

February 4, 1987

To: Jim Linville, Chief, Section 2C, DRP

From: NMP Resident Office & Glenn Meyer

STATUS REPORT #9 - NINE MILE POINT 2

1. Plant Status:

The plant continues to test and review test results in anticipation of a 2/6 MSIV SER issuance and a 2/16 initial criticality. The MSIV logic modifications have been made and tested. All MSIVs have successfully passed Type C leak tests.

The inspection coverage was provided by the resident inspectors, Harold Gregg (MSIV work), and Fred Paulitz (MSIV logic modifications).

Concerning the control room atmosphere, the inspectors discussed their perception about the deteriorating conditions with plant management during the last Status Report period and have had an insufficient time to discern any results yet.

2. MSIV Status:

The last Status Report discussed the options available to NMPC to resolve the MSIV leakage problems. Subsequently, NMPC decided to pursue acceptance of the existing ball valves. Analyses of the potential leak rates and the resulting dose calculations were performed and submitted to NRR. NRR has targeted the SER for completion by 2/6.

On the MSIV trip logic design, NMPC redesigned the logic circuit with the automatic auctioneering function removed. The modifications have been installed and tested. The acceptability of this design is expected to be addressed in the upcoming NRR SER.

3. Reportable Events:

On 1/16 a Standby Gas Treatment System (SBGTS) actuation signal occurred while performing a surveillance test on the Reactor Building ventilation radiation monitoring system. A jumper installed per the test procedure fell off its contact point and caused a radiation monitor spike when it hit another contact point. The system responded as designed. A detached jumper had previously caused another SBGTS actuation on 11/25. NMPC is reviewing the mechanical design and installation of the jumpers.

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On 1/26 NMPC made a potential Part 21 Report notification concerning the installation of FGP series Agastat Relays, which are used in the Analog Trip System (ATS) Panels at Unit 1 and in the Power Generation Control Complex (PGCC) cabinets at Unit 2. The problem involves the improper seating of the relays in their sockets resulting in insufficient pin contact. Enough force must be applied to the relay to ensure that the relay is flush against the relay socket. The bail (old style) or strap (new style), which secures the relay to the socket for seismic considerations, does not guarantee the relay will have adequate pin engagement. All Unit 1 and Unit 2 relays have been inspected and are properly seated.

On 1/26 NMPC made a potential Part 21 Report notification involving the inadequate sealing of a manhole cover in cable ductwork. The ducting manhole should have been sealed with a Class 2 material (caulk/elastomer) vice Class 1 material (foam). The ductwork manhole is located in the condenser bay, and should a condenser expansion joint fail and flood this ductwork, the manhole seal may not hold against the water pressure and could fail. This ductwork connects the Control Building and both service water pump bays, and therefore, cross flooding through the ducting could potentially disable both trains of service water (the ultimate heat sink). NMPC is evaluating how to correct this design deficiency.

On 1/26 the inboard Main Steam Isolation Valves (MSIVs) closed while I&C technicians were conducting a Turbine Stop Valve limit switch surveillance. NMPC concluded that the low vacuum turbine trip signal was inadvertently unbypassed and resulted in the MSIV closure signal.

On 1/27 NMPC concluded that compensatory measures for a lost vital area key were not initiated within the 24 hour period required by their security procedures. The error was discovered 2 hours beyond the 24 hour limit, and the compensatory measures of recoring vital area doors were completed within the following 2 hours.

On 1/27 during work in the Division I switchgear room, the CO2 fire suppression system was disabled. However, the Technical Specification required compensatory fire watch was not established. NMPC found that administrative errors had allowed additional work to be authorized without the shift supervisor's approval. These errors resulted in the shift supervisor not reviewing a subsequent tagout, and the need for a compensatory fire watch was not realized. This event represents an LCO violation, but whether an NOV will be issued is under review.

On 2/2 with all rods in, a reactor scram occurred during excess flow check valve testing, apparently due to a pressure transient through the common sensing lines of the jet pump differential pressure transmitter (under test) and two channels of reactor vessel level in the Reactor Protection System. In addition, a third reactor vessel level transmitter was affected, which caused the Division I Emergency Diesel Generator to start. NMPC does not currently understand the transient, and an evaluation is underway.

On 2/2 the MSIVs isolated while I&C technicians were performing excess flow check valve flushing. NMPC suspects that previous flushing may have caused a gross failure of two trip units, resulting in a lo-lo-lo level signal in Division II logic. During later flushing a spurious lo-lo-lo level signal in the Division I logic caused the MSIV isolation.

On 2/2 the A train of SBGTS actuated due to a Reactor Building ventilation low flow condition. An electrician was working in Reactor Building Ventilation Relay Panel 101 and inadvertently bumped a Reactor Building supply fan damper relay, which caused the damper to close and resulted in the low flow condition. SBGTS operated as designed.

4. Planned Activities:

Current NMPC plans project a February 16 initial criticality. During the time up until criticality, NMPC plans to review and approve the test results from the open vessel testing and hot functional testing (to be completed by 2/7).

The NMPC schedule for the next 2 months is as follows:

- 2/7 - Complete Hot Functional Testing
- 2/16 - Complete 2 week SORC review & approval period
- 2/16 - Initial Criticality
- 2/21 - Heatup to normal operating pressure
- 3/14 - Complete 2 week SORC review & approval period
- 3/14 - Startup & increase to 5% power
- 3/25 - Increase power to 15% power

5. Cumulative Summary of Significant Events

- 10/31 - License issued
- 11/4 - All SRM rod block channels jumpered out (LCO violation)
- 11/5 - IRM reactor trip followed by SDV level reactor trip (ENS)
- 11/6 - Vital area breached without compensatory measures (ENS)
- 11/7 - Fuel loading with bypassed SRM (LCO violation)
- 11/8 - Inoperable RB exhaust rad monitor (ENS)
- 11/9 - Two APRM reactor trips due to faulty circuit card (ENS)
- 11/10 - Inoperable RB exhaust rad monitor (ENS)
- 11/15 - Fuel loading completed
- 11/17 - Imbedded conduits without fire seals (LCO violation)
- 11/20 - Half scram/ ESF actuation due to loss of UPS (ENS)
- 11/23 - Group 2 scram due to loss of power and APRM testing (ENS)
- 11/24 - Fire patrol errors found from 11/12 (LCO violation)
- 11/24 - CRD functional, friction, and scram testing completed
- 11/25 - SBGTS actuation due to detached jumper (ENS)
- 11/27 - SBGTS actuation due to rad monitor spike (ENS)
- 11/28 - 2 SBGTS actuations due to clogged inlet filters (ENS)
- 12/3 - Scram due to loss of UPS power on MSIV logic flaw (ENS)
- 12/3 - Group 2 scram due to improper electrical isolation (ENS)
- 12/8 - SBGTS actuation due to rad monitor spike (ENS)
- 12/10 - SBGTS design deficiency on heater flow switch (ENS)
- 12/10 - HPCS starts (3) due to bumping; locked out HPCS (ENS)
- 12/16 - Group 8 PCIS isolation due to wiring check error (ENS)
- 12/18 - 4,500 gal. injection of RHR and LPCS (ENS)
- 12/22 - 3 EDGs disabled due to fuel oil draining (ENS)
- 12/23 - Unplanned 12/15 reactor scram reported (50.72 violation)
- 12/23 - Lack of fire patrol discovered (LCO violation)
- 12/31 - SBGTS actuation due to RB dp signal (ENS)
- 1/1 - Inop Div I & II batteries due to corrosion (ENS)
- 1/9 - 2 SBGTS actuations during flow balance tests (ENS)

- 1/16 - SBGTS actuation due to detached jumper (ENS)

- 1/26 - Part 21 Report for cable duct seal (ENS)
 - Part 21 Report for Agastat relays (ENS)
 - MSIV actuation during surveillance testing (ENS)

- 1/27 - Lack of fire watch - CO2 suppression (LCO violation)
 - Failure to compensate for lost vital area key (ENS)

- 2/2 - Reactor scram & EDG start during check valve testing (ENS)
 - MSIV actuation during check valve testing (ENS)
 - SBGTS actuation due to bumped damper relay (ENS)

cc: Murley
Kane
Collins
Ebnetter
Martin
Gallo
Bettenhausen

Starostecki, IE
Bernero, NRR
Partlow, IE
Haughey, NRR
Cook
Meyer