



Commonwealth Edison

Quad Cities Nuclear Power Station
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RLB-90-112

April 20, 1990

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

Reference: Quad Cities Nuclear Power Station
Docket Number 50-254, DPR-29, Unit One

Enclosed is Licensee Event Report (LER) 90-008, Revision 00, for Quad Cities Nuclear Power Station.

This report is submitted in accordance with the requirements of the Code of Federal Regulations, Title 10, Part 50.73(a)(2)(ii)(B): The licensee shall report any event or condition that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant.

Respectfully,

COMMONWEALTH EDISON COMPANY
QUAD CITIES NUCLEAR POWER STATION

R. L. Bax

R. L. Bax
Station Manager

RLB/MJB/jlg

Enclosure

cc: R. Stols
T. Taylor
INPO Records Center
NRC Region III

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1)

Docket Number (2)

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Quad Cities Unit One

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Title (4)

Outside Design Basis of Plant because Fire Loading Exceeded Exemption Requests 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 2	2 1	9 0	9 0	0 0 0	0 0	0 4	2 0	9 0	Quad Cities 2	0 5 0 0 0 2 6 5

OPERATING
MODE (9)

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR

(Check one or more of the following) (11)

POWER LEVEL (10)	1	0	0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
				20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
				20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	Other (Specify
				20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	in Abstract
				20.405(a)(1)(iv)	X 50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	below and in
			20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(v)	Text)	

LICENSEE CONTACT FOR THIS LER (12)

Name	TELEPHONE NUMBER
D. Bucknell, Technical Staff Ext. 2193	AREA CODE
E. Hayden Smith, Technical Staff Ext. 2156	3 0 9 6 5 4 - 2 2 4 1

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)

Expected Submission Date (15)	Month	Day	Year
Yes (If yes, complete EXPECTED SUBMISSION DATE)	X	NO	

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

ABSTRACT:

At 1730 hours on March 21, 1990, Unit One was in the RUN mode at 100 percent of rated core thermal power. It was discovered that several fire zones had exceeded the amount of fixed fire loading stated in the exemption requests to 10CFR50.48, Appendix R.

The cause of this event is management deficiency. Prior to updating the Updated Fire Hazards Analysis (UFHA), a review of the limits allowed for each area was not done as no program to perform this review was in place.

Although the increase in fire loading for these areas was minimal, a continuous fire watch was established. A courtesy Emergency Notification System (ENS) phone notification was completed on March 21, 1990, at 1820 because the specific reporting criteria could not be determined. After discussions with corporate and the NRC in Washington, on March 28, 1990 at 2052 hours an ENS phone notification was completed in accordance with 10CFR50.72(b)(1)(ii)(B) due to being outside the design basis.

The combustibles for each fire zone are now controlled. A computer program was created to assist in tracking combustible loads. Procedure revision and checklist development are further corrective actions to be implemented. This report is being submitted in accordance with 10CFR50.73(a)(2)(ii)(B).

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						Page (3)		
		Year		Sequential		Revision				
				Number		Number				
Quad Cities Unit One	0 5 0 0 0 2 5 4	9 0	-	0 0 8	-	0 0	0 2	OF	0 3	
TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]										

PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2511 MWT rated core thermal power.

EVENT IDENTIFICATION: Outside Design Basis of Plant because Fire Loading Exceeded Exemption Requests due to Management Deficiency

A. CONDITIONS PRIOR TO EVENT:

Unit: One	Event Date: March 21, 1990	Event Time: 1730
Reactor Mode: 4	Mode Name: RUN	Power Level: 100%

This report was initiated by Deviation Report D-4-1-90-030

RUN Mode (4) - In this position the reactor system pressure is at or above 825 psig, and the reactor protection system is energized, with APRM protection and RBM interlocks in service (excluding the 15% high flux scram).

B. DESCRIPTION OF EVENT:

At 1730 hours on March 21, 1990, Quad Cities Unit One was in the RUN mode at 100 percent of rated core thermal power. Unit Two was in the Refuel mode. During a Corporate Quality Assurance Audit, it was noted that protective clothing was being stored in the Turbine [TRB] Building [NM]. The Updated Fire Hazards Analysis (UFHA) listed the clothing under combustible loads for the zone. However, further investigation revealed that addition of the clothing had exceeded an Appendix R exemption request limit for the fire zone.

Further comparisons of the UFHA and exemption requests revealed four other fire zones with similar problems: the Unit Two Battery Room, the Unit One/Two Steam Jet Air Ejector Floor, 1B Core Spray Pump Room, and the 2A Core Spray Pump Room. In all of these fire zones, the increase in combustible loading had been added to the UFHA, but had not been evaluated against the Appendix R exemption requests.

A continuous fire watch was immediately established in these areas. A courtesy NRC notification of the event was completed via the Emergency Notification System (ENS) telephone system at 1820 hours on March 21, 1990, because the appropriate reporting criteria could not be determined. After discussions with corporate and the NRC in Washington, on March 28, 1990, at 2052 hours, an ENS phone notification was completed in accordance with 10CFR50.72(b)(1)(ii)(B) due to being outside the design basis.

C. APPARENT CAUSE OF EVENT:

This report is being submitted in accordance with the requirements of 10CFR50.73(a)(2)(ii)(B) which requires that the licensee report any event or condition that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant.

The cause of this event is management deficiency. There was not a program in place to insure that the exemption request fire loading limits were not exceeded. The additional loading to each area was incorporated into the UFHA but the UFHA was not compared to the exemption request limits when the changes were made.

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

A contributing factor to this event involved the original exemption requests. The original exemptions were requested because not all fire zones met the required separation criteria. The requests were determined by using only the fixed load of the zone at that time. No consideration was given to what the zone could actually handle. Thus, there was no margin for any increase in fire loading.

D. SAFETY ANALYSIS OF EVENT:

The safety of plant and personnel was not affected by this event. Analysis of additional fire loading for these areas indicated minimal effect with respect to the fire rated barriers and size of each area.

E. CORRECTIVE ACTIONS:

Fire watches were immediately established in the five affected fire zones. Engineering evaluations were done to determine the effects of the added fire load. The evaluations will be the basis for new exemption requests (NTS 2542009003001).

QAP 1700-1, Flammable and Combustible Materials Control, was revised to improve the control of combustible loads brought into the plant. A computer program (FIREPROT) was created to assist in tracking combustible loads in the plant. All fire zones that have combustible limits specified by exemption request are now limited by the program to those limits. Exceeding the limits will result in compensatory measures.

To prevent recurrence, a checklist will be developed to ensure a thorough review during the modification process for combustible loading in the plant (NTS 2542009003001). QAP 1700-1 will be revised to provide an annual review of the added transient combustible loads for inclusion in the annual update of the UFHA (NTS 2542009003002). The corporate fire protection group will review and approve all changes to the UFHA (NTS 2542009003003).

F. PREVIOUS EVENTS:

There have been no similar events involving fixed combustibles listed in the UFHA. Therefore, the corrective actions are considered sufficient.

G. COMPONENT FAILURE DATA:

No component failures were involved with the event.