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OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

PRAIRIE ISLAND INDIAN COMMUNITY
LEGAL DEPARTMENT

May 4, 2012

Secretary
US Nuclear Regulatory Commission
Washington, DC 20555-0001
ATTN: Rulemakings and Adjudications Staff

VIA EMAIL
Rulemaking.Comments@nrc.gov

RE: Advance notice of proposed rulemaking on Station Blackout
Docket ID NRC-2011-0299

Dear Rulemakings and Adjudications Staff:

The Prairie Island Indian Community offers the following comments to the Nuclear Regulatory Commission regarding the Advance Notice of Proposed Rulemaking (ANPR) regarding potential regulations that address station blackout (SBO), published in the Federal Register on Tuesday March 20, 2012 (77 Fed. R. 16175).

Community Background

The Prairie Island Indian Community is a federally-recognized Indian tribe organized under the Indian Reorganization Act of 1934. The Tribe is governed under the terms and conditions of the Prairie Island Indian Community's Constitution and By-Laws adopted by tribal members on May 23, 1936, and approved by the Secretary of the Interior on June 20, 1936, as amended. The Constitution and By-laws provide that the Community Council (sometimes referred to as the "Tribal Council") shall be the governing body for the Community. The five-member Tribal Council consists of a President, Vice-President, Secretary, Treasurer, and Assistant Secretary/Treasurer.

The Tribe's Reservation is located on the ancestral homeland of the Mdewakanton Dakota on Prairie Island, which is formed at the confluence of the Vermillion and Mississippi Rivers in southeastern Minnesota (approximately 35 miles southeast of the Twin Cities of Minneapolis and St. Paul, Minnesota). The Mdewakanton, "those who were born of the waters," have lived on Prairie Island for countless generations. The size of the Tribe's current land base (including both trust and fee lands) has grown through several federal acts and direct purchases by the Tribal Council, and now totals over 3,000 acres (including both land and water).

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The Prairie Island Nuclear Generating Plant ("PINGP") and its independent spent fuel storage installation ("ISFSI") are located immediately adjacent to the Prairie Island Reservation. *See* Figure 1.

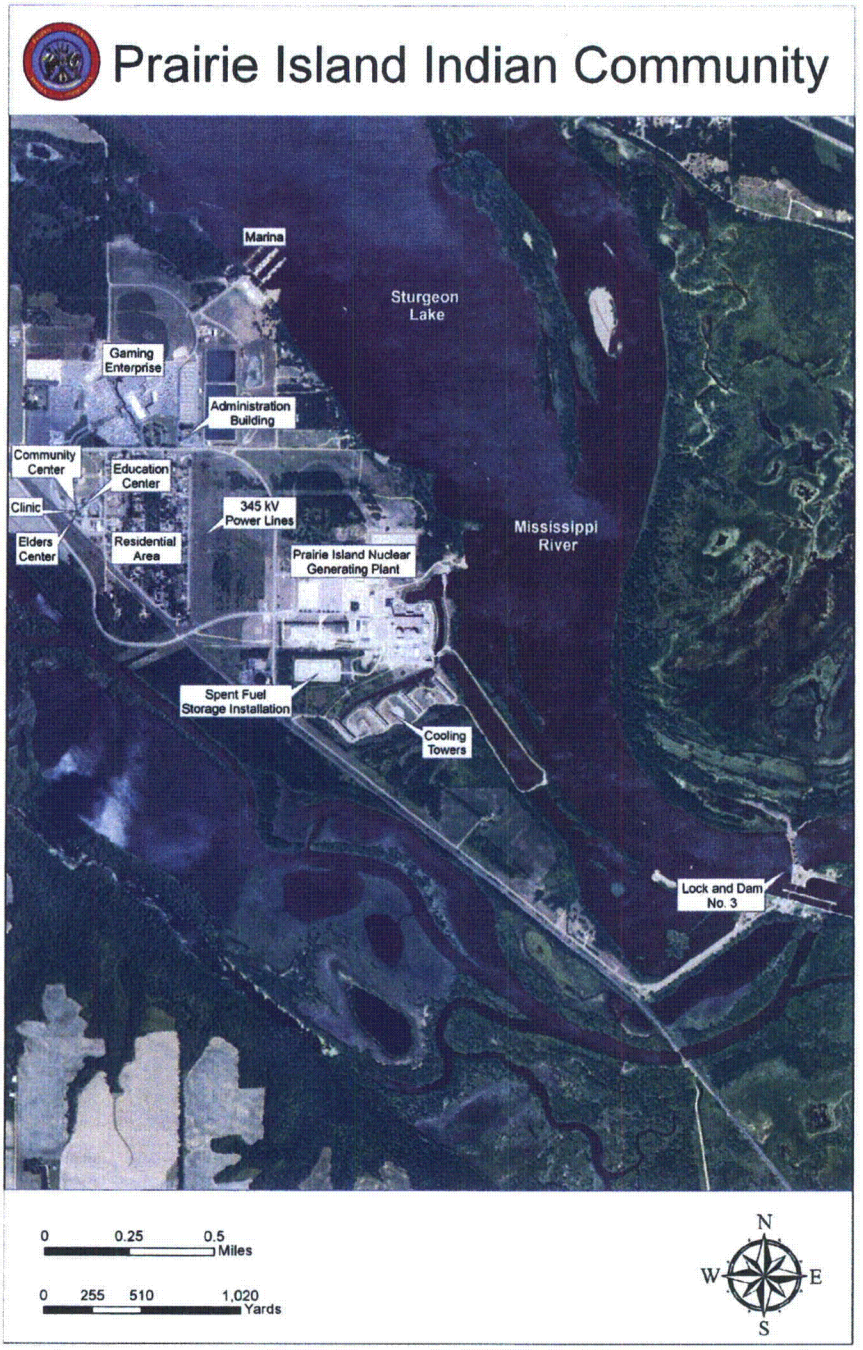


FIGURE 1

The PINGP, which is owned and operated by Northern States Power (a Minnesota company and subsidiary of Xcel Energy), has been on-line since the early 1970s and will operate at until 2034, as the NRC renewed its operating licenses for an additional twenty years.

Several Tribal member residences and other Tribal facilities and are located within a one-mile radius of the PINGP. The PINGP has been a constant source of concern to Tribal members since the plant went on-line in 1973. The Tribe has been actively engaged with the NRC for many years on most issues related to PINGP's operation and ISFSI. Most recently, the Tribe was a Cooperating Agency for purposes of developing a Supplemental Environmental Impact Statement (SEIS) for the PINPG's license renewal. We are currently reviewing the license renewal application for the ISFSI.

Our Tribal members, along with the rest of the world, watched in disbelief as the situation unfolded at the Fukushima Daiichi Nuclear Power Station in Japan last March. Fourteen months after the disaster in Japan, members of our Tribe are still truly haunted by the images of abandoned homes and abandoned communities. The people of Japan are living out our worst fears – forced removal from their homes and the loss of their homeland, with little hope of ever returning.

After the Fukushima disaster, we worried about whether a chain of events could lead to a prolonged station blackout at the PINGP. We believe that the potential for prolonged SBO at the PINGP exists. While earthquakes and tsunamis are unlikely, tornadoes can knock down power lines, spring flooding can make roads impassable and the PINGP inaccessible, diesel generators have been declared inoperable, and battery rooms have been found to be inoperable due to potential flooding. While corrective actions have been taken with respect to deficiencies that have been identified, the fact that these types of deficiencies were not identified or remedied for nearly 40 years is troubling. Extraordinary natural events, if they were to occur at the same time, could impact the PINGP's cooling systems and pose a significant threat to our Community.

We have followed the work of the NRC's Near Term Task Force (NTTF) and support all of its recommendations. Implementing all of the NTTF recommendations will result in safer nuclear power plants.

The situation of the PINGP is very unique and should be evaluated as such. As can be seen in Figure 1, the PINGP is located at the southern tip of Prairie Island and surrounded by the Mississippi and Vermillion rivers. Sturgeon Lake Road is the single main ingress/egress from the PINGP. Sturgeon Lake Road was elevated to the 100-year flood level in 1997.

Sturgeon Lake Road is also crossed by railroad tracks that are used by Amtrak and CP Rail. Many of the CP Rail trains are between 1 and 2 miles long; effectively shutting off the only ingress and egress from our Community each time a train passes through. As

many as 30 or more trains, some nearly two miles in length, can pass through our Community on any given day. This situation could potentially prevent Xcel/NSP from bringing in additional personnel and equipment that was pre-staged offsite to alleviate a prolonged SBO situation.

We feel that it is important to consider all the relevant components or regulations. The NTTF made a number of recommendations that if implemented, will significantly reduce the potential for prolonged SBO at the PINGP. These recommendations were grouped into Tiers (1-3), with Tier 1 being those that could be implemented the soonest.

One of the Tier 1 recommendations relevant to the PINGP and this ANPR is the Order to reevaluate the seismic and flooding hazards at nuclear plant sites against current NRC guidance and requirements, and if necessary, update requirements and guidance and the design basis and systems, structures, and components important to safety to protect against the updated hazards.

We were surprised to learn that, in most cases, the design-basis for external hazards (i.e., floods, tornadoes) were established during the construction permit phase for each power plant and were not reevaluated through the life of the plant. In the case of the PINGP, the design basis for natural hazards was established in the late 1960s or early 1970s. During the last 40 years the landscape has changed significantly and our knowledge of natural hazards has evolved, potentially changing the Mississippi River flood stage. Because of its location within the floodplain of the Mississippi River and the existence of only one access road, it may be difficult to bring in pre-staged equipment to the plant during a prolonged flood event similar to the one experienced at the Fort Calhoun Plant in June 2011.

In addition, during this past year events at the PINGP have given us cause for concern:

July 1, 2011 – Offsite power sources declared inoperable, as a result of Transformer 2RY lockout and less than the required minimum voltage on the transmission system. This condition should have been reported on 06/27/2011. *See* Event Report 47010.

June 7, 2011 – Both emergency generators declared inoperable due to excess outside ambient temperature. The calculated limiting outside air temperature needed for equipment is 100.5 F. The event was retracted on July 29, 2011; and additional information indicates that D1 and D2 diesel generators would have performed their safety function with outside air temperatures of up to 102.5° F. However, that information was not known at the time the diesel generators were declared inoperable. Outside air temperature did not reach 102.5° F and the diesel generators were not inoperable. Event Report 46934. Later that month, temperatures may have reach 100°+ at the Fort Calhoun Plant just one week after it lost off site power.

June 9, 2010 – Battery rooms declared inoperable due to potential flooding. During a walkdown, it was observed that the battery room doors to the Unit 1 and 2 turbine building bottom gap seals were not in contact with their respective door thresholds (gap was 0.25 inches). Door seals must be in contact with thresholds for the plant to be in the configuration assumed by the turbine building High Energy Line Break flooding evaluation. Event Report 45997.

These events, while isolated, could easily happen at the same time and leave our Community vulnerable. Prolonged spring flood events are not uncommon. We experienced record floods in June of 1993. Last year the Missouri River flooded for several months, starting in late May. Roads to and around the Fort Calhoun plant were closed. Tornadoes or straight-line winds are very common in Minnesota during the spring and summer months. Power lines can easily be knocked down. The Events referenced above occurred in the summer months.

Some of the specific questions the ANPR asked:

Should SBO equipment be designed to withstand severe natural events the facility is not already designed for?

Each plant should be evaluated to determine whether the original hazards analysis for the area is still relevant and updated accordingly. As we have seen in recent years, natural hazards are becoming more common, widespread and severe.

Should SBO mitigation strategies consider such severe natural events?

Yes, because natural hazards have become more severe and widespread in recent years. It is not uncommon to have record spring snowmelt coupled with record rain events. A widespread flood event, for instance, means that roads to the PINGP could be inaccessible and a mitigation strategy to pre-stage equipment away from the plant would be moot. Tornadoes or straight-line winds can make roads impassable for 12 to 24 hours due to downed trees, thereby preventing equipment and supplies (i.e., diesel fuel) from reaching the power plant. In widespread events (like a major flood), resources may be deployed elsewhere and may not be available to the power plant. These factors should also be part of a mitigation strategy.

Should SBO analysis consider a flood greater that the plant is designed for, and if so, what criteria should be used to determine that higher flood level?

Each situation is unique. The SBO analysis should consider factors other than the elevation, such as access roads. The PINGP would have no problem coping with a 100-year flood. A 500-year flood, however, would leave the plant completely isolated. *See* Figure 2. While the PINGP itself might be above the 500-year flood level, all access

roads would be inundated and there would be no way of getting emergency personnel or equipment to the PINGP.

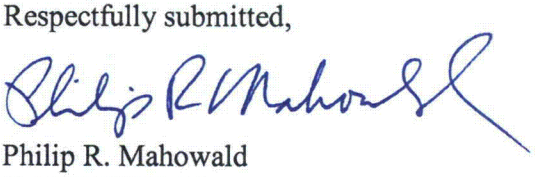
FIGURE 2

How long should plants expect to rely on mitigation strategies before off-site help arrives?

Because an event may be widespread or regional, it may be difficult to move personnel, equipment and other resources to the site. Therefore, power plants should expect to rely on their own mitigation strategies for at least 24 hours.

Thank you for this opportunity to provide comments on this important matter.

Respectfully submitted,



Philip R. Mahowald
General Counsel

Rulemaking Comments

From: Phil Mahowald [pmahowald@piic.org]
Sent: Friday, May 04, 2012 6:06 PM
To: Rulemaking Comments
Subject: Docket ID NRC-2001-0299
Attachments: 2092_001.pdf

Greetings:

Attached please find the Comments of the Prairie Island Indian Community regarding Docket ID NRC-2001-0299, the Advanced Notice of Rulemaking to begin the process of considering amendments of regulations that address the condition known as station blackout. Please contact me if you have any questions.

Sincerely,

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