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)

| | | |

SUPPLEMENTARY INFORMATION

1. Report No.: 50-302/78-04/03L-0

2. Facility: Crystal River Unit #3

3. Report Date: 31 January 1978

4. Occurrence Date: 8 January 1978

5. Identification of Occurrence:

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

6. Conditions Prior to Occurrence:

Mode 1 operation.

7. Description of Occurrence:

At 0600, following a reactor trip and in the process of plant startup, operations was notified by the CHEM/RAD section that the Primary Coolant Dose Equivalent I-131 was 1.11 microcuries per gram. Action statement 3.4.8.a was entered and the four hour sampling frequency was initiated. The Dose Equivalent I-131 had returned to acceptable technical specification limit of .73 microcuries per gram at the 1000 sampling. The action statement was satisfied and plant operations proceeded uneventful.

8. Designation of Apparent Cause:

This event was caused by the expected transient spikes following a reactor trip and known leaking fuel pins.

9. Analysis of Occurrence:

There was no safety hazard to the plant or general public due to this event as sampling demonstrated reducing levels of Dose Equivalent I-131.

10. Corrective Action:

No corrective action necessary as reactor coolant cleanup returned the Dose Equivalent I-131 to acceptable levels within four hours.

11. Failure Data:

This is the third occurrence of this event as reported by LER's 77-67 and 77-91.

REACTOR POWER HISTORY OF PRIOR FORTY-EIGHT HOURS

ITEM I

Item 1

DATE 1, 6,78

HOUR	MWHT (N753) %FP	NI (P723) %FP	RATIO NI/MT %FP
1:00	100.041	100.700	1.007
2:00	100.122	100.700	1.006
3:00	100.082	100.700	1.006
4:00	100.000	100.600	1.006
5:00	99.878	100.600	1.007
6:00	99.878	100.600	1.007
7:00	99.755	100.500	1.007
8:00	99.796	100.400	1.006
9:00	99.633	100.300	1.007
10:00	99.592	100.200	1.006
11:00	99.633	100.300	1.007
12:00	99.592	100.400	1.008
13:00	99.633	100.300	1.00[illegible]
14:00	99.592	100.400	1.008
15:00	~~66.395~~ 99.6	100.400	1.512
16:00	~~66.395~~ 99.6	100.400	1.512
17:00	~~115.824~~ 99.5	100.300	.866
18:00	99.470	100.300	1.008
19:00	99.511	100.400	1.009
20:00	99.592	100.500	1.009
21:00	99.796	100.700	1.009
22:00	99.837	100.700	1.009
23:00	99.755	100.500	1.007
24:00	99.551	100.400	1.009

AVERAGE DAILY MWTH POWER 97.640 %FP
AVERAGE DAILY NUCLEAR INST. POWER 100.471 %FP

RATIO OF NI TO MWHT = 1.029

DATE 1, 7,78

HOUR	MWHT (N753) %FP	NI (P723) %FP	RATIO NI/MT %FP
1:00	99.592	100.500	1.009
2:00	99.551	100.500	1.010
3:00	99.551	100.500	1.010
4:00	~~.204~~ 99.551	100.000	*****
5:00	99.551	100.500	1.010
6:00	99.551	100.600	1.011
7:00	99.429	100.400	1.010
8:00	99.103	100.100	1.010
9:00	98.980	100.000	1.010
10:00	99.021	100.000	1.010
11:00	99.021	100.000	1.010
12:00	99.062	100.000	1.009
13:00	99.062	100.000	1.009
14:00	99.021	100.000	1.010
15:00	98.980	100.000	1.010
16:00	98.980	100.000	1.010
17:00	99.062	100.100	1.010
18:00	99.103	100.200	1.011
19:00	99.225	100.300	1.011
20:00	99.184	100.300	1.011
21:00	99.184	100.400	1.012
22:00	96.330	97.600	1.013
23:00	72.471	75.100	1.036
24:00	59.625	62.700	1.052

AVERAGE DAILY MWTH POWER 92.202 %FP
AVERAGE DAILY NUCLEAR INST. POWER 97.492 %FP

RATIO OF NI TO MWHT = 1.057

MAILION ONLY

DATE 1, 8,78

HOUR	MWHT (N753) %FP	NI (P723) %FP	RATIO NI/MT %FP
1:00	58.809	69.400	1.180
2:00	.000	0.000	0.000
3:00	.000	0.000	0.000
4:00	.000	0.000	0.000
5:00	.000	0.000	0.000
6:00	10.359	8.800	.850
7:00	16.395	16.600	1.013
8:00	20.636	28.300	1.371
9:00	30.914	39.300	1.271
10:00	48.940	57.200	1.169
11:00	50.000	55.700	1.114
12:00	52.610	57.500	1.093
13:00	67.333	71.900	1.068
14:00	69.861	72.900	1.043
15:00	70.024	73.200	1.045
16:00	69.209	72.600	1.049
17:00	88.091	90.200	1.024
18:00	91.028	92.300	1.014
19:00	91.150	92.300	1.013
20:00	91.109	92.100	1.011
21:00	89.927	91.200	1.014
22:00	63.214	66.700	1.055
23:00	61.419	65.000	1.058
24:00	61.705	65.200	1.057

AVERAGE DAILY MWTH POWER 50.114 %FP
AVERAGE DAILY NUCLEAR INST POWER 53.267 %FP

RATIO OF NI TO MWHT = 1.063

INFORMATION ONLY

FUEL BURNUP BY CORE REGION

ITEM 2

ITEM 2

The burnup was calculated at 227.1 EFPD for the three enrichment regions.

REGION	NUMBER OF FA	BURNUP	
A	56	8043	MWD/MT
B	61	8166	MWD/MT
C	60	4457	MWD/MT
AVE.		6870	MWD/MT

CLEAN-UP FLOW HISTORY

ITEM 3

ITEM 3

DATE	TIME	DEMIN IN SERVICE	LETDOWN FLOW	µci/GRAM
8 Jan. 78	0600	B	100 GPM	1.1
8 Jan. 78	1000	B	100 GPM	.73
8 Jan. 78	1435	B	100 GPM	.51
8 Jan. 78	1950	B	100 GPM	.28
9 Jan. 78	0130	B	100 GPM	.35
9 Jan. 78	0615	B	100 GPM	.13

NO HISTORY OF DEGASSING OPERATIONS FOR THIS REPORT

ITEM 4

TIME DURATION WHEN DEI-131 EXCEEDED 1.0 μci/GRAM AND I-131 ANALYSIS RESULTS

ITEM 5

ITEM 5

As per Technical Specification 3.4.8:

The 4 hour sampling frequency was initiated at 0600 on 8 January 1978 and the dose equivalent I-131 was 1.11 microcuries per gram. The 4 hour sampling frequency was terminated at 1000 when the DEI-131 was determined to be .73 microcuries per gram.