NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

EXHIBIT A

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

0 1 | F L C R P 3 (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 3 0 2 (7) | 1 0 5 7 7 9 (8) | 1 0 2 9 7 9 (9)
DOCKET NUMBER | EVENT DATE | REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 At 0001 during routine power operation, Chem/Rad sampling revealed that the
0 3 Reactor Coolant System Dose Equivalent I-131 exceeded 1.0 microcuries per gram.
0 4 This created an event contrary to Technical Specification 3.4.8. No effect
0 5 upon the plant or general public as RCS purification reduced DEI-131 to less
0 6 than 1.0 microcuries per gram at 2000. This is the first occurrence of this
0 7 type reported.
0 8

0 9 | SYSTEM CODE: C G (11) | CAUSE CODE: E (12) | CAUSE SUBCODE: E (13) | COMPONENT CODE: I N S T R U (14) | COMP SUBCODE: X (15) | VALVE SUBCODE: Z (16)

(17) LER/RO REPORT NUMBER | EVENT YEAR: 7 9 | — | SEQUENTIAL REPORT NO.: 0 9 7 | / | OCCURRENCE CODE: 0 3 | REPORT TYPE: L | — | REVISION NO.: 0

ACTION TAKEN: X (18) | FUTURE ACTION: Z (19) | EFFECT ON PLANT: Z (20) | SHUTDOWN METHOD: Z (21) | HOURS (22): 0 0 0 0 | ATTACHMENT SUBMITTED: Y (23) | NPRD-4 FORM SUB.: N (24) | PRIME COMP. SUPPLIER: Z (25) | COMPONENT MANUFACTURER: P I 6 5 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 Failure of a laboratory instrument prevented Li-7 analyses and required
1 1 removal of the Makeup and Purification Demineralizers from service. This
1 2 caused DEI-131 to increase exceeding Technical Specification limits. DEI-131
1 3 was reduced to within specification upon repair of the instrument and subse-
1 4 quent return of the demineralizers to service.

1 5 | FACILITY STATUS: E (28) | % POWER: 1 0 0 (29) | OTHER STATUS (30): NA | METHOD OF DISCOVERY: B (31) | DISCOVERY DESCRIPTION (32): Chem/Rad analysis

1 6 | ACTIVITY RELEASED: Z (33) | CONTENT OF RELEASE: Z (34) | AMOUNT OF ACTIVITY (35): NA | LOCATION OF RELEASE (36): NA

PERSONNEL EXPOSURES
1 7 | NUMBER: 0 0 0 (37) | TYPE: Z (38) | DESCRIPTION (39): NA

PERSONNEL INJURIES
1 8 | NUMBER: 0 0 0 (40) | DESCRIPTION (41): NA

LOSS OF OR DAMAGE TO FACILITY (43)
1 9 | TYPE: Z (42) | DESCRIPTION: NA

PUBLICITY
2 0 | ISSUED: N (44) | DESCRIPTION (45): NA | NRC USE ONLY

NAME OF PREPARER J. Cooper PHONE (904) 795-6486

(SEE ATTACHED SUPPLEMENTARY INFORMATION SHEET)

~~367~~ ~~1272 358~~

1273 130 7911060 367

SUPPLEMENTARY INFORMATION

Report No.: 50-302/79-097/03L-0

Facility: Crystal River Unit #3

Report Date: 29 October 1979

Occurrence Date: 5 October 1979

Identification of Occurrence:

Dose Equivalent I-131 greater than 1.0 microcuries per gram of primary coolant contrary to Technical Specification 3.4.8.

Conditions Prior to Occurrence:

Mode 1 power operation (100%).

Description of Occurrence:

At 0001, it was discovered that the DEI-131 was 1.01 microcuries per gram of primary coolant. The four (4) hour sampling frequency was initiated. Further investigation revealed that an atomic absorption spectrometer failed on 26 September 1979. Failure of this instrument prevented lithium analyses and led to a loss of accurate primary system pH control. As a result, both makeup and purification demineralizers which also provide the function of I-131 removal, were removed from service to stabilize primary system pH. Without the use of the Makeup and Purification Demineralizers, DEI-131 increased and exceeded the Technical Specification limit. Maintenance restored operability to the spectrometer and "B" Makeup and Purification Demineralizer was placed in service at 1325 on 5 October 1979. DEI-131 was reduced to .825 microcuries per gram at 2000 on 5 October 1979.

Designation of Apparent Cause:

The cause of this event is attributed to a failed atomic absorption spectrometer.

Analysis of Occurrence:

No effect upon plant or general public.

Corrective Action:

The atomic absorption spectrometer was repaired and returned to service. "B" Makeup and Purification Demineralizer was placed in service which reduced DEI-131 to within acceptable limits. No additional corrective action required.

Failure Data:

This is the first occurrence of this type reported.

/rc

1273 131

Reactor Power History of Prior

Forty-eight Hours

Item I

Event Date: 5 October 1979

DATE 2.7?

HOUR	GMWE (E710) °/°FP	TURB G (T856) BTU/KWH	MWTH (P753) °/°FP.	NI (P703) °/°FP	RATIO NI/MT °/°FP	RATIO ME/MT °/°FP
1	95.23	10098	98.45	100.00	1.016	.967
2	95.20	10010	98.49	100.00	1.015	.967
3	95.20	10050	98.59	99.90	1.013	.967
4	95.20	10150	98.45	99.90	1.014	.967
5	95.20	10100	98.61	99.90	1.012	.965
6	95.20	10010	98.59	99.90	1.013	.967
7	95.24	10100	98.6	99.90	1.014	.967
8	95.20	10050	98.49	99.90	1.014	.967
9	95.20	10050	98.49	99.90	1.014	.967
10	95.20	10050	98.69	100.10	1.014	.965
11	95.25	10086	98.37	100.20	1.019	.968
12	95.20	10100	98.69	100.10	1.014	.965
13	95.24	9999	98.49	100.20	1.017	.967
14	95.40	10100	98.67	100.20	1.015	.967
15	95.60	10100	98.78	100.40	1.016	.968
16	96.15	10084	99.31	99.30	1.000	.968
17	96.36	10106	99.71	98.70	.990	.966
18	96.36	10108	99.76	99.40	.996	.966
19	96.54	10091	99.76	99.70	.999	.968
20	96.77	10079	99.92	100.00	1.001	.969
21	96.11	10074	99.39	99.90	1.005	.967
22	95.93	10072	98.98	99.70	1.007	.969
23	95.91	10100	98.74	99.50	1.008	.971
24	95.91	10067	98.86	99.40	1.005	.970

AVERAGE DAILY GENERATOR GROSS 817.56 MWH(E)
AVERAGE DAILY THERMAL POWER 2424.00 MWH(T)
AVERAGE DAILY TURBINE GROSS HEAT RATE 10076 BTU/KWH
AVERAGE DAILY MWTH POWER 98.858 °/°FP
AVERAGE DAILY NUCLEAR INST. POWER 99.838 °/°FP

RATIO OF NI TO MWTH = 1.010

HOUR	GMWE (E710)	TURB G (T906)	MWTH (E733)	NI (P723)	RATIO NI/MT	[illegible]
	%/%FP	BTU/KWH	%/%FP	%/%FP	%/%FP	
1	95.91	10100	98.57	99.30	1.007	.978
2	95.91	10100	98.57	99.30	1.007	.978
3	95.91	10100	98.57	99.30	1.007	.978
4	95.91	10100	98.57	99.30	1.007	.978
5	95.91	10100	98.57	99.30	1.007	.978
6	95.98	10031	98.57	99.30	1.007	.974
7	95.91	10100	98.57	99.30	1.007	.978
8	95.96	10037	98.61	99.40	1.008	.978
9	95.96	10037	98.61	99.30	1.007	.978
10	95.93	10031	98.53	100.60	1.021	.974
11	95.94	10027	98.49	100.40	1.019	.974
12	95.96	9982	98.08	102.30	1.043	.978
13	96.06	9976	98.12	99.40	1.013	.979
14	96.25	9969	96.25	101.10	1.029	.980
15	96.26	9970	98.33	99.60	1.013	.979
16	96.27	9976	98.37	99.70	1.014	.979
17	95.75	9986	97.92	99.30	1.014	.978
18	95.57	9990	97.76	99.10	1.014	.978
19	95.52	9991	97.72	99.10	1.014	.978
20	95.57	9985	97.72	99.00	1.013	.978
21	95.64	9976	97.72	99.00	1.013	.979
22	95.53	9979	97.63	99.20	1.016	.978
23	95.60	9975	97.63	99.20	1.016	.979
24	95.52	9978	97.59	99.20	1.016	.979

AVERAGE DAILY GENERATOR GROSS 819.63 MWH(E)
AVERAGE DAILY THERMAL POWER 2408.17 MWH(T)
AVERAGE DAILY TURBINE GROSS HEAT RATE 10021 BTU/KWH
AVERAGE DAILY MWTH POWER 98.212 %/%FP
AVERAGE DAILY NUCLEAR INST. POWER 99.583 %/%FP

RATIO OF NI TO MWTH = 1.014

1273 134

Fuel Burnup by Core Region

Item 2

Event Date: 5 October 1979

Item 2

The burnup was calculated at 29.9 EFPD for the three (3) enrichment regions.

REGION	NUMBER of FA	BURNUP
B	61	16,096 MWD/MTU
C	60	11,147 MWD/MTU
D	56	762 MWD/MTU
Ave.		9567 MWD/MTU

CLEANUP FLOW HISTORY

ITEM 3

EVENT DATE: 5 October 1979

ITEM 3

Cleanup flow history forty-eight (48) hours prior to the first sample in which the limit was exceeded indicated a letdown flowrate of forty-five (45) gpm. Neither Makeup and Purification Demineralizer was in service due to a loss of accurate primary system ph control.

Degas Operations

Item 4

Event Date: 5 October 1979

0210 PZR 10/4/79
0236 PZR 10/3/79
0146 PZR 10/2/79

Time Duration When DEI-131 Exceeded 1.0

μ Ci/gram and I-131 Analysis Results

Item 5

Event Date: 5 October 1979

ITEM 5

As per Technical Specification 3.4.8, the four (4) hour sampling frequency as depicted on the table below was initiated at 0001 on 5 October 1979 and the Dose Equivalent I-131 was 1.010 microcuries per gram. The four hour sampling frequency was terminated at 0800 on 6 October 1979 when the DEI-131 was determined to be .608 microcuries per gram. The time duration when the specific activity of primary coolant exceeded 1.0 microcuries per gram Dose Equivalent is twenty (20) hours.

DATE	TIME	DEI-131 (μCi/gram)
10/5/79	0001	1.01
10/5/79	0400	.991
10/5/79	0810	1.15
10/5/79	1200	1.18
10/5/79	1600	1.11
10/5/79	2000	.825
10/6/79	0000	.63
10/6/79	0400	.854
10/6/79	0800	.608
10/6/79	1650	.557