



**Commonwealth Edison**  
Dresden Nuclear Power Station  
6500 North Dresden Road  
Morris, Illinois 60450  
Telephone 815/942-2900

June 8, 1994

GFSLTR 94-0159

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

Licensee Event Report 94-001-01, Docket 05000010, is being submitted in accordance with Technical Specification 6.6, NUREG 1022 and 10CFR50.73(a)(1). This supplement is being issued to correct a typographical error; "mc" should read "microcuries".

Sincerely,

Gary F. Spedl  
Station Manager  
Dresden Station

GFS/BV:cfq

Enclosure

cc: J. Martin, Regional Administrator, Region III  
NRC Resident Inspector's Office  
File/NRC  
File/Numerical

210081

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DAP FORM 02-08C  
 SUPPLEMENTAL REPORT TO LER

DVR NO.					SYSTEM AFFECTED	
	STA	UNIT	YEAR	NO.		
D	- 12	- 1	- 94	- 001		
<u>PART 1</u>			TITLE OF EVENT		<u>OCCURRED</u>	
			50,000 Gallons of Unit 1 Contaminated Demineralized Water Released to Ground Water		05/07/94	0400
					DATE	TIME
REASON FOR SUPPLEMENTAL REPORT						
Correct typographical error, units "mc" should read "microcuries".						
<u>PART 2</u>						
ACCEPTANCE BY STATION REVIEW			<i>Brian Yuhl</i>		<i>Brian Palosi</i>	
DATE			<u>6-8-94</u>		<u>6-8-94</u>	
SUPPLEMENTAL REPORT APPROVED AND AUTHORIZED FOR DISTRIBUTION			<i>Harry Spedall</i>		<u>6-9-94</u>	
			STATION MANAGER		DATE	

NRC FORM 366 (5-92)		U.S. NUCLEAR REGULATORY COMMISSION				APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95							
<b>LICENSEE EVENT REPORT (LER)</b>										ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.			
FACILITY NAME (1) Dresden Nuclear Power Station, Unit 1						DOCKET NUMBER (2) 05000010		PAGE (3) 1 OF 4					
TITLE (4) 50,000 Gallons of Unit 1 Contaminated Demineralized Water Released to Ground Water													
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 NAME	DOCKET NUMBER			
05	07	94	94	-- 001 --	01	06	03	94	None				
OPERATING MODE (9) N		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)											
POWER LEVEL (10) 000		20.2201(b)		20.2203(a)(3)(i)		50.73(a)(2)(iii)		73.71(b)					
		20.2203(a)(1)		20.2203(a)(3)(ii)		50.73(a)(2)(iv)		73.71(c)					
		20.2203(a)(2)(i)		20.2203(a)(4)		50.73(a)(2)(v)		X OTHER					
		20.2203(a)(2)(ii)		50.36(c)(1)		50.73(a)(2)(vii)		(Specify in					
		20.2203(a)(2)(iii)		50.36(c)(2)		50.73(a)(2)(viii)(A)		Abstract below					
		20.2203(a)(2)(iv)		50.73(a)(2)(i)		50.73(a)(2)(viii)(B)		and in Text,					
		20.2203(a)(2)(v)		50.73(a)(2)(ii)		50.73(a)(2)(x)		NRC Form 366A)					
LICENSEE CONTACT FOR THIS LER (12)													
NAME Brian Viehl, Operations Supervisor						TELEPHONE NUMBER (Include Area Code) Ext.2870 (815) 942-2920							
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)													
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS				
B	KC	PSP		N									
SUPPLEMENTAL REPORT EXPECTED (14)													
YES (If yes, complete EXPECTED SUBMISSION DATE).				X	NO		EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR		

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

This report is voluntarily submitted in accordance with 10CFR50.73(a)(1). On Sunday, May 8th, 1994 at approximately 0830, Operations personnel observed an excessive amount of water flowing from one of the storm sewer drains into the Unit 1 intake canal. The source of the water was traced back to the ground near the Unit 1 Radwaste Decant Building. The water was determined to be from the 1A Contaminated Condensate Storage Tank (CST), which was being pumped by the Contaminated Demin Jockey Pump into the Unit 1 Contaminated Demin header (buried schedule 80 carbon steel pipe) and out of a hole into the ground. The jockey pump was running to perform an in service leak test to a repaired valve located in the decant building. The jockey pump was secured and isolated, stopping the spill. The change in level during the test indicated that approximately 50,000 gallons was pumped into the ground. The water was sampled and found to be only slightly contaminated; the activity was not detectable using local survey instruments, and laboratory analysis verified that the activity to be well below 10CFR20 Appendix B limits and ODCM calculation. The highest activity concentration measured was 8.87 E-7 microcuries/milliliter of Cs-137 and 2.09 E-7 microcuries/milliliter of Co-60. Radiation Protection Personnel took control of the Spill. The area surrounding the spill was roped off and the standing water was pumped into the Unit 1 Radwaste System. All areas were surveyed and ropes removed by Tuesday, May 10.



NRC FORM 366A (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
<b>LICENSEE EVENT REPORT (LER)</b> TEXT CONTINUATION				ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.	
FACILITY NAME (1)		DOCKET NUMBER (2)	LER NUMBER (6)		PAGE (3)
Dresden Nuclear Power Station, Unit 1		05000010	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER
			94	-- 001 --	01
					3 OF 4

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

sampling. At 0900 Rad Protection was notified to control the area. Chemistry was sampling various points of ground water, U1 intake Canal and storm sewer discharge lines. At 0930 the Unit 1 Operating Engineer, Health Physics Supervisor, Lead Rad Protection Supervisor, the Station Duty Officer and the resident inspector were all notified. At 1000 Rad Protection reported that the activity of the water was not detectable via local survey instrumentation and wet smears and the 1A CST was sampled. At 1100 HP verified the activity released was below the 10CFR20 App B limits and ODCM calculations. The highest activity concentration measured was 8.87 E-7 microcuries/milliliter of ( ) and 209 E-7 microcuries/milliliter of Co-60. At 1202 on May 8, the 1A ( ) was recorded to be 50%.

At 1223 the handwritten OOS 1-3001 was hung on the U1 Contaminated Demin Pump discharge valves. and pumped to the Unit 1 radwaste system At 1330 RP survey of area found no contamination on ground.

At 1150 on May 9, the computer version of OOS 1-3001 was hung. Following the decision to make a Press Release, at 1548 a 4 hour ENS notification was made in accordance with 10CFR50.72(b)(2)(vi), Inadvertent release of radioactive contaminated materials (SE log).

May 10ch-12, digging activities exposed the line to determine the failure mechanism. On May 12, the location of the underground pipe break was exposed.

Review of maintenance history identified that this type of underground pipe failure has occurred before.

C. CAUSE OF EVENT:

This report is submitted voluntarily in accordance with 10CFR50.73(a)(1). The root cause of this failure is that the pipe coating failed and exposed the 2 inch schedule 80 carbon steel pipe to ground water and impurities, which lead to localized outside diameter initiated corrosion. Based on the material removed from the soil while digging, it is believed that a rock came in contact with the pipe coating and caused this failure.

A root cause of the event was a management deficiency, in that multiple operating crews observed the decrease in CST level without recognizing its significance or taking action.

A contributing factor in this event is that the level of knowledge of the Unit 1 Equipment Status by the Operating Engineer and the Operating Shift was less than adequate. The training, maintenance, housekeeping and operations on Unit 1 have not been held to the same standards as the operating units. This resulted in inadequate control and awareness of the in service leak test.

Another contributing factor identified is the improper weatherization practices which are followed on Unit 1. It is common for valves in the outlying buildings to freeze and rupture.



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D. SAFETY ANALYSIS:

The radiological impact of this event was very small. The source of water, the 1A CST, is only slightly contaminated. The activity concentration is less than the required lower level of detection for liquid effluents. If all 50,000 gallons of contaminated demineralized water lost from the tank were released to the river, the maximum dose to an individual downstream would be less than 0.0001 millirem.

Additionally the safety significance of this event is minimal since sufficient makeup water is available to the Unit 1 Fuel Pool from the Clean Demin and Fire water systems. No other systems, structures or components were affected.

E. CORRECTIVE ACTIONS:

The Site Engineering and Construction (SEC) Manager will develop a lessons learned topic to highlight the proper Backfilling requirements which are described in specification K-4080. The Maintenance Superintendent and SEC Manager will tailgate this information to station maintenance personnel and craft personnel.

The cathodic protection system is being upgraded by installing additional deep well anodes D24483. This activity is in progress and it is viewed by the station as one of the top 25 technical issues.

The Senior Operating Engineer will reenforce the expectation that adverse trends are to be reported and elevated by operating personnel. This event will be used as a Lessons Learned for shift personnel.

The Unit 1 decommissioning team will develop a plan to train appropriate station personnel on future configuration plans.

The Unit 1 Operating Engineer will determine which operator aids are required to maintain equipment status; consideration will be given to drawings, procedures, and/or status boards.

F. PREVIOUS OCCURRENCES:

None

G. COMPONENT FAILURE DATA:

Not Applicable