James A. FitzPatrick
Nuclear Power Plant
P.O. Box 41
Lycoming, New York 13093

315-342-3840

New York Power Authority

Michael J. Colomb
Plant Manager

March 28, 1996
JAFP-96-0135

United States Nuclear Regulatory Commission
Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

SUBJECT: DOCKET NO. 50-333
LICENSEE EVENT REPORT: LER-96-004

Multiple Safety Relief Valve Pilot Solenoid Failures Due to Foreign Materials, Vendor Deficiencies and Procedural Errors

Dear Sir:

This report was submitted in accordance with 10CFR50.73(a) (2) (v) and in accordance with 10CFR21.

Questions concerning this report may be addressed to Mr. Frederic Lake at (315) 349-6518.

Very truly yours,

MICHAEL J. COLOMB

MJC:FDL:las

cc: USNRC, Region I
USNRC Resident Inspector
INPO Records Center

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1/1

NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
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TITLE (4)
Multiple Safety Relief Valve Pilot Solenoid Failures Due to Foreign Materials, Vendor Deficiencies and Procedural Errors

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
									NA	05000
02	28	96	96	004	00	03	28	96	NA	05000

OPERATING MODE (9)	N
POWER LEVEL (10)	000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

	20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
	20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)
	20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71
	20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)	X	OTHER
	20.2203(a)(2)(iii)		50.36(c)(1)	X	50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A
	20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)		10CFR21

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Mr. Frederic D. Lake, Licensing Engineer	(315) 349-6518

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
B	SB	RV	T020	Y		E	SB	RV	T020	Y
D	SB	RV	T020	N						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On 2/28/96 at 0930 hours, with the plant shutdown in the cold condition and Mode Switch in REFUEL, it was determined that a condition existed with Main Steam Safety Relief Valves (SRVs)[SB] that alone could have prevented the fullfilment of the Automatic Depressurization System safety function. This determination was based on discovery of foreign material in either the pneumatic supply lines or pilot solenoid valves for five SRVs, and improper operation of three SRV pilot solenoid valves. Further investigation revealed that two of the three pilot solenoid valves had failed to open due to a loose plunger on the stem assembly apparently caused by inadequate jam nut torquing and absence of required Loctite. The loose plunger condition is being reported under 10 CFR Part 21. The third pilot solenoid valve failed to fully reseat due to foreign material intrusion. An additional pilot solenoid valve failed to reseat during subsequent testing. Nitrogen supply system cleanliness was established and all pilot solenoid valves were rebuilt or replaced with new assemblies.

On 3/5/96 at 1104 hours, with the plant at 19 percent power, SRV G failed to open while attempting to cycle from the control room. The failure cause was pilot solenoid valve sticking due to excess Loctite internal to the valve. The pilot solenoid valve was replaced with another rebuilt assembly and subsequent testing was satisfactory.

EIIS Codes are in []

EVENT DESCRIPTION

On February 28, 1996 at 0930 hours, with the plant shutdown in the cold condition and Mode Switch in REFUEL, it was determined that a condition existed with the Main Steam Safety Relief Valves (SRVs)[SB] that alone could have prevented the fullfilment of the Automatic Depressurization System (ADS) safety function. This was based on discovery of foreign materials in the pneumatic supply lines and pilot solenoid valves for five SRVs, and failure of three pilot solenoid valves to cycle properly. A four hour notification was made under 10 CFR 50.72(b)(2)(iii)(D) at 1130 hours on February 28, 1996.

The plant is equipped with eleven two-stage Target Rock SRVs designed to relieve pressure from the reactor vessel. All SRVs are automatically actuated by excess steam pressure (safety relief mode), or can be manually actuated from the control room or remote shutdown panel (02ADS-71). Seven of the SRVs are also automatically actuated in response to initiation signals from the ADS system. The ADS safety function is to reduce plant pressure during a small line break loss of coolant accident (LOCA), concurrent with High Pressure Coolant Injection (HPCI)[BJ] system failure. This action allows injection of water to the vessel from the Low Pressure Coolant Injection (LPCI) mode of the Residual Heat Removal (RHR)[BO] systems and the Core Spray [BM] systems. Each SRV has two pilot solenoid valves, one controlled from the control room and ADS logic (seven of eleven valves) and one controlled from the remote shutdown panel.

At approximately 1800 hrs on February 26, 1996 personnel in the Primary Containment [NH] Drywell discovered a nitrogen leak at the exhaust port of SRV 02RV-71G. Upon subsequent cycling, foreign material was discovered in the pilot solenoid valve exhaust port. Actions were initiated to repair the leak, and determine the source and extent of the foreign material problem.

An assessment of the drywell nitrogen supply system was performed to determine the source and extent of the foreign material problem. The SRV pilot solenoid valves were disconnected from their respective pilot valves and pneumatic supply lines. The pneumatic supply lines were blown down to determine the extent of the foreign material intrusion and remove foreign materials from the lines to limit further intrusion into the pilot solenoid valves. The pilot solenoid valves were then reconnected to their supply lines and operated from the control room [NA] and remote shutdown control panel (02ADS-71), while examining the exhaust ports for evidence of foreign material.

During these activities, the following additional solenoid valve failures were identified:

1. The H SRV pilot solenoid valve initially failed to fully reseat while attempting to cycle from the 02ADS-71 panel (Solenoid H2). The valve subsequently reseated and was successfully cycled three additional times from the 02ADS 71 panel.

2. The E SRV pilot sole[illegible] valve failed to cycle from the 02ADS-71 panel (Solenoid E2).

3. The L SRV pilot solenoid valve failed to cycle from the control room (Solenoid L1).

Blowdown of the pilot solenoid valve nitrogen supply lines was continued until foreign material was observed to be within the required acceptance criteria determined by plant engineering staff. The nitrogen supply line to the drywell, and the branch line to the "A" Main Steam Isolation Valve (MSIV)[SB] were also blown down and inspected for the presence of foreign material. The results indicated that the foreign material was limited to the SRV pilot solenoid valve branch lines.

During subsequent testing on February 29, 1996, the J SRV pilot solenoid valve failed to fully reseat and isolate the exhaust port during one demand from the control room. The valve had been cycled twice and failed to fully reseat on the third closing cycle. The valve seated when the nitrogen supply to the pilot solenoid valve was isolated.

The results of the inspection and blowdown activities are shown in the following table:

ADS Safety Relief Valves:

SRV	Nitrogen Supply Line	Pilot Solenoid Valves
A	Clean	Clean
B	Clean	Clean
C	Particles and Moisture	Particles
D	Clean	Clean
E	Clean	Clean
G	Particles	Particles
H	Particles	Particles

Non-ADS Safety Relief Valves:

SRV	Nitrogen Supply Line	Pilot Solenoid Valves
F	Clean	Clean
J	Particles	Particles
K	Clean	Clean
L	Particles	Particles

Seven new pilot solenoid valve assemblies were installed in locations A, B, F, H, J, K and L and four old pilot solenoid valve assemblies were rebuilt, bench tested, then installed at locations C, D, E and G. In these locations, new solenoid valves could not be installed due to physical interference.

At 1104 hours on March 5, 1996, while performing ST-22B for Technical Specification Surveillance Requirement 4.6.E.4, with the plant at 19 percent power and Mode Switch in RUN, the G SRV failed to open from the control room. Further testing was halted until an engineering review of potential failure modes was conducted to ensure that the potential for a stuck open SRV did not exist. The remaining SRVs were then cycled satisfactorily. At 2120, the plant commenced drywell deinerting and a downpower for replacement of the G SRV pilot solenoid valves. Replacement was completed at 1230 hours on March 6, 1996 and power ascension was continued. The G SRV was subsequently tested on March 7,1996 at 0827 hours by performing ST-22B with satisfactory results.

It has been determined that the failures of E2 and L1 pilot solenoid valves are reportable under 10 CFR Part 21. This is based on the conclusion that the deviation could result in a substantial safety hazard because multiple valves relied upon to mitigate the consequences of an accident were affected, and the condition was undetectable until valve failure or disassembly.

EVENT CAUSE

The nitrogen leak at the G SRV pilot solenoid valve vent port was attributed to seat leakage due to presence of foreign materials on valve seating surfaces. The failure of the H2 and J1 pilot solenoid valves to fully reseat was attributed to foreign materials internal to the valve which interfered with full disc travel in the closing direction (CAUSE CODE E). The failure of the E2 and L1 pilot solenoid valves to cycle is attributed to a loss of valve stem travel due to a loose plunger in the stem assembly (CAUSE CODE B). The failure of G SRV to cycle during startup surveillance testing was attributed to an excess of Loctite threadlock compound in the pilot solenoid valves due to maintenance activities (CAUSE CODE D) during rebuild of the valve.

Foreign Material

The primary cause of the initial pilot solenoid valve leakage of G SRV, and the subsequent failures of H2 and J1 pilot solenoid valves to reseat when de-energized, was determined to be the presence of debris inside the pilot solenoid valve assembly.

Analysis of the foreign materials indicates that they were most likely produced as a result of a cutting operation such as grinding, sawing or drilling. This conclusion was based on the rough jagged appearance, coupled with patina caused by heating. The material composition was 300 series austenitic stainless steel, with embedded Silicon and Aluminum Oxides.

The source of foreign material intrusion is suspected to be installation of new fittings on the SRV pilot solenoid valve connections, and replacement of tubing on the F, H, J, K, and L pilot solenoid valves, during the last refueling outage. This activity involved cutting of the nitrogen supply tubing (300 series stainless steel) with either a hacksaw or an aluminum oxide grinding wheel. Deburring tools were used on the tube ends during assembly of the new fittings. This activity was performed in an area upstream of, or directly at, the affected locations. A flush was not performed following this activity.

Loss of Valve Stem Travel Due to Loose Plunger on the Stem Assembly

The primary failure cause for pilot solenoid valves E2 and L1 was loss of valve stem travel due to a loose plunger on the stem assembly. For the E2 pilot solenoid valve, the plunger backed off from the jam nut by approximately one turn. The plunger for the L1 solenoid was backed-off approximately two turns. This condition resulted in the stroke distance of the valve being significantly reduced.

The loose plungers were caused by an apparent inadequate torquing of the plunger jam nuts to the valve stem and an apparent absence of Loctite threadlock compound as required by vendor assembly instructions. These valves were last rebuilt at the Wyle test facility under vendor supervision. The vendor documentation shows these nuts torqued to 50 inch-pounds and secured with Loctite threadlock compound. The E2 and L1 solenoid valves were found with the plunger backed off, and the H2 solenoid was discovered with the plunger finger tight. The condition of the H2 solenoid was not severe enough to impair pilot solenoid valve operation. Contrary to the vendor assembly instructions, no evidence of Loctite was found in solenoids E2, H1, H2, L1, and L2.

These pilot solenoid valve assemblies are normally rebuilt or assembled by the vendor under an approved 10 CFR 50 Appendix B Quality Assurance Program, and installed as a unit onto the SRV pilot valve. These valves were rebuilt at the Wyle test facility under vendor supervision, and installed in the plant in 1992. The coil for the E2 pilot solenoid valve was replaced in 1995, however, the pilot solenoid valve internals were not disassembled. No work had been performed on the other solenoids since installation. The SRVs were verified operable a minimum of four times since 1992 by cycling from the control room and remote shutdown panel for surveillance testing.

The pilot solenoid valves for seven of the SRVs were replaced with a newly designed assembly. The remaining four pilot solenoid valve assemblies were rebuilt and sufficient actions taken to prevent recurrence of this failure mechanism.

Presence of Loctite Threadlock Preventing Plunger Movement

The cause of the failure of G1 pilot solenoid valve subsequent to startup was the presence of Loctite threadlock compound between the plunger and bonnet tube. This condition resulted in the solenoid being unable to overcome the normal closing spring force and the adhesive force holding the plunger to the bonnet tube.

Disassembly of SRV solenoid G1 revealed traces of Loctite threadlock compound inside the bonnet tube and on the plunger. The compound covered an area of approximately 3/8 inch square on the plunger-to-bonnet tube mating surface. The cause of this condition was determined to be excess Loctite threadlock compound applied to the stem threads and locknuts during rebuild of the pilot solenoid valve.

An operability assessment determined that the failure of the G1 pilot solenoid valve was an isolated event that did not affect operability of the C, D, and E SRVs. This conclusion was based on work package review, interviews with maintenance personnel, evaluation of Loctite cure time, length of time the valves were installed prior to performing ST-22B, and observed proper operation of these valves during surveillance testing. A human performance root cause analysis is being performed to determine the cause of excess Loctite threadlock compound in the G1 pilot solenoid valve.

EVENT ANALYSIS

The presence of foreign material in five of eleven safety relief pilot solenoid valves, and the failure of G1 SRV to operate due to excess Loctite threadlock compound in the pilot solenoid valve assembly, would not have adversely affected the accident mitigation function of the ADS system. Therefore, these conditions do not require a report under 10 CFR 50.73. The information is discussed here to provide a complete description of the circumstances surrounding these events.

The loss of valve stem travel due to a loose plunger condition on E2 and L1 pilot solenoid valves requires a report under 10 CFR 50.73(a)(2)(v). That is, an event or condition that alone could have prevented the fulfillment of the safety function of systems needed to mitigate the consequences of an accident. These conditions could have compromised the ability of the ADS system to perform its accident mitigation function.

The loose plunger condition, and the apparent absence of Loctite threadlock compound on pilot solenoid valves as required by Vendor documentation, requires a special report under 10 CFR Part 21. That is, the condition is a deviation in a basic component delivered to the Authority for use at the FitzPatrick plant, that could create a substantial safety hazard. The deviation was common to several valves relied upon to mitigate the consequences of an accident. This condition was undetectable until valve failure or disassembly, therefore, the failure could have affected multiple valves and potentially resulted in loss of the ADS safety function.

Presence of Foreign Material in Nitrogen Supply Lines and SRV Pilot Solenoid Valves

The presence of foreign materials in the pilot solenoid valves would not adversely affect the safety relief mode of the valves, nor cause the failure of any of the SRVs to open in response to an operator or ADS system demand. The debris resulted in the pilot solenoid valves for two SRVs (H and J) failing to close or reseat, and one pilot solenoid valve (G) to leak nitrogen through the valve to the exhaust port.

The presence of foreign materials may cause nitrogen leakage past the pilot solenoid valve seats, as demonstrated in this event. This leak would not result in the inadvertent opening of a closed SRV, and is unlikely to result in a stuck open SRV following an operator or ADS demand. Any leakage past the pilot solenoid valve seats would be within the makeup capacity of the safety-related drywell nitrogen supply system, therefore, the leakage would not affect other safety related equipment supplied by the drywell nitrogen supply system.

In the unlikely event that the debris caused an SRV to be stuck open during an operator demand, the condition would be recognized by the operator, and action taken to correct the condition. If several or all SRVs stick open during an ADS demand, the effect on safety is minimal because the ADS safety function will have been accomplished, and by design all ADS SRVs remain open until reactor vessel depressurization. Therefore, the presence of the foreign material had a minimal impact on plant safety.

Loss of Valve Stem Travel Due to Loose Plunger on the Stem Assembly

The loose plunger condition affects the ability to open the SRV in response to an operator demand or ADS actuation. This failure mechanism would not prevent the SRV from closing, or adversely affect the safety relief mode of the SRVs.

This condition affects the ADS function and the ability for manual operation (opening) from the control room or remote shutdown panel. Although the failure mechanism was only found on three SRV pilot solenoid valves (one ADS and two non-ADS), the potential existed for this failure mechanism to exist on all SRV pilot solenoid valves, and not be detected until a valve demand failure or maintenance activities.

The ADS is designed to reduce reactor coolant system pressure during a small line break LOCA, in the event of a HPCI system malfunction. Failure of more than two ADS SRVs to open would result in loss of the ADS function. This condition was discovered while reactor pressure was less than 100 psig, with the Mode Switch in REFUEL, therefore, the ADS system was not required to be operable. For reactor conditions where ADS is required to be operable, the HPCI system is designed to provide adequate reactor core cooling until reactor pressure is within the range of the low pressure emergency core cooling systems.

The loose plunger condition resulted in loss of the operator demand function from the remote shutdown panel for E SRV, and the control room for L SRV (non-ADS). The condition also existed on the H SRV remote shutdown solenoid, but was not severe enough to prevent operation. These failures did not affect the ADS function, and therefore, the impact on plant safety was minimal.

Presence of Loctite Threadlock Preventing Plunger Movement

The presence of excess Loctite threadlock compound in the pilot solenoid valve internals would not adversely affect the safety relief mode of the SRVs. This condition prevented opening of one SRV from the control room during the performance of startup surveillance testing. All other SRVs demonstrated satisfactory operation. Based on the engineering evaluation and surveillance testing results, this condition did not adversely affect the remaining three SRVs. Therefore, failure of one ADS SRV to operate was bounded by the plant safety analyses.

CORRECTIVE ACTIONS

1. An equipment failure evaluation was performed on the failed components to determine the failure cause and identify immediate and long-term corrective actions to prevent recurrence. (COMPLETE)

2. A system wide assessment of the nitrogen supply system was performed to determine the extent and source of the foreign material, and to prevent further intrusion of materials into the pilot solenoid valves. All SRV pilot solenoid nitrogen supply lines were blown down and examined for presence of foreign material. The supply lines to the drywell and branch lines to the MSIVs were blown down and examined for the presence of foreign materials. (COMPLETE)

3. An analysis was performed on the foreign materials recovered during the assessment of the nitrogen supply system. The data obtained was used as an input in determining the source of material intrusion. Analysis included microscopic examination to determine physical characteristics, and laboratory analysis to determine material composition. (COMPLETE)

4. Drywell nitrogen supply system cleanliness was reestablished by performing blowdowns of affected piping until foreign materials were within the required acceptance criteria determined by the Engineering Department Staff. (COMPLETE)

5. A programmatic assessment was performed on the foreign material exclusion (FME) program. This assessment included:

   a) Administrative review of program and procedures to ensure all commitments are met, and identify potential improvements to the program.

   b) Review of selected work packages from the most recent outage to determine proper FME controls.

   c) Review of FME practices during the most recent refuel outage SRV work.

   This assessment concluded that there were no programatic weaknesses that required corrective actions prior to plant startup. (COMPLETE)

6. The FME process will be revised based on the results of the program assessment. (Due 5/30/96)

7. The solenoid assemblies for the A, B, F, H, J, K, and L SRVs were replaced with newly designed assemblies purchased from the vendor (Target Rock). The solenoid assemblies for the C, D, E, and G SRVs were rebuilt. New assemblies could not be installed at these locations due to physical interference. (COMPLETE)

8. Maintenance personnel were briefed on proper FME controls and flushing/blowdown of tubing following maintenance evolutions that could produce foreign materials. (COMPLETE)

9. An equipment failure and preliminary root cause evaluation has been performed to determine the cause of the failure of the G SRV to cycle. (COMPLETE)

10. An operability assessment was performed for the C, D, and E SRVs following the failure of G SRV to cycle during ST-22B. Based on work package review, interviews with maintenance personnel, evaluation of Loctite cure time, length of time the valves were installed prior to performing ST-22B, and observed proper operation of these valves during surveillance testing, it was determined that this failure was an isolated event that did not affect operability of the C, D, and E SRVs. (COMPLETE)

11. A human performance root cause analysis for the failure of the G1 pilot solenoid valve will be completed. (Due 4/10/96)

ADDITIONAL INFORMATION

A. Failed Component Identification:

Manufacturer:	Target Rock Corporation
Model Number:	1/2SMS-A-01
NPRDS Manufacturers Code:	T020
NPRDS Component Code:	Valve

B. System and Component Identification:

SYSTEM-COMPONENT	IEEE-803A	EIIS
Main Steam System	N/A	SB
Automatic Depressurization System	N/A	N/A
Safety Relief Valve	RV	N/A
High Pressure Coolant Injection System	N/A	BJ
Primary Containment	N/A	NH
Low Pressure Coolant Injection	N/A	BO
Core Spray System	N/A	BM

C. Previous Similar Events:

LER-81-001 Failure of SRV 02RV-71G to open in response to operator demand.

NYPA DEVIATION/EVENT REPORT FORM

DER NO. 96-0385

Part 1 - Initiation

A. Discovery: 1. Date: 03/29/96 Time: 05:07 2. Event date/time (if different): 03/29/96 - 05:07

B. DER Type: 1 Operating Occurrence RPO Dept:

C. Equipment: 1. Component ID: OP-24D MEL? N 2.System: N/A 3.NPRDS Code: 4.QA Cat: N/A
5. Equipment Name: CONTROL ROOM DRAWING OP-24D

D. DER Description: (brief summary required regardless of attachments. Attachments may be faxed to ORG x6363.)
DURING THE PERFORMANCE OF ST-99G DISCOVERED THAT CONTROL ROOM DRAWINGS OF OP-24D WERE NOT UPDATED FOR TEMP MODS 95-173 AND 96-044 (FM-29B HAS TWO CORRESPONDING OP DRAWINGS, OP-1 AND OP-24D). REFERENCE DER 96-0345.

E. Requirement not met: CONTROL ROOM DRAWINGS UPDATED PER TEMP MODS.

F. Means of Discovery:
Procedure No: AP-05.02 Inspection No: Mod No/Other:

G. Immediate Corrective Actions Taken:
UPDATED CONTROL ROOM DRAWINGS OP-24D

H. Possible Cause(s): ONLY A FEW FM DRAWINGS HAVE CORRESPONDING OP DRAWINGS.

I. Initiator: W.M. MOORE Entered by: JMOOREW

J. Potentially Reportable / Inop: Y (If Y to SS ASAP)

Part 2 - Classification (SS) (required for all Operation Occurrences) REQ'D

A. Plant/System Status: 1. Percent Power: MWe: 2. Mode switch position:
3. Safety Classification: Safety Related: 4. Redundant System Available:

B. Operability: 1. System/component: Operable: Inoperable: LCO entry: Action req'd:
3. Tech Spec Sect: NA: 4. ST(s): ST completed (time):
5. Operability Review performed by: Date: Reference:

C. Reportability (under 10 CFR or other):
1. 1 hr reports: Part 50.72: Part 73.71: date/time: _____ - _____
2. 4 hr reports: Part 50.72: date/time: _____ - _____
3. 24 hr reports: Part 20: Part 26.73: date/time: _____ - _____
4. Any other reportability requirements: list: date/time: _____ - _____

D. Notifications:
1. ENS: Call Made by: ENS Worksheet Completed:
2. NRC person notified: date/time: _____ - _____ NRC Log No.:
3. NYPA: NA Manager: date/time: _____ - _____
4. NRC: NA Res Insp: date/time: _____ - _____

E. SS: SS log notation made: SS:

Part 3 - Initial Review (Ops Mgmt) (required for all Operating Occurrences) REQ'D

Concurrence with Part 2: If No, new classification: _____
Reason for new classification: _____
Ops Mgr Init: