



Northern States Power Company

1717 Wagonade Dr. E.
Welch, MN 55089
Telephone 612-388-1121

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U S Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
50-306 DPR-60

Comments on Request for Technical Assistance
Regarding Prairie Island Surveillance Intervals

Reference: NRC Inspection Report Nos. 50-282/97005, 50-306/97005, and 72-10/97005 and Notice of Violation, dated May 1, 1997.

The referenced NRC inspection report discussed questions of interpretation regarding Prairie Island Technical Specification 4.0.A allowances for the interval between surveillances. The inspection report states that this issue, Inspection Followup Item (50-282(306)/97005-03), has been referred to the NRC Office of Nuclear Regulation via a request for technical assistance. Since this issue has significant potential for impact on Prairie Island operations, Northern States Power Company offers the following comments regarding Prairie Island surveillance intervals. 1/0

The referenced inspection report accurately describes the Prairie Island surveillance program as, "... a 'fixed' surveillance program which scheduled each test on a particular repeating day such as 'the third Wednesday of each month.' The licensee defined the start of a surveillance month as the first Sunday of that calendar month." The Prairie Island Nuclear Generating Plant has conducted its surveillance program in this manner in excess of 20 years. Dec

The Prairie Island surveillance program differs from the program presented in the industry standard Technical Specifications, NUREG-1431, "Standard Technical Specifications, Westinghouse Plants", in that the standard allows the surveillance

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interval to be extended but never shortened. Thus in the standard, the time frame in which each surveillance is to be performed is constantly changing within the nominal time interval. That is, if the surveillance interval were "weekly" the scheduled day of the week would constantly be changing, one week the test could be scheduled for Monday and by the next month the test could be scheduled for a Saturday. Likewise if the surveillance interval were "monthly" the schedule time frame within the month would be constantly changing such that a test scheduled for the first week of the month early in the year could be scheduled for the last week of the month after passage of one calendar quarter. To summarize, Prairie Island has implemented a "fixed schedule" surveillance program which differs from NUREG-1431 guidelines which are based on a "fixed interval" surveillance program.

In order for the surveillance schedule to be maintained on a "fixed schedule" surveillance program the surveillance interval has to be adjustable in both directions, extended and shortened. Since the Prairie Island Technical Specifications allow adjustments up to $\pm 25\%$ of the nominal interval, this could result in some extended time intervals between tests. These extended test intervals are always preceded by a corresponding shorter test interval which compensates for the extended interval which follows.

Another item factored into the Prairie Island surveillance program is the variability of month lengths. The Prairie Island program defines each month as starting on the first Sunday of the month. This results in some "months" being four weeks long with other "months" being five weeks long. For monthly surveillances the interval adjustment ($\pm 25\%$) may be applied to the five week "month" (Prairie Island conservatively uses seven days as the $\pm 25\%$ interval adjustment on both four week "months" and five week "months").

NSP believes the intent in the phraseology in the current Technical Specifications, "to accommodate normal test schedules", specifically allows the "fixed schedule" surveillance program as practiced at Prairie Island. At Prairie Island, "normal" test schedules means the fixed, repetitive cycle of scheduled surveillance. A fixed interval which continuously moves the test schedule would not be a "normal" test schedule. The Specification explicitly allows plus or minus adjustment of the surveillance interval to allow Prairie Island to maintain the "fixed schedule" program. The NRC previously evaluated the PI surveillance management program and confirmed Prairie Island's interpretation of TS 4.0.A in Inspection Report 90012 (3/27/90) which stated, "... a monthly test may be performed 7 days on either side of its due date."

NSP believes the health and safety of the public are protected by the surveillance program as currently practiced at Prairie Island. While some surveillance intervals are longer than nominal, this is compensated by requiring other intervals to be shorter. The net result is that over each refueling cycle, the number of surveillances

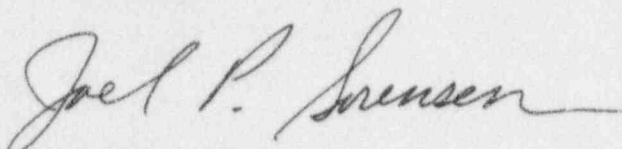
conducted will be equal to the cycle length divided by the nominal interval. For example, for one year of operation, twelve "monthly" surveillances will be performed, 52 "weekly" surveillances will be performed and so forth. NSP believes this is more conservative than the guidance provided in the standard, NUREG-1431. The standard would allow each interval to be extended but never shortened, thus over one year of operation, surveillances required every 31 days could be performed nine times and meet the requirements of the standard Technical Specifications.

As noted in the referenced inspection report, the Prairie Island surveillance program could allow monthly surveillances to be performed 49 days apart (however the required number of surveillances over the operating cycle would still be met). This interval is acceptable since surveillance intervals, to some extent, are arbitrarily established. In many cases the interval is a balance between the desire to assure that the necessary quality of systems and components is maintained and the desire to not unnecessarily wear out equipment or challenge plant systems. Thus, the Prairie Island surveillance program maintains this balance by assuring the required surveillances are performed on the nominal schedule on average over each fuel cycle. In recent years, some surveillance intervals have been extended as the result of industry studies which demonstrate that the surveillance program purposes are achieved with less frequent testing. In practice, a review of Prairie Island monthly surveillance records for the period from October 1985 through December 1996 identified only four instances where the surveillance interval exceeded 43 days (2 surveillances at 44 days and 2 at 45 days). Thus, the full extent of the allowable surveillance schedule flexibility has not been used in the last ten years. Again it is emphasized that with the "fixed schedule" surveillance program, whatever amount of time the test interval is extended is forced to be made up by having an equally shortened interval.

NSP also believes that the public health and safety would best be served by allowing the Prairie Island surveillance program to continue as it has been practiced for over 20 years. Prairie Island has achieved an excellent surveillance performance record through use of the program as currently practiced. An important feature of a surveillance management program is to assure that the surveillances are performed on time throughout the operating cycle. Since Prairie Island has already achieved a high level of assurance that surveillances are performed on time throughout the operating cycle, changing the program can not increase the assurance. However, changing the Prairie Island program could decrease this assurance, especially during a transition period.

The current Technical Specification wording may not clearly convey the meaning of the Prairie Island surveillance management program. NSP will propose wording in the Prairie Island Improved Technical Specifications which will more accurately reflect the Prairie Island surveillance program as practiced.

In this letter we have made no new Nuclear Regulatory Commission commitments. If you have any questions related to this letter, please contact myself or Dale Vincent at 612-388-1121.

A handwritten signature in cursive script, reading "Joel P. Sorensen".

Joel P. Sorensen
Plant Manager,
Prairie Island Nuclear Generating Plant

c: Regional Administrator - III, NRC
 NRR Project Manager, NRC
 Senior Resident Inspector, NRC
 State of Minnesota
 Attn: Kris Sanda
 J E Silberg