

SUPPLEMENTARY INFORMATION

1. Report No.: 50-302/78-014/04X-0
2. Facility: Crystal River Unit #3
3. Report Date: 11 May 1978
4. Occurrence Date: 1 January - 5 May 1978 (discovered 5/5/78) determined at plant 5/10/78.
5. Identification of Occurrence:

Environmental samples were not analyzed using procedures which provided LLD's equal-to or less than those required by the Environmental Technical Specifications.

6. Conditions Prior to Occurrence:

N/A

7. Description of Occurrence:

The following samples had LLD's greater than those required for the dates indicated below:

<u>Seawater (6 stations)</u> (# > ETS)	<u>April</u> 1
<u>Crabs (2 stations)</u> (# > ETS)	<u>First Half</u> 8
<u>Carnivorous Fish (2 stations)</u> (# > ETS)	<u>First Half</u> 9
<u>Vegetation (3 stations)</u> (# > ETS)	<u>First Half</u> 22

8. Designation of Apparent Cause:

Inadequate techniques, procedures, and/or equipment to achieve the required LLD's.

9. Analysis of Occurrence:

Of the 40 nuclides whose LLD's were greater than required, the activity associated with twenty-four (24) of the nuclides was non-detectable and another one nuclide had activity less than the sample LLD. Five (5) more nuclides had detectable activities which were less than the preoperational 95 percentile values and eight (8) nuclides had activities less than 10 times the pre-operational 95 percentile values. The final two (2) nuclides had activities greater than 10 times the preoperational 95 percentile values.

For the eight (8) nuclides with activities greater than the preoperational 95 percentile values, four (4) nuclides were not detected in the releases from the plant. They are Ru-106 and Th-232 (each was found at two different sample stations in the various pathways). Another nuclide Cs-134 was found in the Control Pathway for Crabs, probably due

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9. Analysis of Occurrence: Cont'd

to the extremely small sample size. No. Cs-134 was found in the Critical Station. The remaining three (3) nuclides and the two (2) nuclides with activity greater than 10 times the preoperational 95 percentile value were found in the Vegetation Pathway. The nuclides are Zr-95 (at two(2) and I-131 (at three stations). This activity is due to the fallout from the 14 March nuclear weapons test by the People's Republic of China. (The Vegetation Pathway samples were collected on 31 March '78).

10. Corrective Action:

The annual average LLD for Th-232 in Seawater is equal-to or less than that required. No further corrective actions are necessary for the Seawater Pathway.

The greater than required LLD's in the Crab Pathway is due to an extremely small sample volume collected for the control station. A normal sample was taken at the critical station and all LLD's were less than those required. No further corrective actions are necessary for the Crab Pathway.

The greater than required LLD's in the Carnivorous Fish Pathway is due to an extremely small sample volume collected for the control station. A normal sample was taken at the critical station and all LLD's were less than those required. No further corrective actions are necessary for the Carnivorous Fish Pathway.

The greater than required LLD's in the Vegetation Pathway is due to the increased activity of the samples. Calculations have shown that the LLD's for this type analysis will be less than those required when normal background radiation levels are present. No further corrective actions are necessary for the Vegetation Pathway.

11. Failure Data:

This is the eighth report for this type occurrence: Refer to:

LER 77-111E, dated 21 September 1977
LER 77-134E, dated 8 November 1977
LER 77-141E, dated 7 December 1977
LER 77-144E, dated 15 December 1977
LER 77-164E, dated 26 January 1978
LER 78-012/04X-0, dated 17 April 1978
LER 78-013/04X-0, dated 24 April 1978