

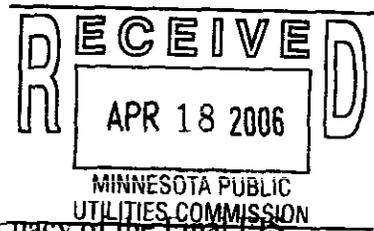


NORTH AMERICAN WATER OFFICE

PO BOX 174 Lake Elmo, MN 55042
Phone 651-770-3861 Fax: 651-770-3976

April 10, 2006

Ms. Sharon Ferguson
Department of Commerce
87 7th Place Suite 500
St. Paul, MN 55101-2198



APR 11 2006

RE: Comment on the Adequacy of the Final EIS
Docket No. E002/CN-05-123

Dear Ms. Ferguson:

The Final Environmental Impact Statement (EIS) in the above captioned matter is not adequate because it fails to meet, even under the most lax and casual of all possible interpretations, the most rudimentary and basic requirements set forth in Minnesota Rule 4410.2300, Items G and H, as required by Minnesota Rule 4410.2800. Subd.4 Item A. It also fails to meet the provisions of Minn. Rule 4410.2500 regarding incomplete or unavailable information.

First, the Scoping Decision for this EIS puts great emphasis on producing a thorough and detailed analysis of alternatives as provided by Minnesota Rule 4410.2300, Item G. As delineated and documented below, the required thorough and detailed analysis of the alternatives was not done.

Second, we recognize that the Scoping Decision defers to federal authority regarding radiation release standards, security protocol and requirements, and management procedures for the prevention of nuclear accidents. The setting of these standards, requirements and procedures by federal authorities, however, is not the same as their environmental, economic, employment, and sociological impacts *and related costs*. The setting of standards and procedures does not eliminate impacts and costs. Rather, federal standards and procedures merely set limits and establish probabilities for impacts and costs. Actual and potential impacts and costs still exist, and the RGU as defined by state law is still required to examine those actual and potential impacts and costs to determine if they are acceptable in Minnesota. While the RGU can specify areas for particular scrutiny in its Scoping Decision, as it has done in this case, neither those specifications



www.nawo.org email: gwillc@nawo.org
Board of Directors: Laurence LaFond chair, Shirley Little Bird Vice Chair, Lea Foushee Secretary/Treasurer,
Louis Alemayehu, Bruce Drew, Ralph Hilgendorf, Cecilia Martinez, Rosalie Wahl,
George Crocker, Executive Director.

not its lack of authority to set certain standards and procedures diminishes its responsibility to evaluate acknowledged actual or potential environmental, economic, employment and sociological impacts pursuant to Minnesota Rule 4410.2300, Item H.

In this EIS, any possible environmental, economic, employment, and sociological impacts and costs of routine radiation releases that will result from the operation of the proposed facility are simply denied without evaluation. There is no evaluation of the probability that security protocol is adequate. There is no evaluation of the environmental, economic, employment, and sociological impacts and costs if it is not adequate to prevent an uncontrolled and catastrophic release of radionuclides. Likewise, there is no analysis of the probability that plant management procedures actually will prevent an uncontrolled catastrophic release of radionuclides, or of the environmental, economic, employment, and sociological impacts if those procedures are not sufficient to prevent such a release.

These flaws are fatal. They are not particularly difficult to understand. Information that allows the EIS to avoid these flaws is readily available on the record. If that information is rejected and this document is deemed adequate, it will only be because decision-makers are intent on substituting their opinions and the privileges of nuclear theology for common sense, common decency, verifiable substance, and the rule of law.

1. Adequacy Comments Regarding Generation Alternatives

The Minn. Rules 4410.2800 Subp. 4, "Determination of Adequacy" outlines a decision framework that encompasses three main parameters. The Rule states that an EIS shall be determined adequate if it:

- A. addresses the potentially significant issues and alternatives raised in scoping so that all significant issues for which information can be reasonably obtained have been analyzed in conformance with part 4410.2300, items G and H;
- B. provides responses to the substantive comments received during the draft EIS review concerning issues raised in scoping; and
- C. was prepared in compliance with the procedures of the act and parts 4410.0200 to 4410.6500.

This document fails all three tests in the context of the examination of generation alternatives. This document does not analyze all significant generation alternative issues for which information can be reasonably obtained from the hearing record. It does not respond to all substantive generation alternative comments in the hearing record. It is missing information on generation alternatives required to comply with the Environmental Policy Act and EQB Rules 4410.0200 to 4410.6500.

UNADDRESSED ISSUES

There are many issues surrounding characteristics and use of wind generation as part of a package of technologies that could replace Monticello generation that abound in the hearing record. One key wind technology issue is how much energy can be obtained from these types of resources going forward. Two major wind resource data bases developed over the course of time from the Department of Commerce Wind Resource Assessment Program are in the record.¹ The FEIS contains no analysis or discussion of which of these databases is the appropriate one to use to calculate energy from new wind turbines that would be installed in Minnesota as part of a generation alternative that includes wind resources.

Another unaddressed issue is the appropriate amount of biodiesel and ethanol fueled generation resources that could reasonably be expected in a distributed generation scenario.

Whether the use of DG resources should be constrained as Xcel has done in its analysis to just load serving and not energy export uses is another unaddressed issue. Implicit in this issue is whether an alternative including dispersed generation is viable.

We are not providing a comprehensive list of all unaddressed issues here but offer these as examples of topics that are not even mentioned in the FEIS as drafted.

The general need to comprehensively address generation alternative issues raised in the record is driven by Minn. Rule 4410.2300, items G and H. Part G specifically requires:

“The EIS must address one or more alternatives of each of the following types of alternatives or provide a concise explanation of why no alternative of a particular type is included in the EIS: alternative sites, alternative technologies, modified designs or layouts, modified scale or magnitude, and alternatives incorporating reasonable mitigation measures identified through comments received during the comment periods for EIS scoping or for the draft EIS.”

At the least the document must explain why certain options or issues are not included in the analysis.

UNADDRESSED COMMENTS

Comments have been raised by parties in this proceeding regarding how various ownership structures of generation resources affect the economics of generation projects. Ownership structures impact both economic impacts to ratepayers and economic development opportunities for communities.² These comments, as well as many other socio-economic comments have not been addressed in this draft.

¹ See Rebuttal Testimony of Jeff Haase

² See Direct Testimony of Mike Michaud.

The Need to address these comments is spelled out in Minn. Rule 4410.2700, Subpart 1.

“The final EIS shall respond to the timely substantive comments on the draft EIS consistent with the scoping decision. The RGU shall discuss at appropriate points in the final EIS any responsible opposing views relating to scoped issues which were not adequately discussed in the draft EIS and shall indicate the RGU's response to the views.”

Particularly missing from the draft is an itemization of opposing views and a response to these views.

COMPLIANCE WITH STATUTE AND RULE

Both Minn. Stat. § 116D.04, Subd. 2a. and Minn. Rule 4410.2300, item H require an analysis of economic and social impacts. Minn. Rule 4410.2300, item H specifically mentions the need to address this matter for the generation alternatives:

“Environmental, economic, employment, and sociological impacts: for the proposed project and each major alternative there shall be a thorough but succinct discussion of potentially significant direct or indirect, adverse, or beneficial effects generated.”

This type of analysis is completely missing from this draft. This analysis is particularly germane to this matter since the opportunity for, and benefits of, Community Based Energy Development is developed throughout the hearing record.

In addition to providing an analysis of socio-economic and employment issues, Minn. Rule 4410.2300, item H indicates the FEIS must:

“identify and briefly discuss any major differences of opinion concerning significant impacts of the proposed project on the environment.”

There is no discussion or comment in this draft of the various parties' positions on generation alternative quantitative or qualitative impacts on the socio-economic or employment environment.

SCOPING DECISION REQUIREMENTS

Minn. Rules 4410.2100 Subp 6a indicates that the EIS must address issues identified in the Scoping Decision document. There are specific and substantive directives in the Scoping Decision regarding the analysis of generation alternatives.

The EQB Scoping Decision document, dated June 16, 2005, called out a special standing for the analysis of generation alternatives. The decision summary points this out:

“Therefore, most relevant technical and environmental issues—other than an analysis of generation alternatives—are either (1) addressed in detail in the CON Application or in subsequent supplements, (2) preempted by federal regulations, (3) subject to detailed review in the federal EIS, or (4) a combination of the above. For these topics, the EIS will verify, summarize, supplement and incorporate by reference available information as outlined in the attached Scoping EAW. Finally, the EIS will include a new study that will define and analyze the feasibility and impacts of generation alternatives to continued operation of the Monticello Generating Plant until 2030.”³

Unlike some issues preempted by federal jurisdiction, the FEIS content regarding generation alternatives is required to be a “new study that will define and analyze the feasibility and impacts of generation alternatives.” The intent was clear that the information in the application and in supplements provided by Xcel Energy would not be sufficient to fulfill the EIS requirements. There is a burden placed on the preparation of the EIS for the development of new and therefor independent analysis of the generation alternatives. This point is emphasized further on in the scoping decision where the EQB required that

“The EIS will include a study and analysis of new data regarding the feasibility and environmental impacts of reasonable alternatives to continued operation of the Monticello Generating Plant.”⁴

The requirement here is to develop *new data* regarding *reasonable* alternatives. This requirement has not been met in the FEIS as drafted. The only new data and analysis in the document is in the limited area of development of one new renewable DG option.

The only presentation in the document of other feasible generation alternatives is that of information provided by one party to the proceeding, the Department of Commerce. There is neither a discussion of the information or analysis of generation alternatives presented by other parties in the proceeding, nor independently developed information the other generation options provided by the Energy Facility Siting staff. This is also contrary to the intent of Minn. Stat. § 116D.04 that requires the environmental impact statement to “be an analytical rather than an encyclopedic document.”

The scoping decision contained specific requirements for analysis regarding the use of the Strategist computer model. The requirement is detailed as follows:

“In addition, the CON Application alternatives analysis is based largely on a proprietary computer model called “Strategist” developed by New Energy Associates, Inc. The Strategist model will be evaluated for

³ See summary section of Scoping Decision, p.2.

⁴ See Scoping Decision, section III D, p7.

possible use for the state EIS, and if used, all algorithms will be reviewed and input assumptions will be evaluated and described in detail.

Alternatively, if Strategist model details and assumptions are not adequate, a different method of evaluating alternatives will be used.”⁵

This requirement of the EQB Scoping Decision has not been met. The document does state that it incorporates by reference “the economic analysis by the Minnesota Department of Commerce and other parties to the Certificate of Need proceeding at the PUC.”⁶ There is however no review, discussion, or independent analyses of the various issues that have surfaced in hearing regarding the strategist model and its input assumptions. The strategist modeling input assumptions have been a key issue in this proceeding, yet no evaluation as required by the EQB Scoping Decision is provided in this document.

Another requirement of the Scoping Decision is that:

“Information required by Minnesota Rules chapter 7855 for any DG alternative will be supplied within the EIS if the information is not already included within Xcel’s Petition or Xcel’s June 15, 2005 Supplement.”⁷

There is no section of the FEIS as drafted that specifically addresses this requirement. There should be a discussion in the document of whether or not Xcel’s Petition or Xcel’s June 15, 2005 Supplement satisfies these requirements and a development of these informational requirements for at least the renewable DG alternative.

The Scoping Decision also requires that the No Build Alternative will be addressed in a certain way:

“The consequences of shutting down the Monticello Generation plant with no replacement generation will be briefly described, including the description of the ISFSI capacity likely required for decommissioning whether or not the plant continues to operate past 2010.”⁸

The FEIS document does address the latter part of this requirement regarding ISFSI capacity, but there is no discussion of the consequences of shutting down the Monticello Generation plant with no replacement generation. Since there is a MISO market available for purchase of energy, at least this attribute of the no build alternative should be addressed to comply with the Scoping Decision requirements.

A significant deficiency exists in this draft regarding another Scoping Decision requirement, discussion of the economic feasibility of alternatives:

⁵ See Scoping decision section III D, p. 7.

⁶ Draft FEIS p. 57.

⁷ See Scoping Decision section III D, p. 7.

⁸ Ibid.

“The analysis of the economic feasibility will cover the same alternatives for which environmental impacts are evaluated, but will incorporate by reference the analysis of the Department of Commerce in the CON proceeding.”⁹

This requirement has not been met since the information added to Tables 7-4 and 7-5 contains only information from Dr. Rakows' Direct Testimony and does not consider data provided in subsequent written or oral testimony of Department of Commerce witnesses. Additionally, this requirement by the EQB should be considered a necessary but not sufficient condition for the scope of economic analysis required by Statute and Rule. As we have stated earlier, the statute and rule requires discussion and analysis of various differing positions on this topic as developed in the record.

2. Adequacy Comments Regarding Routine Radiological Releases

The EIS and the record of this proceeding affirm without controversy that Monticello routinely releases ionizing radiation. The amount of ionizing radiation that Monticello routinely releases on an annual basis, as reported by the Nuclear Regulatory Commission, is contained in Exhibit #16. In the early years of plant operation, annual releases approached and even exceeded a million Curies. Since then, several tens, if not hundreds or thousands of Curies have been released annually. Whether or not these releases are within standards is not at issue. What is at issue is whether the releases, within standards or not, cause environmental, economic, employment and sociological impacts, and if so, what are the costs of those impacts.

The EIS clearly states that no radionuclides associated with plant operations have ever been found. Monitoring protocol is described, but the monitoring program has never detected any of the radiation that is officially reported to have been released (EIS p. 33). The obvious questions therefore become: where does radiation go after it has been released? What is the environmental fate of the various radionuclides? How does each of them move through the ecosystem during the period of many years in which the radioactive decay process occurs?

The monitoring program fails to answer these questions. The EIS fails to ask these questions or to even recognize that they exist.

Nevertheless, the radionuclides are released, and that is the end of our actual knowledge about where they go and what they do for the remainder of their radioactive life. There is monitoring data that documents where the radionuclides are **not**, and based on that lack of information there are computer models that show no significant concentrations. But there is no information at all, in the EIS or on the record, to justify any conclusion about where they go, or if they concentrate, or whether human receptors abide within concentration zones, or how any individual radionuclide may happen to be ingested or

⁹ See Scoping Decision section III E, p. 8

inhaled. Without information that defines where reported releases go, as opposed to monitoring and modeling that fails to detect them, there is no factual basis for conclusions regarding their environmental, economic, employment and sociological impacts. Yet, the EIS simply presumes that the failure of monitoring and modeling to detect releases means that there is no reason for concern.

The argument that radiation concentrations near the plant are similar to those in Minneapolis (page 43) is irrelevant because background radiation levels are irrelevant if the issue is determining the fate of radionuclides released at Monticello. In addition, because Minneapolis is also within the 50 mile radius of Prairie Island, routine releases from Prairie Island have the ability to mask Monticello release.

The groundless presumption that failure to detect releases eliminates concern about them supports the flawed conclusion in the EIS regarding impacts of routine releases, which is that they have no impacts. This conclusion is presented as an article of faith, without analytical foundation.

Nuclear theology holds that these routine releases are without biological or public health consequences, and the EIS incantation of this theology, faithfully rendered on page 33, places all life in "a sea of radiation" in which all "...tissues are constantly awash with radioactivity from the sun, the earth and products of human technology." In the best of theological tradition, this is true but irrelevant.

The BIER VII Report of the National Academies of Science (referenced with key findings in Public Exhibit #16) on the biological effects of ionizing radiation concludes that there is no safe level or threshold of ionizing radiation exposure; that exposure to background levels causes biological damage; and that additional exposures cause additional risks.

The BEIR VII Report reaffirms the Linear-No-Threshold model for predicting health effects from radiation, meaning that every exposure causes some risk and that risks are generally proportional to dose. Further, the Dose and Dose-Rate Effectiveness Factor has been reduced, meaning that the projected number of health effects at low doses are greater than previously thought. In addition, new mechanism for radiation damage were recognized and recommended for further study, but not included in the risk estimates in the report.

Testimony submitted by Diane Rother (St. Paul Public Hearing, 2/16/06, TR p.51 Public Exhibit 15) provides evidence of the new mechanisms in which background radiation levels lose significance when compared to the exposure caused by radionuclides that have been ingested or inhaled or absorbed into body tissues. Once internalized, each ionizing emission becomes extremely efficient at destroying cell membranes, thereby opening the door to mutations, cancers and other diseases.

There is no discussion of any of this in the EIS. It's as if the National Academies of Science doesn't exist. It's as if testimony on the record gets to be selectively ignored.

It's as if Minn Rule 4410.2300 Item H doesn't exist, which requires that, "The EIS shall identify and briefly discuss any major differences of opinion concerning significant impacts of the proposed project on the environment." It's as if the provisions of the Environmental Rights Act (Minn. Stat. §116B) and the Environmental Policy Act (Minn. Stat. § 116D) don't exist, and the provisions of Minn. Rules 4410.2500 dealing with incomplete or unavailable information are irrelevant.

The depth of the failure of the FEIS to even consider the potential for impacts due to routine releases that will occur for an additional 20 years as a result of the proposed facility is illustrated by the "Cumulative Impact Matrix" on back of the first page 31. It says these impacts will be "very low" between 2010 and 2060 because "plant ceases operation in 2030" and because the "plant's past record accurately predicts future." To the first point, the 20 year period of concern when controlled releases will occur is summarily dismissed. The period of concern doesn't even count. To the second point, monitoring data that allows for a rational understanding of the plant's past record regarding environmental pathways of controlled releases does not exist, and there is no examination at all of scientifically established factors that cause those releases to be of concern environmentally and socio-economically. The "very low" is something that somebody just made up.

Specifically to the four factors identified on page 30, the likelihood of repeated occurrence of controlled releases between 2010 and 2030 if the proposed facility is authorized is 100%. There will never be any warning to the public regarding any of the occurrences. The damage caused by the occurrences is unexamined, and conclusions in the FEIS about that damage are nothing more than unsubstantiated opinion. The potentially exposed population within a 50 mile radius includes millions of people. Translating these factors into a conclusion of "very low" impact requires a deep regression into nuclear theology and ignorance of EIS criteria cited above.

3. Adequacy Comments Regarding Security

The security issue is certainly within the scope of this proceeding, as evidenced by portions of the Application, by testimony of Applicant witnesses, and by a hollow, unquestioning regurgitation of the Applicant's position regarding security issues in the EIS. The fact that federal authorities are responsible for setting and enforcing security requirements does not diminish the responsibility of the EIS to analyze the probability that established security requirements are adequate, and to identify potential impacts and costs if they are not.

While there is evidence on the record regarding the impacts and costs of a terrorist occurrence, there is no such analysis in the EIS, and without it, the EIS is not adequate.

The "Cumulative Impact Matrix" on the back of the first page 31 identifies "terrorism" as an issue of concern and lists the four factors to gauge its level or degree of impact. While these may be appropriate things to consider, there is no presentation about the criteria

used to evaluate or score them, or about the weight each was given. For example, what factors were included in the analysis that the EIS used to determine that the likelihood of a terrorist occurrence is low? What was the process to evaluate those factors? Who made that determination? What does "low" mean? What is the probability that "low" is the correct conclusion? What are the confidence-bounds surrounding the probability that "low" is the correct conclusion? Without answers to each of these questions, the conclusion is nothing more than someone's arbitrary opinion.

With regard to "potential severity or extent," what percentage of available radionuclides was presumed to be released by the occurrence? What were the meteorological and other factors that would affect public exposure presumed to be? Over what period of time did the release occur? What were the dispersion mechanisms?

Presuming that there was a warning that made a difference, what assumptions were made regarding the effectiveness and efficiency of evacuation procedures? What presumptions were made regarding the availability and ability of medical personnel to treat victims? How many victims were presumed? Over what period of time would adverse health impacts be counted that were caused by exposure to released radionuclides? What evacuation zone was presumed? How long would the evacuation zone have to be abandoned? What would clean-up costs be? What would be the effect of clean-up costs on the economy of the state? Without answers to these questions, and no doubt many more, the "low" conclusion is nothing more than someone's arbitrary and subjective opinion, and there is no way to analyze it from any sort of objective perspective. Such conjecture has no legitimate place in an EIS.

This failure is compounded by the assumptions that were acknowledged for the analysis, as found on the bottom of page 30. What was the baseline assumption regarding the preparedness of response capabilities? How do you know that the baseline is appropriate? What was used to measure and evaluate improvements? What is the probability that appropriate federal authority will adequate oversight and regulatory functions until 2230? What is the probability that local, state and federal governing structures will remain intact and stable during this time period? What criteria and process was used to determine this probability? What degree of certainty bounds the probability assessment? What a bunch of tripe.

4. Adequacy Comments Regarding Degradation and the Potential for Accidents

The EIS "analysis" of plant maintenance, the potential for accidents and their environmental, economic employment and sociological impacts and costs, has the same set of issues that are discussed above regarding security. The fact that federal authority establishes and enforces degradation management in no way diminishes the responsibility of state authorities to analyze potential impacts and costs if degradation management proves to be inadequate. What is the probability that plant maintenance procedures will prevent a major release of radionuclides? How was this probability arrived at and what degree of confidence bounds it? Rather than repeat all the questions that were posed

regarding security, suffice it to say that the EIS presentation of plant management issues that will result from authorizing the proposed facility are all subjective opinion. The EIS presents no criteria that can be evaluated.

Conclusion

The document is not an Environmental Impact Statement. It is a course and crass regurgitation of the Application, driven by unsubstantiated opinion, groundless belief, and wishful thinking. Lack of independent analysis is rampant throughout the document. Even giving the document every possible benefit of doubt regarding controversial, incomplete or unavailable information fails to salvage it. If differences of opinion occur regarding significant issues, Minnesota Rule 4410.2300 Item H still requires that the differences be identified and briefly discussed. They were not. Where there is incomplete or unavailable information, Minn. Rule 4410.2500 requires an explanation of what information is lacking and why, why it is relevant and what its potential significance is regarding reasoned choices among alternatives, a summary of existing credible scientific evidence that is relevant to evaluating potential impacts, and an evaluation of such impacts of the project and its alternatives based on theoretical approaches to research methods generally accepted in the scientific community. None of this was done, or even attempted.

If this document is deemed to be adequate by the Commissioner of the Department of Commerce, the process of public intervention and citizen participation is farce and charade. If the consequences of this document weren't so destructive, it would be just plain silly.

A handwritten signature in cursive script, appearing to read "George Crocker". The signature is written in black ink and is positioned above the typed name and title.

George Crocker, Executive Director
North American Water Office