} per year for internal events). Nevertheless, potential SAMAs to further reduce external event risk were explored as part of the SAMA evaluation (see Sections G.2.2 and G.3.2.). As described in Section G.6.2, the risk associated with external events was specifically accounted for in the risk calculations that were used to support the decision regarding potentially cost-beneficial SAMAs at Monticello. The comment provides no new and significant information; therefore, no changes were made to the SEIS text.*

A.2.15 Comments Concerning the Uranium Fuel Cycle and Waste Management

Comment: Section 2.1.4.2, *Gaseous Waste Processing Systems and Effluent Controls*, page 2-10, first paragraph. Citations of dose values should also include the dose value, in addition to just the citation, to make the values clearer. (H-4)

Response: As described at the end of Section 2.1.4.2, the reader is referred to Section 2.2.7 for a discussion of theoretical doses to the maximally exposed individual as the result of these releases. Section 2.2.7 provides the Appendix I design objectives which include the requirement not to exceed 3 mrem/year maximum whole body dose from liquid effluents and 5 mrem/year maximum whole body dose from gaseous effluents. The comment provides no new and significant information; therefore, no changes were made to the SEIS text.

Comment: Section 2.1.4.2, Gaseous Waste Processing Systems and Effluent Controls, page 2-10, third paragraph. The total curie values provided do not add up to the total curie emissions stated. Please correct or clarify this discrepancy. (H-5)

Response: Section 2.1.4.2 of this SEIS has been revised to clarify the quantities of airborne releases.

Comment: Section 2.2.7, Radiological Impacts, pages 2-29, 2-30, last paragraph. The references to the environmental standards need to be complete citations including title of the rule or regulation, along with the basic standard for comparison provided consistently. All of the environmental standard that could be used for a comparison should be used, including 40 CFR 61 Radionuclide National Emission Standards for Hazardous Air Pollutants values. This will reduce the time needed to look up these citations and verify values that are cited in the text. (H-6)

Response: As stated in Section 2.2.7, "The limits for all radiological releases are specified in the Monticello ODCM (NMC 2004b), and these limits are used to meet Federal standards and requirements." The primary radiological standards applicable to Monticello are contained in 10 CFR Part 20, 40 CFR Part 190, and 10 CFR Part 50, Appendix I. The complete citation for each of the environmental standards referenced in the text is provided in the references for Chapters 2 (Section 2.3) and 4 (Section 4.10). These standards are readily accessible on the Internet to members of the public. Text in 2.2.7 has been modified to refer to the basic standard for comparison (a 25-mrem total annual dose).

Regarding the comment to include 40 CFR 61, the EPA rescinded Subpart I as it applies to power reactors on September 5, 1995 (60 FR 46206), because "the regulatory program established by the NRC pursuant to the Atomic Energy Act provides an ample margin of safety to protect the public health." The comment provides no new and significant information; therefore, no changes were made to the SEIS text.

Comment: Section 4.3, Radiological Impacts of Normal Operations, page 4-27, 4-28, Table 4-7, and paragraph 1 on 4-28. The specific values for exposure need to be provided in addition to the complete citation of the location of this information. This will help to provide the information better and be less confusing than a citation only, that then must be referred to allow verification of the standard being cited. (H-7)

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Response: *Radiological impacts of normal operations were considered and evaluated in the GEIS and the staff concluded that these impacts were small. In this SEIS, issued as a supplement to the GEIS, the staff determined whether any new and significant information is available that would change the conclusion reached in the GEIS (i.e., that these impacts would be small). No such new and significant information was identified. The comment does not provide any new and significant information; therefore, no changes were made to the SEIS text.*

Comment: *Section 6.1, The Uranium Fuel Cycle, page 6-3. Under the bullet point for Off-site radiological impacts (individual effects from other than disposal of spent fuel and high level waste disposal), no consideration appears to be given to the potential long term storage of the spent fuel and high level waste materials on site until such time as a permanent facility is finally licensed and begins to accept these materials for disposal. A reference to other sections that this evaluation may have been included in should be provided here as well as in other sections, or if this evaluation has not been adequately conducted, the issue needs to be considered and an appropriate evaluation conducted. (H-9)*

Comment: *Section 6.1, The Uranium Fuel Cycle, page 6-8, under the bullet point for On-site Spent Fuel. A more thorough evaluation for the volume of spent fuel expected to be generated during the additional licensed time needs to be provided along with more specific information as to site specific circumstances that may impair or improve the risk values for potential exposures to this spent fuel storage. (H-10)*

Response: *Onsite storage of spent nuclear fuel is a Category 1 issue. The safety and environmental effects of long-term storage of spent fuel onsite have been evaluated by the NRC and, as set forth in the Waste Confidence Rule at 10 CFR 51.23 (available at <http://www.nrc.gov/reading-rm/doc-collections/cfr/part051/part051-0023.html>), the NRC generically determined that "...if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial high-level waste and spent fuel originating in any such reactor and generated up to that time." Section 6.1 provides the information available regarding the status of the application for a high-level waste repository. The comment provides no new and significant information; therefore, no changes were made to the SEIS text.*

A.2.16 Comments Concerning Decommissioning

Comment: *Section 7.1, Decommissioning, page 7-2, under bullet point Radiation Doses. As the GEIS is based on a forty-year licensing period, an extension of this period would have an impact that we suggest needs to be quantified and reported. We recommend including this*

information in the Final SEIS as part of the risk that would be associated with the license extensions and providing the specific methodology used to estimate risk. (H-11)

Response: *Environmental impacts from the activities associated with the decommissioning of any reactor before or at the end of an initial or renewed license are evaluated in the GEIS (NUREG-1437) and in NUREG-0586 Generic Environmental Impact Statement for Decommissioning Nuclear Facilities, Supplement 1, Regarding the Decommissioning of Nuclear Power Reactors, published in 2002. The findings from these two documents are used to support the findings in the SEIS by the use of tiering. Tiering is a process by which agencies eliminate repetitive discussions. The effects of license renewal on the impacts of decommissioning are stated in Chapter 7 of this SEIS. The radiation doses to the public during the period of extended operation are expected to be well below applicable regulatory limits, and the occupational dose during the time the station undergoes decommissioning would be expected to increase only slightly. The comment provides no new and significant information; therefore, no changes were made to the SEIS text.*

A.2.17 Comments Concerning Alternatives

Comment: My question is would the statement have been changed at all if you hadn't used natural gas or oil in your analysis? (A-1)

Comment: Just basically if you hadn't used it, I think that the impact of this facility being shut down would have been much greater in your analysis if you couldn't use natural gas or oil. You pretty well explained the wind and solar. (A-2)

Comment: And then, finally, I think that I want to explain a little bit on the natural gas and oil question that I had, because I feel that with using that in Minnesota, it puts us at a disadvantage, because this last winter our natural gas costs went up 30 percent—and not necessarily because of the gas-fired plants that have already been built around the country, Katrina definitely caused some problems with it, but it's just not a good source for generating electricity in Minnesota. (A-5)

Comment: Minnesota's power supply cannot be replaced by conservation and renewables alone; forcing migration to natural gas for base-load power generation is a short-sighted squandering of a very limited resource. (E-3)

Comment: Wind, 30 percent capacity factor? I don't think so. Go look at the Minnesota Department of Commerce website for their wind maps and see what kind of capacity factors they come up with.

When you have a decision-making process like this one in which there is not even attempt to make a reasonable simulation of 600 megawatts of baseload to compare it with and then come to the conclusion that alternatives such as wind have moderate to large impacts while a reactor

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that creates waste that must be managed for 240,000 plus years with routine emissions that aren't managed and that's small, you're sick. That is sickness. (B-3)

Response: *The SEIS for Monticello presents the staff's analyses of the environmental impacts of the proposed action (i.e., renewal of the operating license for Monticello) and of reasonable alternatives. The decision regarding which type of generation to deploy is made by the applicant and State agencies, not the NRC. Additionally, the staff's evaluation of wind capacity factors in Minnesota identified capacity ranges from 15.8 percent to 44.8 percent (average capacity of 30.2 percent); therefore, the SEIS's projections of wind power generating capacity, as well as the U.S. Department of Energy's Energy Information Administration's capacity projections in the Mid-Continent Area Power Pool (MAPP), which includes Minnesota, is consistent with the capacities identified by the Minnesota Department of Commerce. The staff conducted a qualitative assessment of impact due to the construction and operation of a wind farm and concluded that wind power alone is not a feasible alternative at this time to replace the baseload generation capacity of Monticello. The comment provides no new and significant information, therefore, no change was made to the SEIS text.*

Comment: *Section 8.1, No-Action Alternative, page 8-4, 8-5, under the bullet point Human Health. The actual value representing the cited percent value should be specifically provided in addition to the citation. This will help to reduce unnecessary additional research, except for value verifications, and avoid potential misunderstandings or confusion about the actual value(s). (H-12)*

Response: *The staff conducted a qualitative assessment of impact resulting from the no action alternative (permanent cessation of operations followed by decommissioning). A detailed evaluation of radiological consequences of decommissioning is provided in the Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities: Regarding the Decommissioning of Nuclear Power Reactors (NUREG-0586), November 2002; and is available on the NRC's website. As a supplement, this SEIS relies on tiering or incorporation by reference, from other NRC generic evaluations or publicly available documents consistent with CEQ guidelines. The conclusion presented in the SEIS is based on the logical argument that cessation of operations at Monticello would result in a reduction in radioactive emissions, since the operations producing those emissions would cease. Since the radiological impacts of normal operations were determined to be SMALL (as discussed in Section 4.3), the impact of the no-action alternative, which would result in the cessation of those operations, would logically be even less, and therefore, also SMALL. The comment does not provide new and significant information and, therefore, will not be evaluated further.*

Comment: *Section 8.2.1, Coal-Fired Generation, page 8-16, under bullet point Human Health. Any dose estimate that would have the potential to fall is the risk range of 10^{-6} to 10^{-4} or greater needs to be specifically evaluated for potential regulatory requirements or risk impacts to the public health. This should be estimated conservatively using the data that is currently available or that can be logically extrapolated from currently available information. (H-13)*

Response: *The impacts to air quality and human health resulting from the operation of a coal-fired plant are discussed in general in the GEIS (NUREG-1437). The GEIS acknowledges public health risks from emphysema and cancer would likely result from coal-fired power plant emissions of regulated pollutants and radionuclides. While it is possible to estimate the dose from a coal-fired plant, many assumptions would be required, including location and makeup of the affected population. For the basis of comparing alternatives, the staff does not perform a complete assessment of impacts of each alternative, but rather a qualitative, and, if possible, a quantitative comparison. Because the location of an alternative to the Monticello and surrounding population is purely speculative, an estimated dose would have little real meaning. The comment provides no new and significant information; therefore, no changes were made to this SEIS.*

Comment: *Section 8.2.3, Coal Gasification, page 8-32, under bullet point Waste. We recommend specifically describing waste impacts, rather than making reference to them, to provide a clearer understanding of the risk determination made in this section of the document. (H-14)*

Response: *For the basis of comparing alternatives, the staff does not perform a complete assessment of impacts of the alternatives, but rather a qualitative, and, if possible, a quantitative comparison. For the analysis of coal-gasification waste, the staff did provide an estimate of the projected waste streams. This comment does not provide new and significant information; therefore, no changes were made to this SEIS.*

Comment: *Section 8.2.3, Coal Gasification, page 8-32, 8-33, under bullet point Human Health. We recommend specifically describing human-health impacts, rather than making reference to them, to provide a clearer understanding of the risk determination made in this section of the document. (H-15)*

Response: *For the basis of comparing alternatives, the staff does not perform a complete assessment of impacts of the alternatives, but rather a qualitative, and, if possible, a quantitative comparison. The staff did provide a qualitative assessment of human health impacts, which is characterized as small (see Table A-4). The comment provides no new and significant information; therefore, no changes were made to the SEIS text.*

Comment: *Section 8.2.4, Nuclear Power Generation, page 8-36. We recommend specifically describing the differences in potential risk associated with changes in power production, rather than making reference to them, to provide a clearer understanding of the risk determination made in this section of the document. (H-16)*

Response: *As stated in Section 8.2.4, the impacts shown in Table S-3 (of 10 CFR 51.51) are for a 1000-MW(e) reactor and would need to be adjusted to reflect the replacement of 600-MW(e) generated by Monticello. For the basis of comparing alternatives, the NRC staff assumes that a hypothetical plant would produce the same amount of power currently generated by Monticello. Therefore, the risk associated with this hypothetical plant is not*

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expected to exceed that of the current plant at Monticello. The comment provides no new and significant information; therefore, no changes were made to the SEIS text.

Comment: *Section 8.2.4.1, Closed-Cycle Cooling System, page 8-40, under bullet point Waste. We recommend specifically describing waste impacts, rather than making reference to them, to provide a clearer understanding of the risk determination made in this section of the document. (H-17)*

Comment: *Section 8.2.4.1, Closed-Cycle Cooling System, page 8-40, under bullet point Human Health. Human-health impacts needed to be specified rather than merely referenced to provide a clearer understanding of the risk determination in this section of the document. (H-18)*

Response: *As a supplement, this SEIS relies on tiering from the GEIS and does not need to repeat all analysis and conclusions presented in the GEIS. The SEIS relies to a great degree on impact analyses presented in the GEIS (NUREG-1437) by the use of a process called tiering. Tiering was promulgated by the Council on Environmental Quality in 1978 in 40 CFR Part 1502.20. Appropriate sections of the GEIS are referenced, when necessary. Human health impacts are presented in 10 CFR Part 51, Appendix B, Table B-1. For ease of review, this table can be found at <http://www.nrc.gov/reading-rm/doc-collections/cfr/part051/part051-appb.html>. More detailed information on this topic can be found in Volumes 1 and 2 of the GEIS, which are available at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437/v1> and <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437/v2>, respectively. The comments do not provide any new and significant information; therefore, no changes were made to the SEIS text.*

A.2.18 Editorial Comments

Comment: Page 1-1, Line 18: Change "southern" to "central". (Appears this way in ER, page 2-36). (F-1)

Response: *The text in Section 1.0 of the SEIS has been changed based on the information provided in this comment.*

Comment: Page 1-7, Line 10: Change "southeastern" to "central". (Appears this way in ER, page 2-36). (F-2)

Response: *The text in Section 1.3 of the SEIS has been changed based on the information provided in this comment.*

Comment: Page 2-1, Line 13: Change "southeastern" to "central". (Appears this way in ER, page 2-36). (F-3)

Response: *The text in Section 2.1 of the SEIS has been changed based on the information provided in this comment.*

Comment: Page 2-9, Line 19: Add "re-use" after "treatment" since the water is continually re-used. (F-8)

Response: *The text in Section 2.1.4.1 of the SEIS has been changed based on the information provided in this comment.*

Comment: Page 2-10, Line 3: Insert period at end of sentence. (F-9)

Response: *The text in Section 2.1.4.1 of the SEIS has been changed based on the information provided in this comment.*

Comment: Page 2-11, Line 35: Change to "nominal 22-24 month fuel cycle" to be consistent with page 2-30, line 30. (F-10)

Response: *The text in Section 2.1.6 of the SEIS has been changed based on the information provided in this comment*

Comment: Page 2-12, Line 28: Correct name is "Parkers Lake". (F-11)

Response: *The text in Section 2.1.7 of the SEIS has been changed based on the information provided in this comment.*

Comment: Page 4-48, Line 27 & 30: Change to Minnesota counties of Wright and Sherburne." Change "Shelburne" to "Sherburne". (F-21)

Response: *The text in Section 4.8.6 of the SEIS has been changed based on the information provided in this comment.*

Comment: Page 8-40, Line 4: Change "four" to "five". (F-23)

Comment: Page 8-42, Line 4: Change "units" to "plant" for consistency with rest of discussion. (F-24)

Response: *The text in Section 8.2.4.1 of the SEIS has been changed based on the information provided in these comments.*

Comment: Page 8-44, Line 14: Change "25 percent" to "14 percent". The same footnote can be used. For verification, see NSP 2004 IRP, Appendix D, Table 7610.0310, item B, 2004 data. (F-25)

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Response: *The text in Section 8.2.5 of the SEIS has been changed based on the information provided in this comment.*

Comment: Page E-2, Line 4: The US Fish and Wildlife Service Migratory Bird Treaty Act Permit was reissued on 04/01/2006. Authorization information is as follows: Number MB074020-0, Expiration Date: 03/31/09. (F-26)

Comment: Page E-2, Line 10: The MNDNR Division of Fish and Wildlife Special Permit was reissued on 11/21/2005. Authorization information is as follows: Number 13315, Expiration Date: 12/31/06. (F-27)

Comment: Page E-4, Line 24: Remove "NYDSEC: New York State Department of Environmental Conservation"—not relevant to discussion. (F-28)

Comment: Page E-4, Line 3: The South Carolina Radioactive Waste Transport Permit was reissued for 2006. Authorization information is as follows: Number 0026-22-06-Y, Expiration Date: 12/31/06. (F-29)

Comment: Page E-4, Line 8: The Tennessee Radioactive Shipment License was reissued for 2006. Authorization information is as follows: Number T-MN-002-L06, Expiration Date: 12/31/06. (F-30)

Response: *The text in Appendix E of the SEIS has been changed based on the information provided in these comments.*

Comment: Page G-23, Line 18: Replace "\$1.1 x109" with "\$1.1 x 10⁹." (F-31)

Response: *The text in Appendix G of the SEIS has been changed based on the information provided in this comment.*

A.2.19 Comments Concerning Issues Outside the Scope of License Renewal: Aging Management and Independent Spent Fuel Storage Installation (ISFSI)

Aging Management

Comment: The Monticello plant has been extremely well maintained over its lifetime, ensuring it can operate safely for at least an additional twenty years beyond the original operating license period. Approximately every two years, we perform a refueling and major maintenance outage in which we typically carry out over 2500 individual maintenance and inspection activities. This is in addition to the ongoing maintenance, inspection, and rigorous testing activities that are performed routinely during the period of plant operation.

We have continued to invest in a wide range of equipment improvements to take advantage of technology and materials to ensure future reliable and safe operation, and this is relevant to the

aging management aspects of the license renewal process. As we move forward, we will continue to upgrade and improve the equipment, the technology, and the training to the employees of the station. (C-3)

Response: *Comments regarding aging management issues are outside the scope of license renewal and provide no new information; therefore, no changes were made to the SEIS.*

Independent Spent Fuel Storage Installation (ISFSI)

Comment: Are you folks crazy, or do you think storing nuclear waste next to one of the largest freshwater rivers in the world is a good idea. (D-1)

Comment: We are aware that there was a proposal before the Minnesota Environmental Quality Board for dry cask storage facility for spent nuclear fuel at Monticello. We note that the Environmental Impacts section of the Draft SEIS does not discuss the potential impacts associated with adding this type of spent fuel storage facility to the existing operation. We suggest that a new dry cask storage facility constitutes a new set of circumstances for this site and should be evaluated in greater detail for additional impacts to the environment. (H-3)

Comment: The Federal Government's failure to site a nuclear waste repository should not be cause to close a functional, and large capital cost, generation plant before its' time. (E-2)

Response: *Onsite storage facilities are licensed separately from the reactor license renewal process. The NRC authorizes storage of spent nuclear fuel at an independent spent fuel storage installation (ISFSI) under two licensing options: a site-specific license or a general license.*

A general license authorizes a nuclear power plant licensee to store spent fuel in NRC-approved casks at an existing site that is licensed for operating of a power reactor under 10 CFR Part 50. An NRC-approved cask is one that has undergone a technical review of its safety aspects and been found to meet all of the NRC's requirements in 10 CFR Part 72. The NRC issues a Certificate of Compliance for a cask design to a cask vendor after a rulemaking determines its adequacy. Licensees are required to perform evaluations of their sites to demonstrate that the site is adequate for storing spent fuel in dry casks. These evaluations must show that the cask Certificate of Compliance conditions and technical specifications can be met. The licensee must also review its security program, emergency plan, quality assurance program, training program, and radiation protection program, and make any necessary changes to incorporate the ISFSI at its reactor site.

The safety and environmental effects of long-term storage of spent fuel onsite have been evaluated by the NRC and, as set forth in the Waste Confidence Rule at 10 CFR 51.23 (available at <http://www.nrc.gov/reading-rm/doc-collections/cfr/part051/part051-0023.html>), the NRC generically determined that "...if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the

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licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial high-level waste and spent fuel originating in any such reactor and generated up to that time." Section 6.1 provides the most current information available regarding the status of the application for a high-level waste repository.

Comments regarding Xcel Energy's Certificate of Need application currently before the Public Utilities Commission to establish an independent spent fuel storage installation at the Monticello site are outside of the scope of license renewal. The comments provide no new and significant information related to any Category 1 or Category 2 issue, and therefore, will not be evaluated further.

A.3 Public Meeting Transcript Excerpts and Comment Letters

A.3.1 Transcript of the Afternoon Public Meeting on March 22, 2006, in Monticello, Minnesota

[Introduction by Chip Cameron]

[Presentation by Rani Franovich]

[Presentation by Crystal Quinly]

A-1 PURVES TODD: My question is would the statement have been changed at all if you hadn't used natural gas or oil in your analysis?

CHIP CAMERON: Sir, what was your—your name is?

PURVES TODD: Purves Todd

CHIP CAMERON: Purves—this is Purves Todd. Thank you. Thank you very much, Mr. Todd. Crystal?

CRYSTAL QUINLY: Actually, we did look—in the alternatives—

PURVES TODD: Yes, I saw you had natural gas and oil in there.

CRYSTAL QUINLY: We did look at those, yes.

PURVES TODD: But if you hadn't used those—

CHIP CAMERON: We'll have to get you on the microphone, Mr. Todd.

A-2 PURVES TODD: Just basically if you hadn't used it, I think that the impact of this facility being shut down would have been much greater in your analysis if you couldn't use natural gas or oil. You pretty well explained the wind and solar.

CRYSTAL QUINLY: Right.

CHIP CAMERON: Except we did look at natural gas and oil.

CRYSTAL QUINLY: Yeah, we did look at both of those and including coal gasification.

PURVES TODD: As alternatives.

CHIP CAMERON: And I think Mr. Todd's point—he's making a point about—

CRYSTAL QUINLY: Okay.

PURVES TODD: I'll be talking later.

CHIP CAMERON: Yeah. Okay. Good. All right. Anybody else?

(No response.)

And now we have Bob Palla, who's going to talk about something called "SAMAs," which are severe accident mitigation alternatives. Bob Palla.

[Presentation by Robert Palla]

CHIP CAMERON: Okay. Thank you, Bob. Any questions about the severe accident mitigation alternatives that Bob was talking about?

(No response.)

Okay. Thanks, Bob. And, finally, we're going to go Jennifer for—Jennifer Davis for information on how comments can be submitted. Jennifer?

JENNIFER DAVIS: Turning now to our preliminary conclusions, we found that the impacts of license renewal are small in all areas. We have also preliminarily concluded that the impacts of alternatives, including the no-action alternative, may have moderate to large environmental effects in some impact categories. Based on these results, it is the staff's preliminary recommendation that the adverse environmental impacts of license renewal for Monticello are not so great that preserving the option of license renewal for energy planning decisionmakers would be unreasonable.

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This slide is just a quick recap of some milestone dates. We issued the Draft Environmental Impact Statement for Monticello on January 23rd, 2006. We are currently in the middle of the public comment period, and that is scheduled to end on May 4th of this year.

We will address any public comments received and make any necessary revisions to the Draft Environmental Impact Statement and issue a Final Environmental Impact Statement in September of 2006.

This slide identifies me as your primary point of contact with the NRC for the Environmental Review. It also identifies what documents related to our review may be found in the local area. The Monticello Draft EIS is available publicly at the Monticello Public Library and the Buffalo Public Library.

Additionally, documents related to the review are also available on NRC's website at www.NRC.gov. In addition, as you came in you were asked to fill out a registration card. If you have included your address on that card, we will mail a copy of the Final EIS to you.

If you did not receive a copy of the Draft Environmental Impact Statement, we have copies available in the back of the room. If you did not fill out a card and you want a copy of the final EIS and have not yet filled in a card, please see Jason.

Jason, please raise your hand. Thank you.

Now, in addition to providing us comments at this meeting, there are other ways you can submit comments for our Environmental Review process. You can provide written comments to the Chief of the Rules and Directives Branch at the address on the screen. You can also make comments in person if you happen to be in the Rockville, Maryland, area. Or we have established a specific e-mail address at the NRC for the purpose of receiving your comments on the Draft EIS, and that e-mail address is MonticelloEIS@NRC.gov. All relevant addresses are listed in your handout. All of your comments will be collected and considered.

This concludes my remarks, and I'd like to thank each and every one of you for coming out today.

CHIP CAMERON: Great. Thanks, Jennifer. Is it clear how to submit comments? Anybody have any questions on that?

(No response.)

Okay. Great. And now we're going to go into listening to any comments that you have. And our first speaker is Mr. Purves Todd, who we have heard from, and I think he's going to explain a little further the implications of his question on alternatives.

Mr. Todd, would you join us up here?

PURVES TODD: Thank you very much.

CHIP CAMERON: You're welcome.

A-3 PURVES TODD: I'm here today and I'm going to speak in favor of the Monticello Nuclear Plant being extended, because I believe that if the Monticello plant has to be shut down in 2010, it will have an adverse effect on central Minnesota. And I think now I want to thank Kirstie Marone for her article on the Monticello Nuclear Plant. It was very well explained in here (indicating) what the plant had done, and it's a very good article for this area.

A-4 The other thing I want to talk about is to be able to congratulate the people in Monticello that had the foresight to allow NSP to build this facility in the first place. Because myself, I think I was probably a little bit critical at the time that it was being proposed—we really didn't understand what nuclear energy was all about—where today I'm almost on the other side that I think we have to expand nuclear energy all over the United States. In fact, I'm thinking we probably will need at least 500 nuclear plants by this 2030 date, so I can see that you're going to be a very busy group here trying to get that accomplished. And the reason that I say that is there is no reason—no way that we can get from a 15-trillion- to 20-trillion-dollar economy in this country without nuclear power.

A-5 And then, finally, I think that I want to explain a little bit on the natural gas and oil question that I had, because I feel that with using that in Minnesota, it puts us at a disadvantage, because this last winter our natural gas costs went up 30 percent—and not necessarily because of the gas-fired plants that have already been built around the country, Katrina definitely caused some problems with it, but it's just not a good source for generating electricity in Minnesota.

Thank you very much.

CHIP CAMERON: Thank you, Mr. Todd. And we're going to go Mr. Rick Jacobs at this point, and—Mr. Jacobs is the Site Director at the Monticello facility.

(Off the record discussion.)

CHIP CAMERON: Okay. Let me find out: Does anybody else want to make a comment at this point?

(No response.)

Okay. And Rick, it's totally up to you. We're having another meeting tonight, and if there are some comments that the site wants to submit, we can do it at that time.

RICK JACOBS: Okay.

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CHIP CAMERON: All right. Great. Okay. Well, I would just thank all of you for attending. And I'm going to ask Rani if she wants to make any final comments, Rani Franovich. (Response.) Okay. She's fine. And the staff, NRC staff will be here after the meeting for informal discussion, and including Ms. Quinly. And we'll be here tonight if anybody wants to join us again. And once again, we do have our Safety Project Manager here with us, so if there's any questions on the safety side or whatever, Dan is here. And I would just thank you, and we're adjourned and we'll be back tonight. Great.

(Whereupon, at 2:35 p.m. the proceedings were adjourned.)

A.3.2 Transcript of Evening Public Meeting on March 22, 2006, in Monticello, Minnesota

[Introduction by Chip Cameron]
[Presentation by Rani Franovich]
[Presentation by Crystal Quinly]
[Presentation by Robert Palla]

GEORGE CROCKER: Thank you, Chip. In my experience environmental impact statements are usually decision-informing documents. What I've reviewed is a rationalization for a decision that's already made.

B-1 I realize there's nothing I can do or say to make this better, because I don't think you care. So this is sort of a fool's errand that I'm on; and not really liking being a fool, I'm going to make it short.

Your significance levels—small, moderate, large—appallingly subjective. Rational people looking at the same facts could come to dramatically different conclusions about what's small, about what's moderate, about what's large.

Small means not detectable, not noticeable? By whom? Using what?

B-2 Let's just look at how we monitor for radiation releases as an example. Acknowledging that the radionuclides are released, where do they go? You haven't a clue. Your monitoring doesn't tell you where they go. Your monitoring says where you don't find them, but you're not looking for where they are. They're out there. You let them go. And all you have to define what happens after you release them are some calculations and some modeling that tell us nothing about where they go.

Well, the Bier VII says that there's no such thing as a safe dose. You have no scientific basis, no factual basis, no data to support such a contention. You have calculations and dispersion models, and that's all you have. Where do they go?

So you don't look for where they are, you don't find them, and therefore it's not detectable, therefore it's small. You see, quite arguably what this means is that while you're looking at this as a dispersion, dilution being a solution, what another I would say more rational person could argue is that what you've created is a very efficient distribution mechanism in which the maximum number of people can have the opportunity to get enough of it inside of them to cause the cancers. And it turns out that we don't have the cancer registries on a county-by-county basis to really allow us to come to those conclusions because of the way they're compared. But if you look at it the way it could be, you will see elevated concentrations of particulate cancers in communities that are in close proximity to the reactors. But you don't look at that, so it's small.

Small compared to what? Small compared to Well, you see some of us now finally understand the difference between background radiation and the insult when the radiation is ingested or inhaled. Entirely different things. Background is background. Why do you think your thigh bones are so big? It's to keep the background out. But once it's inside of you each radionuclide becomes very, very efficient at causing the destruction that ultimately leads to the cancer.

Small. No facts. Conjecture. Subjective.

- B-3 Wind, 30 percent capacity factor? I don't Commerce website for their wind maps and see what kind of capacity factors they come up with. When you have a decision-making process like this
- B-4 one in which there is no even attempt to make a reasonable simulation of 600 megawatts of baseload to compare it with and then come to the conclusion that alternatives such as wind have moderate to large impacts while a reactor that creates waste that must be managed for 240,000 plus years with routine emissions that aren't managed and that's small, you're sick. That is sickness. That is also behavior, institutional behavior that is typical of failing institutions. And the real tragedy here is that the technology you are managing is so terribly unforgiving.

CHIP CAMERON: Thank you, Mr. Crocker, for the time to come down and talk to us tonight. And we're going to go our next speaker, who is Mr. John Conway, who is the Vice President Monticello Generating—Yes, please.

JOHN CONWAY: Good evening. My name is John Conway. I work for the Nuclear Management Company. I am the site Vice President at Monticello station here in Monticello. And I'm here today to give Nuclear Management Company's position on the NRC's Draft Supplemental Environmental Impact Statement provide a few additional comments regarding the Monticello Nuclear Generating Plant.

- C-1 Nuclear Management Company supports the conclusions contained in the Draft Supplemental Environmental Impact Statement. The rigorous audits and inspections conducted by the Nuclear Regulatory Commission led to a report confirming our own conclusions that continued operation of the plant will have impact to the environment.

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The Draft Impact Statement supports the key elements of our mission at the facility, namely, the safe, reliable, and economical operation in that order of priority, with safety of the public, our employees, and the environment being the top priority. We value and expect our organization to be both a good neighbor and a responsible steward of the environment in which we operate.

C-2 Our 500 highly-experienced and employees take great care in their daily activities to ensure that the environment is well protected. We feel fortunate that the location of the Monticello plant rests on the banks of Mississippi River within close proximity of the Montissippi County Park and the Lake Mariah State Park. The site is home to a wide variety of wildlife, aquatic species, and plant life. Our efforts have made the site a safe and sound habitat for many years, and it remains our commitment maintaining that for the years to come.

C-3 The Monticello plant has been extremely well maintained over its lifetime, ensuring it can operate safely for at least an additional twenty years beyond the original operating license period. Approximately every two years, we perform a refueling and major maintenance outage in which we typically carry out over 2500 individual maintenance and inspection activities. This is in addition to the ongoing maintenance, inspection, and testing activities that are performed routinely during the period of plant operation.

We have continued to invest in a wide range of equipment improvements to take advantage of technology and materials to ensure future reliable and safe operation, and this is relevant to the aging management aspects of the license renewal process. As we move forward, we will continue to upgrade and improve the equipment, the technology, and the training to the employees of the station.

C-4 In conclusion, the Monticello plant has been a productive contributor to the energy needs of the State of Minnesota and a valuable asset and neighbor to the surrounding communities and environment. But we remain committed to operating safely, reliably, and economically, primarily being focused on being a good neighbor and a good steward of the environment. As I mentioned previously, it's the safety of the public, our employees, and the environment that remain our highest priority. I and the rest of the employees at Monticello look forward to serving the community that regard for many years to come.

That concludes my statement.

CHIP CAMERON: Okay. Thank you very much, Mr. Conway. Is there anybody else that would like to make a statement tonight?

(No response.)

We do have some students here St. Cloud State University, and we welcome you tonight. Are there any questions that any of have about the process, anything that you heard tonight? And we'll be available after the meeting talk informally if you want to do that, but I just thought if you had any questions that I think we the time to entertain them.

Yes?

CHUCK HOSTOVSKY: I thought it was going to be a presentation on—

CHIP CAMERON: Let me get you on the mic so we can get you on the transcript.

CHUCK HOSTOVSKY: I thought there was going to be a presentation on the dry cask nuclear storage technology. Or is that included in the SAMAs?

CHIP CAMERON: No—Well, let me—license renewal, as Rani Franovich talked about, looks at particular things the passive—aging of passive components, plus the Environmental Review covers a number of things. But I think that because of the fact that the spent fuel storage situation is an every-day operational issue, it's considered another aspect. So maybe we can at least tell you what framework is for that.

Rani, can you talk to us a little bit about that?

RANI FRANOVICH: Actually, I'm not well versed on what it takes to license one of the dry cask storage facilities, but I can tell you the license renewal process focuses on aging management of the system structures and components of the plant.

It's a separate process to license dry cask storage, so it's not part of tonight's meeting or the staff's review of the license renewal application.

CHIP CAMERON: And Mike, do you want to add something for perhaps the—

RANI FRANOVICH: Dr. Masnick is a member of my staff.

CHIP CAMERON: Okay. Dr. Mike Masnik.

DR. MIKE MASNIK: As Rani said, it's really not part of this process, but I do know a little bit about the dry cask storage. Our regulations allow for two ways in which a licensee can effect dry cask storage on a site. They can apply for a site-specific license under Part 72 of our regulations, which allows them to build a stand-alone facility on their site, and it's separately licensed from the nuclear power plant.

There is also another provision in the regulations that allows them to request a general license. And you have to understand that under current license, which is the Part 50 license, they already can store spent fuel on site. So we have a provision under this general license in which if they use an approved cask design, then they can build a pad and basically put the fuel in the dry cask storage containers. So our activities associated with the general license is primarily licensing the casks, and what we do is we have a very rigorous licensing procedure that looks at a number of accidents and whether or not the cask will retain its integrity through the period of time in which it's licensed.

Appendix A

The casks are licensed for a period of twenty years; at the end of the twenty-year period they would have to re-certify that the cask was safe to store any longer period of time.

CHIP CAMERON: And the other process is a specific license—

DR. MIKE MASNIK: That's correct.

CHIP CAMERON:—that a particular facility can follow. But in this case they're using the general license.

DR. MIKE MASNIK: Right. Right. In the case of Monticello they're pursuing the license option.

CHIP CAMERON: Okay. And Mr. Conway I think wants to add something here, and, again, he's the Site Vice President at Monticello.

JOHN CONWAY: Although dry fuel storage outside the boundaries of the meeting, public meeting here tonight, we have members of the staff from the Nuclear Management Company that would be happy to within certain constraints, answer any regarding the dry fuel storage campaign at after the meeting.

CHIP CAMERON: Okay. Thank you for that offer, Mr. Conway. Are there other issues, other questions that any of you might have at this point?

(No response.)

Okay. And we're here after the meeting, so whatever you want to discuss. Okay. And we're going to go Rani. Do you want to—I think we're done with the formal part. Do you want to close this out and we can go to the informal discussion?

RANI FRANOVICH: Yeah.

CHIP CAMERON: Okay.

RANI FRANOVICH: In closing, I just wanted to take the opportunity to thank you all again for being here. It really is important that the participates in our review process, and it enriches the quality of our product. So thank you for being here with us tonight.

Again, comments can be received until May 4th. That's the close of our comment period. The point of contact is Jennifer Davis or the e-mail address that you saw on the slide.

And I also wanted to let everyone know we have these NRC Public Meeting Feedback forms. You may have picked one up as you came into the meeting. If you have any ideas or suggestions on how we can improve our public meetings, maybe the way we can present

information a little bit better, please jot that down on this form. Postage is pre-paid, if you'd like to just hand it to a member of staff on your way out, that's fine, too.

And again, thank you very much for coming, and we really appreciate your input. Good night.

CHIP CAMERON: Thank you.

(Whereupon, at 8:15 the proceedings were adjourned.)

Appendix A

Return-path: <loghouse@warpdriveonline.com>
Received: from mail2.nrc.gov [148.184.176.43]
by NRNWMS02.NRC.GOV; Sun, 19 Mar 2006 17:11:26 -0500
Received: from mta43.warpdrive.net (HELO mx1.warpdrive.net) ([24.56.130.43])
by mail2.nrc.gov with ESMTTP; 19 Mar 2006 17:11:26 -0500
X-Ironport-ID: mail2
X-SBRS: 4.5
X-MID: 2552914
X-BrightmailFiltered: true
X-Brightmail-Tracker: AAAAAA==
X-IronPort-AV: i="4.03,109,1141621200";
d="scan'208,217"; a="2552914:sNHT37493028"
Received: from smtp-1 (mta1-2.warpdriveonline.com [24.56.130.8])
by mx1.warpdrive.net (Spam Firewall) with ESMTTP id A0818D000D37
for <MonticelloEIS@nrc.gov>; Sun, 19 Mar 2006 17:11:29 -0500 (EST)
Received: from markkv7routq1x (204-251-85-228.warpdriveonline.com
[204.251.85.228])
by smtp-1 (8.13.1/8.13.1) with SMTP id k2JMO8Vr015693
for <MonticelloEIS@nrc.gov>; Sun, 19 Mar 2006 17:24:13 -0500
Message-ID: <000601c64ba2\$1ced80b0\$7a7ba8c0@markkv7routq1x>
From: "Mark Lodermeier" <loghouse@warpdriveonline.com>
To: <MonticelloEIS@nrc.gov>
Subject: Dry Storage
Date: Sun, 19 Mar 2006 16:11:41 -0600
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="====_NextPart_000_0003_01C64B6F.CEEF2530"
X-Priority: 3
X-MSMail-Priority: Normal
X-Mailer: Microsoft Outlook Express 6.00.2900.2670
X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2900.2670
X-Virus-Scanned: by Barracuda Spam Firewall at warpdrive.net

- D-1 Are you folks crazy, or do you think storing nuclear waste next to one of the
D-2 largest freshwater rivers in the world is a good idea. I cant belive Xcel energy,
holding people hostage at the end of an extension cord to get their way.
It's no wonder they want to "get this one under the radar screen", the whole
thought scares the living daylights out of me. I say shut 'em down and put up
wind generating towers on the same property!
Mark Lodermeier
9704 320th St.
St. Joseph, MN 56374

Return-path: <drykken@mainstreetcom.com>
 Received: from mail1.nrc.gov [148.184.176.41]
 by NRNWMS02.NRC.GOV; Sun, 19 Mar 2006 11:27:51 -0500
 Received: from mail.mainstreetcom.com ([206.10.62.106])
 by mail1.nrc.gov with ESMTP; 19 Mar 2006 11:27:51 -0500
 X-Ironport-ID: mail1
 X-SBRS: 4.7
 X-MID: 3948430
 X-BrightmailFiltered: true
 X-Brightmail-Tracker: AAAAAA==
 X-IronPort-AV: i="4.03,107,1141621200";
 d="scan'208,217"; a="3948430:sNHT48428936"
 Received: from valued3q8li1z0 [66.242.70.71] by mail.mainstreetcom.com with ESMTP
 (SMTPD-8.21) id A68605D0; Sun, 19 Mar 2006 10:27:50 -0600
 From: "Dennis Rykken" <drykken@mainstreetcom.com>
 To: <MonticelloEIS@nrc.gov>
 Cc: "Marty Sunderman" <martys@mainstreetcom.com>
 Subject: Monticello Xcel Energy Relicense
 Date: Sun, 19 Mar 2006 10:27:49 -0600
 Message-ID: <000901c64b72\$0fe6b290\$0b46f242@valued3q8li1z0>
 MIME-Version: 1.0
 Content-Type: multipart/alternative;
 boundary="====_NextPart_000_000A_01C64B3F.C54C4290"
 X-Priority: 3 (Normal)
 X-MSMail-Priority: Normal
 X-Mailer: Microsoft Outlook, Build 10.0.6626
 Importance: Normal
 X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2900.2180

E-1 I am in favor of making full utilization of existing nuclear plants by re-licensing.

I have toured this facility personally, albeit before 9/11 security restraints. Their record of error free operation warrants continued operation for as long as the facility can be safely operated with

E-2 prudent maintenance. The Federal Government's failure to site a nuclear waste repository should not be cause to close a functional, and large capital cost, generation plant before its' time.

E-3. Minnesota's power supply cannot be replaced by conservation and renewables alone; forcing migration to natural gas for base-load power generation is a short-sighted squandering of a very limited resource.

I am responding as an individual who has served a Municipal Utility for the past 16 years.

Dennis N. Rykken, Chairman
 Sauk Centre Municipal Utilities Commission
 815 4th ST S
 Sauk Centre MN 56378-1214
 320-352-2458



Monticello Nuclear Generating Plant
Operated by Nuclear Management Company, LLC

April 26, 2006

L-MT-06-037
10 CFR Part 54

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

Monticello Nuclear Generating Plant
Docket 50-263
License No. DPR-22

Comments Regarding the Draft Plant-Specific Supplement 26 to the Generic
Environmental Impact Statement for Monticello Nuclear Generating Plant License
Renewal Application (TAC No. MC6440)

Nuclear Management Company, LLC (NMC) has reviewed the Draft Supplemental Environmental Impact Statement (SEIS) issued by the NRC on January 23, 2006, for the Monticello Nuclear Generating Plant License Renewal Application and is providing comments. NMC's comments are included in Enclosure 1. Our review focused on technical content, and the majority of our comments identify corrections.

A handwritten signature in black ink, appearing to read "John T. Conway". The signature is fluid and cursive, written over the printed name.

John T. Conway
Site Vice President, Monticello Nuclear Generating Plant
Nuclear Management Company, LLC

Enclosure:

- cc: Administrator, Region III, USNRC
Project Manager, Monticello, USNRC
Resident Inspector, Monticello, USNRC
License Renewal Project Manager, Monticello, USNRC
License Renewal Environmental Project Manager, Monticello, USNRC
Minnesota Department of Commerce
Pillsbury, Winthrop, Shaw, Pittman; LLP (David Lewis)

2807 West County Road 75 • Monticello, Minnesota 55362-9637
Telephone: 763.295.5151 • Fax: 763.295.1454

MAY-08-2006 11:07

P.03

ENCLOSURE 1

Nuclear Management Company, LLC Comments on MNGP DSEIS

	Comment Number	Page Number	Line Number	Proposed Change
F-1	1	1-1	18	Change "southern" to "central". (Appears this way in ER, page 2-36)
F-2	2	1-7	10	Change "southeastern" to "central". (Appears this way in ER, page 2-36)
F-3	3	2-1	13	Change "southeastern" to "central". (Appears this way in ER, page 2-36)
F-4	4	2-4	26	Change "Four" to "Five".
F-5	5	2-7	21	Remove "two of". MNGP typically runs three service water pumps in the summer. Plans are to replace service water pumps with higher capacity pumps so the plant will only have to run 2 out of 3 in the summer.
F-6	6	2-8	9	Change "Four" to "Five".
F-7	7	2-8	12	Change "two" to "three".
F-8	8	2-8	19	Add "re-use" after "treatment" since the water is continually re-used.
F-9	9	2-10	3	Insert period at end of sentence.
F-10	10	2-11	35	Change to "nominal 22-24 month fuel cycle" to be consistent with page 2-30, line 30.
F-11	11	2-12	28	Correct name of line is "Parkers Lake".
F-12	12	2-16	9	Change "Four" to "Five".
F-13	13	2-16	17	Change "The other two wells" to "Two other wells".
F-14	14	2-16	18	Add sentence which reads: "The fifth well, equipped with a 10-gpm pump, provides domestic water to a security training facility".
F-15	15	2-18	24	Replace "EO 008" with "EU 008".
F-16	16	2-22	20-22	Corbicula have been found in the vicinity of Monticello, present in the baskets during 316(b) studies. They have also been recently found in the discharge canal, but none were present in the traveling screen forebays that were recently dredged.
F-17	17	4-32	8	Add "In the bounding analysis, Monticello assumes..." This should eliminate any confusion with 4-31, line 25.
F-18	18	4-35	27	Change "procedures that will be in place" to "procedures that are in place".
F-19	19	4-43	15	The MOU that Xcel has entered into is with the FWS only, not the MNDNR. Remove "and MNDNR".
F-20	20	4-48	16-17	Change sentence to read: "Three other wells have an annual usage of under 1.9 gpm and do not require appropriations permits." (see page 2-16)
F-21	21	4-48	27 & 30	Change to "Minnesota counties of Wright and Sherburne." Change "Shelburne" to Sherburne."

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P.04

ENCLOSURE 1

Nuclear Management Company, LLC Comments on MNGP DSEIS

F-22	22	5-6 & 5-7	32-34 & 1-14	Replace this text with the text in Appendix G on page G-3, lines 16-31 and page G-4, lines 1-17. The information is correct in Appendix G but not in Chapter 5. Specifically, the distinction between "early" and "late" releases is based on the delay between declaration of general emergency and containment failure, not between accident initiation and containment failure.
F-23	23	8-40	4	Change "four" to "five".
F-24	24	8-42	4	Change "units" to "plant" for consistency with rest of discussion.
F-25	25	8-44	14	Change "25 percent" to "14 percent". The same footnotes can be used. For verification, see NSP 2004 IRP, Appendix D, Table 7610.0310, Item B, 2004 data: (received from other utilities[column 3] – delivered for resale [column 4]) divided by (consumption by MN customers [column 1] + consumption by non-MN customers[column 2]) OR $(10496797-4475465) / (31439240 + 10331058) = \sim 14\%$ (the value of 25% ignored the subtraction of the delivered for resale value [column 4])
F-26	26	E-2	4	The US Fish & Wildlife Service Migratory Bird Treaty Act Permit was reissued on 04/01/2006. Authorization information is as follows: Number: MB074020-0 Expiration Date: 03/31/2009
F-27	27	E-2	10	The MNDNR Division of Fish and Wildlife Special Permit was reissued on 11/21/2005. Authorization information is as follows: Number: 13315 Expiration Date: 12/31/06
F-28	28	E-4	24	Remove "NYSDEC: New York State Department of Environmental Conservation" – not relevant to discussion.
F-29	29	E-4	3	The South Carolina Radioactive Waste Transport Permit was reissued for 2006. Authorization information is as follows: Number: 0026-22-06-Y Expiration Date: 12/31/2006
F-30	30	E-4	8	The Tennessee Radioactive Shipment License was reissued for 2006. Authorization information is as follows: Number: T-MN-002-L06 Expiration Date: 12/31/2006
F-31	31	G-23	18	Replace "\$1.1 x 10 ⁹ " with "\$1.1 x 10 ⁶ ."



IN REPLY REFER TO:

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Custom House, Room 244
200 Chestnut Street
Philadelphia, Pennsylvania 19106-2904



May 2, 2006

ER 06/73

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

The U.S. Department of the Interior (Department) has reviewed the Generic Environmental Impact Statement (EIS) for License Renewal of Nuclear Plants, NUREG-1437, Draft Supplement 26 (dated January 2006), regarding the Monticello Nuclear Generating Plant, Wright County, Minnesota.

The license renewal for Monticello Nuclear generating Plant does not involve any major construction or physical alteration of the project area. The Generic EIS and Draft Supplement 26 adequately address the concerns of the Department regarding fish and wildlife resources, as well as species protected by the Endangered Species Act. We concur with the preliminary conclusions of the U. S. Nuclear Regulatory Commission (NRC) staff with respect to the impacts of continued operations on these resources.

In a letter to the U.S. Fish and Wildlife Service (Service) dated December 22, 2005, the NRC transmitted a Biological Assessment on the proposed license renewal for the Monticello Plant with a determination that the renewal for an additional 20 years is not likely to adversely affect the bald eagle at the Monticello site or along the associated transmission lines. The Service has indicated that it concurs with the determination and will be providing an official concurrence directly to the NRC.

G-1

Correction needed in Final EIS: On page 2-22, line 16, the statement that "To date, populations of the zebra mussel within the Mississippi River have not been found above the Twin Cities area (St. Anthony Falls Lock and Dam)(MNDNR 2005)" is no longer correct. On Oct. 19, 2005, the MNDNR issued a news release confirming the presence of zebra mussels within Rice Lake, an impoundment within the Mississippi River near the City of Brainerd in Crow Wing County. Brainerd is approximately 94 miles upstream of Monticello.

We appreciate the opportunity to provide these comments.

Sincerely,

Michael T. Chezik
Regional Environmental Office

cc: L. MacLean, FWS, Fort Snelling, MN

MAY-17-2006 13:11

P.02



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 5
 77 WEST JACKSON BOULEVARD
 CHICAGO, IL 60604-3590

MAY 03 2006

REPLY TO THE ATTENTION OF

B-19J

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

Re: **Generic Environmental Impact Statement for License Renewal of Nuclear Plant,
 Supplement 26: Monticello Nuclear Generating Plant (CEQ No. 20060034)**

Dear Sir or Madam:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (U.S. EPA) has reviewed the Draft Generic Environmental Impact Statement for License Renewal of Nuclear Plant, Supplement 26: Monticello Nuclear Generating Plant. According to this Draft Supplemental Environmental Impact Statement (SEIS), the plant's current operating license expires on September 8, 2010. The proposed Federal action would renew the current operating licenses for an additional 20 years.

The Monticello Nuclear Generating Plant is located in southeastern Minnesota on the bank of the Mississippi River, 30 miles northwest of Minneapolis. Monticello is a single-unit plant that currently generates approximately 1775 megawatts thermal, as a result of an authorized power uprate in 1998. The plant uses Mississippi River water for condenser cooling and can operate as an open-cycle plant, returning water to the river, or a closed-cycle plant, using two cooling towers. The cooling towers are normally operated May through September, when the Mississippi River is generally above 68° F, or during periods of low flow. This system is in effect to meet surface water appropriations limits and thermal discharge limits.

The Nuclear Regulatory Commission (NRC) developed the *Generic Environmental Impact Statement (GEIS)* to streamline the license renewal process on the premise that environmental impacts of most nuclear power plant license renewals are similar. NRC develops facility-specific supplemental environmental impact statement documents as the facilities apply for license renewal. The U.S. EPA provided comments on the GEIS during its development process in 1992 and 1996. In several reviews of facility-specific documents, U.S. EPA's Region 5 office has commented that these documents do not provide site-specific information on impacts or use site-specific data for air and radiation and exposure calculations. Recently, representatives of NRC and U.S. EPA's Office of Federal Activities discussed the NRC's GEIS approach. NRC reiterated that it will continue to use the GEIS approach, except in cases where NRC is aware that site-specific data indicates an impact at an individual plant site or when specific information documenting potential impacts is provided by other Federal or State agencies or other reviewers. While we recognize the GEIS approach, we will continue to note

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P.04

**U.S. Environmental Protection Agency Comments on
Generic Environmental Impact Statement for License Renewal of Nuclear Plant,
Supplement 26: Monticello Nuclear Generating Plant, Draft Report,
NUREG-1437**

- H-1 1. We are concerned that the Draft SEIS does not discuss potential power uprates at Monticello or estimate resulting increases in radiological emissions, spent fuel, and other emissions. We recognize that NRC's regulations (10 C.F.R Section 51.53(c)(2)) state that an applicant's environmental report need not discuss the demand for power, and we are not asking for an assessment of need. Separate from purpose and need, we consider power uprates to be reasonably foreseeable actions that contribute to a cumulative radiological impact, under 40 C.F.R Section 1508.7, and therefore should be discussed in NRC's final SEIS.
- H-2 2. We are concerned about the abnormal releases mentioned in the Draft SEIS. The Draft SEIS references abnormal releases of fission and activation products and tritium during the period from 2001 to 2004 (page 2-9). This is the only place these releases are discussed in the document, and their mention raises questions that are not addressed. Information on the abnormal releases is unclear. For example, it is not clear whether there was one release event or more, or where the event occurred. In addition, while the concentration of the release(s) is given, readers are referred elsewhere in the document and regulations to determine for themselves whether this is within effluent limits or how this impacts the public or the environment. This section implies that occasional abnormal releases are expected during the renewal period. The Final SEIS needs to explain the past and future expected frequency of these releases. Finally, the Draft SEIS also claims that if future abnormal releases occur, they will be below design dose objectives. It is not clear how this statement could be supported for hypothetical incidents. We also note that abnormal releases are not discussed in sections on radiological impacts or water quality, presuming that these abnormal releases were issued to a water body.

With the GEIS approach, NRC generally does not include an analysis of impacts where staff reviewers have not found new or significant information. We believe that past abnormal releases, and the potential for future abnormal releases, qualify as new and significant information. We therefore recommend that the subsequent Final SEIS discuss the abnormal releases fully and in context to the environmental impacts analysis. We recommend including a discussion of past or potential future releases and steps to prevent releases. Specifically, the Final SEIS needs to explain the number of releases and where releases occurred (i.e., describe whether the release was effluent into the Mississippi River, an on-site spill, or some other release). It should clarify how abnormal releases are different from liquid effluent, if this is the case. We recommend that where concentrations are mentioned, the document place these concentrations in context by giving effluent limits, dose limits, or other relevant measurements. We also recommend that abnormal releases be discussed in *Chapter 4.0 Environmental Impacts of Operation*.

- H-3 3. We are aware that there was a proposal before the Minnesota Environmental Quality Board for dry cask storage facility for spent nuclear fuel at Monticello. We note that the Environmental Impacts section of the Draft SEIS does not discuss the potential impacts associated with adding this type of spent fuel storage facility to the existing operation. We

suggest that a new dry cask storage facility constitutes a new set of circumstances for this site and should be evaluated in greater detail for additional impacts to the environment.

- H-4 4. *Section 2.1.4.2, Gaseous Waste Processing Systems and Effluent Controls, Page 2-10, first paragraph.* Citations of dose values should also include the dose value, in addition to just the citation, to make the values clearer.
- H-5 5. *Section 2.1.4.2, Gaseous Waste Processing Systems and Effluent Controls, Page 2-10, third paragraph.* The total curie values provided do not add up to the total curie emissions stated. Please correct or clarify this discrepancy.
- H-6 6. *Section 2.2.7, Radiological Impacts, pages 2-29, 2-30, last paragraph.* The references to the environmental standards need to be complete citations including title of the rule or regulation, along with the basic standard for comparison provided consistently. All of the environmental standard that could be used for a comparison should be used, including 40 CFR 61 Radionuclide National Emission Standards for Hazardous Air Pollutants values. This will reduce the time needed to look up these citations and verify values that are cited in the text.
- H-7 7. *Section 4.3, Radiological Impacts of Normal Operations, page 4-27, 4-28, Table 4-7, and paragraph 1 On 4-28.* The specific values for exposure need to be provided in addition to the complete citation of the location of this information. This will help to provide the information better and be less confusing that a citation only, that then must be referred to allow verification of the standard being cited.
- H-8 8. *Section 5.2.2, Estimate of Risk, page 5-6.* The Draft SEIS states that the baseline core damage frequency (CDF) for the purpose of the severe accident mitigation alternatives (SAMA) is approximately 4.5×10^{-5} per year. This CDF is based on the risk assessment for internally-initiated events. The Draft SEIS does not include the contribution to risk from external events within the Monticello risk estimates; however it does account for the potential risk reduction benefits associated with external events by increasing the estimated benefits for internal events by a factor of two. The estimates for risks from both areas should be evaluated and presented along with a rationale for not basing risk decisions on the external events or including them in the considerations as necessary to get an accurate portrayal of the risk of the licensing renewal.
- H-9 9. *Section 6.1, The Uranium Fuel Cycle, page 6-3.* Under the bullet point for Off-site radiological impacts (individual effects from other than disposal of spent fuel and high level waste disposal), no consideration appears to be given to the potential long term storage of the spent fuel and high level waste materials on site until such time as a permanent facility is finally licensed and begins to accept these materials for disposal. A reference to other sections that this evaluation may have been included in should be provided here as well as in other sections, or if this evaluation has not been adequately conducted, the issue needs to be considered and an appropriate evaluation conducted.
- H-10 10. *Section 6.1, The Uranium Fuel Cycle, page 6-8, under the bullet point for On-Site Spent Fuel.* A more thorough evaluation for the volume of spent fuel expected to be generated during the additional licensed time needs to be provided along with more specific

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P.06

information as to site specific circumstances that may impair or improve the risk values for potential exposures to this spent fuel storage.

- H-11 11. *Section 7.1, Decommissioning*, page 7-2, under bullet point Radiation Doses. As the GEIS is based on a forty-year licensing period, an extension of this period would have an impact that we suggest needs to be quantified and reported. We recommend including this information in the Final SEIS as part of the risk that would be associated with the license extension and providing the specific methodology used to estimate risk.
- H-12 12. *Section 8.1, No-Action Alternative*, page 8-4, 8-5, under the bullet point Human Health. The actual value representing the cited percent value should be specifically provided in addition to the citation. This will help to reduce unnecessary additional research, except for value verifications, and avoid potential misunderstandings or confusion about the actual value(s).
- H-13 13. *Section 8.2.1, Coal-Fired Generation*, page 8-16, under bullet point Human Health. Any dose estimate that would have the potential to fall is the risk range of 10^{-4} to 10^{-4} or greater needs to be specifically evaluated for potential regulatory requirements or risk impacts to the public health. This should be estimated conservatively using the data that is currently available or that can be logically extrapolated from currently available information.
- H-14 14. *Section 8.2.3, Coal Gasification*, page 8-32, under bullet point Waste. We recommend specifically describing waste impacts, rather than making reference to them, to provide a clearer understanding of the risk determination made in this section of the document.
- H-15 15. *Section 8.2.3, Coal Gasification*, page 8-32, 8-33, under bullet point Human Health. We recommend specifically describing human-health impacts, rather than making reference to them, to provide a clearer understanding of the risk determination made in this section of the document.
- H-16 16. *Section 8.2.4, Nuclear Power Generation*, page 8-36. We recommend specifically describing the differences in potential risk associated with changes in power production, rather than making reference to them, to provide a clearer understanding of the risk determination made in this section of the document.
- H-17 17. *Section 8.2.4.1, Closed-Cycle Cooling System*, page 8-40, under bullet point Waste. We recommend specifically describing waste impacts, rather than making reference to them, to provide a clearer understanding of the risk determination made in this section of the document.
- H-18 18. *Section 8.2.4.1, Closed-Cycle Cooling System*, page 8-40, under bullet point Human Health. Human-health impacts need to be specified rather than merely referenced to provide a clearer understanding of the risk determination in this section of the document.

TOTAL P.06



MINNESOTA HISTORICAL SOCIETY
State Historic Preservation Office

April 26, 2006

Rani Franovich, Branch Chief
Environmental Branch B
Division of License Renewal
Office of Nuclear Reactor Regulation
Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Re: Monticello Nuclear Generating Plant License Renewal
Monticello, Wright County
SHPO Number: 2004-2193

Dear Rani Franovich:

Thank you for your recent submittals regarding the above referenced undertaking.

I-1

As you know, you consulted with our office regarding the undertaking in 2005, and we concluded at that time that no historic properties would be affected. Based on our review of the information recently submitted, we see no reason to alter that conclusion.

Contact us at 651-296-5462 with questions or concerns.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Britta L. Bloomberg'.

Britta L. Bloomberg
Deputy State Historic Preservation Officer

345 Kellogg Boulevard West / Saint Paul, Minnesota 55102-1906 / Telephone 651-296-6126

TOTAL P.06

Appendix B

Contributors to the Supplement

Appendix B: Contributors to the Supplement

The overall responsibility for the preparation of this supplement was assigned to the Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission (NRC). The statement was prepared by members of the Office of Nuclear Reactor Regulation with assistance from other NRC organizations, the Lawrence Livermore National Laboratory, Argonne National Laboratory, Pacific Northwest National Laboratory, Energy Research Incorporated, and the Information Systems Laboratory.

Name	Affiliation	Function or Expertise
NUCLEAR REGULATORY COMMISSION		
Jennifer A. Davis	Nuclear Reactor Regulation	Project Manager
Robert G. Schaaf	Nuclear Reactor Regulation	Backup Project Manager
Andrew Kugler	Nuclear Reactor Regulation	Section Chief
Rani Franovich	Nuclear Reactor Regulation	Section Chief
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Appendix B

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