

TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION UNIT ONE
SUPPLEMENTAL INFORMATION FOR LER NP-33-80-114

DATE OF EVENT: December 3, 1980

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Reactor Coolant System (RCS) Dose Equivalent I-131 Exceeded Technical Specification Limits After a Reactor Trip

Conditions Prior to Occurrence: The unit was in Mode 3 with Power (MWT) = 0 and Load (Gross MWE) = 0.

Description of Occurrence: At 1255 hours on December 3, 1980 following a reactor trip at 0924 hours, an RCS sample was collected in accordance with Technical Specification 3.4.8, Table 4.4-4. The analysis of the sample by Chemistry and Health Physics personnel showed that the radio-iodine content exceeded the Technical Specification 3.4.8 limit of 1.0 $\mu\text{Ci}/\text{gram}$ Dose Equivalent of I-131. At 1405 hours the level peaked at 1.36 $\mu\text{Ci}/\text{gm}$ Dose Equivalent Iodine -131.

The following information is supplied per reporting requirements:

Specific Activity Analysis:

<u>Date</u>	<u>Time</u>	<u>Activity ($\mu\text{Ci}/\text{gm}$)</u>
12/3/80	0805	0.033
	1255	1.26
	1405	1.36
	1608	1.30
	1950	1.14
	2300	0.92
12/4/80	0205	0.72

Power History - 48 hours prior to the first limit exceeding sample:

12/1/80	from 1200	97.7% fp for 12 hours
12/2/80	from 0000	97.6% fp for 24 hours
12/3/80	from 0000 until 0942	97.4% fp
12/3/80	from 0942 until 1200	0.0% fp

Fuel Burnup By Core Region - See attached computer printout

Cleanup Flow History - 48 hours prior to the first limit exceeding sample:

The letdown flow during this time period was kept constant at approximately 64.25 gpm.

There was no degassing operation.

The Dose Equivalent I-131 exceeded 1.0 $\mu\text{Ci/gm}$ at 1255 hours on December 3, 1980 and was below that limit at 2300 hours on December 3, 1980. The total time duration was 10 hours and 5 minutes. The maximum measured level was 1.36 $\mu\text{Ci/gm}$ Dose Equivalent I-131.

Designation of Apparent Cause of Occurrence: The cause of the 1.36 $\mu\text{Ci/gm}$ Dose Equivalent I-131 level in the RCS was a slight amount of leakage of gas through the fuel rod cladding. Some leakage is normal following a reactor trip when the gases in the fuel rods are further compressed by the contracting cladding. Any small defects would allow some gas to escape.

Analysis of Occurrence: There was no danger to the health and safety of the public or to station personnel. There was no venting of containment gases until the levels had decayed. The highest levels found in any sample was still well below the allowable limit of 60 $\mu\text{Ci/gm}$ per Figure 3.4-1 of Technical Specification 3.4.8.

Corrective Action: The action that was taken was to monitor the level of I-131 to ensure that it did decay off to below the Technical Specification limit of 1 $\mu\text{Ci/gm}$. At 2300 hours on December 3, 1980 the level dropped to 0.92 $\mu\text{Ci/gm}$ and was down to 0.72 $\mu\text{Ci/gm}$ at 0205 hours on December 4, 1980.

Failure Data: There have been no previous reports of high iodine levels.

LER #80-089

