

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Indian Point Unit No. 2	DOCKET NUMBER (2) 05000247	PAGE (3) 1 OF 03
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TITLE (4)
Failure of Two Booster Fans Render Control Room Ventilation Inoperable

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)																																																																																																																											
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LICENSEE CONTACT FOR THIS LER (12)

NAME Joseph Goebel, Test Engineer	TELEPHONE NUMBER
	AREA CODE: 914 NUMBER: 526-5180

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC. TUNER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFAC. TUNER	REPORTABLE TO NRC	
X	LH	FAN	W120	Y							
X	LH	FAN	W120	Y							

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (16)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (18)

At 1800 on June 3, 1987 while Unit No. 2 was operating at 100% power Control Room (CCR) Ventilation Booster Fans (FAN) 21 and 22 were determined to be unable to achieve the design flow specified in the Technical Specifications. This was detected as a result of a routine surveillance test.

Fan belts were tightened, balance dampers adjusted, and the fans retested successfully.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (6)

PAGE (3)

Indian Point Unit No. 2

YEAR	SEQUENT A: NUMBER	REVISION NUMBER	PAGE (3)	
87	007	00	02	OF 03

TEXT IF more space is required use additional NRC Form 366A (1/77)

Plant and System Identification:

Westinghouse 4-loop water reactor

Identification of Occurrence:

Inability of two Control Room Ventilation System Booster Fans to achieve design flow

Event Date:

June 3, 1987

Report Date:

July 3, 1987

Reference:

SOR 87-280

Past Similar Events:

None

Description of Occurrence:

At 1800 on June 3, 1987 while Unit No. 2 was operating at 100% power both CCR Booster Fans (FAN) were determined to be unable to achieve design flow during a routine surveillance test in accordance with Technical Specification 5.6.E.2. The specified air flow is between 1840 and 2024 CFM with either fan (FAN) in service. The "as found" flows were 1690 and 1326 CFM for 21 and 22 Booster Fans (FAN) respectively. These fans (FAN) are normally in a standby mode with 21 fan (FAN) starting when the ventilation swaps to recirculation through the charcoal filters (FLT). Booster Fan 22 (FAN) is a backup and starts if 21 Booster Fan (FAN) fails to start.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES 6/30/85

FACILITY NAME (1) Indian Point Unit No. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 4 7	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 7	- 0 0 7	- 0 0	0	3	OF 0 3

TEXT IF more space is required use additional NRC Form 305A (1/77)

Analysis of Occurrence:

This event is being reported as a condition that alone could have prevented the fulfillment of the safety function of the CCR ventilation system. The CCR ventilation system is required to permit occupancy of the CCR following a hypothetical LOCA in order to mitigate the consequences of that event. The FSAR, which estimates the radiation dose to CCR personnel under these circumstances, concludes that the CCR ventilation in the recirculation mode is required to operate at a nominal 1800 CFM air flow.

The FSAR calculation presumes a CCR ventilation flow rate of 1800 CFM through the Charcoal filters and continuous occupancy of the CCR for a 30 day period. No credit is taken for the Containment Weld Channel and Penetration Pressurization System (WCPPS) or the Isolation Valve Seal Water System (IVSWS) which effectively prevent radiation leakage from Containment following a hypothetical LOCA. An estimate of the dose reduction due to actuation of the WCPPS and IVSWS is contained in the FSAR. The Thyroid dose is reduced by a factor of approximately 60 and the whole body dose by a factor of approximately 100.

In the event of an accident both the WCPPS and IVSWS would be activated within one minute. Furthermore, no accident scenario requires any individual to be continuously present in the CCR for 30 days. In all likelihood staff rotation would occur after the first 48 hours to preclude personnel fatigue. Thus, it is concluded that the low fan flows measured during the test would not have caused the CCR to become uninhabitable. There exists a substantial margin of safety between the analysis contained in the FSAR and actual conditions.

Cause of Occurrence:

The fans are belt driven via 480 volt motors off a vital A.C. bus. Inspection of both fans indicated that the drive belts had stretched and slippage was taking place.

Corrective Action:

The belts were adjusted on both fans and during subsequent retesting the required flow for 21 fan was verified. However, 22 could still not pass its required flow. An adjustment was made to a system balance damper and "as left" flows were 1948 and 1849 for 21 and 22 fans respectively. This is within the design limits of 1840 to 2024 CFM. Due to this occurrence, surveillance testing will be accomplished on a variable reduced frequency interval.

Murray Selman
Vice President

Consolidated Edison Company of New York, Inc.
Indian Point Station
Broadway & Bleakley Avenue
Buchanan, NY 10511
Telephone (914) 737-8116

July 2, 1987

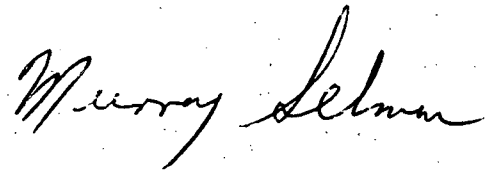
Re: Indian Point Unit No. 2
Docket No. 50-247
LER-87-07

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

Dear Sirs:

The attached Licensee Event Report LER-87-007-00 is hereby submitted in accordance with the requirements of 10 CFR Part 50.73.

Very truly yours,



att

cc: Mr. William Russell
Regional Administrator - Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 38
Buchanan, NY 10511

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