NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | P A T M I 1 (2) | 0 0 - 0 0 0 0 0 - 0 0 (3) | 4 1 1 1 1 (4) | | (5)

LICENSEE CODE | LICENSE NUMBER | LICENSE TYPE | CAT

CON'T 0 1 REPORT SOURCE L (6) | 0 5 0 0 0 2 8 9 (7) | 0 3 1 8 8 2 (8) | 0 3 3 1 8 2 (9)

DOCKET NUMBER | EVENT DATE | REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 In the long term shutdown, while regenerating "B" string cation anion deep bed
0 3 demineralizers the rinse cycles had filled the secondary neutralizing tank. A delay
0 4 in restoring demineralizer to service caused conductivity sensors to initiate another
0 5 rinse cycle overflowing 2500 gallons of pH 3 to 5 from the neutralizing tank to the
0 6 station release point. Due to dilution with other station effluent, this is not
0 7 a public health or safety hazard. Reportable per Tech Spec Appendix B 5.6.2.
0 8

SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
H G (11)	A (12)	B (13)	D E M I N X (14)	X (15)	Z (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 2	—	0 0 3	/	0 1	T	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
H (18)	C (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	A (25)	I 0 2 0 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Operator failed to to recognize the effect of placing demineralizer system in
1 1 operation with high secondary neutralizing tank level. Revising procedures will
1 2 help ensure this event does not recur. The operators have been instructed to be
1 3 more attentive.
1 4

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	X (28)	0 0 0 (29)	NRC Order	C (31)	GPU Personnel Discovery

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
1 6	Z (33)	Z (34)	N/A	N/A

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	0 0 0 (37)	Z (38)	N/A

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	0 0 0 (40)	N/A

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	N/A

PUBLICITY

	ISSUED	DESCRIPTION (45)	NRC USE ONLY
2 0	N (44)	N/A	

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NAME OF PREPARER ______ PHONE: (717) 948-8552

I. Current Activities

TMI-I was in a cold shutdown condition on the 'A' Decay Heat Removal System prior to the Secondary Neutralizing Tank overflow. The demineralized water processing deep bed demineralizers (Cation/Anion 'B' string) were being regenerated in accordance with routine operating procedures.

II. Leading Circumstances

On 3/18/82, at or about 0730, the 'B' string Cation and Anion deep bed demineralizers were completing their final steps of regeneration. The fast rinse cycle which rinses water thru the demineralizers to the neutralizing tank, had just automatically terminated and a recycle rinse, which does not add water to the neutralizing tank, automatically initiated. The Secondary Neutralizing Tank (SNT) High Level Alarm (25ft) was actuated and as required by the Hi Level response to alarm, the SNT was being neutralized (Caustic addition) in preparation for a normal SNT release. SNT level at this time was 27.5 ft. SNT overflow occurs at 28 ft.

III. Description

Following automatic termination of the recycle rinse, the auxiliary operator performing the regeneration evolution, noticed a wrong position indication for one of the recycle rinse valves. Upon investigation, the valve position was verified correct and the position limit switch was readjusted to properly reflect the valve position. During this time period (≈ 1 minute), with the Cation/Anion demineralizers out of service, the conductivity monitoring sensors at the outlet of the Cation and Anion demineralizers detected high conductivity. As a result, when the operator placed the demineralizer system into service in accordance with the operating procedure, the system automatically went into another rinse cycle to reduce the conductivity. This rinse water went to the SNT and caused the SNT to overflow approximately 2500 gallons of 3 to 5 PH water directly into the plant effluent stream.

This event is considered reportable per T.S. Appendix B, Section 5.6.2 in that T.S. Appendix B LCO 2.2.3 was violated at the "waste neutralizing tank".

IV. Resultant Events

No adverse environmental impact occurred as a result of this event. This conclusion is based primarily upon the analytical results of laboratory tests performed using conservatively proportional quantities of low PH and dilution water. As a result of these test, the PH at the plant discharge point was predicted to have been slightly depressed to a value of 7.05, versus 6-9 permitted. In addition, visual inspections of the discharge point and sample results from the plant discharge composite sampler indicated no significant pH excursion in the station effluent.

V. Previous Event of a Similar Nature

None

VI. Root Cause

The root cause for this occurrence has been determined to be operator error in that the operator failed to perceive the consequences of placing the demineralizer system in operation following a normal regeneration evolution and an abnormally high SNT Level. Although procedure changes, resulting from this event, will help ensure that this event does not recur, the fundamental error associated with this incident was the operator's lack of attentiveness.

VII. Immediate Corrective Action

The SNT overflow terminated automatically within 3 to 4 minutes when the demineralizer system automatically came out of the rinse cycle.

VIII. Long Term Corrective Action

A plant incident report (Report No 1-82-2) was generated for review by all operating crews to inform them of the details of the incident.

Procedure changes were initiated to OP 1104-23 Cycle Make Up Demineralizers Procedure, 1104-18 Make Up Demineralizer Neutralizing Tank Discharge Procedure, and the Response to Alarm Procedure "IWT Panel 2-7 (Hi Level Neutralizing Tank) which will limit SNT additions above the alarm set point of 25 ft. to only those authorized by the Shift Supervisor, and prohibit any SNT additions if the tank level reaches 27 ft.