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10 CFR Part 51

May 30, 1991

Director of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Attn: Document Control Desk
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MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Preparation of Monticello Nuclear Generating Plant's
Environmental Report Supplement

Northern States Power Company is in the process of preparing an application for a renewed operating license for the Monticello Nuclear Generating Plant. As part of this application, NSP will submit an Environmental Report Supplement to demonstrate that environmental impacts which may occur during the license renewal period have been assessed.

In connection with the issuance of the provisional operating license for the Monticello Nuclear Plant, NSP submitted an Environmental Report to the Commission and based on the submitted information, the Commission issued a Final Environmental Statement in November of 1972. Current NRC regulation requires that the NRC Staff prepare an Environmental Impact Statement or a supplement to the Final Environmental Statement in connection with the "renewal of full power . . . license to operate a nuclear power reactor" 10 CFR Part 51 Section 51.20(b)(2). Section 51.53(a) of the NRC's regulations requires "Each applicant . . . for renewal of a license to operate a production or utilization facility covered by 10 CFR Section 51.20" to submit with its renewal application "a separate document, entitled 'Supplement to Applicant's Environmental Report - Operating License Stage.'" The supplement to the Environmental Report is to:

"...discuss the same matters described in §§ 51.45, 51.51 and 51.52, but only to the extent that they differ from those discussed or reflect new information in addition to that discussed in the final environmental statement prepared by the Commission in connection with the construction permit."

In complying with the intent of these regulations, NSP is preparing an Environmental Report Supplement that will update the information presented in the Environmental Report and the Commission's 1972 Final Environmental Statement. The Environmental Report Supplement will provide information developed subsequent to those documents and identify any discernible trends. Predictions of effects to occur during the license extension period will also be made. Where it is feasible, information in existing documents will be referenced.

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The Environmental Report Supplement that is being prepared will follow the general outline of the current NRC Regulatory Guide 4.2, Revision 2. However, since this guidance is directed at newly constructed nuclear plants which varies from the action of license renewal, the content of the Environmental Report Supplement will vary from content guidance of Regulatory Guide 4.2. Attachment 1 gives an outline of the content of what will be included in Monticello's Environmental Report Supplement.

We are aware that the Staff is developing a generic Environmental Impact Statement that will seek to address many of the environmental issues that would otherwise be covered in plant-specific Environmental Impact Statements for license renewal applications. The generic Environmental Impact Statement would support changes to 10 CFR Part 51 that would generically address various potential environmental impacts associated with license renewal applications.

Because of the timing of the generic Environmental Impact Statement and its associated rulemaking, it is likely that the Monticello Environmental Report Supplement will be submitted after scheduled publication of the draft generic Environmental Impact Statement but prior to publication of the final generic Environmental Impact Statement. Several generic topics that are likely to be covered in the generic Environmental Impact Statement would also fall within the scope of the Environmental Report Supplement. Since the NRC Staff is preparing generic analyses of these issues, the Supplemental Environmental Impact Statement may make use of these analyses even if the generic Environmental Impact Statement is not yet final when the Supplemental Environmental Impact Statement is issued.

We have reviewed our Environmental Report, the Final Environmental Statement, Regulatory Guide 4.2, and the proposed outline for the generic Environmental Impact Statement to identify issues for which the NRC Staff will likely have generic evaluations that would make Monticello specific analysis unnecessary. These include:

1. Radiological health effects
2. Severe accident analysis (Class 9 accidents)
3. Severe accident mitigation design alternatives
4. Transmission line impacts, including EMF, herbicides, etc.
5. Uranium fuel cycle (Table S-3)
6. Transportation of nuclear fuel and radioactive waste (Table S-4)
7. Decommissioning impacts and costs

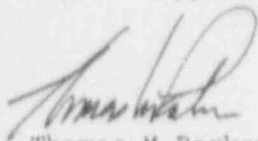
8. Alternatives

- Non-generator alternatives (conservation, demand-side management, rates, etc.)
- Non-conventional generation alternatives (solar, wind, biomass, etc.)
- Conventional generation alternatives (coal, gas, oil, new nuclear)
- Alternative sites
- Facility and transmission design alternatives

Since these issues are generic in nature (or, in the case of the alternatives, should be summarily disposed of on the generic basis that they are unreasonable in the renewal context), we believe that it would be unnecessary and inefficient to include these issues in the Monticello Environmental Report Supplement.

There may be other issues included in the Generic Environmental Impact Statement that will be handled by a generic conclusion on the impact for all affected plants. These issues will be evaluated when the proposed Part 51 rule is published for comment August, 1991, to determine if Monticello's Environmental Report Supplement can take advantage of these generic findings. If it is found that the findings of the Generic Environmental Impact Statement affect the contents of the Monticello Environmental Report Supplement, a revision to the attached outline will be submitted.

If you have any questions on the content of the Monticello Environmental Report Supplement, please contact us.



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Attachment 1 - Outline of Contents of Monticello's Environmental Report Supplement

OUTLINE OF CONTENTS OF
MONTICELLO'S ENVIRONMENTAL REPORT SUPPLEMENT

Introduction

This section will contain an explanation of the purpose of the Environmental Report Supplement including the need for license renewal. It will also contain an explanation of the organization of the Environmental Report Supplement and the rationale for the report content.

Chapter 1: Need for Power from the Existing Facility

This chapter will discuss the interrelationship between the Monticello facility, the NSP system, the regional power requirements and consequences of not renewing the Monticello operating license for the incremental period. The discussion on the consequences of not renewing the Monticello operating license term will focus on power supply impacts to the system from a "no action" perspective.

Chapter 2: The Site and Environmental Interfaces

Chapter 2 will present the relevant information concerning those physical, biological, and human characteristics of the area environment that might be affected by the extension of the operating license and will concentrate on updating information in the original Environmental Report and Final Environmental Statement. Particular attention will be given to the following subjects:

- Update the population distribution.
- Identify any changes in uses of adjacent lands and waters.
- Update information on "threatened and endangered" plant and animal species and confirm existing ecological information, as appropriate.
- Update the meteorology data using currently available site specific data, including updated joint frequency distribution data and appropriate period of diffusion and deposition parameters.
- Verify if the hydrology and seismology information provided in the original Environmental Report is still appropriate for utilization in evaluating potential impacts.
- Update information on regional historical and archeological resources that might be affected.

Chapter 3: The Station

Chapter 3 will contain a discussion of the station's external appearance and reactor and steam-electric systems. The Final Environmental Statement and USAR will be referenced to the degree possible. Some discussion of any changes to the station's external appearance from that described in the

original Environmental Report such as new buildings, site use changes, will be presented. Any expansion of NSP ownership of land in the vicinity of the station to expand land use control will be identified. An aerial photograph which displays the current plant site layout will be included.

Sections discussing station water use, the heat dissipation system, radwaste systems and source term, chemical and biocide wastes, and sanitary and other waste systems will concentrate on changes in station systems since the original Environmental Report and Final Environmental Statement which have had an effect on environmental resources or required an environmentally related permit. Update of the radwaste systems and source terms will include a description of process and effluent monitoring instrumentation. A brief description and update of transmission facilities will also be provided.

Chapter 4: Environmental Effects of Any New Construction Associated with License Renewal

This chapter will describe any major construction planned as a result of license renewal. Any extended outages resulting from activities required under license renewal and associated construction impacts during these outages will be presented.

Chapter 5: Environmental Effects of Station Operation During the License Renewal Period

This chapter will describe the interaction of the operating station and the environment. Emphasis will be placed on demonstrating the continued operation of the station within the bounds of effects described in the original Environmental Report and currently established regulatory requirements. The original Environmental Report and the Final Environmental Statement will be utilized to establish initial reference points for environmental effects projected to result from initial station operation. It will provide validation of any previous predictions of effects and updated predictions of the effects of license renewal based on analysis of data collected and review of information generated during the period from the initiation of station operation until the present (or most recent data and information). Discernible trends in effects will be identified. Predictions of effects to occur during the license extension period will be made.

Particular attention is to be addressed to the following topics:

- Description of the incremental cooling water system impacts since 1971.
- Provide a description of plausible exposure pathways and calculation of dose rates to man and the environment with particular attention to those which contribute to significant exposures. Present historical data and trends based on annual radiation doses to both onsite and offsite individuals.
- Update effects of waste water discharges and any changes in effluents or discharge systems since start of station operation.

- Provide a discussion on the station program to manage solid, hazardous, and low level radwaste and any perceived environment effects including effects on groundwater resources.
- Provide a discussion of air quality impacts from any non-radiological, non-heat dissipation sources.
- Discuss any additional resources committed on the basis of relicensing.

Chapter 6: Effluent and Environmental Measures and Monitoring Programs

This chapter will provide a comprehensive discussion of station operational effluent and environmental measures and monitoring programs including:

- A discussion of current monitoring programs
- Models used in measures and monitoring programs

Discussion will include programs related to surface waters, groundwater, air, land, and radiology. References to documentation of program specifics will be utilized to the extent possible.

Chapter 7: Environmental Effects of Accidents

For station accidents involving release of radioactivity, a discussion of accident classes 1 through 8 will be prepared. The initial basis for this information will be an examination of the validity of accident information provided in the original Environmental Report and Final Environmental Statement and the determination of its validity or what need to be updated to make it valid. A brief narration of other potential accidents not involving radioactivity will be provided.

Chapter 8: Economic and Social Effects of Station License Renewal

This chapter will contain a discussion of economic and social effects of station license renewal, including:

- An update of benefits with emphasis on any substantial changes in current benefits. Actual benefit data will be presented where available. Benefits will be presented on topics such as tax revenues, employment, regional production, as well as environmental, recreational, and aesthetic benefits. Discussion will be presented on how these or other benefits of continued operation during the license renewal period compared to the monetary and social costs of implementing alternative energy sources.
- An update of costs associated with license renewal will include costs for ensuring adequate resources for decommissioning and dismantling after the license renewal period, costs of operation during the renewal period, as well as any environmental or other social costs associated with the renewal action.

Chapter 9: Station Design Alternatives

Since guidance contained in Regulatory Guide 4.2, Chapter 10 is presented in the context of a proposed but not constructed facility, it is not applicable to the license renewal process. A brief explanation of why such information is not provided will be given in lieu of information listed in Regulatory Guide 4.2.

Chapter 10: Summary Cost-Benefit Analysis

This chapter will present a cost-benefit analysis utilizing the guidance provided in Regulatory Guide 4.2, Chapter 11.

Chapter 11: Environmental Approvals and Consultation

Chapter 11 will give the status of all environmentally-related licenses, permits and other approvals of federal, state, local and regional authorities which are currently in place for station operation.