



**Commonwealth Edison**  
Dresden Nuclear Power Station  
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EDE LTR #91-322

U.S. Nuclear Regulatory Commission  
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Licensee Event Report #91-002-0, Docket #050249 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(i)(B).

E. D. Eenigenburg  
Station Manager  
Dresden Nuclear Power Station

EDE/ade

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III  
File/NRC  
File/Numerical

(ZDVR/225)

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Dresden Nuclear Power Station, Unit 3	Docket Number (2) 0 15 10 10 10 12 14 19	Page (3) 1 of 0 6
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Title (4) Violation of Primary Containment Post Accident Monitor  
Surveillance Interval Due to Management Deficiency

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	15	0	6	9	1	9	1	---	0	0	2	---	0	0	0	5	2	3	9	1	N/A	
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OPERATING MODE (9) POWER LEVEL (10) 0 8 0	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)																				
		<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.36(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 50.73(a)(2)(x)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 73.71(c)	<input type="checkbox"/> Other (Specify in Abstract below and in Text)

LICENSEE CONTACT FOR THIS LER (12)

Name Louis Kline Regulatory Assurance Staff	Ext. 2709	TELEPHONE NUMBER AREA CODE 8 1 5 9 4 2 1 - 2 19 12 10
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> Yes (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> 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)

At 1230 hours on 5/6/91, with Unit 3 operating at 80% rated core thermal power, the Instrument Maintenance Department (IMD) Lead Scheduler notified Operations that the surveillance interval concerning functional check of the 3B Primary Containment Post Accident Hydrogen/Oxygen monitor had been exceeded. Technical Specification Table 4.2.4 requires a 31 day surveillance interval for this activity; application of all allowable extension criteria indicated that the functional check should have been performed prior to 5/5/91. Investigation revealed a root cause of management deficiency due to inadequate awareness of surveillance program requirements on the part of IMD Supervision, with a contributing cause of incognitive personnel error. This event was of minimal safety significance because Primary Containment post accident monitoring could have been performed via the High Radiation Sampling System gas chromatograph if necessary; a 30 day Limiting Condition for Operation was entered in accordance with Technical Specification Table 3.2.6 Note 5 since the redundant 3A monitor was inoperable. The LCO was terminated at 1850 hours on 5/6/91 upon satisfactory completion of the 3B monitor surveillance. Corrective actions initiated to prevent recurrence included review and clarification of surveillance tracking policy with appropriate personnel. A previous event involving a Technical Specification surveillance interval violation was reported by LER 88-14/050237.



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TEXT	Energy Industry Identification System (EIIS) codes are identified in the text as [XX]									

The IMD Lead Scheduler scheduled DIS 2400-5 to be performed on 4/18/91. However, on 4/18/91 the Operations Department wrote a Station Work Request 00944 for the IMD to repair the 3A monitor, which had failed upscale. The IMD prepared a work package and started to work on the 3A monitor on 4/20/91, and planned to perform the previously scheduled surveillance for the 3B monitor upon completion of repairs to the 3A monitor. While the IMD was in the process of repairing the 3A monitor the IMD determined that there was a failure within its detection cell. Work was stopped on the 3A monitor to permit the IMD to rewrite the work package to include the detection cell into the scope of work. The work package was rewritten and work resumed on 4/26/91.

During the repair of the 3A Monitor detection cell the IMD obtained a new cell from the Stores Department. The IMD could not obtain a leak tight fit upon installing an o-ring seal on the new detection cell. It was later determined that the manufacturer (Comsip Delphi) had changed the size of the o-ring groove which caused improper fit-up with the sealing surfaces. The design change was verified by contacting the manufacturer.

The IMD was able to locate a detection cell with the old style o-ring groove at the LaSalle County Generating Station (another Boiling Water Reactor site operated by Commonwealth Edison) and performed an inter-station transfer to allow its use at the Dresden site. The IMD was able to withdraw the old style detection cell from the Stores Department on 5/1/91.

At the same time that the IMD was working on the 3A monitor they were also performing the same surveillance on the Unit 2 2A and 2B Primary Containment Post Accident Monitors. After the IMD completed DIS 2400-5 on the 2A monitor, performance of an additional surveillance procedure (DIS 2400-1, Post-Accident Containment Hydrogen and Oxygen Monitor Calibration) was required. This additional surveillance added an additional four days to the 2A monitor surveillance activity.

During the week of 4/27/91, half of the IMD staff was scheduled to attend a training class for three days and the other half of the IMD staff was scheduled to attend the same training the next three days. This reduced the number of IMD qualified technicians to work on this equipment. Due to the reduced IMD work force and the fact that the Technical Specification critical date for the Unit 2 surveillance was earlier than the Unit 3 Technical Specification critical date, the Lead Scheduler directed that remaining qualified personnel complete the repairs and surveillance of the Unit 2 monitors as first priority. Additionally, the IMD Lead Scheduler misread the critical date for the Unit 3 monitors on a surveillance tracking board in the IMD office and thought an additional week existed to complete the Unit 3 monitor surveillance (the critical date was 5/5/91 and he thought he had until 5/12/91). It should be noted that the IMD Surveillance Coordinator had previously informed the IMD Lead Scheduler of the upcoming 5/5/91 critical date; the Station Surveillance Coordinator had also discussed this concern with the IMD Surveillance Coordinator during the week prior to 5/5/91. Surveillance Coordinators within each station department performing surveillances were established in 1988 to provide enhanced control of surveillances. A Station Surveillance Coordinator, who is part of the Work Planning Department, has overall surveillance tracking responsibility. Surveillance intervals are tracked on a computer data base, with each Department utilizing data base update sheets to keep the Station Surveillance Coordinator informed concerning current status.

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Dresden Administrative Procedure (DAP) 11-02, Surveillance and Periodic Task Scheduling Program, requires that the Department Head of the affected Department be notified by their Department Surveillance Coordinator if any surveillance is not performed prior to the due date. However, investigation revealed that the IMD Surveillance Coordinator did not perform this notification; he was unfamiliar with this requirement. Review of the surveillance data base update sheets found that no place for documentation of Department Head concurrence was provided on the form. This notification is intended to result in increased management attention. Station policy prohibits use of Technical Specification surveillance interval extension criteria beyond the normal due date without concurrence of the appropriate Department Head. Additionally, if a Technical Specification surveillance cannot be completed prior to the critical date, the Department Surveillance Coordinator is required to notify the Department Head, Operations Shift Supervisor, Station Surveillance Coordinator and the Operating Engineer; this is intended to insure that the concern is properly resolved or the equipment is declared inoperable and appropriate Technical Specification LCOs are complied with.

DAP 11-02 also requires that once each working day the Station Surveillance Coordinator generate a list of all the Technical Specification Surveillances that will become critical on the current date and within the next two working days and distribute the list at a daily scheduling meeting to the appropriate schedulers. However, investigation found that approximately 5 months ago the Work Planning Department reorganized the scheduling meeting to two days a week (Tuesday and Thursday) and stopped issuing this list at the meeting. It should be noted that preparation and review of the list continued, however; it was for this reason that the Station Surveillance Coordinator had notified the IMD Surveillance Coordinator of this concern prior to elapsing of the 5/5/91 critical date.

The root cause of this event was therefore attributed to IMD management deficiency due to inadequate tracking and follow-up to ensure the surveillance was done prior to the critical date. A contributing factor was incognitive personnel error on the part of the IMD Department Surveillance Coordinator in that he did not perform the required notifications as the surveillance interval due date was approached or as the extension period elapsed. Had this been performed, actions could have been taken to insure the activity was promptly completed or the equipment declared inoperable. Contributing factors included error on the part of the IMD Lead Scheduler in misreading the IMD surveillance tracking board and management deficiency on the part of the Work Planning Department in that the daily scheduling meeting agenda/routine was revised without appropriate revision to DAP 11-02. However, the IMD Surveillance Coordinator displayed excellent knowledge of the status of IMD surveillances in general and this violation was an isolated case in view of excellent performance in the surveillance tracking area at the Station for the last several years.

D. SAFETY ANALYSIS OF EVENT:

Two post accident Primary Containment Hydrogen/Oxygen monitors are provided for primary containment atmosphere monitoring following a postulated Loss-of-Coolant Accident (LOCA) involving severe fuel damage resulting in hydrogen generation within the Primary Containment.

During the one day period while the surveillance interval for the 3B monitor had been violated with the redundant 3A monitor inoperable for maintenance activity, the HRSS gas chromatograph was available to perform sampling of primary containment hydrogen concentration if necessary. It should also be noted that the 3B monitor would have been functional even though its surveillance interval requirement had been violated.

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A multiplicity of Emergency Core Cooling Systems are provided to control reactor water inventory under design basis LOCA conditions, such that a Primary Containment hydrogen concentration excursion would be prevented. These include the High Pressure Coolant Injection [BJ], Low Pressure Coolant Injection [BO], Automatic Depressurization [SB], and Core Spray [BM] systems. Provision also exists for dilution of the primary containment atmosphere [BB] to mitigate combustible gas conditions.

E. CORRECTIVE ACTIONS:

The following corrective actions were initiated to prevent recurrence of this type of event:

1. The Assistant Superintendent of Work Planning issued a memo to all Department Heads and Department Surveillance Coordinators on 5/21/91 emphasizing the DAP 11-02 requirements concerning notifications that must be performed for upcoming due and overdue surveillances.
2. The Station Surveillance Coordinator shall review with all Department Surveillance Coordinators, and Department Schedulers (along with their backups) the DAP 11-02 surveillance policy requirements to ensure that all procedural reporting requirements are identified and properly implemented. This will be completed by 6/21/91 (249-200-91-02801).
3. The Station Surveillance Coordinator revised the Dresden Surveillance Update Sheet to provide for documentation of Department Head concurrence with surveillances entering interval extension periods on 5/20/91.
4. The Assistant Superintendent of Work Planning will evaluate potential policy changes to enhance the process whereby Work Planning notifies Schedulers and Department Surveillance Coordinators of upcoming due surveillances and revise DAP 11-02 as needed. This revision will also incorporate clarification that the Department Heads are required to document their concurrence with entry into interval extension periods on the Surveillance Update Sheets prior to returning with to the Station Surveillance Coordinator, and will be completed by 9/1/91 (249-200-91-02802).

F. PREVIOUS OCCURENCES:

The most recent previous event involving violation of a surveillance interval is listed below.

F. PREVIOUS EVENTS:

<u>LER Number</u>	<u>Title</u>
88-14/050237	Unit 2/3 Chimney Tritium Sampling Surveillance Interval Exceeded Due To Personnel Error

While performing a review of the Chemistry Department surveillance performance dates, it was discovered that the Dresden Chemistry Procedure (DCP) 1400-3, Calculation of Tritium Activity in Airborne Effluents [IL], had not been performed within the allowable Technical Specification surveillance interval. Technical Specification Table 4.8.1 requires a monthly Tritium activity analysis. The Surveillance was performed on 7/27/88; however, this date was in violation of the monthly surveillance interval which required the analysis to be performed by 7/26/88. Corrective actions included improvements to Chemistry surveillance procedures and establishment of the Station and Department Surveillance Coordinator positions to provide enhanced control of surveillance activities.

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G. COMPONENT FAILURE DATA:

Although this event was not directly related to component failure, the following information is provided for completeness.

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model Number</u>	<u>Mfg. Part Number</u>
Comsip Delphi	Cell Analyzer 02	N/A	1427-B5

An industry wide NPRDS data base search revealed that failures of these monitors have been an adverse trend in the past. Improvements to the sample line configuration and moisture removal system have been implemented.