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L-PI-16-058
ODCM 3.8

U.S. Nuclear Regulatory Commission
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Washington, DC 20555

Prairie Island Nuclear Generating Plant, Units 1 and 2
Docket Nos. 50-282 and 50-306
Renewed Operating License Nos. DPR-42 and DPR-60

Special Report: Timely Restoration of Operability of Explosive Gas Monitoring Instrumentation

Pursuant to Section 3.8., Action b, of the Prairie Island Nuclear Generating Plant (PINGP) Offsite Dose Calculation Manual (ODCM), Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (hereafter "NSPM"), submits the enclosed Special Report.

From 9/25/2014 to 10/26/2014, 7/12/2015 to 8/18/2015, and 1/24/2016 to 4/14/2016, less than the minimum required Explosive Gas Monitoring Instrumentation was operable as specified by ODCM Section 3.8. The enclosed Special Report explains why the minimum required explosive gas monitoring instrumentation was not restored to operable status in a timely manner.

If there is any question, please contact Dr. Glenn A. Carlson, P.E., at (651) 267-1755.

Summary of Commitments

This letter contains no new commitment and no revision to an existing commitment.

A handwritten signature in black ink, appearing to read 'Scott Northard', written in a cursive style.

Scott Northard
Acting Site Vice President, Prairie Island Nuclear Generating Plant
Northern States Power Company - Minnesota

Enclosure (1)

cc: Regional Administrator, USNRC, Region III
Project Manager, Prairie Island Nuclear Generating Plant, USNRC, NRR
NRC Resident Inspector – Prairie Island Nuclear Generating Plant
Department of Health, State of Minnesota
PI Dakota Community Environmental Coordinator

Enclosure 1

**ODCM 3.8b Special Report:
Timely Restoration of Operability
of Explosive Gas Monitoring Instrumentation**

(2 pages follow)

Background

The Prairie Island Nuclear Generating Plant (PINGP) Offsite Dose Calculation Manual (ODCM), Section 3.8, specifies that a minimum of two channels of Waste Gas Holdup System Explosive Gas (Oxygen) Monitors shall be operable during system operation. ODCM Section 3.8, Action b, specifies:

With less than the minimum required explosive gas monitoring instrumentation channels OPERABLE, take the ACTION shown in Table 3.2. Restore the inoperable instrumentation to OPERABLE status within 30 days and, if unsuccessful, in lieu of a License Event Report, prepare and submit a Special Report to the Commission to explain why this inoperability was not corrected in a timely manner.

The corresponding "ACTION shown in Table 3.2" is ACTION 2 that states:

With the number of channels Operable less than required by the Minimum Channels Operable requirement, operating of this system may continue for up to 14 days. With two channels inoperable, manually isolate the oxygen addition line.

On 5/11/2016, PINGP discovered potential instances exceeding 30 days when less than the minimum required explosive gas monitoring instrumentation channels was operable and for which PINGP submitted no Special Report to the Commission. The issue was entered into the PINGP Corrective Action Program (CAP).

An apparent cause evaluation found that, during the periods 9/25/2014 to 10/26/2014 (31 days, hereafter "Period 1"), 7/12/2015 to 8/18/2015 (37 days, hereafter "Period 2"), and 1/24/2016 to 4/14/2016 (81 days, hereafter "Period 3"), less than the minimum required explosive gas monitoring instrumentation channels was operable and that PINGP had submitted no Special Report to the Commission for the periods.

Actions Taken to Restore Operability

Period 1:

- 9/25/2014 High readings on 1OAT-1119, 121 CTLTC H2 RCMBNR OUTL O2 ANZR, entered into CAP. Work request initiated. Less than minimum required channels operable.
- 10/26/2014 1OAT-1119 cell replaced and tested satisfactory during surveillance procedure SP 1231, 121 CATALYTIC HYDROGEN RECOMBINER GAS ANALZER FUNCTIONAL AND CALIBRATION TEST. Oxygen restored to 121 Recombiner.

Period 2:

- 7/12/2015 Oxygen monitor 1OAT-1112 and 1OAT-1119 are removed from service. Less than minimum required channels operable.
- 8/18/2015 1OAT-1119 cell is replaced and test satisfactory according to surveillance procedure. 121 Recombiner placed in MANUAL. 121 Recombiner placed in AUTO on 8/19/15.

Period 3:

- 1/24/2016 Flow through 121 Recombiner stopped according to operating procedure C21.3.2, LOW LEVEL WASTE GAS LOOP, unable to restore flow because CV-31922, 121 CTLYTC RCMBNR FEED GAS PCV, not controlling. Work request written on 1/25/16 to replace rupture disc. Less than minimum required channels operable.
- 2/12/2016 SP 1231 performed unsatisfactory due to bad rupture disc causing no flow through the recombiner.
- 3/17/2016 Rupture disc replaced on 121 Rcombiner.
- 3/22/2016 Post maintenance test completed satisfactory.
- 4/14/2016 SP 1231 completed satisfactory after 1OAT-1119 replaced second time.

Why Actions Taken to Restore Operability were not Taken in a Timely Manner

An apparent cause evaluation found the apparent cause was site ownership of the ODCM equipment out of service has been weak to ensure the proper tracking method was developed to meet the ODCM Program.

The apparent cause evaluation identified the following contributing causes:

- Standard for system operation and required actions are not clear in the ODCM.
- Administrative work instruction 5AWI 3.6.3, 10CFR and Technical Specification Reporting Requirements, is missing two of the 30-day required special reports for ODCM equipment.
- Operating procedures C21.3.2 and C11, RADIATION MONITORING SYSTEM, do not align with ODCM requirements.
- Equipment identifiers associated with ODCM are missing a Requirement and Regulation designator in the PINGP equipment database similar to emergency preparedness and fire protection equipment.
- Responsibilities for ODCM program ownership are not clearly established.