

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Dresden Nuclear Power Station Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 2 3 7	PAGE (3) 1 OF 03
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TITLE (4)
Overflow of Floor Drain Surge Tank Sumps to Ground

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
0	8	03	84	016	000	08	03	084	N/A		0 5 0 0 0
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)											

OPERATING MODE (9) N	20.402(b)	20.406(a)	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 0 9 12	20.406(a)(1)(i)	50.36(e)(1)	50.73(a)(2)(v)	73.71(c)
	20.406(a)(1)(ii)	50.36(e)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	X 20.406(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
	20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Mark Leahy	TELEPHONE NUMBER AREA CODE (X-422) 8 1 1 5 9 4 1 2 - 1 2 9 1 2 1 0
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS
A									

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

With a high water inventory, the Radwaste Operator was forced to move water to the floor drain surge tank, which was already near capacity. This transfer resulted in a spill of 2420 gallons of contaminated water from the floor drain surge tank room sump to ground. Surveys showed no offsite release of contamination, and a maximum Cobalt 60 concentration of 3.6×10^{-3} uCi/ml in the storm sewer. Safety significance is considered minimal because no contamination was released off-site. The last occurrence of this type was reported by R.O. 77-12 on Docket 50-237.

When the Operator was notified of the spill, further water transfers were prevented by stopping the waste neutralizer pumps, and closing the "B" waste neutralizer and floor drain surge tank discharge valves.

A number of corrective actions have been taken or are planned, the primary of these being to prevent Operators from filling the floor drain surge tank above 90 percent (initially per a caution card to be followed by a procedure change) and the initiation of work requests to repair the floor drain surge tank and sump level instrumentation. The 90 percent level limit was made as an initial conservative action and will remain in effect until problems with the tank's recirculation line have been corrected.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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TEXT (if more space is required, use additional NRC Form 368A's) (17)

With high water inventory because of Unit 1 service water flushing, and only one evaporator available for operation the previous week, a water transfer was required to provide the necessary tank volume for normal operation of the radwaste system. Prior to the transfer the floor drain surge tank level was 96 percent, and its high level alarm was lit.

Subsequent to the transfer, the Radwaste Operator was informed that water was running from the floor drain surge tank room to ground. Radiation surveys were immediately taken, and access to the area was restricted. Safety significance is considered minimal since no radiation was released off-site. The last occurrence of this type was reported by R.O. 77-12 on Docket #050237.

The transfer was accomplished by using the "A" waste neutralizer pump, which has a discharge rate of 200 GPM. The water entered the floor drain surge tank, flowing backwards through the "B" surge tank transfer pump, instead of through the recirculating line sparger (the sparger was plugged). With this abnormal flow path, the flow was not restricted, and the full pump discharge entered the tank. Since the tank was full to the overflow pipe, approximately 200 GPM drained to the sump. Both sump pumps operated properly, but their combined capacity is 100 GPM, and they were not able to remove all of the water that entered the sump. As the Operator proceeded to perform other duties, the level in the sump increased, and eventually overflowed. Because of the failure of a level switch, the high sump level alarm never annunciated. When the transfer was secured, the Operator still was not aware that the sump had overflowed. When the Operator was informed of the spill (approximately 40 minutes after the end of the transfer), the waste neutralizer pumps were stopped and the "B" waste neutralizer and floor drain surge tank discharge valves were closed, to prevent any transfers that were in progress.

From inspection of the level charts for the "A" and "B" waste neutralizer, floor drain collector, and floor drain surge tanks, it was determined that 5940 gallons of water were transferred from the "A" waste neutralizer tank to the floor drain surge tank and into the floor drain surge tank room sump. From the sump, the sump pumps transferred 3520 gallons to the floor drain collector, with 2420 gallons overflowing from the sump to the ground.

Calculations by the Radiation Chemistry Department show no release of radioactivity off-site. All of the contaminated water went into the ground or into the sewer system. The dirt from the ground has been dug out and contained, and will be shipped off-site and the contaminated area of the sewer will be pumped out. The total on-site release was 48.54 mCi, with a maximum Cobalt 60 concentration of 3.6×10^{-3} uCi/ml.

Review of the event by the Radwaste Department has developed corrective actions which have been or will be taken. Primarily, a caution card was placed on AO-2/3-2012-260 (floor drain surge tank discharge valve) stating "Do not fill floor drain surge tank over 90 percent level", and work requests were written to adjust and calibrate the floor drain surge tank pump room sump level switch and the floor drain surge tank level switch.

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In addition, annunciator procedures will be written or revised for the radwaste control room annunciators, with special attention paid to the floor drain surge tank and sump high level alarms. Operating Procedures DOP 2000-14 (Waste Collector Sub-System) and DOP 2000-15 (Floor Drain Sub-System) will also be revised to caution against filling any above ground tank above 95 percent without a Radwaste Foreman's approval. Furthermore, a work request has been written to install a new floor drain surge tank recirculation line, or if possible, unplug the original recirculation line such that input capacity to the tank will be less than the capacity of the overflow pipe and of the sump pumps. When this has been completed, the caution card, which was taken as an initial conservative action, will be removed.

Dresden Station believes that these corrective actions will prevent a recurrence of this event.



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August 30, 1984

DJS Ltr #84-857

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Licensee Event Report #84-016-0, Docket #050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 20.405 (a)(1)(iii).

D.J. Scott Jr
D.J. Scott
Station Superintendent
Dresden Nuclear Power Station

DJS/kjl

Enclosure

cc: J.G. Keppler, Regional Administrator, Region III
File/NRC
File/Numerical

IE22
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