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CONTROL NO: 428

FILE: INCIDENT FILE

FROM: Metropolitan Edison Co. Reading, Pa. R.C. Arnold			DATE OF DOC 1-12-76	DATE REC'D 1-16-76	LTR XXX	TWX	RPT	OTHER
TO: NRC			ORIG 1 Signed	CC 0	OTHER	SENT NRC PDR XXX		XXX
CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D 1		DOCKET NO: 50-289		
XXX								
DESCRIPTION: Letter trans the following.....				ENCLOSURES: Event Report # 76-1, on 1-2-76, Concerning an Unplanned Release of Radioactive Material.. (1 Cy. Received)				
PLANT NAME: Three Mile Island # 1								

FOR ACTION/INFORMATION

SAB 1-20-76

BRANCH CHIEF Reid

ACKNOWLEDGED

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DISTRIBUTION REVISED 1-19-76 By D. CRUTCHFIELD, TECH REVIEW COORDINATOR

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METROPOLITAN EDISON COMPANY

POST OFFICE BOX 542 READING, PENNSYLVANIA 19603

(NRC PUBLIC DOCUMENT ROOM)
Regulatory Ed. Co.

January 12, 1976
GGL 0052

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Docket No. 50-289
Operating License DPR-50
Event Report 76-1/1T

In accordance with Section 6.7.2.a.2 of the Technical Specifications for our Three Mile Island Nuclear Station Unit 1, enclosed please find Event Report 76-1/1T that deals with an unplanned release of radioactive material which occurred on January 2, 1976.

We would like to point out that no member of the public and no station or contractor personnel received a radiation dose in excess of the limits stated in 10 CFR 20 as a result of the release. Further, none of the limits given in the Technical Specifications were exceeded.

We trust that this satisfies the reporting requirements referenced above and adequately answers any concerns you may have.

Sincerely,

R. C. Arnold
Vice President

RCA:JMC:pa

Enclosure: Event Report 76-1/1T

cc: Mr. J. P. O'Reilly, (U.S. NRC - Region 1)
Ms. Margaret Reilly (Pa. DER)



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EVENT REPORT 76-1/1T

REPORT OF AN UNPLANNED RELEASE OF RADIOACTIVE MATERIAL

OCCURRING ON 2 JANUARY 1976

DESCRIPTION OF OCCURRENCE:

On January 2nd, between the hours of 2005 and 2030 (twenty-five (25) minutes) an inadvertant release of radioactive material occurred due to leakage through valve WDL-V125 while recirculating the Waste Evaporator Condensate Storage Tank "B" (WDL-T11B) concurrent with routine flushing of the Radioactive Liquid Discharge Monitor, RM-L6. The Discharge Monitor, RM-L6 was being flushed with reclaimed (non-radioactive) water following a controlled release of radioactive liquid from Waste Evaporator Condensate Storage Tank "A" (WDL-T11A) to decrease the amount of contamination build-up in the monitor. The reclaimed water flush had been in progress for approximately fifteen (15) minutes when WDL-T11B was placed in the recirculation mode. Leakage Past Valve WDL-V125 allowed radioactive liquid to flow from the recirculation path to the normal release path. The release caused an increase in count rate on the discharge monitor, RM-L6 which was subsequently noted by Control Room personnel. The recirculation of WDL-T11B and the flushing of RM-L6 were terminated, thereby, stopping the release of radioactive material.

APPARENT CAUSE OF OCCURRENCE:

It was believed initially that valve leakage on WDL-V125 was permitting a small amount of liquid to be released. Upon inspection of the valve, no degradation of valve seating surfaces was found; therefore, it is felt that the air loading on the valve operator may not have been properly bled off by the auxiliary operator, thereby, permitting the valve to be "cracked" off its seat.

ANALYSIS OF OCCURRENCE:

For the following reasons it is believed that the inadvertant release on the 2nd of January did not endanger either the health or safety of the public:

- A. None of the limits in the TMI-1 Technical Specifications were exceeded.
- B. The concentration of radioactive material released to the river was a small percent ($\sim 3.3\%$) of the concentration specified in 10 CFR 20 for unrestricted areas.

CORRECTIVE ACTION:

The corrective action as described above was taken to terminate the release. Additionally, procedural changes were incorporated to preclude the recirculation of either of the Waste Evaporator Condensate Storage Tanks during the release of radioactive liquid or the routine flushing of RM-L6, until valve WDL-V125 could be inspected.

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Since the inspection of WDL-V125 disclosed no valve problem and the valve was leak tested satisfactorily, the operating procedure will be changed to ensure WDL-V125 (124) is closed when terminating a controlled release.

FAILURE DATA:

None

RELEASE DATA:

Analysis of the Radioactive Liquid Discharge Monitor (RM-L6) Recorder Charts and the contents of WDL-T11B subsequent to the release indicated that a volume of one hundred seventeen (117) gallons containing .0171 curies of radioactive material, of which .0169 curies was Tritium, was released at approximately 4.7 GPM.

The following Isotopes and Concentrations were released:

<u>ISOTOPE</u>	<u>CONCENTRATION</u> ($\mu\text{Ci/ml}$)	<u>CURIE CONTENT</u> (μCi)
^3H	3.82×10^{-2}	1.69×10^4
^{133}Xe	3.623×10^{-4}	1.60×10^2
$^{133\text{m}}\text{Xe}$	5.025×10^{-6}	2.22
^{135}Xe	1.322×10^{-5}	5.85
^{134}Cs	1.758×10^{-6}	7.8×10^{-1}
^{137}Cs	7.499×10^{-6}	3.32
^{131}I	9.58×10^{-7}	4.2×10^{-1}
^{58}Co	6.497×10^{-6}	2.877

It has been determined, based on the analysis of WDL-T11B and the dilution factor (4255) during the release, that the concentration of radioactive material was approximately 3.3% of the release concentration limit as specified by the TMI-1 Technical Specifications. Additionally, based on the alarm setpoint of the Discharge Monitor, RM-L6, and available dilution flow, the discharge would have been terminated by a high alarm from RM-L6 prior to exceeding the release concentration limit of the Technical Specification.

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