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)

01 | 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

01 REPORT SOURCE L (6) | 0 5 0 - 0 3 0 2 (7) | 0 1 1 7 7 9 (8) | 0 2 0 9 7 9 (9)
DOCKET NUMBER | EVENT DATE | REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 At 1315, 17 January and again at 0630, 30 January, following a reactor trip
03 Chem/Rad sampling revealed that the Reactor Coolant Dose Equivalent I-131
04 exceeded 1.0 microcuries per gram contrary to Technical Specification 3.4.8.
05 No safety hazard as RCS clean up reduced DEI-131 to acceptable levels.
06 Redundancy N/A. For the 17 January event, DEI-131 was ≤ 1μci/gram at 0200 on
07 19 January. For the 30 January event, DEI-131 was ≤ 1μCi/gram at 1435 on
08 31 January. Eighth and ninth occurrence of an event of this type.

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP SUBCODE	VALVE SUBCODE
09	C G (11)	X (12)	Z (13)	Z Z Z Z Z Z (14)	Z (15)	Z (16)

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

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
Z (18)	Z (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	Z (25)	Z 9 9 9

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 These events were caused by expected transient spikes following a Reactor
11 trip and known leaking fuel pins. No corrective action necessary as the
12 Reactor Coolant cleanup returned the DEI-131 to within acceptable levels.
13
14

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
15	G (28)	0 0 0 (29)	NA	B (31)	Chem/Rad analysis

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
16	Z (33)	Z (34)	NA	NA

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
17	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
18	0 0 0 (40)	NA

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
19	Z (42)	NA

PUBLICITY

	ISSUED	DESCRIPTION (45)	NRC USE ONLY
20	N (44)	NA	

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

7902220044

(SEE ATTACHED SUPPLEMENTARY INFORMATION SHEET)

SUPPLEMENTARY INFORMATION

Report No.: 50-302/79-007/03L-0

Facility: Crystal River Unit #3

Report Date: 9 February 1979

Occurrence Date: 17 January 1979 and 30 January 1979

Identification of Occurrence:

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

Conditions Prior to Occurrence:

First event: Mode 3 hot standby (0%), Second event: Mode 3 hot standby.

Description of Occurrence:

At 1315, 17 January and again at 0630, 30 January following a reactor trip, Chem/Rad primary coolant sampling revealed that the Dose Equivalent I-131 exceeded 1.0 microcuries per gram of primary coolant. For 17 January, Dose Equivalent I-131 was 3.61 microcuries per gram and for 30 January, Dose Equivalent I-131 was 2.46 microcuries per gram. In both cases, Action Statement 3.4.8 was entered and the four (4) hour sampling frequency was initiated. For the 17 January event, the Dose Equivalent I-131 had returned to within acceptable limits of 1.0 microcuries per gram at 0200 on 19 January 1979. For the event of 30 January, the Dose Equivalent I-131 had returned to within acceptable limits of 1.0 microcuries per gram at 1435, on 31 January 1979.

Designation of Apparent Cause:

These events were due to expected transient spikes following a Reactor trip and known leaking fuel pins.

Analysis of Occurrence:

There was no safety hazard to the plant or general public as sampling demonstrated reducing levels of DEI-131. Both transients were within the capabilities of plant purification systems.

Corrective Action:

No corrective action deemed necessary as Reactor Coolant cleanup returned the DEI-131 to within acceptable levels.

Failure Data:

This is the eighth and ninth occurrence of an event of this type.

/rc

Reactor Power History of Prior

Forty-eight Hours

Item 1

Event Date: 17 January 1979

DATE 1,15,79

HOUR	GMWE (E710) °/°FP	TURB G (T856) BTU/KWH	MWTH (P753) °/°FP	NI (P723) °/°FP	RATIO NI/MT °/°FP	RATIO ME/HT °/°FP
1	98.44	9892	99.71	100.80	1.011	.987
2	98.42	9900	99.80	100.90	1.011	.986
3	98.28	9892	99.55	100.70	1.012	.987
4	98.56	9888	99.80	100.90	1.011	.988
5	98.55	9890	99.80	100.80	1.010	.988
6	98.41	9903	99.80	100.90	1.011	.986
7	98.53	9896	99.84	100.90	1.011	.987
8	98.50	9899	99.84	100.60	1.008	.987
9	98.42	10225	99.51	100.50	1.010	.989
10	98.40	9912	99.84	100.40	1.006	.986
11	98.02	9899	99.35	100.10	1.008	.987
12	97.44	9891	98.65	99.70	1.011	.988
13	97.45	9886	98.65	99.80	1.012	.988
14	97.42	9884	98.71	99.90	1.013	.988
15	97.49	9879	98.69	99.60	1.009	.988
16	97.59	9881	98.86	99.60	1.008	.987
17	98.13	9879	99.39	101.30	1.019	.987
18	98.27	9879	99.51	100.90	1.014	.988
19	98.82	9883	100.00	100.10	1.001	.988
20	98.71	9885	99.92	100.10	1.002	.988
21	98.71	9885	99.92	100.10	1.002	.988
22	98.74	9886	99.96	100.20	1.002	.988
23	98.80	9880	99.92	100.20	1.003	.989
24	98.75	9881	99.92	100.20	1.003	.988

AVERAGE DAILY GENERATOR GROSS	840.34	MWH(E)
AVERAGE DAILY THERMAL POWER	2440.58	MWH(T)
AVERAGE DAILY TURBINE GROSS HEAT RATE	9903	BTU/KWH
AVERAGE DAILY MWTH POWER	99.534	°/°FP
AVERAGE DAILY NUCLEAR INST. POWER	100.383	°/°FP

RATIO OF NI TO MWTH = 1.009

DATE 1,16,79

HOUR	GMWE (E710) °/°FP	TURB G (T856) BTU/KWH	MWTH (P753) °/°FP	NI (P723) °/°FP	RATIO NI/MT °/°FP	RATIO ME/MT °/°FP
1	98.76	9882	99.92	100.30	1.004	.988
2	98.81	9877	99.92	100.40	1.005	.989
3	98.77	9884	99.96	100.30	1.003	.988
4	98.74	9887	99.96	100.30	1.003	.988
5	98.80	9886	100.00	100.20	1.002	.988
6	98.75	9892	100.00	100.20	1.002	.987
7	98.76	9892	100.04	100.40	1.004	.987
8	98.80	9890	100.04	100.50	1.005	.988
9	98.64	9886	99.84	100.30	1.005	.988
10	98.50	9894	99.80	100.30	1.005	.987
11	98.60	10209	99.59	100.00	1.004	.990
12	98.20	9893	99.47	100.00	1.005	.987
13	98.39	9888	99.59	100.20	1.006	.988
14	98.80	9877	99.92	100.30	1.004	.989
15	98.60	9887	99.80	100.10	1.003	.988
16	98.56	9885	99.76	100.00	1.002	.988
17	98.82	9883	100.00	100.30	1.003	.988
18	98.83	9885	100.04	100.30	1.003	.988
19	98.85	9884	100.04	100.30	1.003	.988
20	98.85	9882	100.00	100.30	1.003	.989
21	98.77	9887	100.00	100.20	1.002	.988
22	98.90	9873	99.96	100.30	1.003	.989
23	98.83	9881	100.00	100.40	1.004	.988
24	98.83	9882	100.00	100.30	1.003	.988

AVERAGE DAILY GENERATOR GROSS	844.01	MWH(E)
AVERAGE DAILY THERMAL POWER	2449.58	MWH(T)
AVERAGE DAILY TURBINE GROSS HEAT RATE	9899	BTU/KWH
AVERAGE DAILY MWTH POWER	99.901	°/°FP
AVERAGE DAILY NUCLEAR INST. POWER	100.258	°/°FP

RATIO OF NI TO MWTH = 1.004

DATE 1.17.79

HOUR	GMWE (E710) °/°FP	TURB G (T856) BTU/KWH	MWTH (P753) °/°FP	NI (P723) °/°FP	RATIO NI/MT °/°FP	RATIO ME/MT °/°FP
1	98.94	9871	100.00	100.00	1.000	.989
2	98.89	9873	99.96	100.20	1.002	.989
3	98.83	9871	99.88	100.10	1.002	.990
4	98.71	9881	99.88	100.10	1.002	.988
5	98.71	9880	99.88	100.10	1.002	.988
6	98.70	9881	99.88	100.10	1.002	.988
7	98.83	9883	100.00	100.30	1.003	.988
8	98.71	9891	99.96	100.40	1.004	.988
9	98.70	9893	100.00	100.40	1.004	.987
10	98.54	9888	99.76	100.20	1.004	.988
11	38.90	9888	43.64	41.90	.960	.891
12	0.00	0	.00	0.00	0.000	0.000
13	0.00	0	.00	0.00	0.000	0.000
14	0.00	0	.00	0.00	0.000	0.000
15	0.00	0	.00	0.00	0.000	0.000
16	0.00	0	.00	0.00	0.000	0.000
17	0.00	0	.00	0.00	0.000	0.000
18	0.00	0	.00	0.00	0.000	0.000
19	0.00	0	.00	0.00	0.000	0.000
20	0.00	0	.00	0.00	0.000	0.000
21	0.00	0	.00	0.00	0.000	0.000
22	0.00	0	.00	0.00	0.000	0.000
23	0.00	0	.00	0.00	0.000	0.000
24	0.00	0	.00	0.00	0.000	0.000

AVERAGE DAILY GENERATOR GROSS 365.68 MWH(E)
AVERAGE DAILY THERMAL POWER 1065.42 MWH(T)
AVERAGE DAILY TURBINE GROSS HEAT RATE 4529 BTU/KWH
AVERAGE DAILY MWTH POWER 43.451 °/°FP
AVERAGE DAILY NUCLEAR INST. POWER 43.492 °/°FP

RATIO OF NI TO MWTH = 1.001

Fuel Burnup by Core Region

Item 2

Event Date: 17 January 1979

Item 2

The burnup was calculated at 370 EFPD for the four (4) enrichment regions.

REGION	NUMBER of FA	BURNUP	
A	52	12170	MWD/MTU
B	61	12883	MWD/MTU
C	60	8304	MWD/MTU
Oconee	4	13115	MWD/MTU
Ave.	177	11059	MWD/MTU

Clean-up Flow History

Item 3

Event Date: 17 January 1979

Item 3

Cleanup flow history starting forty-eight (48) hours prior to the first sample in which the limit was exceeded is as follows:

DATE	TIME	LETDOWN FLOW	DEMIN
1/15/79	0120	50 GPM	
1/16/79	0010	50 "	
1/16/79	0150	" "	
1/17/79	0005	48 GPM	
1/17/79	1315	46 "	A
1/17/79	1715	46 "	A
1/17/79	2115	48 "	A
1/18/79	0118	100 "	A
1/18/79	0300	100 "	A
1/18/79	0600	100 "	A
1/18/79	1005	100 "	A
1/18/79	1415	100 "	A
1/18/79	1800	90 "	A
1/18/79	2200	90 "	A
1/19/79	0200	90 "	A
1/19/79	0555	90 "	A

No History of Degassing Operations For This Report

Item 4

Event Date: 17 January 1979

Time Duration When DEI-131 Exceeded 1.0

μ Ci/gram and I-131 Analysis Results

Item 5

Event Date: 17 January 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 1315 on 17 January 1979 and the Dose Equivalent I-131 was 3.61 microcuries per gram. The four (4) hour sampling frequency was terminated at 0555, 19 January 1979 when the DEI-131 was determined to be 0.69 microcuries per gram. DEI-131 was ≤ 1 µ Ci/gram at 0200, 19 January 1979, when the sample results were 0.96 µ Ci/gram. The time duration when the specific activity of primary coolant exceeded 1.0 µCi/gram Dose Equivalent is 41 hours.

DATE	TIME	DEI-131 (µCi/gram)
1/17/79	1315	3.61
1/17/79	1715	4.19
1/17/79	2115	4.50
1/18/79	0113	3.79
1/18/79	0300	3.58
1/18/79	0600	2.84
1/18/79	1005	3.21
1/18/79	1415	2.52
1/18/79	1800	1.96
1/18/79	2200	1.32
1/19/79	0200	0.96
1/19/79	0555	0.69

Reactor Power History of Prior

Forty-eight Hours

Item 1

Event Date: 30 January 1979

DATE 12-.79

HOUR	GNWE (E7;0) °/°FP	TURB G (T856) BTU/KWH	MWTH (P753) °/°FP	NI (P723) °/°FP	RATIO NI/MT °/°FP	RATIO ME/MT °/°FP
1	67.02	9964	68.56	71.70	1.046	.978
2	66.99	9967	68.60	71.70	1.045	.977
3	67.01	9966	68.60	71.80	1.047	.977
4	66.96	9974	68.60	71.80	1.047	.976
5	67.03	9969	68.64	71.60	1.043	.977
6	67.04	9967	68.64	71.60	1.043	.977
7	67.03	9954	68.52	71.50	1.044	.978
8	67.02	9962	68.52	71.60	1.045	.978
9	66.99	9992	68.68	71.70	1.044	.975
10	67.02	9991	68.72	71.80	1.045	.975
11	67.06	9989	68.64	71.80	1.046	.977
12	67.04	9990	68.64	71.80	1.046	.977
13	67.05	9989	68.64	71.80	1.046	.977
14	67.05	9990	68.64	71.80	1.046	.977
15	67.03	9991	68.64	71.70	1.045	.977
16	67.03	9990	68.64	71.70	1.045	.977
17	67.03	9994	68.68	71.60	1.043	.976
18	67.12	9987	68.68	71.40	1.040	.977
19	67.01	10000	68.64	71.40	1.040	.976
20	67.06	9987	68.60	71.40	1.041	.978
21	71.46	9918	72.59	75.10	1.035	.984
22	90.91	9806	91.31	92.40	1.012	.996
23	90.97	9815	91.52	92.30	1.009	.994
24	90.94	9813	91.44	92.30	1.009	.995

AVERAGE DAILY GENERATOR GROSS	600.24	MWH(E)
AVERAGE DAILY THERMAL POWER	1756.58	MWH(T)
AVERAGE DAILY TURBINE GROSS HEAT RATE	9957	BTU/KWH
AVERAGE DAILY MWTH POWER	71.639	°/°FP
AVERAGE DAILY NUCLEAR INST. POWER	74.380	°/°FP

RATIO OF NI TO MWTH = 1.038

DATE 1.29.79

HOUR	GMWE (E710) °/°FP	TURB G (T856) BTU/KWH	MWTH (P753) °/°FP	NI (P723) °/°FP	RATIO NI/MT °/°FP	RATIO ME/MT °/°FP
1	90.97	9811	91.44	92.20	1.008	.995
2	90.97	9811	91.39	92.10	1.008	.995
3	90.95	9809	91.97	92.00	1.000	.989
4	90.95	9810	91.97	92.00	1.000	.989
5	91.03	9809	92.09	92.10	1.000	.989
6	90.94	9815	91.76	92.40	1.007	.991
7	90.97	9815	91.48	92.50	1.011	.994
8	91.02	9812	91.52	92.60	1.012	.995
9	91.12	9807	91.60	92.70	1.012	.995
10	91.36	9815	90.78	92.60	1.020	1.006
11	91.32	9813	91.48	92.50	1.011	.998
12	91.25	9820	91.80	92.40	1.007	.994
13	91.30	9816	91.84	92.30	1.005	.994
14	91.24	9816	91.80	92.20	1.004	.994
15	96.71	9883	97.96	97.40	.994	.987
16	98.73	9884	99.18	99.20	1.000	.995
17	98.88	9883	99.18	99.20	1.000	.997
18	98.91	9880	99.06	99.10	1.000	.998
19	98.95	9878	99.06	99.10	1.000	.999
20	98.91	9877	99.27	99.30	1.000	.996
21	98.87	9882	99.27	99.00	.997	.996
22	99.64	9808	99.06	99.10	1.000	1.006
23	98.85	9883	99.18	99.20	1.000	.997
24	98.80	9879	98.90	98.90	1.000	.999

AVERAGE DAILY GENERATOR GROSS 806.06 MWH(E)
AVERAGE DAILY THERMAL POWER 2322.29 MWH(T)
AVERAGE DAILY TURBINE GROSS HEAT RATE 9838 BTU/KWH
AVERAGE DAILY MWTH POWER 94.710 °/°FP
AVERAGE DAILY NUCLEAR INST. POWER 95.088 °/°FP

RATIO OF NI TO MWTH = 1.004

DATE 1.30.79

HOUR	GNWE (E710) °/°FP	TURB G (T054) BTU/KWH	MWTH (2753) °/°FP	NI (R702) °/°FP	RATIO NI/MT °/°FP	RATIO ME/MT °/°FP
1	98.71	9883	99.06	99.10	1.000	.996
2	98.88	9876	99.31	99.30	1.000	.995
3	98.78	9875	99.71	99.50	.998	.991
4	98.75	9877	99.31	99.30	1.000	.994
5	98.74	9875	99.67	99.60	.999	.991
6	34.57	9875	35.15	35.40	1.007	.983
7	0.00	0	.00	0.00	0.000	0.000
8	0.00	0	.00	0.00	0.000	0.000
9	0.00	0	.00	0.00	0.000	0.000
10	0.00	0	.00	0.00	0.000	0.000
11	0.00	0	.00	0.00	0.000	0.000
12	0.00	0	.00	0.00	0.000	0.000
13	12.46	14022	22.84	22.80	.998	.545
14	17.88	13000	31.00	30.90	.997	.577
15	13.86	12551	25.08	25.10	1.001	.553
16	46.80	10320	52.00	52.30	1.006	.900
17	49.84	10246	54.16	54.20	1.001	.920
18	52.35	10257	57.50	57.50	1.000	.910
19	54.14	10192	58.97	59.30	1.006	.918
20	49.27	10317	54.98	55.20	1.004	.896
21	48.19	10515	50.98	51.00	1.000	.945
22	49.80	10328	54.98	55.00	1.000	.906
23	49.79	10331	54.98	55.00	1.000	.906
24	49.79	10329	54.98	55.00	1.000	.906

AVERAGE DAILY GENERATOR GROSS 364.27 MWH(E)
AVERAGE DAILY THERMAL POWER 1128.58 MWH(T)
AVERAGE DAILY TURBINE GROSS HEAT RATE 7986 BTU/KWH
AVERAGE DAILY MWTH POWER 46.027 °/°FP
AVERAGE DAILY NUCLEAR INST. POWER 46.063 °/°FP

RATIO OF NI TO MWTH = 1.001

Fuel Burnup by Core Region

Item 2

Event Date: 30 January 1979

ITEM 2

The burnup was calculated at 381 EFPD for the four (4) enrichment regions.

REGION	NUMBER OF FA	BURNUP
A	52	12521 MWD/MTU
B	60	13267 MWD/MTU
C	61	8599 MWD/MTU
Oconee	4	13359 MWD/MTU
Ave.	177	11441 MWD/MTU

Clean-up Flow History

Item 3

Event Date: 30 January 1979

ITEM 3

Cleanup flow history starting forty-eight (48) hours prior to the first sample in which the limit was exceeded is as follows:

DATE	TIME	LETDOWN FLOW	DEMIN
1/28/79	0100	70 GPM	
1/29/79	0010	47 GPM	
1/30/79	0130	70 "	
1/30/79	0450	70 "	
1/30/79	0630	48 "	A
1/30/79	1030	48 "	A
1/30/79	1425	70 "	A
1/30/79	1820	70 "	A
1/30/79	2230	70 "	A
1/31/79	0230	75 "	A
1/31/79	0630	49 "	A
1/31/79	1030	48 "	A
1/31/79	1435	48 "	A
1/31/79	1930	50 "	A

No History of Degassing Operations For This Report

Item 4

Event Date: 30 January 1979

Time Duration When DEI-131 Exceeded 1.0

μ Ci/gram and I-131 Analysis Results

Item 5

Event Date: 30 January 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 0603 on 30 January 1979 and the Dose Equivalent I-131 was 2.46 microcuries pergram. The four (4) hour sampling frequency was terminated at 1930, 31 January 1979 when the DEI-131 was determined to be 0.68 microcuries per gram. DEI-131 was $\leq$1µCi/gram at 1435, 31 January 1979 when the sample results were 0.83 µCi/gram. The time duration when the specific activity of Primary Coolant exceeded 1.0 µCi/gram Dose Equivalent is 37 hours.

DATE	TIME	DEI-131 (µCi/gram)
1/30/79	0630	2.46
1/30/79	1030	3.69
1/30/79	1425	4.74
1/30/79	1820	3.08
1/30/79	2230	2.37
1/31/79	0230	2.10
1/31/79	0630	1.39
1/31/79	1030	1.16
1/31/79	1435	0.832
1/31/79	1930	0.680