

LEGAL DEPARTMENT

January 30, 2010

Chief, Rulemaking, Directives, and Editing Branch
US Nuclear Regulatory Commission
Mail Stop T6-D59
Washington, DC 20555-0001

VIA EMAIL
PrairieIslandEIS@nrc.gov

RE: Comments on Draft SEIS, NUREG-1437, Supplement 39, Regarding 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) offers the following comments regarding the above-referenced draft Supplemental Environmental Impact Statement (SEIS) recently prepared by the US Nuclear Regulatory Commission (NRC) for the Prairie Island Nuclear Generating Plant's (PINGP) 20-year operating license extension, as required by the National Environmental Policy Act (NEPA).

Executive Summary

While we do realize that the Executive Summary is just a summary of the larger report, we are nevertheless disappointed that there is no mention of the Prairie Island Indian Community's Cooperating Agency status with the NRC for purposes of developing certain aspects of the draft SEIS. There are many people who only read the Executive Summary. We recommend that the final SEIS contain a brief discussion of Cooperating Agencies, similar to the discussion found on page 1-6 of the draft SEIS.

The Executive Summary should also mention that the NRC contacted other Indian Tribes or tribal governments as part of its environmental review process. Page xvii of the Executive Summary lists all the levels of governments with which the NRC consulted to develop this draft SEIS (i.e., Federal, State, and local governments), but

fails to mention tribal governments. Tribal governments should be mentioned as a separate governmental entity.

Chapter 2. Affected Environment

In chapter Section 2, the Affected Environment, the draft SEIS states, "the affected environment is the environment that currently exists at and around the PINGP 1 and 2. Because existing conditions are at least partially the result of past construction and operation of the plant, the impacts of these past and on-going actions and how they have shaped the environment are presented here."

The Prairie Island Indian Community examines the draft SEIS through the lens of past actions and the unique perspective of a federally-recognized Indian Tribe located immediately adjacent to the PINGP. The past construction activities at the PINGP and the past and current operations of the PINGP by Northern States Power Company (NSP) inform our view of the 20-year relicensing period of the PINGP, Units 1 and 2.

For the Community, the PINGP 1 and 2 represent a 51-year legacy of broken promises, half-truths and the promotion of the plant at the expense of our Community. The November 19, 1958 headline of the *Daily Republican Eagle* declared "Huge Steam Power Plant to Be Constructed By Northern States on Prairie Island Site." "The future Prairie Island Steam Plant will look something like this Black Dog NSP plant," reads the caption below the NSP-circulated photograph of what NSP said was "a plant similar to that which is contemplated for development at this site." Announced a full decade before actual construction began so that NSP could obtain the necessary approvals and permits, the coal and natural gas steam plant promoted by NSP was later switched to a two-reactor nuclear plant.

Not surprisingly, the 1958 article describing the benefits of the proposed plant also failed to mention the Tribe, even though the plant was sited immediately adjacent to the Tribe's reservation on the ancestral lands of the Mdewakanton Dakota. Innocent omissions or deliberate disregard of the adjacent Indian community? While it is entirely accurate to say that for most of the plant's operating life the Tribe received little, if any, benefit from the plant, the Tribe has borne a disproportionate share of the risks, costs and impacts associated with the plants continued operation. Among other things, those risks, costs and impacts include:

- *The destruction and desecration of sacred burial mounds and other culturally and historically significant sites.* The archaeologist tasked with the "salvage" operation to remove any historically significant artifacts on the plant site used a trench digger and a bulldozer. Burial mounds in the path of construction were knowingly bulldozed or buried with fill. NSP's archaeologist also raided two sacred burial mound sites *well outside of the*

construction area, removing the human remains and funerary objects of the Tribe's ancestors, and then abandoning the still-exposed sites, leaving an open wound that remains to this day. We will provide greater detail in our discussion in Sections 2.2.9 and 4.9.6.

- *An unfulfilled promise of jobs and opportunities for our Community members.* Although constructed at a time when the Tribe was devastated by poverty and unemployment, few of the promised jobs were offered to the Tribe's members.
- *No infrastructure improvements.* Although constructed at a time when many of the homes on the reservation lacked electricity or running water, and all of the roads were unpaved, NSP ran the highest capacity power lines out to the Tribe's reservation, taking a sharp turn along the eastern boundary of the reservation across the road from our homes, and away from and off the reservation. Instead of providing Tribal members with reliable, affordable power, NSP instead provided a softball diamond and erected a playground *underneath the 345 kilovolt power lines!* Tribal members still talk about the shocks they would get when they played on the playground. To this day our Community is literally at the end of the line, receiving electricity primarily generated from coal-based power plants in North Dakota.
- *Radiological pollution in the air, surface water and groundwater.* The plant is allowed to discharge radiation into the air and surface waters. Both planned and unplanned discharges result in the release of radioactive effluent into the air, surface water and groundwater in and around the plant. Sturgeon Lake and the groundwater below Prairie Island are contaminated with tritium, which the plant continues to discharge. NSP has yet to provide an explanation for the ongoing tritium contamination and the significant fluctuation in tritium levels detected at the plant.
- *Thermal pollution raising water temperatures and causing heat shocks in the Mississippi River and Sturgeon Lake.* The plant is permitted to discharge thermal effluent into pool 3, *above* Lock and Dam No. 3, while its compliance with its thermal discharge permit is measured *below* Lock and Dam No. 3. In addition to sudden thermal shock that can be fatal to wildlife, the higher water temperatures can also contribute to an oxygen-deprived biological dead zone. Records show that on numerous occasions over the years NSP's cooling radioactive water discharge has exceeded the temperature increase limits of its discharge permit as well as reversing and shocking the vital biorhythms of the natural endemic ecosystem.
- *Adverse Environmental, Health and Safety Risks.* For the past 40 years, one of the greatest threats to Prairie Island residents and workers, and our Community's health-safety, well-being and way of life has been NSP's nuclear

power plant and the tons of toxic nuclear waste that sit just 600 yards away from our homes, children's playground, clinic, businesses, cultural and customary gathering places, church and community center. Two radiological leaks have occurred during the plant's history, and its continuing radioactive and thermal emissions, ongoing tritium leaks, additional nuclear waste, and high-voltage power lines represent some of the most serious environmental, health, genetic damage, and safety risks that disproportionately impact the present and future generations of our Community. Recent international studies (which we included in our EIS scoping comments) raising serious questions about the health impact for people, especially children, living in the immediate vicinity of nuclear power plants and high-voltage power lines, further heighten our concerns. Nevertheless, NSP steadfastly refuses to agree to further long-term radiation exposure and health studies, and has opposed efforts to implement the best available health physics monitoring technology. While NSP plans to invest \$750 million in improvements at the plant and its systems and the plant will generate hundreds of millions of dollars in revenues, profits and taxes for NSP, the City of Red Wing, Goodhue County and the Red Wing School District, not a single penny is pledged for upgrading and improving the environmental and radiation health monitoring technology in and around the plant.

- *High Level Nuclear Waste Storage on Prairie Island.* Originally promoted as "temporary" on site storage, there are currently 26 TN-40 dry casks of spent nuclear fuel at the Prairie Island ISFSI. While Congress has already voted to cut funding the Yucca Mountain project, and President Obama has declared that the project is terminated, NSP nevertheless maintains that the spent fuel will only be stored at the plant for between 15 and 30 additional years. This is pure fiction. Based on these recent events, the only reasonable assumption is that the nuclear waste will be stranded on Prairie Island forever. Once the PINGP 1 and 2 are decommissioned, it is expected that there will be 98 casks indefinitely stored roughly 600 yards away from our members' homes and the Mississippi River. The expanded nuclear waste storage will increase the cumulative radiation "skyshine" exposure beyond acceptable state lifetime cancer limits.
- *Inadequate environmental monitoring data and technology.* Existing environmental monitoring of Prairie Island provided by NSP is grossly inadequate to protect public health-safety and the environment. Experts have recommended state of the art early warning system and continuous remote monitoring of plant emissions to air, discharges to water and direct low-dose radiation exposure with enough locations to establish accurate baselines and identify where from and to the releases are coming and going. Despite the fact that other states (e.g. Illinois) and nuclear facilities have implemented similar real-time, computer network-linked monitoring and

warning system that uses the best, most sensitive monitoring equipment available today, NSP refuses to make such a basic investment at the plant. The people of our Tribe and the citizens of Minnesota and Wisconsin in the vicinity of the plant deserve better. Unfortunately, however, state and federal agencies continue to approve NSP's petitions and applications without requiring NSP to identify and use the best available technology for environmental and health monitoring.

In spite of our past experience with the PINGP 1 and 2 and its owner, we believe that the Prairie Island Indian Community can have a positive impact on these proceedings, both as a Cooperating Agency and as government offering comments on the draft SEIS. We look forward to working with the NRC to develop a final SEIS.

2.2.9 Historic and Archaeological Resources

Section 2.2.9.2 discusses previous archaeological research and salvage operations conducted within the PINGP 1 and 2 site, by Dr. Eldon Johnson, who was (at that time) the State Archaeologist. "Salvage operations" were usually undertaken when there was an imminent threat of destruction (from construction) to archaeological sites. That is, sites were excavated and remains and other objects were removed from sites before construction occurred.

Since the August 2008 environmental site audit and the Community's successful Intervention in the relicensing process, NSP has completed some additional studies that have documented the current condition of archaeological sites within the PINGP boundaries and also identified new archaeological sites. The result of these studies is documented in the draft report, "A Modified Archaeological Reconnaissance Survey of the Grounds of the Prairie Island Nuclear Generating Plant, Welch, Goodhue County, Minnesota." The report provides significant new information relative to the history of site investigations, current site conditions, and recommendations for future work that should be included in the final SEIS.

The Community was most distressed to learn from NSP that two mound sites that were excavated in the late 1960s were never properly closed and were left open after the archaeological studies were completed and Dr. Johnson got what he was after. Site 21GD62 was excavated using mechanical trencher; the trenches were never properly closed and are still obviously open. At Site 21GD58/61, Dr. Johnson removed human remains and funerary objects and left the excavation units open as well. That these burial sites were abandoned and left open for 40-plus years is an insult to our Community. Both of these sites are well outside the immediate construction zone. There is no reasonable explanation why Dr. Johnson was conducting "salvage operations" in this area other than his own research ambitions, which were supported by NSP.

Table 2-25 (page 2-69) should be updated to reflect the current condition of archaeological sites with the PINGP boundaries. According to NSP's draft report, "A Modified Archaeological Reconnaissance Survey of the Grounds of the Prairie Island Nuclear Generating Plant, Welch, Goodhue County, Minnesota," there are 6 sites within the PINGP boundaries that were either heavily or moderately disturbed due to archaeological excavations, plant construction, road construction or cultivation. It is ironic that in his effort to "save" the archaeological sites during the construction of the PINGP 1 and 2, Dr. Johnson may have irreparably disturbed these important archaeological resources.

Page 2-70, lines 11 through and 14, discusses the current condition of site 21GD59 and how the 4 mounds were either covered with fill or level during construction of the PINGP's cooling towers. The statement that "No human remains were encountered" seems to try and absolve NSP from disturbing/destroying the mounds.

As we mentioned above, the Prairie Island Indian Community examines this draft SEIS through the lens of past activities at the PINGP and the cumulative and integrated impacts on the Tribe, its people, and its lands as a result of the construction and operation of the PINGP. That archaeological sites (i.e., burial sites) were callously destroyed, disturbed, abandoned and left open for 40-plus years makes it difficult for the Community to see how the presence of the PINGP is of any benefit to the Community.

Chapter 3. Environmental Impacts of Refurbishment

Chapter 3 discusses the environmental impact of refurbishment activities--the steam generator replacement project, construction of temporary buildings and permanent warehouses, and traffic resulting from these projects. A more detailed map, providing information relative to the location of these buildings and whether the site has been previously disturbed or evaluated, should be included in the final SEIS. Figure 3-1 provides no detail relative to the location of buildings to be constructed. Since there is the possibility that archaeological sites could still be encountered, and that, in the past, NSP has shown no regard for these sites, it is important to know precisely where the construction will take place.

While Section 3.2.7 (Public Services - Transportation) acknowledges that there could be a SMALL to MODERATE impact on the PIIC during refurbishment, there is nothing in the draft SEIS that indicates that the proposed mitigation will be implemented. It appears that it is left up to the Community to work with the Applicant to implement the mitigation suggestions.

In addition, Section 3.2.10 (Environmental Justice) also notes that the PIIC will be disproportionately impacted by steam generator replacement activities and noise

levels would also increase. The conclusion, that these activities are of short duration and not expected to be high, minimizes the impact on the PIIC and appears to negate the need for any "voluntary" mitigation. In other words, don't worry about it; it's only for a short time.

Since the PIIC is identified as a Minority Community for Environmental Justice analysis in the SEIS, what assurance does it have that any of the mitigation alternatives will be implemented? Why even have an Environmental Justice analysis if there is no action or "justice" when disproportionate impacts are identified?

The discussion in Section 3.2.9 (Historic and Archaeological Resources) indicates that the continued operation of the PINGP during the license renewal term would have a MODERATE impact on archaeological resources within the site boundaries. Refurbishment, however, would only have a SMALL impact on archaeological sites because construction activities would be taking place on previously disturbed land. This conclusion should be revised based on the new information in the Merjent report, particularly the statement, "Prehistoric archaeological sites could be buried under parking lots, modular buildings, or other structures or features within the Plant. The fact remains that for compliance purposes, every potential undertaking should be reviewed on a case by case basis." The fact that land was previously disturbed is no guarantee that there are not archaeological sites or materials present. We believe that refurbishment activities would have a MODERATE to LARGE impact on archaeological resources within the site boundaries. This would be especially true if the Preliminary Commitments identified by NSP (as discussed in Section 4.9.6) are not fully implemented.

The draft SEIS mentions the efforts underway by NSP to revise and improve its procedures for protecting archaeological sites within the PINGP. These procedures are still draft and must be finalized before one shovel full of dirt is moved.

Chapter 4. Environmental Impacts of Operation

Section 4.5.3 Heat Shock

The Community remains concerned about the discharge to the Mississippi River from the PINGP 1 and 2. The thermal pollution from the PINGP raises water temperatures and causing heat shocks in the Mississippi River and Sturgeon Lake. The plant is permitted to discharge thermal effluent into pool 3, *above* Lock and Dam No. 3, while its compliance with permit conditions is measured *below* Lock and Dam No. 3. In addition to sudden thermal shock that can be fatal to wildlife, the higher water temperatures can also contribute to an oxygen-deprived biological dead zone. Records show that on numerous occasions over the years PINGP's

discharge has exceeded the temperature its discharge permit conditions as well as reversing and shocking the vital biorhythms of the natural endemic ecosystem

There is no mention of NSP's plant to apply for a license amendment for an extended power uprate for the PINGP 1 and 2 and how the uprate will impact the Mississippi River (i.e., the receiving waters for the discharge). In May of 2008, NSP submitted an application to the MN Public Utilities Commission for a Certificate of Need (CON) for an extended power uprate for the PINGP 1 and 2. The output of each unit will be increased by 82 MW, for a total increase of 164 MW. According to the final Environmental Impact Statement prepared for the MN PUC by the MN Department of Commerce, the extended power uprate will increase water use (surface water withdrawals) by up to 10 percent and increase the circulating water outfall temperature by of a maximum 3° F.

In response to concerns raised by parties to the CON proceedings, the MN PUC ordered NSP to:

Study the effect of thermal discharge on Lake Pepin (below Lock and Dam 3), such that 1) Xcel would prepare a report which would, at a minimum, review the analysis of previous studies and current data and propose a plan of action, and 2) if the Commission determines that the initial report is insufficient and additional data collection is appropriate, Xcel would seek advice from the Minnesota Pollution Control Agency.

To the extent possible, results from this study must be included in the final SEIS. Temperature increases, from the extended power uprate, must be evaluated in the final SEIS.

Section 4.6 Terrestrial Resources

Avian Mortality (page 4-13)

The Prairie Island Indian Community does not believe that avian mortality has been adequately evaluated at the PINGP 1 and 2. The draft SEIS cites the 1996 GEIS statement pertaining to avian mortality at the PINGP, 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*" (emphasis added). Since no new plants have been constructed since the 1996 GEIS was issued, we can only conclude that this issue may be unique for the Prairie Island site. It cannot possibly be generic to all plants if it is occurring only at one plant.

As stated in the draft SEIS, in the late 1970s NSP commissioned a five-year study to determine whether the transmission lines coming from the PINGP had any impact

on migratory birds using the Mississippi River since some of the transmission lines are perpendicular to the Mississippi River. As we stated in our scoping comments, 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. The Upper Mississippi River and associated ecosystem is very important to birds that are year-round residents and those who are migratory. About 40 percent 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. 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 five-year study documented that 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 east-west portions of the transmission lines, which are perpendicular to the Mississippi River or the migration pathway. The report, summarizing the five-year study, concluded with the statement that "the best way to reduce bird kills is to locate transmission lines parallel to bird migration corridors to as great a degree as possible, since locating them perpendicular to the line of migration results in many more birds being killed."

The draft SEIS correctly noted this conclusion, but minimized the impact of the report by stating that the "transmission lines only resulted in greater collisions for a few species." The report recommended NSP undertake additional walks to better estimate the number of birds killed and walk areas during the breeding season to better estimate if local nesting birds are killed. The draft SEIS also noted that the Applicant has not undertaken any additional studies since it commissioned the first studies in the late 1970s.

The draft SEIS states that NSP entered into a Memorandum of Understanding (MOU) with the US Fish and Wildlife Service (USFWS) in 2002 to ensure the company's compliance with the Migratory Bird Treaty Act. NSP is also in the process of creating an Avian Protection Plan (APP) for Minnesota and Wisconsin, as required by the MOU. Among other things, the APP will "describe in detail the actions to be taken to retrofit or modify the Company facilities or otherwise protect raptors or other migratory birds that may come in contact with the Company facilities." The APP should also provide a schedule for the execution and completion of such actions (as mentioned above). According to the draft SEIS, a draft APP for Minnesota was submitted to the USFWS in late 2008. The MOU states that the FWS will review the APP within 60 days and either approve it or provide comments. Another 180 days are allowed to work out any issues identified by the USFWS. If this cannot be done, the MOU can be terminated. Since there has been no mention of the MOU having been terminated, we assume that it is still in effect. If the USFWS provides no

comments or written approval, the APP shall be considered approved. The reason we mention this time-line, is that, even according to the most conservative time-frame (180 days), the APP should have been approved and discussed in the draft SEIS.

In addition, the MOU requires the submission of semi-annual reports of avian injury and mortality along NSP's transmission lines. To get a clearer picture of current avian injury and mortality at the PINGP 1 and 2, these reports (the complete reports, not just summaries) should be included in the final SEIS.

As mentioned above, the APP will describe what actions (i.e., mitigation) the Applicant will take to reduce bird kills at the PINGP 1 and 2. The final SEIS should provide either a summary of the approved APP or an explanation as to why the APP has not approved yet. This is an important issue that demands attention from the NRC.

Section 4.7 Threatened or Endangered Species

Section 4.7 and Appendix D of the draft SEIS discusses the NRC's Biological Assessment (Assessment) for the Higgins eye pearly mussel, which is listed by the USFWS as an endangered species. According to Section 7 of the Endangered Species Act, Federal agencies (in this case the NRC) must consult with the USFWS when any action the agency carries out, funds, or authorizes (in this case relicensing the PINGP 1 and 2) *may affect* a listed endangered or threatened species. The NRC consulted with the USFWS during the summer of 2008, requesting information relative to any threatened or endangered species and their critical habitat in the project area.

According to the Assessment, "the NRC is responsible for providing information on the potential impact that continued operation of the PINGP 1 and 2 could have on the federally listed species." It is not clear, however, what role or authority the USFWS has in reviewing the information (i.e., the Biological Assessment) and/or approval or disapproval of the NRC's conclusions regarding possible impacts. Since the draft SEIS provides no opinion or correspondence from the USFWS regarding potential impacts to the Higgins eye, we believe that this information must be included in the final SEIS.

The Biological Assessment concludes that the relicensing of the PINGP 1 and 2 is not likely to affect the Higgins eye pearly mussel. Furthermore, the draft SEIS states that "if the Higgins eye restoration project is successful in establishing a reproducing population of the Higgins eye during the renewal term of the licenses, impingement and entrainment at PINGP 1 and 2 of suitable fish host may adversely affect the mussel population." It is not clear what constitutes a successful "reproducing population" as there is no information regarding current populations and whether the USFWS believes that the project has been successful. Since 2003,

the Mussel Coordination Team has stocked well over 5,00 sub-adults (in cages) at the Sturgeon Lake site; stocking was to be completed in 2009. By now, there should be some indication whether the Higgins eye has been able to successfully reproduce and what the overall outlook is for the project.

The Assessment also noted that the USFWS determined that the Higgins eye relocation area, just upstream of the PINGP 1 and 2 intake, was a suitable site. In this statement, the NRC seems to be trying to convey that the USFWS's site selection is *de facto* approval for license extension.

The final SEIS must contain a letter from the USFWS indicating whether they agree with the conclusions of the Biological Assessment or whether any additional studies (i.e., Biological Opinion) or mitigation is warranted.

4.8 Human Health

Leakage from PINGP and Groundwater Concerns

The Community does not believe that the tritium releases from the PINGP Units 1 and 2 to the environment, specifically in groundwater, have been adequately evaluated. Despite our EIS scoping comments, the oral and written comments from others during the scoping process, our Cooperating Agency submissions (i.e., Environmental Justice area), the SEIS does not adequately address groundwater contamination.

The draft SEIS points out that detected levels of tritium are below the US Environmental Protection Agency's (EPA) safe drinking water standard. While this may be true, it ignores the root cause of the problem: that leaks from plant operations that have not been properly evaluated and/or corrected by NSP. On page 4-19 of the draft SEIS, it is stated that "the elevated tritium levels in the three on-site monitoring wells (wells P-10, MW-7, and MW-8) may be due to prior leakage from the PINGP liquid radwaste discharge pipe that was replaced in 1992, **OR** as a result of turbine building sump water discharge into the landlocked area (emphasis added)."

The fact that *these* levels are below the EPA's standard provides no comfort or assurance that the potential source or sources of the tritium leaks have been identified, that the aging underground pipes will not experience additional leakage, or that the tritium will not migrate into the Community's water supply (again). PIIC does not want to find out next year (or 5, 10, 20 or 30 years from now) that the tritium levels have exceeded the standard and/or releases have migrated to drinking water supplies. These releases are entering the environment via an unapproved pathway and the source must be identified and contained before it is

too late (such as the recent situation at Vermont Yankee, and also at Indian Point, Oyster Creek, San Onofre, Byron, Perry, Dresden and Braidwood).

As we stated in our EIS scoping comments, tritium has been found in the Community's drinking water. In the late 1980s/1990s time frame, above normal background levels of tritium were detected in wells around the PINGP 1 and 2. Although the detected levels were below the EPA standard of 20,000 pico curies per liter (pCi/L), the range detected (1,300 - 1500 pCi/L) was above what was detected in other wells (300 - 400 pCi/L). Tritium is still detected in observation wells. According to the 2006, 2007, and 2008 Radiological Environmental Monitoring Program (REMP) reports, tritium results for PINGP on-site well P-10 have been relatively high (3773 pCi/L (2006), 2258 pCi/L (2007), and 2060 pCi/L (2008)) compared with the two off-site indicator locations 2 miles away (ranging between <19 pCi/L and 59 pCi/L) and 13 miles away (ranging between <19 and 46 pCi/L). The Community remains concerned about how the tritium is getting into the groundwater, why the concentration of detected tritium fluctuates so dramatically, and what is the best way to monitor the leakage to ascertain the source of the leakage, determine precisely whether, how and to what extent the tritium migrates adjacent lands, and to ensure that the levels of tritium do not exceed the EPA standards over time.

In addition, the draft SEIS Environmental Justice analysis (Subsistence Consumption of Fish and Wildlife, line 21, page 4-40) states that there was no tritium detected in Red Wing's drinking water. How this relates to Environmental Justice is not clear, as the City of Red Wing was not identified as a minority population. Usually subsistence relates to native or minority populations and the consumption of fish/wildlife on a subsistence level because subsistence consumers would be at greater risk. The use of tritium results for Red Wing in the Environmental Justice/Subsistence section seems out of place.

Line 42 on page 4-40 states that well data (from the 2007 REMP report) "demonstrate that the routine operation of the PINGP 1 and 2 had no significant or measurable radiological impact on the environment." It is important to note that the REMP monitoring sites do not include sites P-10, MW-7 and MW-8 (within PINGP site); these sites are included in the PINGP Special Well and Surface Water Samples (i.e., tritium monitoring program). As mentioned previously, tritium levels for well P-10 had levels of tritium between 2060 pCi/L and 3773 pCi/L during the 2006-2008 time frame. Also as noted, the two off-site indicator locations 2 miles away (ranging between <19 pCi/L and 59 pCi/L) and 13 miles away (ranging between <19 and 46 pCi/L) during that same time-period. The on-site monitoring well had significantly higher tritium levels than the off-site indicator locations. Accordingly, it is not correct to state that there is no radiological effect on groundwater from plant operation. NSP's own data clearly shows that there is an

effect. There is a radiological contamination problem at the PINGP 1 and 2 that is going unchecked.

Potential Mitigation

As mentioned above, the Community submitted extensive scoping comments regarding concerns about the potential tritium contamination of the groundwater around the Prairie Island site, particularly for the sources of drinking water for the members of our Tribe. Subsequently, the NRC has published a proposed revision to the GEIS that acknowledges the site-specific nature of effluent impacts on the environment. The proposed GEIS revision proposes to change tritium contamination to a Category 2 issue. According to the draft revision of the GEIS revision, tritium is the most mobile radionuclide in groundwater and "the location and construction of monitoring wells, relative to potential leak locations have not been evaluated." Further, the draft GEIS states, "it is possible that a different well placement could detect higher or lower activity present." There are three groundwater sample sites (individual homes) on the Tribe's land, but these are a little more than a mile from the plant site (especially P-10). Additional sites closer to the Community's boundary could be identified, NSP could install additional monitoring wells, and sample the groundwater much more regularly than once a year. The Community's drinking water should be monitored with the same frequency as Red Wing's municipal water supply, with additional monitoring of private wells in sufficient frequency to assure the resident Community Members that their drinking water is not contaminated with tritium.

As discussed in Section 4.5.3 (Heat Shock), NSP applied for and received a CON for an extended power uprate for the PINGP 1 and 2. It is expected that the uprate will increase radiological emissions by 10 percent. The Community raised concerns relative to groundwater contamination in the State CON proceedings. In response, on November 12, 2009 the MN PUC ordered NSP to complete the following:

Implement, in full, each and every objective and criterion set forth in the Nuclear Energy Institute's Groundwater Protection Initiative. The initiative should be implemented, in full, no later than April 30, 2010.

Provided detailed written reports to the Community and the City of Red Wing, as well as the Minnesota Department of Health, every three months, which will include well monitoring information in and around the plant, as well as summarize material information discovered as it implements and maintains each discrete subpart of the groundwater initiative.

Discontinue permanently the discharge of any liquid waste into the landlocked area.

Conduct a comprehensive investigation in and around wells P-10, MW-7, and MW-8, and consider the installation of other monitoring wells in and around the areas of MW-7 and MW-8.

The results of these additional studies should be included in the final SEIS.

The final EIS, as well as the PUC's orders, can be found at: <http://energyfacilities.puc.state.mn.us/Docket.html?Id=19602>.

Section 4.8.4 Electromagnetic Fields—Chronic Effects

The draft SEIS states that biological and physical studies of electromagnetic fields have not found consistent evidence linking harmful effects with field exposure. In addition, the draft SEIS notes that scientific research is continuing in this area and that the potential for chronic effects is not known at this time. The draft SEIS contains an excerpt from the National Institute of Environmental Health Sciences (NIEHS) report, indicating that extremely low frequency-electromagnetic field (ELF-EMF) exposure "cannot be recognized as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard" (draft SEIS, page 4-24, line 28).

The draft SEIS adopts the 1996 GEIS finding of "uncertain" for electromagnetic fields—chronic exposure. 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). Since many community members reside within 40 or so feet of the 345-kV transmission lines, we remain very concerned about this potential hazard and we urge the NRC to evaluate the latest scientific studies and reports, and consult and coordinate as necessary with other state and federal agencies to ensure that nearby residents do not suffer adverse health effects as a result of chronic EMF exposure.

Section 4.9.6 Historic and Archaeological Resources

We agree that the potential impacts to historic and cultural resources could be MODERATE. There is a potential for LARGE impacts, however, if NSP's proposed Preliminary Commitments are not implemented (discussed further below).

This section must be revised, however, to include the most recent data available. As discussed in Section 2.2.9, NSP has completed some additional studies (Preliminary Commitment Number 38) that have documented the current condition of archaeological sites within the PINGP boundaries and also identified new archaeological sites. The result of these studies is documented in the draft report, "A Modified Archaeological Reconnaissance Survey of the Grounds of the Prairie Island Nuclear Generating Plant, Welch, Goodhue County, Minnesota." The report provides new information relative to the history of site investigations, current site

conditions, and recommendations for future work that should be included in the final SEIS.

Some specific recommendations/corrections:

Page 4-30 (line 20 through 24). It should be noted that the Birch Lake Mound Group (21GD58/61) was well outside of the construction area for the PINGP 1 and 2, but was nevertheless excavated by Dr. Eldon Johnson. Five out of eight removed human remains and funerary objects were removed from the site. The burial sites were excavated, abandoned and left open for 40-plus years. The Prairie Island Indian Community has requested (through the MN Indian Affairs Council) that the human remains from the site be returned so they can be properly repatriated. In addition, we are working with NSP to properly close these sites.

Page 4-30 (line 25 through 35) discusses the current condition of the NSP Mound Group II (21GD59) and how 2 of the 6 mounds were excavated and the 4 remaining mounds were either covered with fill or leveled during construction of the PINGP's cooling towers. The Community would like to know the extent of impacts to the remaining sites and whether the NRC will require that NSP remediate the site.

Page 4-30 (lines 36 through 40) discusses the condition of mound site 21GD62. This section should be updated to note that the site was excavated using a mechanical trencher; the trenches were never properly closed and are still obviously open. This site, although well outside the construction area, was significantly impacted by Dr. Johnson's "research." We are working with NSP to properly close these excavation units.

We are well aware that NSP is in the process of revising its internal policies/protocols (Preliminary Commitment Number 37) and is developing a Cultural Resources Management Plan (CRMP) (Preliminary Commitment Number 39) for the PINGP 1 and 2 site. These efforts, once implemented, will help to ensure that cultural and historic resources are not threatened or damaged by any future construction activities. These policies are still draft and the CRMP is yet to be completed. The final version of the excavation/trenching protocols (Commitment 37) must be finalized before the licenses are renewed and NSP begins the steam generator replacement project, which will involve ground-disturbing activities. Without these measures firmly in place, there is a potential for LARGE impacts from continued operation.

It is not clear whether the NRC contacted the Advisory Council on Historic Preservation regarding this action and whether they concur with the NRC's assessment. This is a huge gap in the draft SEIS. We would like to see a response from the Advisory Council in the final SEIS.

Section 4.9.7 Environmental Justice

As noted throughout the draft SEIS, the Prairie Island Indian Community is a Cooperating Agency for purposes of developing certain aspects of the draft SEIS, including Environmental Justice. The Prairie Island Indian Community was identified as a minority community for the Environmental Justice analysis. The draft SEIS contained the Community's analysis of impacts; our analysis was included as indented paragraphs, with no comment or analysis from the NRC regarding our conclusions.

In the draft SEIS, the NRC "acknowledges that there may be the potential for disproportionate impacts to the PIIC," because of the Tribe's location relative to the PINGP 1 and 2. The draft SEIS further notes that impacts to all resources areas (except for historic and archaeological resources) would be SMALL. We do not agree with this conclusion. On pages 4-41 through 4-45, we list the number of ways the Prairie Island Indian Community is impacted by the relicensing of the PINGP 1 and 2. Perhaps, each issue, evaluated on its own might result in a SMALL impact. When evaluated as a whole, however, we believe that the impact is MODERATE to LARGE.

As stated on page 4-41, lines 23 through 30, an important tenet of Dakota culture is the belief that all things are related, "Mitakuye Oyasin," and that one cannot separate one aspect of the environment from another. 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. In other words, our Tribe's health and well-being are dependent upon the health of the natural environment—the water, the fish, the birds, the air, the plants, cultural sites, that are all interrelated as part of an ecosystem that is Prairie Island. We evaluated all aspects of the environment important to the Tribe, and concluded that the total impact to the Prairie Island Indian Community, from the relicensing of the PINGP 1 and 2 would be MODERATE to LARGE.

4.11 Cumulative Impacts

As indicated on page 4-46, the NRC considered the potential cumulative impacts in its analysis of the continued operation of the PINGP 1 and 2. As well, the analysis is to conclude future actions, those that are reasonably foreseeable through the end of an extended operating period. There is no mention of NSP's plans to apply for a license amendment for an extended power uprate or an amendment to the site-specific ISFSI license to expand the capacity 69 dry casks (both applications were recently approved by the MN Public Utilities Commission). We specifically mentioned these actions in our EIS scoping comments, as did other parties. Since these actions can be "reasonably foreseeable," they should have been included in the

cumulative impacts analysis. If the NRC does not plan to include these actions, perhaps they could explain why.

Page 4-48, line 16 states that the NRC has been unable to determine whether the tribe's wastewater discharge was permitted by the MN Pollution Control Agency (MPCA). This information was provided to the NRC in June 2009. The Prairie Island Indian Community, as a federally-recognized Tribe, is not subordinate to state government. That is, the Tribe's NPDES permit is from the US EPA; all reports are sent to the EPA.

4.11.1 Cumulative Impacts on aquatic and Water Resources

On page 4-48 (lines 35 through 45), the draft SEIS discusses potential thermal impacts to Lake Pepin (i.e., Pool 4) from PINGP's thermal effluent, particularly if NSP applies for an extended power uprate. The draft SEIS references correspondence from the MN Department of Natural Resources (MN DNR) expressing concern that the thermal plume from the PINGP 1 and 2 discharge could have an increased negative effect on the ice cover of Lake Pepin and that the NRC assumes changes in ice cover would impact biological communities. The draft SEIS, however, states that impact from increased thermal impacts will be addressed when NSP submits its license amendment request.

Since the uprate is a foreseeable event, the final SEIS must include its analysis in the cumulative impacts on aquatic and water resources. The MN PUC has already approved the Certificate of Need for the uprate application. In fact, as stated previously, the PUC ordered NSP to undertake the following study:

Study the effect of thermal discharge on Lake Pepin (below Lock and Dam 3), such that 1) Xcel would prepare a report which would, at a minimum, review the analysis of previous studies and current data and propose a plan of action, and 2) if the Commission determines that the initial report is insufficient and additional data collection is appropriate, Xcel would seek advice from the Minnesota Pollution Control Agency.

Page 4-49, lines 4 through 3, states that the continued operation of the PINGP 1 and 2 will have a minimal impact on aquatic and water resources and "would not contribute to an overall decline in the condition of these resources." Lines 7 through 10 seems to imply that dredging at the Tribe's marina, among other actions such as agricultural and urban run-off, have had and will continue to have significant impact on the Upper Mississippi River and that these cumulative impacts would be MODERATE to LARGE.

For some reason there is no mention of the periodic maintenance dredging conducted by NSP at the PINGP 1 and 2 site. In fact, NSP recently received

permission to dredge 56,000 cubic yards of material from its in-take area (to begin later spring/early summer 2010).

There is no mention what impact the PINGP's permitted chemical and thermal discharge has on the aquatic and water resources.

There is no mention of how the expected power uprate will impact aquatic and water resources (i.e., 5 degree increase in the thermal effluent).

It should be noted that any dredging done by the Tribe at its marina is by permit from the US Army Corps of Engineers. All permit applications undergo an environmental analysis to ensure that there will be no adverse impacts. This is the law and we follow it.

If the NRC is sincerely going to evaluate the cumulative impacts, the staff should look at all impacts, not just a few.

4.11.3 Cumulative Health Impacts

According to the introductory remarks on page 4-46 (4.11 Cumulative Impacts), the purpose of the cumulative impacts analysis is to consider potential environmental impacts through the end of the current licenses terms as well as a 20-year extended operating period. The analysis is to include *all future actions* that are "reasonably foreseeable through the end of plant operations including the period of extended operation."

The analysis in Section 4.11.3 only includes the steam generator replacement project as a future event that could result in increased radioactive waste. As mentioned previously, NSP has recently gained State approval to operate at PINGP 1 and 2 at a higher thermal level and to expand the ISFSI to 64 dry casks during the extended operating period. In addition, 34 dry casks will be needed to decommission the PINGP 1 and 2, for a total of 98 casks at the PINGP ISFSI. According to NSP's own information, the radiological effluent released by the PINGP 1 and 2 will increase by 10 percent once the uprate is implemented. Cumulative gamma radiation and "skyshine" exposure will increase beyond acceptable state lifetime cancer limits once all 98 casks are in place at the ISFSI.

The draft SEIS discusses gamma radiation levels from the ISFSI, citing data and reports from the MN Department of Health and NSP's most recent REMP reports. It should be noted that the 2007 REMP evaluated gamma levels from the 24 casks that were in place at the time. Since NSP plans to expand the ISFSI to a total 64 casks during the operational life of the plant, the NRC must calculate what the expected dose is to the nearest resident from the 64 casks and the PINGP 1 and 2 in an uprate condition.

The recent EIS prepared by the MN Department of Commerce for the dry cask expansion CON discussed the health risks to the general public resulting from potential long-term exposure to low-level skyshine radiation from the Prairie Island ISFSI. The analysis assumed that members of the local public live at the nearest residence and at home, outdoors, continuously for 70 years. Under this scenario, it is estimated that an additional 1 person in 35,700 (or 2.8 in 100,000) would be diagnosed with cancer and an additional 1 person in 71,000 would die from cancer of all 98 casks are included in the analysis. According to MN Rules, the acceptable level of risk additional lifetime carcinogenic risk is 1 in 100,000. (MN Rules 4717.7300, MN Rules 4717.8050, subp. 3).

These are very real, foreseeable events. The effects of these events must be evaluated within the Cumulative Health Impacts analysis. The Community is completely bewildered as to why the cumulative effects analysis would be lacking such crucial information since it was brought to the NRC's attention in our EIS scoping comments as well as by other parties.

According to the NRC's May 2009 Scoping Report for the SEIS, in response to our comment on foreseeable future projects (i.e., the uprate and expanded ISFSI) and cumulative impacts analysis, "all pertinent information pertaining to cumulative impacts will be reviewed and assessed." (comment 15-z-CI/ER, page 151 of Scoping Report). Both the uprate and the expanded ISFSI are very real and pertinent projects that will be implemented by the Applicant. Neither the uprate nor the expanded ISFSI were reviewed or assessed anywhere in the Cumulative Impacts sections. With regard to the expanded ISFSI, the Community is not talking about the NEED for the ISFSI, but rather the environmental impacts (i.e., increased radiation) that will result from the addition of 69 dry casks. This analysis must be included in the final SEIS.

4.11.4 Cumulative Socioeconomic Impacts

We agree that there is a potential for MODERATE cumulative environmental impacts to archaeological and historic resources during the renewal period. As discussed previously, NSP is in the process of revising its excavation/trenching controls and developing a Cultural Resources Management Plan. These are still draft and have yet to be implemented. The excavation/trenching controls must be completed before the final SEIS is released.

4.11.5 Cumulative Environmental Justice

In the environmental justice context, the NRC must analyze the cumulative impact of the many impacts identified in the draft SEIS on an individual license renewal application on the low-income or minority populations. There appears to be no

such analysis in the draft SEIS for the PINGP 1 and 2, relative to the Prairie Island Indian Community.

Mitigation

Throughout the draft SEIS are discussion of possible mitigation strategies that NSP could adopt or implement. Even where an impact is identified, such as the impacts associated with the long-term, on-site storage of spent nuclear fuel, there does not seem to be any requirement that potential impacts be mitigated. The final SEIS should include a comprehensive analysis of appropriate mitigation of all adverse impacts, particularly those that disproportionately affect the PIIC.

Storage of Spent Nuclear Fuel

The Community would be remiss if it did not mention, once again, that it does not believe that the spent nuclear fuel from the PINGP 1 and 2 will ever leave the boundaries of the PINGP ISFSI.

The Waste Confidence Rule (10 CFR 51.23(a)), as currently written, allows for on-site storage for 30 years beyond the licensed life of a nuclear power plant, or until 2063 and 2064 at the Prairie Island plant if it is re-licensed. Furthermore, the rule states that a national waste repository *will be* available by 2025. Because of delays and loss of funding for Yucca Mountain, however, it is unlikely that a repository will be available by 2025 if ever.

Proposed changes to the Waste Confidence Rule would allow for on-site storage for 60 years beyond the licensed life of the Prairie Island Nuclear Generating Plant. Under this scenario the casks could conceivably be at Prairie Island for close to 100 years, until 2094, a date that is completely unacceptable to our community. 100 years is well beyond a person's lifetime. The proposed revisions to the Waste Confidence rule, however, seem to be stalled due to the uncertainty of the National Repository at Yucca Mountain; President Obama has stated that the project is unsuitable and funding for the project has all but ceased. The only reasonable assumption is that the nuclear waste will be stored here on Prairie Island long after the PINGP 1 and 2 have been decommissioned.

The final SEIS must include a statement that reflects the current reality: that there will be no mined-geologic repository anytime soon and spent fuel will remain on-site indefinitely. Given that the current Administration seems to be starting the process anew, it is uncertain how long it will take to identify a new pathway forward. It is certain that new "solution" is sure to have political and societal objections that will take years to address and spent nuclear fuel will be stranded on-site indefinitely.

In addition, the draft SEIS fails to address Homeland Security Concerns (HSC) and Terrorist Attack Risks (TAR) issues similar to that expressed in the many recent legal and technical complaints against the NRC's licensing decisions concerning the operation and waste management at the Diablo Canyon Nuclear Power Plant, i.e., after the US Court of Appeals for the 9th Circuit's rulings reaffirming the regulatory linkage of HSC and TAR issues resolution with NEPA compliance. Indeed, the NRC recently released its Proposed Rules for 10 CFR Parts 72 and 73. The draft SEIS is supposedly for regulatory fulfillment of NEPA requirements (as determined by the 9th Circuit), but draft SEIS does not contain such important issues and risks.

Trust Responsibility

As delineated above, there can be no question that the PINGP's past and current operations have disproportionately impacted and will continue to disproportionately impact the PIIC, a federally-recognized Indian Tribe. Yet the SEIS does not adequately assess which federal agencies have trust responsibilities to the Community (and what the specific trust responsibilities entail) in connection with the identification and mitigation of adverse environmental, health, safety and security impacts on the Community due to the PINGP's past, current and future operation and ISFSI. The cumulative and integrated impacts on the Tribe and its members, as well as the Tribe's reservation lands - lands which are held by the United States in trust for the benefit of the Prairie Island Indian Community - implicate more than simply the NRC's obligations to comply with applicable laws and regulations.

To be sure, the NRC as the principal regulatory agency has a trust role and responsibility. However, the trust responsibility of the federal government, as trustee of the Tribe's lands, with a responsibility to protect and preserve the Tribe's lands and cultural resources, and the health and wellbeing of its members, is not, and cannot be, fulfilled merely by the NRC's compliance with applicable laws and regulations.

The PINGP's operation results in permitted thermal pollution and radioactive contamination of the Community's air, lands, vegetation, surface waters and groundwater. High voltage power lines emit electromagnetic fields and radiation across the road from Community homes. The PINGP's ISFSI, located 600 yards from the nearest Community residence, results in additional skyshine radiation and exposure. In addition, the PINGP and ISFSI create a unique public safety and security threat for the Community.¹ This unique set of circumstances demands a

¹ The HSC and TAR issues associated with the PINGP operations during the next 10 to 20 years or more - affecting the PIIC's treaty rights, lands and members -

unique and coordinated approach. We believe that it is incumbent upon the NRC to work cooperatively with other trustees (i.e., federal agencies) to address these issues in a comprehensive and integrated manner. The Community is specifically interested in knowing:

- What consultation has the NRC had with the EPA, the Bureau of Indian Affairs (BIA), Indian Health Service (IHS), Department of Homeland Security (DHS), the Federal Emergency Management Agency (FEMA), or any agency regarding the unique, cumulative and integrated impacts the PINGP's operation, high voltage power lines and ISFSI have on the Community and potential mitigation of those impacts?
- Have any inter-agency consultations occurred regarding the potential adverse health impacts on Community members from long-term, low dose radiation exposure and EMFs and potential mitigation of those impacts?
- Have there been any inter-agency consultations regarding the numerous studies that have found a higher incidence of childhood cancers and other diseases for people who live in close proximity to nuclear power plants?
- Have there been any interagency consultations on the PINGP's thermal pollution?
- Have there been any interagency consultations on the long-term storage of nuclear waste 600 yards from the Community residents?
- Have there been any interagency consultations on the integrity and security of the ISFSI and/or the casks that will store high-level nuclear waste 600 yards from the Community residents?
- Have there been any interagency consultations on the unique public safety and security needs of the Community, and whether the federal government has provided either the means or the funding for adequate safety and

necessarily implicate the trust responsibility of NRC, BIA, EPA & other federal/state agencies. These significant issues, representing some of the cumulative and integrated impacts disproportionately born by the Tribe, have been avoided and ignored by the NRC staff in the draft SEIS, even though the NRC has recently proposed new rules regarding the ISFSI security. The security threats against the PINGP are security threats against the Tribe because of the Tribe's unique cultural and sovereign existence guaranteed by the United States Constitution.

January 30, 2010

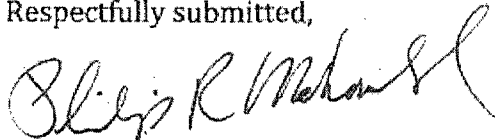
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security?

The continued operation of the PINGP 1 and 2 (and its ISFSI) is THE most important issue to our Community. We have devoted considerable resources to ensure that the Community's is able to participate in these proceedings (as a Cooperating Agency for the SEIS and as an Intervener in the Adjudicatory Proceedings).

We look forward to continuing our Cooperating Agency relationship with the NRC to finalize the Supplemental Environmental Impact Statement for the PINGP 1 and 2 license renewal.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Philip R. Mahowald". The signature is written in a cursive, flowing style.

Philip R. Mahowald
General Counsel