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September 22, 2008

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RULES AND DIRECTIVES BRANCH USNRC

Chief, Rulemaking, Directives and Editing Branch
Division of Administrative Services
Office of Administration
Mailstop T-6D 59
US Nuclear Regulatory Commission
Washington, DC 20555-0001

RE: Environmental scoping for the relicensing of the Prairie Island Nuclear Generating Plant, Units 1 and 2

Dear Rulemaking, Directives, and Editing Branch Chief:

The Prairie Island Indian Community (Community or Tribe) would like to offer the following suggestions and comments regarding the scope of the draft Supplemental Environmental Impact Statement (SEIS) that will be prepared by the US Nuclear Regulatory Commission (NRC) for a 20-year operating license extension, as required by the National Environmental Policy Act (NEPA). The comments are offered in response to the notice in the Federal Register on July 22, 2008 (73 FR 42628).

It should be noted that views expressed in this document are the views of the Tribal Council, on behalf of the Community. Individual community members, of course, are free to express their own views, which may or may not be the same. Individual tribal members may express their concerns in writing.

Community Background

The Prairie Island Indian Reservation is located on Prairie Island, which is formed at the confluence of the Vermillion and Mississippi Rivers in southeastern Minnesota (approximately 35 miles SE of the Twin Cities of Minneapolis and St. Paul, MN). The size of the Prairie Island Indian Community has grown through several federal reorganization acts and direct purchases by the Tribal Council, and now totals over 3,000 acres (land and water) (Figure 1).

The United States Congress passed "The Prairie Island Land Conveyance Act of 2005," which transferred an additional 1300 acres of US Army Corps of Engineers land (approximately 485 acres of forested wetlands and prairie and approximately 819 acres of

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open water) to the Prairie Island Indian Community. These tribal lands provide a diverse habitat for fish and wildlife, including open prairie, forested wetlands, shrub swamps, and many other palustrine wetland types. In addition, this area is part of the Mississippi River flyway that provides resting and feeding areas for many migratory bird species.

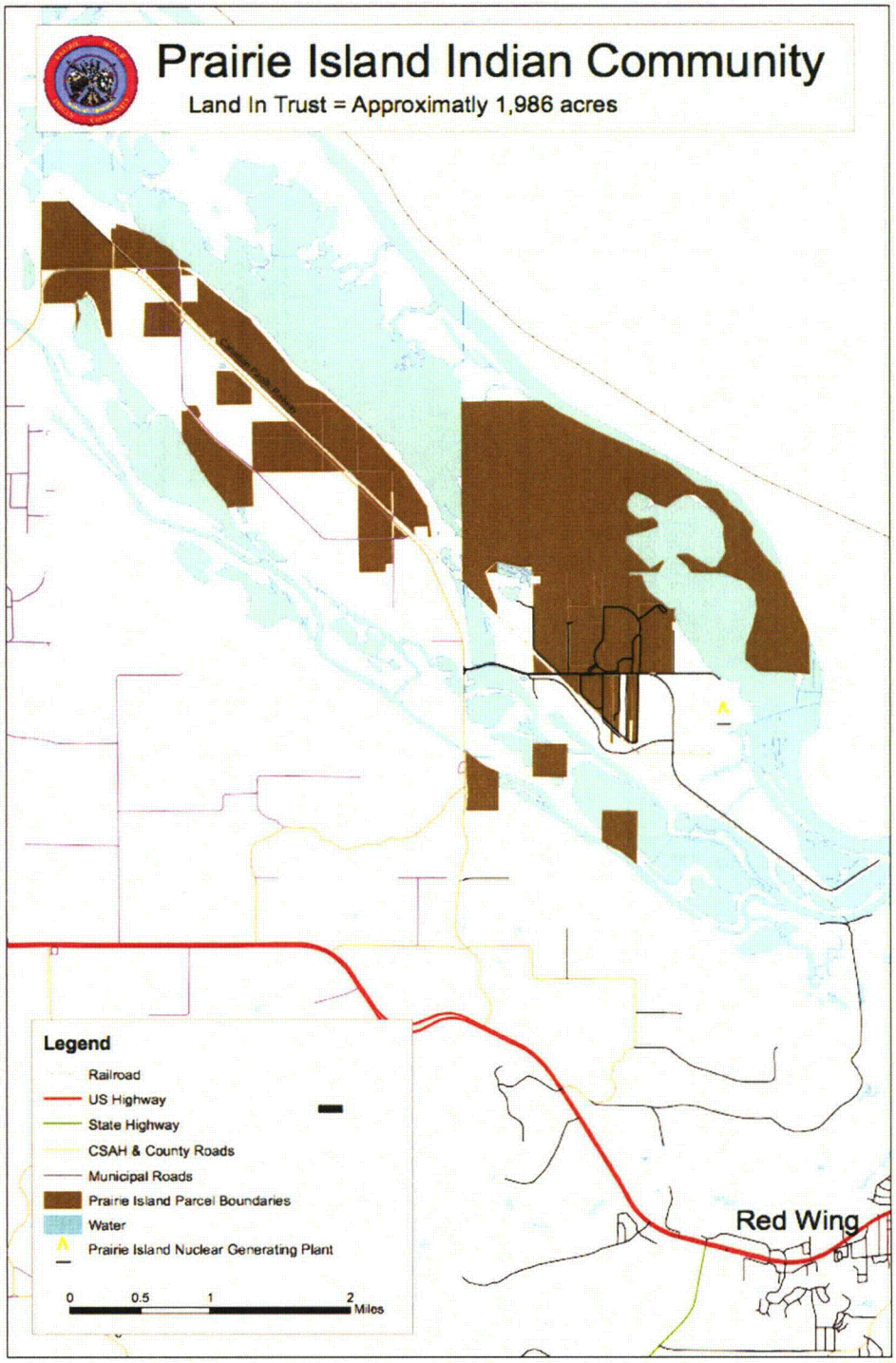

Figure 1

The Mdewakanton, "those who were born of the waters," have lived on Prairie Island for countless generations.[1] Archaeological evidence, including village sites and burial mounds, conclusively demonstrate that Prairie Island has been a place of historical and cultural significance for thousands of years. In more recent times, descendants of those earliest known inhabitants, the members of the Mdewakanton Dakota (Sioux), traditionally used Prairie Island as a summer encampment for fishing, hunting and raising crops. At least by the late 1880s, a small permanent Mdewakanton settlement was established. Congress appropriated funds and purchased land for the Mdewakanton on Prairie Island in the late 1880s. The Prairie Island Indian Community was formally organized under the Indian Reorganization Act of 1934, additional lands were acquired, and a formal reservation established. A tribal constitution and bylaws were approved by the Secretary of the Interior in 1936. The Prairie Island Indian Community is governed by the Community Council (sometimes referred to as the "Tribal Council"), which is comprised of five elected tribal members who each serve a two-year term.

Our community has grown substantially since the plant first went on-line in 1973. There are now 767 enrolled band members; approximately 250 members reside on tribal lands within 2 miles of the PINGP. We expect our enrollment to double over the relicensing period. The Prairie Island Indian Community owns and operates the Treasure Island Resort and Casino, which employs more than 1,500 people. In addition, the Community owns and operates a RV Park and a Marina, which attract many hundreds of visitors during the summer months. On any given day there may be as many as 9,000 visitors to our Community.

General Environmental Report Comments

We understand that the NRC will be developing a Supplemental Environmental Impact Statement (SEIS), as part of its review of the application to renew the operating licenses of the Prairie Island Nuclear Generating Plant (PINGP), Units 1 and 2. The starting point for the SEIS is the Environmental Report (ER) submitted by the Nuclear Management Company (NMC) with the application for license renewal. The Community is deeply

[1] The Prairie Island people are part of a larger group called the "Dwellers of the Spirit Lake," in the Dakota language the Mde wakan ed otunwahe. Over the years this name has been shortened to Mdewakantonwan or Mdewakanton (pronounced M'DAY-wah-kahn-tahn). The Mdewakanton are one of the seven sub-tribes who make up the alliance called Oceti Sakowin - the Seven Council Fires. Most of the world knows our alliance as the Sioux, which comes from an Ojibwe word nadowessi – "Little snakes." The French changed it to Nadowesioiux or simply Sioux. We call ourselves Dakota, Lakota, or Nakota, a word that means "allies" or "friends" in all three dialects. The Dakota/Lakota/Nakota have reservations in the states of Minnesota, Nebraska, South Dakota, North Dakota, and Montana, and in the Canadian provinces of Manitoba and Saskatchewan.

concerned about the general lack of attention given to the Community in the ER by NMC and its parent company Xcel Energy.

Overall, the ER minimizes the presence of the Tribe, tribal land-holdings, the tribal population, and tribal resources. For example, Section 2.1 of the ER (General Site Description) makes no mention of the Community but mentions other governmental units. The Community is mentioned in Section 2.1.2, PINGP Site Features. The Prairie Island Indian Community, however, is not a feature of the PINGP. Our lands and people pre-date the existence of the PINGP. Furthermore, no detail is provided on Community land holdings, water supply system, home sites, and population, Figure 2.1-2 does not correctly show the Community's lands. We have included Figure 1 that more accurately identifies the Tribe's land holdings. Other examples of the lack of data on impacts to the Community are the absence of information on Community demographics, including population growth, the tourist population related to the Community's casino, hotel, and marina. The fact that Treasure Island is Goodhue County's largest employer is also overlooked. Moreover, there is no treatment of the Community's land use planning activities, although the land use plans of other governmental units (Goodhue and Dakota Counties in Minnesota and Pierce County in Wisconsin) in the vicinity of the site were evaluated.

Trust Responsibility of the Federal Government

Although it was written in 1996, at a time when most federal agencies had well-developed and well-implemented Indian policies, the Generic Environmental Impact Statement (GEIS, NUREG-1437), the basis of the SEIS, does not recognize or mention Tribes or tribal sovereignty. Federally recognized Indian Tribes are governments, with unique legal and political standing and rights. Indian Tribes enjoy a Government-to-Government relationship with the Federal Government, including the NRC.

In June of this year, the Prairie Island Indian Community entered into a Memorandum of Understanding (MOU) with the NRC that established a cooperating agency relationship for the purpose of preparing the SEIS for the renewal of the licenses for the PINGP, Units 1 and 2. The Community's Cooperating Agency status, as it relates to the development of the SEIS, is limited to four areas: Historic and Archeological Resources; Socioeconomics; Land Use; and Environmental Justice. The tribe recognizes that the agreement is the first of its kind within the NRC and would not have been developed had the NRC not taken its Trust responsibility to the Prairie Island Indian Community seriously.

Although most of the comments and suggestions in this letter are outside our four areas of the MOU, they are just as important to the Prairie Island Indian Community. We believe that all things are related, "Mitakuye Oyasin,"[2] and that one cannot separate one

[2] Mitakuye Oyasin, literally translated, means "to all my relations" or "we are all related." Mitakuye Oyasin is a prayer, an acknowledgement, that honors the sacredness of all people and of all life.

aspect of the environment from another. In other words, our Community's health and well-being are dependent upon the health of the natural environment—the water, the fish, the birds, the air, the plants, are all interrelated as part of an ecosystem that is Prairie Island.

We believe that the NRC's SEIS should clearly set forth the scope and role of the NRC's Trust responsibilities to the Community in the license renewal process, including, among other things, and whether and to what extent the NRC believes that the Trust responsibility applies to both Category One and Category Two issues.

Category One Issues

While Category 1 issues are generally excluded from disclosure by NRC regulations, the Community continues to be concerned about the future impacts of these issues. The Community has provided some "new and significant" information relative to the storage of spent fuel and health impacts.

Human Health and Radiological Exposure

The Community recognizes that radiological exposure is a GEIS Category 1 issue. Nevertheless, community members remain concerned about their chronic exposure to low-level radiation. Many of our community members have been living on Prairie Island since the plant went on-line in 1973. Community members typically do not move in and out of the community. We are concerned about the human health effects from 60 years of low-level exposure (the original licensing period and the extended licensing period).

In addition, community members may have exposure pathways (water, food, air) that may be different from typical or "average" population in the area surrounding the plant, thereby placing the tribal population at greater risk. For example, many tribal members consume native plants for traditional purposes (direct consumption, medicines, teas, ceremonies) that are not typically part of Xcel's or the State of Minnesota's monitoring programs.

The ER does not address the issue of tritium contamination of the Community's wells. According to the 2007 Annual Radiological Monitoring Program (REMP) report (for PINGP) submitted to the NRC (May 13, 2008), wells PIIC-02 (1773 Buffalo Slough Rd.) and PIIC-26 (1771 Buffalo Slough Rd.) had Tritium concentrations of 65 pCi/L and 62 pCi/L, respectively (sampled July 2007). Well P-24D (Sueter residence) has tritium concentrations less than 23 pCi/L and all other off-site wells have tritium concentration less than 19 pCi/L.

According to the report, in July 2007, many onsite wells have Tritium concentration greater than 65 pCi/L. We understand that the levels of tritium found in our groundwater are below the US Environmental Protection Agency (EPA) standard of 20,000 pCi/L. Nevertheless, the tritium is there and we did not ask for it to be there.

Figure 2, below, represents a simulated groundwater modeling showing the movement of tritium from the PINGP towards the Prairie Island Indian Community. The Community respectfully demands a full and complete disclosure of the monitoring data for all tritium and other radiological contaminants for each well or other monitoring location, and not simply monthly, quarterly or annual averages for individual wells. This data is critical to identify and baseline accidental and planned releases of tritium and other radiological contaminants, and to facilitate the Community's preparation of exposure scenarios, scenario analysis, and computer modeling of all environmental pathways for tritium contamination.

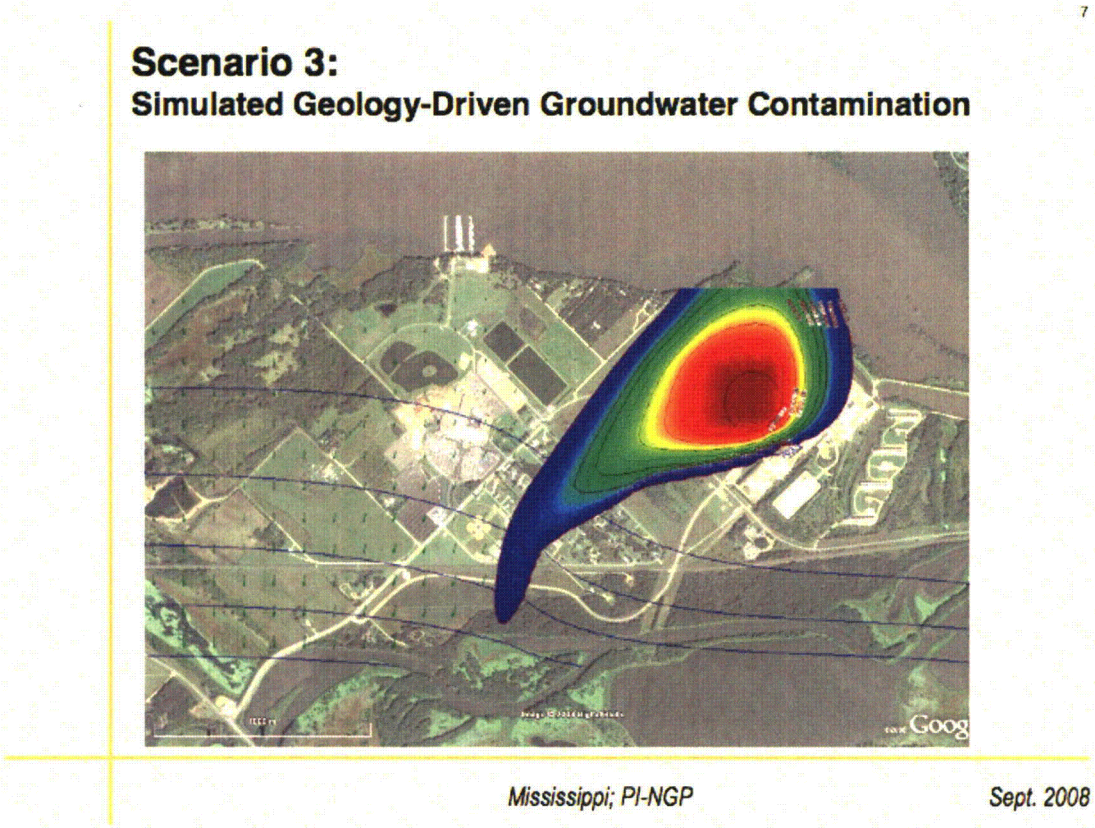

Figure 2.

Other concerns related to site-specific observations and review of past annual REMP reports for the PINGP include the following:

- There was no REMP made available to PIIC for 2006. This was also stated by a participant at the July 30, 2008 evening EIS scoping meeting (see meeting transcript, ADAMS ML0824900514);

- No information on tritium concentrations in the onsite and off-site wells was provided in the years prior to 2007;

- No follow-up sampling of PIIC wells was performed;

- Proximity of PIIC wells to the plant merits their regular sampling for tritium concentration amongst others;

- Closeness of wells PIIC-02 and PIIC-26 appears to confirm the consistency of the tritium concentration at the order of 100 pCi/L, which is slightly less than the level of tritium concentration found in onsite wells reported in the range of 100 pCi/L to 2200 pCi/L for P-2, P-109, P-7, P-11, PZ-2, SW-4, and especially P-10 reported for every month of 2007 in the range of 390 pCi/L to 2258 pCi/L;

- The lower limit of detection (LLD) for analysis seems to vary from year-to-year (What is the reason for the fluctuation and increase of the LLD? How can it be that as technology improves the LLD would increase?);

- The higher tritium concentration in onsite wells indicate that PINGP is the tritium source of PIIC wells (see Figure 2);

- No explanation was provided for off-site residence well contamination of tritium since 1989;

- Even though the REMP report states that the tritium results are far below the EPA drinking water standard of 20,000 pCi/L, BEIR VII 2006 on radiation health effects state that Linear No Threshold standard should apply to chronic low dose exposure for potential cause of cancer and other radiation-induced diseases;

- Even though the REMP report states that the tritium results are far below the EPA drinking water standard of 20,000 pCi/L, new and significant studies and analysis (discussed more fully below) raise significant concerns about the safety of even low dose exposure, raising the question of what NMC and the NRC are doing to "continuously evaluat[e] the latest radiation protection recommendations from international and scientific bodies to ensure the adequacy of the standards the agency uses," in accordance with the US NRC Fact Sheet of July 2006;

- The problems of tritium contamination of nearby water reported in the PINGP REMP 2007 may be similar to tritium contamination observed at other aging US nuclear power plants, raising the concern that these tritium leaks will increase in frequency and severity (see "Leaks at nuclear plants a growing trend? Regulators to hear concerns about water tainted by low-lever radiation," Miguel Llanos, April 5, 2006, available at http://www.msnbc.msn.com/id/11996239/); and

- Whether and to what extent NMC and the NRC have modified or improved their respective programs and procedures to inspect and assess the equipment and structures at PINGP that have the potential to leak tritium in response to the US NRC Fact Sheet of July 2006;

- Whether and to what extent NMC and the NRC have modified or improved their ability to evaluate NMC's abilities to analyze for additional discharge pathways, such as groundwater, as a result of a spill or leak in response to the US NRC Fact Sheet of July 2006.

Given the above information, the EIS scope must be expanded to disclose the possible impacts of PINGP to the Community, especially as it relates to health effects, particularly the exposed critical subpopulations such as children and pregnant women.

Section 4.2.5 of Appendix E – ER for the PINGP license renewal application must be regarded at best as incomplete at this time pending additional information and further investigation.

The SEIS must include an accurate quantification of radiological impacts to the members of the Prairie Island Indian Community—from all sources. At a minimum, the SEIS should include all data associated with all tritium and other radiological releases (accidental and planned), and all of the data for each well or other monitoring location (and not simply monthly, quarterly or annual averages for individual wells). This data is critical to identify and baseline accidental and planned releases of tritium and other radiological contaminants, and to facilitate the Community's preparation of exposure scenarios, scenario analysis, and computer modeling of all environmental pathways for tritium contamination.

New and Significant Information – Increased Risk of Cancer

The current and continued operation of the PINGP is one the most, if not the most important environmental and health concerns for the Prairie Island Indian Community. Past and current Tribal Council members have voiced their concerns about health impacts stemming from planned and unplanned radioactive releases. As set forth below, the Community is already conducting its own examination of current peer reviewed studies pertaining to nuclear power plants and health impacts.

A number of studies have reported elevated rates and/or risks for cancer experienced by populations residing proximal to nuclear facilities. Many of these studies were completed subsequent to the release of the GEIS (NUREG 1437) and can be considered as new and significant information.

In particular, elevated rates of leukemia have been observed among populations in England (Gardner et al, 1987), Spain (Silva-Mato et al, 2003) and Germany (Hoffmann et al, 2007; Spix et al, 2008; Kaatsch P, Spix C, Schulze-Rath R, et al, 2008).

The most recent of the above studies involving populations residing in the vicinity of 16 German nuclear power plants (the Kikk study) are among the methodologically strongest studies that have to date been completed (BFS 2007).

The KiKK study included all 16 large reactor locations where 20 nuclear power plants in Germany were in operation during the 24-year period of study (1980 - 2003).

The distance between the children's homes and the power plants was precisely determined to within 25 meters (or approximately 82 feet). The main questions posed by the study were: "Do children under five years of age more frequently develop cancer when living near a nuclear power plant?" and "is there a negative distance trend?" (In other words: is the risk greater the nearer the child lives to the plant?) The results showed not only a 60% increase in the cancer rate and a 117% increase in leukemia in infants within the 5 km radius (or approximately 3 miles), but also a significant increase in the risk of cancer and leukemia the closer one lived to the nuclear power plant.

In the second part of the study, which covered a shorter period of time and a selection of diagnoses (leukemia, lymphomas and tumors of the central nervous system), it was tested whether other risk factors (confounders) could have had any appreciable effect on the main result of the study - the negative distance trend. This proved not to be the case for any of the studied risk factors. The proximity of residence to the nuclear power plant remains the only plausible explanation at this time.

Recently, results were also reported for a comprehensive meta-analysis (Baker and Hoel, 2007) concerning leukemia in children living near nuclear power plants contained in 17 international studies carried out in Germany, Spain, France, Japan and North America during the period between 1984 and 1999. Distance dependent increased risks of 14%-21% for leukemia in children under nine years of age were observed. When age was expanded to include the population up to 25 years of age, an increased probability of morbidity of 7-10% and increased mortality of 2-18% were observed.

Taken together, these studies are consistent with the hypothesis that children who live near nuclear power plants develop cancer and leukemia more frequently that those living further away. If emissions have been correctly measured by monitoring the areas surrounding nuclear installations, as has been claimed by both the plant operators and the regulatory authorities, then either the currently accepted calculation models for determining radiation exposure of local residents are incorrect, or the biological effects of incorporated radionuclides have been badly underestimated, at least for young children and embryos (human fetuses).

The indications over many years that there are increased levels of morbidity near to nuclear power plants are given added support by results of the KiKK study. The possibility of an increased risk for older children and adults living near nuclear power plants cannot be ruled out. It is important to point out that the radiation health standards established by BEIR VII are consistent with the above research findings regarding both cancer and non-cancer health outcomes given any level of low dose exposures. Furthermore, the BEIR VII committee also concludes "that the 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." In other words, there exists general consensus on the radiation health risks by

exposure and living near nuclear power plants. Consequently, the most effective mitigation of such risks will rely on either 1) avoiding the area surrounding the plant, or 2) reducing the nuclear energy operational level, or 3) implementing risk management options based on the mechanistic understanding of cancer or non-cancer epidemiology.

A number of studies have observed that risk of leukemia for children under the age of 5 increases with decreasing distance of residence from nuclear power plants in Germany, the United Kingdom and in the United States (Hoffman, et al, 2007 and Kaatsch, et al, 2007).

The KiKK & USC studies are among the strongest methodologically speaking and utilize state-of-the-art epidemiological methods.

The methodology of modeling the continuous distance variables is adequate. Models applied in the studies show good adaptation to the collected data. The models permit an assessment of the incidence risks associated with distance of the home to the nearest nuclear power plant site.

The risk to contract childhood cancer and leukemia significantly and continuously increases with increasing vicinity of the home to a nuclear power plant. The studies are the methodically most elaborate and comprehensive investigation of this interrelation worldwide. The association between vicinity of the home and increased risk of leukemia has been observed repeatedly in well-designed studies in Germany, the USA and UK.

The causal role of ionizing radiation in these studies remains to be investigated using state-of-the-art genomic, molecular and cellular diagnostics and testing technologies that have only recently become available for medical and healthcare research. The estimated exposures are far below those levels that are known to be leukemogenic or carcinogenic. Some of the associations are ecologic in nature, individual dosimetry is lacking and potentially important confounders such as competing risks (exposure and disease), length of residence, etc., are not measured. These factors can be further examined for site-specific information and data to improve on recent research findings concerning the PINGP operations and on-site waste management practice.

Waste and Waste Confidence

The Prairie Island Indian Community remains concerned about the on-going operation of the PINGP and Independent Spent Fuel Storage Installation (ISFSI). We recognize that the NRC licenses these two facilities separately and that spent fuel storage is beyond the scope of the license extension application. We believe that the two issues are, however, linked.

The Commission's GEIS on the License Renewal of Nuclear Plants, NUREG-1437, states that "...the original target date for opening the repository will not be met ...DOE now expects that a geologic repository will be ready no sooner than 2010." (NUREG-1437). This target has, unfortunately, been pushed back considerably. The Commission

has only recently docketed the Department of Energy (DOE) application for a license for the repository. The NRC has three years from the date of docketing, and an additional year if necessary, to evaluate the DOE license application. It is almost certainly going to take this long, given the complexity and controversial nature of the repository licensing decision. If the Commission reaches a favorable decision on the license application, it will be several more years before the repository is constructed and ready to receive shipments of spent fuel for disposal. This assumes that there will not be the substantial delays that often occur in large-scale construction projects. In addition, the upcoming Presidential election could have a significant impact on the project. As DOE noted in its recent Congressional testimony "...significant reductions in appropriated funding for FY2007 and FY2008 had negated DOE's ability to meet the March 2017 best achievable opening date [for the Yucca Mountain repository]." (emphasis added). Testimony of Edward F. Sproat III, Director of DOE's Office of Civilian Radioactive Waste Management (OCRWM), House and Senate Appropriations Hearing, April 9 – 10, 2008.

The end result of all of this uncertainty is that the Community may have to live with the onsite storage of spent fuel at PINGP for decades, especially if the license for PINGP is renewed. It is time for the Commission to revisit its Waste Confidence Decision and to seriously explore whether there other alternatives to Yucca Mountain for removing the spent fuel from PINGP. This falls into the category of "new and significant" information, although it is certainly not "new" anymore. Concerned citizens and governments have been raising this issue for a number of years in regard to many reactor license renewal applications. Both the Waste Confidence Decision and the GEIS conclusions are seriously in question and should be revisited before any Commission decision on whether to renew the license for PINGP.

As the GEIS noted, the total accumulated amount of spent fuel after an additional 20 years of operation at an individual reactor would amount to 50% more fuel than at the end of 40 years of operation. (NUREG-1437) Even with this large increase, the NRC has determined in its Waste Confidence Decision that spent fuel can be stored on-site for at least 30 years beyond the licensed (and license renewal) operating life of nuclear power plants safely and with minimal environmental impact. However, the GEIS also notes that a second repository will be necessary because of the statutory limitation of 70,000 metric tons uranium (MTU) for the first repository. The GEIS concluded that "...[a]ssuming that the first repository is available by 2025, additional disposal capacity would probably not be needed before about the year 2040 to avoid storing spent fuel at a reactor for more than 30 years after the expiration of operating licenses." NUREG-1437). The 2025 date matches the Commission's second finding in the Waste Confidence Decision, i.e., that the Commission finds reasonable assurance that at least one mined geologic repository will be available within the first quarter of the 21st century and that sufficient repository capacity will be available within 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial high-level radioactive waste or spent fuel originating in that reactor and generated up to that time. Given the difficulties associated with docketing the application for the first repository, this finding no longer appears to be reasonable and should be re-examined, either in the EIS for the PINGP license renewal,

or in a re-opening of the Waste Confidence Decision. It is conceivable, if the Yucca Mountain repository does not survive the Commission's license evaluation, that a repository may not be available until 2060. This would approach or exceed the "thirty years after the expiration of the operating license" for many plants.

If the Commission does not see fit to re-open the Waste Confidence Decision, the Community will take the lead, in coordination with other governmental entities concerned about this issue, in submitting a petition for rulemaking to re-open the Waste Confidence Decision. If the Commission does re-open the Waste Confidence Decision, either on its own, or in response to a Petition for Rulemaking or some similar stimulus, the Community requests that the PINGP license renewal be proceeding be suspended until the Commission issues a new Waste Confidence Decision. It would not be prudent to renew any operating license during the pendency of an evaluation of the Waste Confidence decision that might reach a conclusion apposite to the present findings. If the present findings are re-affirmed, the license renewal proceeding could be re-opened with little impact on the license applicant.

In addition, the NRC SEIS on the license renewal application must develop alternatives, including a no action alternative, as contingencies, in case NMC either does not receive approval from the Minnesota Public Utilities Commission (PUC) for the expansion of the Independent Fuel Storage Installation (ISFSI), or does not receive approval for an amendment of its license from the NRC for the same purpose. (Note: the needed state-level approvals are discussed later in this letter).

Avian Mortality and Transmission Lines

Section 3.1.6.3 of the ER discusses avian mortalities that have resulted from the collisions from transmission lines. The ER noted that over a five-year period (1973–1978) 453 bird carcasses, representing 53 species, were found along portions of the transmission lines from the PINGP. Sixty-four percent of those carcasses were found along the 2,500 foot east-west portions of the transmission lines. About one-half of these transmission lines are on the boundary between the Community's land (east-west boundary separating Sections 5 and 32, T113North, R15 West) from Xcel's property. Since there is no information regarding species composition for this time period, nor any data to definitively indicate that avian mortality has not been reduced since the conclusion of the five-year study, it is difficult to ascertain whether the continued operation of the PINGP will not have a negative impact on avian populations.

No explanation was offered in the ER as to why avian mortality was so high at the PINGP, other than to quote the NRC statement that "no relatively high collision mortality is known to occur along transmission lines associated with nuclear power plants in the United States other than the Prairie Island Plant in Minnesota." (NRC GEIS, 1996). Similarly, there is no information as to whether operations at the PINGP have changed any way, since 1978, to reduce mortalities over the license renewal term. Moreover, there is a disturbing statement on page 3-13 of the ER that "very few bird carcasses have been observed at PINGP or along associated transmission lines since 1978, but

systematic searches or formal avian collision studies have not been conducted." This statement leads the reader of the ER to believe that PINGP personnel just stopped looked for dead birds.

Because there is no information regarding any past operational changes that have been made (or will be made during the relicensing period) that have resulted in the reduction of avian mortalities, no information to suggest that formal searches or studies of avian mortality are being conducted, and that nowhere else in the country is avian mortality so high (according to NUREG 1437), the Community believes that, for the reasons outlined below, avian mortality should be a Category 2 issue for the PINGP SEIS. The Community is especially concerned about avian mortality as it relates to potential impacts to threatened or endangered avian species, as the PINGP sits in the Mississippi River flyway.

The Mississippi River is recognized as a Globally Important Bird Area and Migratory "Flyway" for birds. The Mississippi flyway is heavily utilized because it is uninterrupted by mountains or hills that would interfere with the movements of migrating birds (Couleeaudubon.org). The Upper Mississippi River and associated ecosystem is very important to birds that are year-round residents and those who are migratory. About 40% of all North American waterfowl use the river as a migratory flyway, and 326 species of birds (about 1/3 of all species in North America) use the river corridor as a flyway in their spring and fall migrations (couleeaudubon.org). The Mississippi River is a well-known migration corridor for millions of waterfowl, including dabbling ducks, canvasbacks, and scaup that pass through this flyway annually. The bottomland forests also provide wintering and migration habitat for mallards, black ducks, wood ducks, northern pintails and Canada geese (Ducks Unlimited). Parts of the Mississippi River also provide habitat for breeding and wintering birds such as the bald eagle (USGS 2007).

The associated floodplain forests and wetlands of the Upper Mississippi River have become increasingly important because of losses of these habitats throughout the upper Midwest. Higher species abundance is found in the floodplain as opposed to adjacent upland, and many species, such as the prothonotary warbler, brown creeper, yellow-billed cuckoo, yellow-bellied sapsucker and great flycatcher, show a clear preference for floodplain forest. A study done in 1993 found 150 species of birds between Pools 4-8 during spring migration and 20% of these were neotropical migratory birds. A few declining species such as the red-shoulder hawk, cerulean warbler, Louisiana waterthrush, northern waterthrush, and prothonotary warbler are dependent on these forests. Because of the importance of the Mississippi flyway, resource management and other human activities within the flyway should be conducted carefully to protect the health of this important ecosystem and the birds and other wildlife that depend on it (USGS 1993).

There is passing reference in the ER to the Mississippi River as a bird migration route and how these particular lines (east-west corridor) are perpendicular to the river and that "studies have found that transmission lines at right angles to avian flight paths are

associated with greater collisions." ER at 3-13. The ER also states, "this section of the (transmission) corridors is perpendicular to the bird migration corridor along the Mississippi River." The mere mention of the "bird migration corridor along the Mississippi River" understates the importance of the Mississippi River as an annual flyway for millions of migratory birds and the possibility that threatened or endangered species may be affected.

It is interesting to note that NMC/Xcel devoted two paragraphs to the importance of the Mississippi River Flyway in its application to the State of Minnesota Public Utility Commission (PUC) for permission to use additional dry casks and to operate the PINGP at a higher rate (PUC application dated May 16, 2008, page 7-21). (Note these state proceedings are also discussed later in this letter).

Prairie Island and PINGP are also right in the middle of the Vermillion River and Lower Cannon River Important Bird Area. This is an area of high biodiversity significance within Minnesota harboring diverse bird communities unique to the Upper Mississippi River. This is one of the top 4 sites in Minnesota for rare forest birds and it contains the highest number of records for two special concern species—the Red-shouldered Hawk and Cerulean Warbler (Dunevitz 2001).

The ER mentions that Xcel has entered into a Memorandum of Understanding (MOU) with the US Fish and Wildlife Service (FWS) in 2002 to establish policies and procedures for dealing with migratory birds that may be on Xcel property and for the development of an Avian Protection Plan. The ER further states that the Avian Protection Plan is in development, although reports covering activities related to the MOU are submitted to the FWS. Since the plan is still in development, there appears to no current plan to protect birds.

Because of the PINGP's location within the Mississippi River flyway and the reasons stated above, Avian Mortality impacts should be treated as a Category 2 issue and evaluated in the SEIS. We do not know why the incidence of avian mortality was so high at the PINGP (during the only documented study period), we not know which species had the highest mortality rates, whether these mortalities had an impact on populations, and whether any threatened or endangered species were involved. There simply is not enough information provided.

<u>Category 2 Issues</u>

Archaeological Impacts (National Historic Preservation Act)

One of the most important issues for the Prairie Island Indian Community is the condition of the many archaeological sites within the PINGP.

We have learned that there have been some impacts to at least two archaeological sites within the plant boundaries. One site, 21GD207, a habitation site, is under a service road. Another site, 21GD59, a human burial mound site, impacted by the construction of the

cooling towers, may now be under 12 feet of fill or may have been destroyed. This burial site contains the remains of our ancestors.

We are well aware that the EIS scoping process does not provide a remedy for past damage or disturbance to archaeological sites. The process, however, exists to ensure that the full extent environmental impacts of the proposed action are fully understood and disclosed. It is because of past damage or destruction of archaeological sites that we have concerns about how the steam generator replacement project, and other future construction (such as the expansion of the ISFSI, proposed for 2020) might impact previously unrecorded archaeological resources.

Section 3.2 of the ER (Refurbishment Activities) discusses the replacement of Unit 2 steam generator (proposed for September 2013). The ER states that several temporary buildings will be constructed, as well as office space for construction workers and a decontamination building. In addition, warehouses will be built and will remain after the project. It is mentioned that these buildings will be constructed on previously disturbed land. No location information or maps, however, are provided. No mention is made of water systems, sanitation facilities, or other infrastructure for the office space and how these would be constructed.

In the 1960s Northern States Power (NSP), then the owner and operator of the PINGP, contracted with Dr. Eldon Johnson (State Archaeologist) to conduct an archaeological survey of the project area, which included excavations of existing burial mound sites, two of which were well-outside the project area (Birch Lake Mounds and Bartron Village).

A Final Environmental Statement (FES), prepared by the United States Atomic Energy Commission (AEC), for the original operating licenses for the PINGP, was released in May of 1973. In the FES there is some discussion about impacts to archaeological sites. A table lists some of the sites within the PINGP, but not all of the sites within the PINGP. Most notably, there is no discussion regarding the archaeological site near the cooling towers (21GD59). Correspondence from the Advisory Council on Historic Preservation (ACHP) (March 1973) indicated that the AEC's draft environmental statement did not contain sufficient information in order to allow the Council to comment substantively. In response to the ACHP's letter, the FES stated concluded "that only the Barton site is sufficiently close to the plant that an impact is possible." The FES goes on to state that the Barton site is beyond the limits of plant construction and was not disturbed. There is no mention whatsoever of whether a burial mound site much closer to the plant (21GD59) that was impacted in any way. This site was actually outlined on a map provided in the FES. (FES page II-30)

We bring these issues up because that original survey work (late 1960s) appears to be the basis for all other work within the plant boundaries, including the steam generator replacement project. The circa 1990 EA for the ISFSI states that "an archaeological survey was conducted in 1967, and nothing significant in the immediate area of the power plant or ISFSI was found." Past archaeological work (i.e., 1960s investigations by Dr. Johnson) is no guarantee that the area is clear of archaeological sites. In fact, two

previously unrecorded sites were discovered subsequent to the early site work, thus demonstrating that it is still possible to identify previously unrecorded sites with the PINGP boundaries. There is no evidence to suggest that Dr. Johnson's original site survey work went beyond previously recorded sites.

Xcel/NMC provided the Community with a copy of the report developed by its contractor, the 106 Group (Boden 2008). The report is concluded with the statement that the study area (the PINGP site) has a high potential to contain intact archaeological remains." This strongly suggests the need to do a field assessment before any "construction" (i.e., steam generator replacement project buildings, etc.) activities occur.

As previously mentioned, the assessment conducted by the 106 Group did not involve any field work, but involved an extensive review of the collected site files, reports, and other literature, aerial photographs, historical plat maps, General Land Survey maps, USGS topographic maps. The study area was the entire area within the boundaries of the PINGP plant and grounds.

Further on the report states "Despite the construction of the PINGP and associated features, there remains undisturbed land within the study area. Because the remaining portions of the study area are in proximity to significant bodies of water and appear to be undisturbed, they are considered to have inherently very high potential to contain intact precontact archaeological sites. Further there is also the potential for finding intact burial because four precontact mound sites, some of which have yielded human remains, have been recorded in the study area." The report is concluded with the statement that "no construction activities are planned under the new 20-year operating license." This leads one to conclude that the 106 Group was not aware that Xcel/NMC planned to construct several temporary buildings, as well as office space for construction workers, warehouses and a decontamination building as part of the steam generator replacement project.

It is the responsibility of the NRC to assure compliance with the National Historic Preservation Act, which states that all Federal agencies are required to give appropriate consideration to the environmental effects of their proposed actions in their decision-making and to prepare detailed environmental statements on recommendations or reports on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment (36CFR805.1).

It was the responsibility of the AEC (predecessor to the NRC) to ensure that the environment (which includes cultural and archaeological resources) would not be adversely impacted by the construction and operation of the PINGP. In fact, in the forward of the FES, it is stated that, according to the National Environmental Policy Act of 1969, it is the responsibility of the Federal government to, among other things:

> *Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and a variety of individual choice.*

Part of our heritage (and culture) was lost when NSP destroyed burial mounds in the 1970s because no one was protecting these important cultural, historic, and religious monuments.

The scope of the EIS must include a Phase I archaeological site survey to locate any previously unrecorded sites within the steam generator project area and ascertain the current status of all known sites within the boundaries of the PINGP to ensure that all of culturally-significant sites can be protected and respectfully managed. NMC/Xcel should develop a Cultural Resource Management Plan (CRMP) to ensure that all of the archaeological sites within the PINGP will be protected and respectfully managed.

We understand that the Midwest Region of the Bureau of Indian Affairs requested in writing that they be allowed to participate in the EIS process as a Consulting Party, pursuant to 36CFR800.2(c)(5) (letter to Rani Franovich, Branch Chief, from Kevin Bearquiver, Acting Regional Director, BIA, August 18, 2008). We support this request.

Threatened and Endangered Species

Under provisions of section 7(a)(2) of the Endangered Species Act (ESA), a Federal agency that carries out, that permits, licenses, funds, or otherwise authorizes activities must consult with the US Fish and Wildlife Service (USFWS) as appropriate, to ensure that its actions are not likely to jeopardize the continued existence of any listed species. Section 7 of the ESA requires the NRC to ensure that, if it grants a license, its action will not jeopardize the existence of a regulated species.

Section 2.3.3 of the ER (Threatened and Endangered Species) notes the presence of the Higgins eye pearlymussel (*Lampsilis higginsii*), an endangered species listed by both the USFWS and the MN Department of Natural Resources (MN DNR). The ER also notes the efforts of the USFWS and the MN DNR to re-introduce into Pool 3 of the Mississippi River. Because Sturgeon Lake is historic habitat for the Higgins eye pearly mussel, the Community has also been involved in this effort. The re-location area is located just 0.5 miles upstream of PINGP's intake screenhouse (this area is located in tribal waters). In fact over, 5,000 sub-adults have been placed in Sturgeon Lake since 2003.

Section 4.4 of the ER (Entrainment of Fish and Shellfish in Early Life Stages) discusses entrainment of fish species from the condenser cooling system. No mention is made of shellfish, other than to note that entrainment of fish and shellfish in early life stages is "a potential adverse environmental impact that can be minimized by the best available technology." ER at 4-12.

The ER concludes "impacts of entrainment of fish and shellfish at PINGP are SMALL and warrant no mitigation beyond that already in place and required by the current NPDES permit." The NPDES permit is attached, information related to NMC's Clean water Act Section 316 (b) determination is discussed, but the report is not attached. Most importantly, impacts to the Higgins eye pearlymussel is not discussed in this section. The NPDES permit states that NMC must submit the results of a required Impingement

Mortality and Entrainment Study, which shall provide information to support the development of a calculation baseline for evaluating impingement mortality and entrainment consistent with the 316(b) rule. This report was to have been submitted to the Minnesota Pollution Control Agency by October 26, 2006, as required by 10 C.F.R. § 51.53(c)(3)(ii)(B). The required report was not attached to the ER.

Section 4.7 of the ER (Threatened and Endangered Species) discusses the fact that impacts to threatened and endangered species is a Category 2 issue and that site-specific assessment would be required to determine whether continued plant operations of refurbishment would be affected.

As noted in Section 2.3.3, efforts are underway to re-introduce the Higgins eye pearlymussel to Pool 3 (Sturgeon Lake). According to the USFWS:

> the current range for the Higgins eye mussel is about 50 percent of its historic distribution, which extended as far south as St. Louis, Missouri, and in several additional tributaries of the Mississippi River. The Higgins eye pearlymussels depend on deep, free-flowing rivers with clean water. Much of their historic habitat was changed from free-flowing river systems to impounded river systems. This resulted in different water flow patterns, substrate characteristics, and host fish habitat and movement that affects how the Higgins eye feed, live, and reproduce. To reproduce, male Higgins eye release sperm into the river current and downstream females siphon in the sperm to fertilize their eggs. After fertilization, the females store the developing larvae (glochidia) in their gills until they're expelled into the river current. Some of the glochidia are able to attach themselves to the gills of host fish, where they develop further. After a few weeks, the juvenile mussels detach from the gills of the fish and settle on the river bottom, where they can mature into adult mussels and possibly live up to 50 years. The sauger, walleye, yellow perch, largemouth and smallmouth bass, and freshwater drum are considered suitable hosts for Higgins eye glochidia. (USFWS 2008)

There is mention of these fish species in the ER, but there is no specific discussion connecting the entrainment of larval Higgins eye or impingement of fish species (the host for the mussel's early life stage, the glochidia) with impacts to the survival of the Higgins eye pearlymussel in Section 4.7, Threatened and Endangered Species. The discussion of impacts to the Higgins eye is simply summed up by stating, "it is conceivable that some larval *higginsii* will be carried downstream into the power plants intake screenhouse." No quantification of losses or further assessment, is provided, as required by 10 C.F.R. § 51.53(c)(3)(ii)(E). These impacts seem to be negated or minimized by the later statement in the paragraph, that even under the best of circumstances, the mortality rate of the early life stages (of the Higgins eye) is very high and the glochidia (early larval stage) that do not attach themselves to a host quickly have a low probability of survival. This does not seem to meet the requirement that "the applicant shall assess the impact of the proposed action on threatened or endangered

species in accordance with the Endangered Species Act (10 C.F.R. § 51.53(c)(3)(ii)(E).

NMC contacted the USFWS by letter dated January 25, 2008, requesting information relative to concerns about possible impacts to threatened and endangered species arising from license renewal. No reply was included in the April 15, 2008 ER. The NRC also corresponded with the US FWS on July 22, 2008 regarding the presence of Threatened or Endangered Species in the project. On August 13, 2008 the USFWS responded to the NRC inquiry, stating that the only known endangered species in the project area was the Higgins eye mussel and to also provide information relative to efforts to establish a viable population.

The Community is concerned about how the cooling system in use at PINGP affects survival of the Higgins eye larval stage. According to the ER, the PINGP can operate in one of three modes: 1) open cycle, once through without the cooling towers; 2) helper cycle, once-through with cooling towers; and 3) closed cycle. There is no discussion of the cooling system and its three cycles and how any of them relate to species survival. The matter is summed up by stating that "because current operational practices will be affected by license renewal, NMC concludes that impacts to threatened or endangered species from license renewal would be SMALL and do not warrant mitigation. " ER at 4-27.

There was no discussion about how current operational practices are currently impacting the survival of Higgins eye mussel beyond stating, "it is conceivable that some larval *higginsii* will be carried downstream into the power plants intake screenhouse." The EIS must include a disclosure of how a the extended operating period will affect the survival of this endangered species.

Socioeconomic Impacts

Taxes

Section 2.7 of the ER (Taxes) discusses the annual property taxes for the PINGP by Goodhue County, the City of Red Wing, and School District 256. According to Table 2.7-1 of the ER, Goodhue County has received $26,223,326, Red Wing has received $27,034,951 and School District 256 has received $17,041,750 for the time period of 2001 to 2006 (for a total sum of $70,300,027).

In contrast, Xcel has only paid the Tribe a sum of $2.3 million annually as a result of a Settlement Agreement between the Community and Xcel/NMC entered into in 2003.

Over the last several years, the tribe was spent several million dollars in legal and consultant fees in order to participate in various Xcel/NMC proceedings, either at the state or federal levels. The money we have spent, in order to participate in these proceedings, is money that we could have used for other community purposes. In addition, the Tribe has also established the Prairie Island Police Department. And although the Tribe receives no funding from Xcel/NMC for its Police Department, PIPD

is and will most likely always be the first responder for any incident at PINGP. The settlement monies paid to the Tribe by Xcel/NMC are far less than the costs and expenses the Community has incurred as a result of the PINGP.

The negative socioeconomic impacts to the Prairie Island Indian Community cannot be overlooked and must be disclosed in the SEIS. As the tax information shows the egregious disparity between the tribe and Red Wing, the school district, and the county. The Community bears the greatest risk and receives the least amount of benefit.

Electricity Supply and Transmission

Electricity produced at PINGP is sent out on the highest capacity 345 kV lines right along the PINGP-PIIC property line, directly across the road from several Community residences, and away from the Community. Remarkably, the Community receives its electricity from power generation facilities hundreds of miles away, with the associated problems of delivery and quality.

Traffic Concerns

Section 2.8.2 of the ER (Transportation) discusses the number of employees traveling to the PINGP and the various routes they might take. The ER states that all employees travel east on Sturgeon Lake Road and then take a right onto the plant access road, just west of the reservation boundary. It is further stated that employees leave the plant via the same roadways. This is not accurate. Many employees exit the plant at 3PM via Wakonade to Sturgeon Lake Road, though the reservation, because they do not want to stop at the intersection of the service road and Sturgeon Lake Road (a 4-lane road) and make a left-hand turn across two lanes of traffic. Again, this serves to underestimate the traffic impacts to the Prairie Island Indian Community from plant activities.

During the steam generator replacement project, 750 workers (in addition to the 700 or so outage workers and the 685 PINGP permanent and long-term contract staff) will be coming to Prairie Island, using the one primary access road, Sturgeon Lake Road. The SEIS scope should be expanded to disclose how this additional traffic to the PINGP, related to the steam generator project, would impact the Prairie Island Indian Community.

Environmental Justice

Section 2.5.3.1 of the ER (Minority Populations) discusses minority or low-income populations within a 50-mile radius. Section 2.5.3.1 describes how the ER identified minority populations using NRC guidance. The section concludes with the statement that "Except for the Prairie Island Indian Community, the census block groups containing minority populations are[] predominately in the Minneapolis area and more than thirty miles from PINGP." (ER at 2-23)

Chapter 2, Site and Environmental Interfaces, is concluded with the statement that "Having evaluated environmental conditions in the vicinity of the PINGP site in this

section and assessed potential impacts of license renewal in Chapter 4, NMC has not identified any obvious cumulative impacts and has not extended the discussion of potential cumulative impacts into Chapter 4, Environmental Consequences of the Proposed Action and Mitigating Actions." ER at 2-41.

In Section 4.1.3 of the ER ("NA" License Renewal Issues), states, "the NRC does not require information from applicants, but noted that it will be addressed in individual reviews (10CFR51). Environmental justice demographic information is provided in Section 2.5.3. ER at 4-3

No analysis of impacts to minority populations from license renewal was disclosed in the ER, other than to identify the Prairie Island Indian Community as a minority community. The ER's very limited discussion of environmental justice does not contain any valuation of impacts on the minority or disadvantaged communities identified in the ER.

Regulatory Guide 4.2S1, Section 4.22 (Environmental Justice) states that the need for and the content of an analysis of environmental justice will be addressed in plant-specific reviews (Table B-1). It is clear from NRC Regulatory Guide 4.2S1 that the NRC expects the ER to analyze environmental justice issues. Therefore, the Community believes that the ER is deficient with regard to environmental justice.

Even though radiation protection in general may be a Category 1 issue, the Category 2 issue of environmental justice is an overarching site specific issue, and if there is a disproportionate impact on a minority group from license renewal activities, including radiation protection, it must be evaluated. In summary, the Community is raising two issues about the adequacy of the ER's environmental justice analysis. One is the absolute lack of any evaluation of impact in the ER on minority groups. The ER has not disclosed the information the Community believes it is expected to disclose, so that Commission may properly consider, and publicly disclose, environmental factors that may cause harm to minority and low-income populations that would be disproportionate to that suffered by the general population.

The second issue is the absence of any analysis in the ER on the potential impacts of radiation on a potentially predisposed cancer minority group, the Prairie Island Indian Community. In this regard, the Community believes that the proposed action may have significant adverse impacts on the minority group identified in the ER, that is the Prairie Island Indian Community, because the impacts to the Community were not adequately evaluated.

The EIS scope must consider non-radiological health effects. In 2005, we commissioned a public health study (conducted by the University of Minnesota), which documented that many of our youth experience increased levels of stress and anxiety because of health and safety fears related to the power plant. These are the same youth who will be our leaders in the future, the people with whom future Xcel and NRC representatives will be working over the re-licensing period (McGovern, et al. 2006).

Severe Accidents

If a severe accident were to occur, the Prairie Island Indian Community would be financially devastated. The Tribe's primary source of revenue could not be easily replaced and would have a severely detrimental economic impact to the Tribe. The impacts to the Tribe's culture would be immeasurable and irreparable. Because of these concerns, the Community is particularly interested in the sufficiency of the severe accident mitigation alternatives (SAMA) analysis.

According to the NRC GEIS, "the generic analysis of severe accidents applies to all plants and that the probability weighted consequences of atmospheric releases, fallout onto open bodies of water, releases to groundwater, and societal and economic impacts of severe accidents are of small significance for all plants. However, alternatives to mitigate severe accidents must be considered for all plants that have not considered such alternatives."

The ER explains how the SAMA analysis includes modeling to determine which SAMA would be the most cost beneficial. The ER however, does not describe the modeling in sufficient detail for the Community to understand how the benefits of the SAMA were calculated. The Prairie Island Indian Community is very unique and will not readily fit into a conventional model of averted risks. In particular, the lost revenue from the Treasure Island Resort represents a unique "cost" for an averted severe accident that will not fit well in a conventional model of radiological impacts.

We request that the NRC to evaluate site-specific economic data in the SAMA discussion of the SEIS. Prairie Island is our only home; our business (which can only be located on our reservation) is our primary means of providing benefits and services to our Community. If there was a severe accident, the Tribe would lose its primary revenue source, many members would lose their primary income source (that does not include future members), over 1,600 people would lose their jobs, several hundred vendors would lose lucrative contracts, and the Tribe could no longer provide benefits and services to our Community. Our largest business, the Treasure Island, is not easily re-located. Federal laws and regulations govern not only how a Tribal gaming facility operates, but also where a Tribal gaming facility can be located. *See* 25 U.S.C. § 2719 (provisions governing tribal gaming on lands acquired after 1988).

Economic data must also include the value of our Community's buildings, facilities and infrastructure, as well as the value of our tribal members' home sites (1 acre), the value of their homes, and the costs of re-establishing an Indian Tribe (which includes land acquisition, legal costs, and infrastructure development). Since tribal land cannot be sold (or bought) it may be difficult to place a monetary value on tribal members' homes and property. One cannot simply re-establish an Indian Tribe elsewhere; Federal law also governs the transfer of land into Trust for non-gaming purposes. *See* 25 U.S.C. § 465 and 25 C.F.R. § 151.

This issue is of paramount importance to our community.

Connected Actions and Cumulative Impacts

The Community believes that there are "connected" actions that must be included in the scope of the SEIS, which were not included in the ER. The SEIS must go beyond the narrow scope of the continued operation of the two reactors at the PINGP and the steam generator replacement project to include the extended power uprate and dry cask storage expansion proposed by Xcel/NMC. In addition, the cumulative effects of the actions (proposed action and connected actions) must be included in the SEIS scope. Connected, similar, or cumulative actions generate direct, indirect, and cumulative impacts.

Dry Cask Storage Expansion and Extended Power Uprate

On May 16, 2008, Xcel/NMC filed a Certificate of Need (CON) application with the Minnesota Public Utilities Commission (PUC) requesting the use of 35 additional dry casks, so the PINGP can operate another twenty years beyond its currently licensed life. In its CON application to the PUC, Xcel/NMC states that the current Independent Spent Fuel Storage Installation (ISFSI), currently licensed by the NRC under a Part 72 site-specific license to use/store up to 48 casks until 2013, would have to be expanded to accommodate the additional casks. It is expected that Xcel will request a license amendment from the NRC to increase the allowed storage beyond 48 casks sometime in 2018. To accommodate the increased number of casks, the storage pad will have to be expanded. Xcel/NMC anticipates constructing two new concrete storage pads, designed for a single row of casks, adjacent to the south side of the existing storage pads. When completed (sometime in 2020), the new storage pad will hold up to 98 casks (license renewal term plus decommissioning).

In the above-mentioned CON application, NMC/Xcel also requested that the PINGP be allowed to operate at a higher rate (i.e., extended power uprate). The PINGP is licensed by the NRC for an output of 1044 MW (522 MW each unit); the uprate will add 164 MW for a total of 1208 MW.

The ER for the license renewal application contains no information about the environmental impacts of the uprate. The Safety Analysis Report (SAR) for the license renewal application contains some information about the uprate.

State EIS Scoping

On August 25, 2008 the MN Department of Commerce (DOC) issued a draft environmental scoping document, which describes impacts (i.e., health, safety, and environmental) from both the extended power uprate and dry cask storage expansion that will be evaluated in the state EIS. In addition, the DOC held a public meeting on September 10, 2008 to solicit comments and suggestions regarding the scope of the environmental review that the DOC will conduct.

According to the CON application, Xcel/NMC, expects that the dry cask storage expansion will increase radiation levels (expected to be 0.36 mrem) and the extended power uprate will increase water use (both surface and ground water) by up to 10 percent, increase the temperature of the circulating water outfall, and also increase radioactive releases by 10 percent. Individually these impacts are expected to be within their respective permitted limits, but there is no information regarding the cumulative impacts.

Cumulative impacts are generally limited to what is foreseeable. The NRC's Regulatory Guide 4.2S1, Preparation of Supplemental Environmental Reports for Applications to Renew Nuclear Power Plant Operating Licenses (Regulatory Guide 4.2S1), requires that Chapter 2 of the ER (Site and Environmental Interfaces) identify and describe "known and reasonably foreseeable Federal and non-Federal projects and other actions in the vicinity of the site that may contribute to the cumulative environmental impacts of license renewal and extended plant operation."

Section 2.11 of the ER (Known or Reasonably Foreseeable Projects in Site Vicinity) discusses the status of industrial facilities in the three counties, such as projects related to Lock and Dam No. 3, Treasure Island Resort and Casino and a couple of hydro-electric plants nearby. There is no disclosure, however, of the Certificate of Need for the extended power uprate, the increase in casks, or the planned expansion of the ISFSI, even though these applications were submitted one month after the PINGP license renewal application was submitted to the NRC. It seems that one month into the future (from the submission of the license renewal application) is both reasonable and foreseeable. Without expanded dry cask storage, the PINGP cannot continue to operate. Although the PINGP does not need to operate at a higher power, it does not seem likely that Xcel/NMC would invest resources in the uprate project unless the company was sure of a favorable decision from the NRC relative to relicensing for an additional 20 years.

There is mention in Chapter 9 (Status of Compliance) of the need to get approval from the MN Public Utilities Commission (PUC) for additional dry cask storage, but there is no disclosure of the extended power uprate proposal or how either relates to cumulative impacts at the PINGP.

According to 40 CFR 1508.25, connected actions are "actions that are closely related and therefore should be discussed in the same impact statement." Furthermore, actions are connected if they "i) automatically trigger other actions which may require environmental impact statements; ii) cannot or will not proceed unless other actions are taken previously or simultaneously; and iii) are interdependent parts of a larger action and depend on the larger action for their justification.

The NRC's EIS scope must include all of these projects—the relicensing of the PINGP, the extended power uprate of the PINGP, the expansion of dray cask storage at the PINGP, and the steam generator replacement activities—and a disclosure of all the related impacts. These projects are all currently proposed by NMC/Xcel and are expected to occur in the very near future.

Cumulative Impacts

As mentioned above, connected, similar, or cumulative actions generate direct, indirect, and cumulative impacts. Cumulative effects or impacts are neither discussed nor considered in the ER. According to Regulatory Guide 4.2S1, Chapter 2 of the ER must identify and describe "known and reasonably foreseeable Federal and non-Federal projects and other actions in the vicinity of the site that may contribute to the cumulative environmental impacts of license renewal and extended plant operation." Also as discussed above, there are pending NMC/Xcel projects that the Community believes contributes to the cumulative impact (i.e., dry cask storage expansion and extended power uprate).

Chapter 2 of the ER is concluded with the statement "NMC has not identified any obvious cumulative impacts and has not extended the discussion of potential cumulative impacts into Chapter 4, Environmental Consequences of Proposed Actions and Mitigating Actions." ER at 2-41. To the Community, this seems like a faulty conclusion, given that connected actions are not discussed and that the Prairie Island Indian Community, its land, resources, and people are barely mentioned.

The Prairie Island Indian Community is subjected to a number of impacts that have a potential cumulative effect:

- Health effects (stress, increased cancer vulnerability)
- Operational radiological releases
- Operation of the ISFSI and increased levels of radiation
- High-voltage power lines immediately adjacent to homes
- Disregard of cultural impacts (i.e., burial mounds)
- Emergency preparedness concerns (one entrance/exit road)
- Socio-economic impacts (impacts on the tribe's culture, traffic, possible water impacts)
- Cost to the tribe of being involved in (or opposing) proceedings
- Cost to tribe to educate members of Congress on PINGP issues, and waste issues

Mitigations measures to eliminate or reduce the level of adverse impacts should be considered for each Category 2 issue. No mitigation was offered or discussed.

As mentioned previously, members of the Prairie Island Indian Community may have exposure pathways (water, food, air) that may be different from typical or "average" consumer, thereby placing the tribal consumer at a greater risk. For example, many

tribal members consume native plants for traditional purposes (direct consumption, medicines, teas, ceremonies) that are not typically part of any monitoring program. Many of our community members have been living on Prairie Island since the plant went on-line. Tribal members typically do not move in and out of the community. We are concerned about the human health effects from 60 years of low-level exposure, as many of our community members already have compromised health.

The scope of the SEIS Environmental Justice disclosure must include all of these factors.

Alternatives to Relicensing the PINGP

It must be noted that if the "No Action" alternative (i.e., the NRC does not renew the license for the PINGP, PINGP ceases operation and is decommissioned) would have a LARGE POSITIVE impact on the Prairie Island Indian Community. As mentioned previously, our community derives no financial (or other) benefit from the presence of the PINGP, other than provisions outlined in the limited 2003 Settlement Agreement, and yet we bear the greatest risks. This aspect was not evaluated in Chapter 7 of the ER. Therefore the scope of the EIS must also include an evaluation of all the positive impacts that might arise from the No Action alternative.

Other Issues

Water Issues

It is noted that the gaging station at Prescott, WI (13 miles away) just south of Hastings, MN, where the St. Croix River enters the Mississippi, is cited and used by the PINGP to show annual mean flow values for the Mississippi River (Section 2.2.1.1). The Prairie Island Indian Community, in coordination with the US Geological Survey (USGS), operates a gaging station just .5 miles north of the plant (at the marina). The tribe's gaging station may be useful in depicting more accurate mean flow values. The scope of the SEIS and future modeling efforts should utilize data from this closer gaging station, as it more accurately reflects the Mississippi River conditions.

Army Corps of Engineers Projects

There is no information about the Army Corps of Engineers (ACE) planned drawdown of Pool 3 in an effort to restore native vegetation in Sturgeon Lake. This must be included in the scope of the EIS, especially with regard to the possibility of low flow or drought conditions, and the proposed uprate (which is expected to draw an additional 10 percent from the Mississippi River).

Temperature Increases

As noted above, the proposed extended power uprate will increase the temperature of the PINGP's cooling water discharge water. This temperature increase must be evaluated as it relates to the proposed action (i.e., 20 year extended operation period).

Electromagnetic Fields

We understand that there is no consensus among scientists whether the electromagnetic energy emanating from the power lines would have a measurable human health impact. Some studies suggest exposure to EMF's increases the risk for certain diseases.

Since there is no scientific consensus on whether human health is compromised, there is NO assurance that there are NO adverse health effects (i.e., chronic health effects, increased risks to cancer). In fact, the United States EPA's Office of Radiation and Indoor Air offers only two recommendations for people who want to protect themselves from possible risks from power lines to reduce their exposure: "[i]ncreasing the distance between you and the source" and "[l]imiting the time spent around the source." (*See* "Electric and Magnetic Field (EMF) Radiation from Power Lines," available at www.epa.gov/radtown/power-lines.html). Needless to say, these are severe options for a people whose ancestors have lived on Prairie Island for generations. We recommend that the scope of the EIS include health impacts to members of the Prairie Island Indian Community resulting from exposure to electromagnetic energy and radiation emanating from the PINGP's transmission lines. Members of our community live extremely close to the power lines.

Terrorism

Though not mentioned (and certainly not imagined), the 1996 GEIS does not discuss potential environmental and health impacts resulting from a terrorist attack on a nuclear power plant must be part of the EIS scope. This is now a very real and very credible threat to the health and safety of our people, since the PINGP is right next door to us. The Community believes that the scope of the EIS must include an analysis of the environmental impacts from a terrorist attacks to the PINGP.

Conclusion

The Prairie Island Indian Community is the largest, most diverse and culturally significant population adjacent to the Prairie Island Nuclear Generating Plant. Since we bear the greatest risks from PINGP operation, with less benefit than other populations in the vicinity, it is our responsibility to ensure that the adverse impacts of continued operation of PINGP on our Community and the surrounding environmental resources are adequately disclosed and mitigated.

We appreciate this opportunity to provide these comments on the scope of the EIS that will be prepared by the NRC to disclose and evaluate impacts from the relicensing of the PINGP. This issue, the PINGP and its associated waste storage facility is the most important environmental issue for our community.

Respectfully,

Ronald Johnson
Tribal Council President

- absent -
Johnny Johnson
Tribal Council Vice-President

Lucy Taylor
Tribal Council Secretary

Victoria Winfrey
Tribal Council Treasurer

Shelley Buck-Yeager
Tribal Council Assistant Secretary/Treasurer

Cc: Terry Virden, BIA

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