Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920

April 4, 1979

BBS LTR #79-302

James G. Keppler, Regional Director
Directorate of Regulatory Operations - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Reportable Occurrence Report #79-15/01T-0 Docket #050-237 is hereby submitted to your office in accordance with Dresden Nuclear Power Station Technical Specification 6.6.B.1.(h), errors discovered in the transient or accident analyses or in the methods used for such analyses as described in the safety analysis report or in the bases for the technical specifications that have or could have permitted reactor operation in a manner less conservative than assumed in the analyses.

B. B. Stephenson
Station Superintendent
Dresden Nuclear Power Station

BBS:lcg

Enclosure

cc: Director of Inspection & Enforcement
Director of Management Information & Program Control
File/NRC

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(7-77)

LICENSEE EVENT REPORT

CONTROL BLOCK: [| | | | |] (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

Field	Value
01 Licensee Code (2)	I L R D S 2
License Number (3)	0 0 - 0 0 0 0 0 - 0 0
License Type (4)	4 1 1 1 1
CAT (5)	
CON'T 01 Report Source (6)	L
Docket Number (7)	0 5 0 0 0 2 3 7
Event Date (8)	0 3 2 1 7 9
Report Date (9)	0 4 0 4 7 9

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 General Electric during recent examinations of high exposure control rod blades found
03 significant tube cracking and some loss of B4C in control blades which had not reached
04 previously analyzed end-of-life exposures. The cracking occurred in a small number
05 of tubes as early as 80% of previous blade design exposure limit. No control rod
06 blades at Dresden have reached this 80% criteria at this time.
07
08

09	System Code (11)	Cause Code (12)	Cause Subcode (13)	Component Code (14)	Comp. Subcode (15)	Valve Subcode (16)
	R B	E	C	C O N R O D	Z	Z

(17) LER/RO REPORT NUMBER

Event Year		Sequential Report No.		Occurrence Code	Report Type		Revision No.
7 9	—	0 1 5	/	0 1	T	—	0

Action Taken (18)	Future Action (19)	Effect on Plant (20)	Shutdown Method (21)	Hours (22)	Attachment Submitted (23)	NPRD-4 Form Sub. (24)	Prime Comp. Supplier (25)	Component Manufacturer (26)
G	C	Z	Z	0 0 0 0	Y	N	N	G 0 8 0

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The mechanism of tube cracking appears to be stress corrosion cracking of stainless
11 steel tubing and control material swelling. During cycle 7, approximately 15 to 30
12 blades may reach the 80% criteria, but none should exceed the previously analyzed end
13 of life. Vendor recommendations for increased shutdown margin requirements or reduced
14 blade lifetimes will be followed.

15	Facility Status (28)	% Power (29)	Other Status (30)	Method of Discovery (31)	Discovery Description (32)
	H	0 0 0	NA	D	Notification from General Electric

16	Activity Released (33)	Content of Release (34)	Amount of Activity (35)	Location of Release (36)
	Z	Z	NA	NA

PERSONNEL EXPOSURES

17	Number (37)	Type (38)	Description (39)
	0 0 0	Z	NA

PERSONNEL INJURIES

18	Number (40)	Description (41)
	0 0 0	NA

LOSS OF OR DAMAGE TO FACILITY (43)

19	Type (42)	Description
	Z	NA

PUBLICITY

20	Issued (44)	Description (45)
	N	NA

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NRC USE ONLY

NAME OF PREPARER J. Doxsey PHONE: X-266

GPO 917-926

ATTACHMENT TO LICENSEE EVENT REPORT 79-15/01T-0
COMMONWEALTH EDISON COMPANY (CWE)
DRESDEN UNIT 2 (ILDRS 2)
DOCKET # 050-237

On March 21, 1979, General Electric informed Commonwealth Edison Company personnel that during recent examinations of two high exposure Control Rod Blades from other B.W.R. sites, significant tube cracking had occurred. There had been some loss of B4C observed in several tubes of both rods, one of which had not reached their previously analyzed end-of-life exposures. The other rod with a greater amount of cracking had slightly exceeded its end-of-life exposures. No Control Blades at Dresden have reached this 80% of end-of-life exposure.

The apparent mechanism of the tube cracking in the two inspected blades appears to be stress corrosion cracking of the stainless steel tubing, aided by B4C swelling. During the forthcoming cycle 7 on Unit 2, approximately 15 to 30 blades may reach the new criteria, but none should reach the previously analyzed end-of-life exposure. For Cycle 7, then, a G.E. analyzed shutdown margin penalty will be imposed as may be required.

The exposure of the control blades on Units 1 and 3 will not reach the new criteria prior to the next refueling outages. In these units also, vendor recommendations regarding blade lifetimes will be followed as determined necessary.