

Date: July 22, 1981

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-I-81-82

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information presented is as initially received without verification or evaluation and is basically all that is known by IE staff on this date.

Facility: U.S. Department of Commerce, National Bureau of Standards
National Bureau of Standards Reactor (DN 50-184)
Washington, DC

Subject: VALVE MALFUNCTION RESULTING IN DRAINING MODERATOR

On July 17 at about 11:00 p.m. a pneumatically operated 1" valve in the injection fill line failed to seat fully resulting in slowly draining several thousand gallons of heavy water moderator to the Main Storage Tank. Core coverage was maintained at one-half its height by that contained in the core holdup pan. At the time, the reactor was shutdown and unmanned and had been shutdown since July 14 when it had been operated for four hours at less than six megawatts.

The event was discovered at 11:00 a.m. on July 18, during a routine inspection by a reactor operator. Radiation surveys in the vicinity of the reactor vessel head at that time indicated background levels. The partially open valve was closed manually and the vessel refilled slowly via the normal fill path. Moderator temperature after refilling was less than 100° F. Fuel plate temperatures in air, estimated to be no more than 550° F, are less than normal operating temperature. Moderator samples taken on July 19 indicated normal activity levels with no evidence of fuel damage. Following sampling, the sample valves were inadvertently left open resulting in draining the moderator to the Main Storage tank. This error was discovered and corrected with the level still five feet above the top of the core. There is no indication of abnormal radiation exposure to personnel.

This PN is issued for information only. The State of Maryland has been informed. A press release is not planned by the licensee. Region I will respond to media inquiries.

NRC Region I (Philadelphia) received notification of this event from the licensee at 2:00 p.m. July 22, 1981. This information is current as of 2:15 p.m. on July 22, 1981.

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PNO-I-81-082 PDR

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July 22, 1981

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H ST BLDG 3:47
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RI Resident Sites

 / N/A

(MAIL)

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