



# The Prairie Island Nuclear Generating Plant: Nuclear Racism or Business as Usual?

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## Introduction

Since the 1980s social scientists have documented the disproportionate presence of toxic waste dumps and other environmental hazards in minority communities (Cole and Foster 2001). Some of these studies suggest that race alone is a stronger predictor of environmental injustice than income (Lavelle and Coyle 1992, Mohai and Bryant 1992). The nuclear industry in particular has targeted American Indian Reservations for uranium mining and the storage of high-level nuclear waste (Lewis 1995, Brook 1998).

The PINGP is the only nuclear power plant in the United States adjacent to an American Indian Reservation. Residents of the Prairie Island Indian Community (PIIC) are Mdewakanton Dakota and have a spiritual connection to the land they live on which may be disrupted by the presence of the nuclear plant. Harvesting and consuming plants and animals are an important part of that relationship, possibly leading to radiation exposure pathways that a non-Native community would not experience. These special concerns and a highly contentious relationship between Xcel Energy and the PIIC have led to speculation of environmental racism.

### Hypothesis

The null hypothesis was that there is no significant difference between the PINGP and nuclear plants near non-native communities based on the degree to which the community is kept informed about the relicensing process, the concerns the community and the public have expressed about the plant, and how these concerns are addressed by nuclear plant owner/operators and the Nuclear Regulatory Commission (NRC).

## Methods

### Comparison with other Nuclear Power Plants

#### Selection Criteria

Five nuclear power plants were selected for comparison based on their similarities to the PINGP. Special characteristics of the PINGP include its location in a high population area (as defined by the NRC), its close proximity to a small community, and its location in the Mississippi River Valley which concentrates possible radioactive releases in a confined area. All three of these factors contribute to a high perception of risk associated with the plant.

To select the power plants for comparison a list of power plants located in high population areas in locations with hilly terrains was compiled from the NRC website. Five power plants were chosen from this list based on their close proximity to a community (Table 1). The Indian Point Station was chosen as the best candidate for comparison because it is located next to a river with surrounding high ground just half a mile from the Village of Buchanan. The Donald C. Cook and Point Beach nuclear plants were similarly chosen because of their close proximity to a small community. The selected nuclear plants have a mixture of the characteristics that make them similar to the PINGP. Some had to be chosen on slightly different parameters than others to make a comparison based on all three factors.

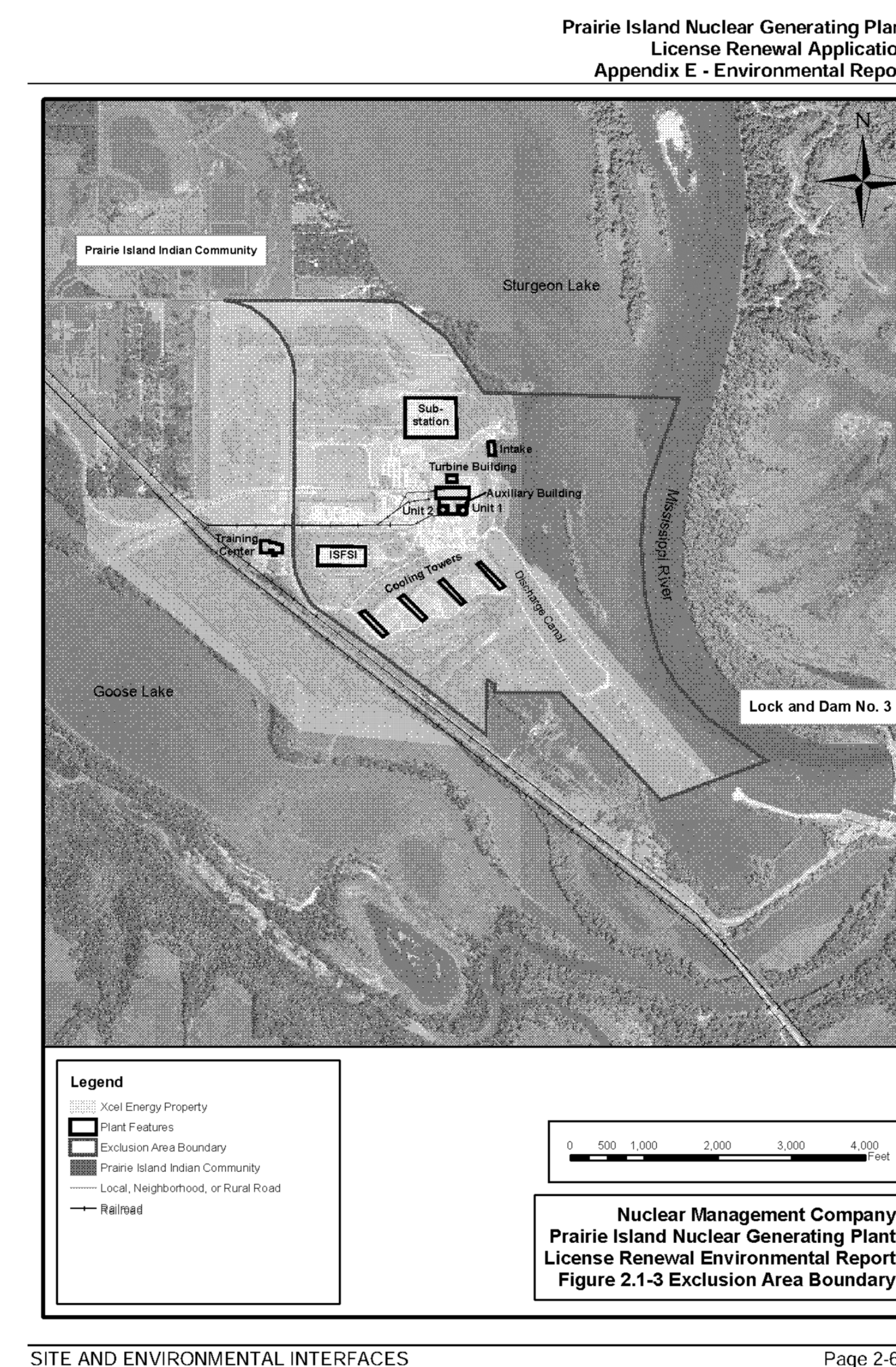
### Data Collection

The data used for comparison focused on the relicensing of the plants. Notifications of public meetings and public comment deadlines were collected using the NRC's ADAMS web search and by searching newspaper notices using Access World News. The number of days of notice the communities were given before public meetings was calculated. Public comments, public meeting transcripts, and hearing transcripts relating to each power plant was collected through and ADAMS and coded for themes expressing community concerns about the plant. A major area of concern on behalf of the PIIC has been the exclusion of information regarding the Community from the Environmental Report of the PINGP's License Renewal Application. Relevant sections of the Environmental Reports for the relicensing of the nuclear plants were searched to compare information on land holdings, population, population growth, tourist populations, and land use planning activities of the neighboring community.

	Population*	Closest Community	Surrounding Terrain
Prairie Island	high	adjacent PIIC, MN (250)	Mississippi River Valley
Indian Point	high	0.5 mi Buchanan, NY (2,189)	river surrounded by high ground
Point Beach	high	1 mi Two Creeks, WI (527)	gently rolling
D.C. Cook	high	2 mi Bridgman, MI (2,400)	slopes, dunes
Susquehanna	high	in Salem Township, PA (6,939)	rolling plateau
McGuire	high	6 mi Huntersville, NC (42,579)	river, hills

**Table 1: Criteria for comparing nuclear power plants**

\*High population area is defined by the NRC as a matrix of Sparseness and Proximity. Sparseness is a measure of population density and city size within 20 miles of the site while Proximity is a measure of population density and city size within 50 miles of the site. A Category 3 sparseness is 60-120 persons/mi<sup>2</sup>; Category 4 is greater than or equal to 120 persons/mi<sup>2</sup>. A Category 3 proximity is at least one city with 100,000 or more persons and less than 190 persons/mi<sup>2</sup> within 50 miles; Category 4 is greater than or equal to 190 persons/mi<sup>2</sup> within 50 miles. A combination of Category 3 and 4 between both Sparseness and Proximity or Category 4 for both results in the designation of "high population area."



**Figure 1: Map of the Prairie Island Nuclear Generating Plant**  
Prairie Island Nuclear Generating Plant License Renewal Application  
Appendix E - Environmental Report

## Results

### Notifications

The comparison revealed no significant difference in the notification that was given to interested parties on public meetings and public comment periods. In some cases the public was given as little as one day of notice by newspaper.

### Community Concerns

There were differences in the concerns expressed by the PIIC and other communities neighboring nuclear plants. The Indian Point facility generated the most public controversy and debate due to its proximity to the New York City metropolitan area, concerns that it may be a terrorist target, well-publicized accidents, and continuing radioactive releases into the Hudson River. Public comments on the Environmental Report for the Point Beach and Donald C. Cook Plants showed overwhelming support for the continued operation of the facilities. At Point Beach this is due to an economic need for energy that is

perceived as clean, cheap, and reliable and local opposition to proposed coal-fired plants. The owner/operator of Donald C. Cook has established an excellent relationship with the neighboring communities because of the economic development the plant has brought to the region and contributions to local schools and civic organizations. Local environmental groups and nuclear industry representatives dominated public discussion in the environmental scoping of the McGuire and Susquehanna facilities. There was little to no input from the general public.

The Indian Point and Prairie Island comments were similar in that they expressed concerns on health, safety, and the environment. National sovereignty and the protection of tribal historic and archeological resources were a particular concern of the PIIC that differed from other stakeholders. Members of the PIIC expressed concern about their spiritual connection to the land and worried they may be exposed to higher levels of radiation because of cultural practices that include the consumption of local plants and animals.

### Omissions of Information

The comparison of Environmental Reports showed mixed results. Each Environmental Report contained at least one omission of information similar to the PINGP. However, the PINGP Environmental Report did contain detailed information on other communities, including the City of Red Wing.

## Discussion

The communication issues between the PIIC, Xcel Energy, and the NRC appear to be grounded in systemic problems in the nuclear industry. This is largely due to the fact that the one of the core goals of the NRC is to "reduce unnecessary regulatory burden," which includes streamlining the relicensing process (Pernin 2005). NRC staff and the industry often cite the Generic Environmental Impact Statement for the Relicensing of Nuclear Power Plants (GEIS) in their decisions to exclude information from specific Environmental Impact Statements. Some issues that fall under the GEIS, including radiation doses, may affect the PIIC differently because of their unique relationship to the land and distinct cultural practices. The distinctive cultures of the Western Shoshone and Southern Paiute were significant factors in a study of possible socioeconomic impacts of the Yucca Mountain Federal Waste Depository (White et al. 1994). As a federally recognized tribe the PIIC has a unique legal status and interest in maintaining tribal sovereignty.

Following litigation on omission of information from the Environmental Report, the NRC's Atomic Safety and Licensing Board ordered that an Environmental Justice analysis be included in the License Renewal Application for the PINGP.

## References

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