NRC FORM 366 (7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

Line	Field	Value
01	LICENSEE CODE (2)	N Y J A F 1
01	LICENSE NUMBER (3)	0 0 - 0 0 0 0 - 0 0 0
01	LICENSE TYPE (4)	4 1 1 1 1
01	CAT (5)	
CON'T 01	REPORT SOURCE (6)	L
01	DOCKET NUMBER (7)	0 5 0 0 0 3 3 3
01	EVENT DATE (8)	0 9 1 4 7 8
01	REPORT DATE (9)	1 0 0 3 7 8

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 Please See Attachment

Field	Value
SYSTEM CODE (11)	Z Z
CAUSE CODE (12)	D
CAUSE SUBCODE (13)	Z
COMPONENT CODE (14)	Z Z Z Z Z Z
COMP. SUBCODE (15)	Z
VALVE SUBCODE (16)	Z
LER/RO REPORT NUMBER (17) — EVENT YEAR	7 8
SEQUENTIAL REPORT NO.	0 7 9
OCCURRENCE CODE	0 4
REPORT TYPE	L
REVISION NO.	0
ACTION TAKEN (18)	X
FUTURE ACTION (19)	G
EFFECT ON PLANT (20)	Z
SHUTDOWN METHOD (21)	Z
HOURS (22)	0 0 0 0
ATTACHMENT SUBMITTED (23)	Y
NPRD-4 FORM SUB. (24)	N
PRIME COMP. SUPPLIER (25)	Z
COMPONENT MANUFACTURER (26)	Z 9 9 9

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 Please See Attachment

Field	Value
FACILITY STATUS (28)	E
% POWER (29)	0 6 3
OTHER STATUS (30)	NA
METHOD OF DISCOVERY (31)	B
DISCOVERY DESCRIPTION (32)	Surveillance Sample Analysis
ACTIVITY RELEASED (33)	Z
CONTENT OF RELEASE (34)	Z
AMOUNT OF ACTIVITY (35)	NA
LOCATION OF RELEASE (36)	NA
PERSONNEL EXPOSURES NUMBER (37)	0 0 0
TYPE (38)	Z
DESCRIPTION (39)	NA
PERSONNEL INJURIES NUMBER (40)	0 0 0
DESCRIPTION (41)	NA
LOSS OF OR DAMAGE TO FACILITY TYPE (42)	Z
DESCRIPTION (43)	NA
PUBLICITY ISSUED (44)	N
DESCRIPTION (45)	NA
NRC USE ONLY	

LPDR

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An apparent excessive solute release from the Makeup Water Treatment Waste Neutralizer Tanks to the Circulating Water Discharge Tunnel was detected while performing the August 1978 24-hour composite sample analysis. The analysis data was in excess of Technical Specification Appendix B, Paragraph 2.2.3 limits in that the analysis indicated the concentration of sodium and manganese was greater than 5% above Lake Ontario ambient (intake) concentration for the same 24-hour period.

This is a recurring event (See LER-77-034, 77-062, 78-011, 78-024, 78-025, 78-028, 78-053 and 78-067/04L-1) in which the composite sampling of the circulating water system discharge tunnel and the method of determining solute concentration and total dissolved solids is unsound. Remedial action to preclude additional recurrence has been initiated as a Technical Specification Amendment request.

Calculations based on

1) Actual neutralizer tank contents prior to discharge.
2) Lake Ontario (intake) ambient concentrations.
3) Circulating Water System (dilution) flow rates.
4) Tank discharge flow rates

show conclusively that the Technical Specification limit of 5% above ambient could not have been exceeded. These calculations are tabulated on the next page.

PARAMETER ANALYZED	INTAKE Concentration (By Analysis)	DISCHARGE Concentration (By Analysis)	NEUTRALIZER Tank Concentration (By Analysis)	% INCREASE IN DISCHARGE TUNNEL (By Calc.)	APPARENT % CHANGE (+) (By Analysis)
Turbidity	4.5	5.5	5.1	0.0045	+ 22
Iron (ppb)	31	27	36.0	0.005	- 12.9
Calcium (ppm)	33.2	33.2	76.9	0.009	0.0
Magnesium (ppm)	8.8	8.9	28.4	0.013	+ 0.68
Sodium (ppm)	15.4	16.2	2800.0	0.72	+ 5.21
Potassium (ppm)	1.32	1.32	16.96	0.051	0.0
Manganese (ppb)	4.6	10.2	5.7	0.0045	+121.7
Chloride (ppm)	42.9	44.5	315.4	0.029	+ 3.73
Sulfate (ppm)	30.0	31.0	6000	0.79	+ 3.33
Phosphate (ppm)	<0.5	<0.5	< 0.5	0.0	0.0
Filterable Solids (ppm)	3.0	4.0	27.0	0.036	+ 33.0
Total Dissolved Solids (ppm)	252.1	238.1	8430.6	0.132	- 5.55

NOTE: Dilution water: 396,000 Gallons/minute x 24 hours x 60 minutes/hour = 5.70 (E+8) gallons

Dilution Factor: Tank content 2.25 (E+4) gallons/dilution water 5.70 (E+8) gallons = 3.95 (E-5).