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L-PI-17-037  
10 CFR 21.21(d)(3)(i)

SEP 14 2017

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-001

Prairie Island Nuclear Generating Plant Unit 2  
Docket 50-306  
Renewed License No. DPR-60

Initial Notification of Failure to Comply or Existence of a Defect

Pursuant to 10 CFR 21.21(d)(3)(i) Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (hereafter "NSPM"), submits the attached initial notification of failure to comply or existence of a defect.

If there is any question or if any additional information is needed, please contact Frank Sienczak, at 651-267-1740.

Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.

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

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

Attachment

cc: Regional Administrator, Region III, USNRC  
Project Manager, Prairie Island Nuclear Generating Plant, USNRC  
Resident Inspector, Prairie Island Nuclear Generating Plant, USNRC

Attachment

Initial Notification of Failure to Comply or Existence of a Defect

Name and Address of the Individual or individuals or informing the Commission:

Scott Northard  
Site Vice President  
Prairie Island Nuclear Generating Plant (PINGP)  
Northern States Power Company – Minnesota  
1717 Wakonade Drive East  
Welch, MN 55089

Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect:

Wartsila North America  
16330 Air Center Boulevard  
Houston, Texas  
77032

Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect:

Address on original purchase order:      Address on current Qualified Supplier List:

Wartsila France  
1 Rue De La Fonderie  
Boite Postale 1210  
Mulhouse Cedex, France  
68054

Wartsila  
100 Quai d'Alger  
CS 91210  
Mulhouse Cedex, France  
68054

Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply:

On July 17, 2017, during the performance of SP 2305, D6 Diesel Generator Monthly Slow Start Test (WO 700015483), Operations received and responded to annunciator 47524-0706, D6 Diesel Generator Lockout Alarm. Troubleshooting efforts found that the D6 Emergency Diesel Generator (EDG) trip and lockout event was caused by the D6 Engine 1 high crankcase pressure trip-switch being actuated with no high crankcase pressure trip condition present. This was caused by pressure switch 2PSH-6169 "D6 Engine 1 Crank Case Pressure High" having a loose switch assembly. This resulted in an unwarranted / inadvertent trip of the D6 EDG, failure of SP 2305 and entry into an unplanned Technical Specification condition.

## Attachment

### Initial Notification of Failure to Comply or Existence of a Defect

The mounting bracket fastener system failed due to fretting wear between the housing internal threads and the flat-head machine screws external threads. The loss of thread engagement from material wear resulted in a stripped condition.

The date on which the information of such defect or failure to comply was obtained:

July 17, 2017.

In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part:

Five pressure switches are on the PINGP site:

- 2PSH-5169, D5 EDG, engine #1
- 2PSH-5669, D5 EDG, engine #2
- 2PSH-6169, D6 EDG, engine #1
- 2PSH-6669, D6 EDG, engine #2
- One spare not installed in plant.
  - (Wartsila/SACM Part number DLT360225 (switch – position detector of the crankcase overpressure detector sub-assembly) and Prairie Island Station CAT ID number 255754)

The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action:

PINGP entered the D6 Diesel lockout trip into the Corrective Action Program. An extent of condition was performed on all skid mounted switches for loose mounted assemblies that could result in the actuation of a switch under false conditions. Results of the extent of condition review did not reveal relevant findings of loose mounted assemblies that feed the EDG Lockout Relay. PINGP also, performed a past operability review and determined that there was no firm evidence that indicated that the condition that closed the trip-switch contacts existed prior to the machine trip that occurred on July 17, 2017. Using the site's procedure for Past Operability Evaluations, the D6 EDG was not inoperable during the time period under review.

D5 EDG was run within 24 hours of the D6 EDG lockout to ensure operability of the available EDG. This satisfied "Common Cause" requirements.

## Attachment

### Initial Notification of Failure to Comply or Existence of a Defect

PINGP notified the supplier of the inadvertent trip of D6 EDG and the loose mount assembly of pressure switch 2PSH-6169 on July 17, 2017.

Corrective actions being taken to address the cause include the installation of longer fasteners with the application of Loctite® for added assurance. A torque value will also be specified for this application to maintain consistency and control among the four switch locations. The longer screws, known torque value, and thread locker will ensure preload is maintained to prevent premature switch failure.

Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees:

The pressure switches mounting assembly should be reassembled with longer screws, Loctite® and proper torque value. Also the cable connected to the switch must be fixed on its dedicated holder.

In the case of an early site permit, the entities to whom an early site permit was transferred:

Not applicable.