

LICENSEE EVENT REPORT

CONTROL BLOCK

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0	1	N	Y	J	A	F	1	2	0	0	-	0	0	0	0	-	0	0	0	3	4	1	1	1	1	4			5	
7	8	LICENSEE CODE						14	15	LICENSE NUMBER										25	LICENSE TYPE					30	57 CAT 58			

CON'T

7 8 60 61 68 69 74 75 80

REPORT SOURCE L 6 0 5 0 0 0 3 3 3 7 1 0 2 4 7 8 8 1 1 1 7 7 8 9

DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0	2	Please See Attachment
0	3	
0	4	
0	5	
0	6	
0	7	
0	8	
0	9	

[illegible]

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0		Please See Attachment
1	1	
1	2	
1	3	
1	4	

7 8 9 80

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

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NAME OF PREPARER

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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 September 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, magnesium, potassium, and manganese was greater than 5% above Lake Ontario ambient (intake) concentration and total dissolved solid was greater than 1% above Lake Ontario ambient (intake) concentration.

This is a recurring event (See LER 77-034, 77-062, 78-011, 78-024, 78-025, 78-028, 78-053, 78-067/04L-1 and 78-079/04L-0) 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 limits of 5% and 1% 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	2.5	2.7	3.0	0.004	+ 8.0
Iron	14.0	13.0	124.0	0.034	- 7.1
Calcium (ppm)	32.5	32.5	135.0	0.016	0.0
Sodium (ppm)	11.0	11.6	2150.9	0.810	+ 20.0
Magnesium (ppm)	6.5	7.4	27.0	0.016	+ 13.9
Potassium (ppm)	1.2	1.43	180.0	0.579	+ 19.9
Manganese (ppb)	1.0	2.8	17.0	0.066	+180.0
Chloride (ppm)	43.0	44.5	312.0	0.028	+ 3.5
Sulfate (ppm)	32.0	26.0	3450.0	0.416	- 18.75
Phosphate (ppm) < 0.5	< 0.5	< 0.5	< 0.5	0.0	0.0
Filterable Solids (ppm)	2.0	3.0	8.9	0.017	+ 50.0
Total Dissolved Solids (ppm)	146.0	180.0	7,097.2	0.188	+ 23.0

NOTE: Dilution Water: 396,000 Gallons/Minute X 24 hours X 60 Minutes/Hour = 5.70 (E+8) Gallons

Dilution Factor: Tank content 2.22 (E+4) Gallons/Dilution water 5.70 (E+8) Gallons = 3.858 (E-5)