NRC Form 366 (9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point Unit 3	0 5 0 0 0 2 8 6	1 OF 0 5

TITLE (4) Personnel error, inattention to detail, resulted in possible failure of Fan Cooler Unit Dampers to operate.

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 NUMBERS
0 4	1 4	9 3	9 3	0 1 3	0 0	0 5	1 4	9 3		0 5 0 0 0
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OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: Check one or more of the following (11)			
POWER LEVEL (10)	0 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 in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (AREA CODE)
Bernadette D. Wiggin, Assistant Maintenance Engineer	9 1 4 7 3 6 - 8 6 3 6

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
A	B K	C D M P	A 3 4 0	Y					

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
X YES (If yes, complete EXPECTED SUBMISSION DATE)	NO		0 7	1 5	9 3

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

On April 14, 1993, at approximately 2000 hours, with the plant in the cold shutdown condition, the control room operators performing SOP-CB-10, "Fan Cooler Unit Operation," discovered that dampers A and B on three of the five fan cooler units (FCU) did not operate as required. As a result, in the event of an emergency, the dampers may not have assumed their fully closed post accident position. On April 23, 1993 the Authority determined that the FCUs were inoperable for an indeterminate time from July 23, 1992 to March 7, 1993, while the plant's operation varied between full power and cold shutdown. Operation of the reactor with inoperable FCUs is prohibited by Indian Point 3 Technical Specifications 3.3.B.1.b, 3.3.B.2.a and 3.3.B.3.b. The cause of this event is personnel error, inattention to detail, that resulted in failure to include the dampers in a preventive maintenance program. The Maintenance Department will develop a preventive maintenance procedure and will include the FCU dampers in the program. The Maintenance Department will review the vendor technical manuals to ensure that vendor recommendations are being followed. The FCU dampers were cleaned, lubricated and satisfactorily retested by April 27, 1993.

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DESCRIPTION OF THE EVENT

On April 14, 1993, at approximately 2000 hours, while the plant was at cold shutdown with Reactor Coolant temperature and pressure at 112 degrees F and 0 psig respectively, the control room operators, while performing SOP-CB-10, "Fan Cooler Unit Operations," observed that closing the dampers via their respective Central Control Room (CCR) control switches, did not result in actuation of the close indication lamps for A and B dampers on 32, 34 and 35 Fan Cooler Units (BK) (CDMP). The Shift Supervisor dispatched a Nuclear Plant Operator (NPO) to the Vapor Containment (VC) to verify the damper positioning, and the dampers in question were verified open. The control room operator then cycled the dampers and the NPO verified that 32, 34 and 35 Fan Cooler Units (FCU), A and B dampers, did not close. The dampers are manufactured by the American Warming and Ventilation, Inc. and are Model No. DAA-P3274-18.

On April 14, Problem Identifications (PIDs) were submitted for approval and work requests were generated. On April 15, 1993, at approximately 2100 hrs. mechanics were sent into containment and they reported that all the dampers were shut, except the A damper on 32 FCU. The mechanic reported that the damper linkages and bearing housings were dirty for all dampers. The pins connecting the linkages were rusty and paint chips were noted on the arms where the linkages connect to the louvers. The rust was cleaned from the pins and dirt and rust was cleaned from the linkages. The linkage arms and pistons were lubricated with Mobil AW-2 Grease. The dampers were operated from the Control Room and found to perform as intended. Although no work had been performed on the C and D dampers, they also operated satisfactorily. The dampers were retested by April 27, 1993 and all dampers on 32, 34 and 35 FCUs functioned normally. The dampers were therefore declared operable.

Following the incident, maintenance conducted a review of the Westinghouse vendor manual for the FCUs. The manual gives specific instructions for maintenance of the dampers. Lubricants for pins and linkages are specified, bearings are listed as being lifetime lubricated and specific parts are recommended to be replaced on a regular basis. Westinghouse, in their manual recommends that the dampers be inspected on an annual basis. However, the dampers were not included in a preventive maintenance program, and were not maintained as prescribed by the manufacturer.

There are several Performance Tests which either test the dampers' operation or rely on the operation of the dampers. The successful completion of these tests provides assurance that the dampers were operational prior to May 30, 1992. The reactor was brought above cold shutdown on July 23, 1992 and operated intermittently until March 7, 1993; on April 23, 1993, the Authority determined that the FCUs were inoperable during this period.

CAUSE OF THE EVENT

This event was caused by personnel error, inattention to detail, that resulted in failure to include the FCU dampers in a preventive maintenance program as recommended in the vendor's technical manual. This resulted in failure of the dampers from accumulation of dirt and rust and lack of lubrication. Maintenance on these dampers has been performed only on an as needed basis, although the Solenoid Valves which control the dampers are maintained as per the plant's Environmental Qualification (EQ) Program.

CORRECTIVE ACTIONS

Work requests have been generated for the remaining dampers (31 and 33 FCU - dampers A through D and 32, 34 and 35 FCU - dampers C and D) to be cleaned, lubricated and demonstrated operable. This will be completed prior to startup.

Prior to startup, a maintenance procedure will be developed and implemented to require the annual inspection, cleaning and repair of the FCU dampers in accordance with vendor recommendations.

To determine the extent of this condition the Maintenance Department reviewed a sample of Westinghouse and Non-Westinghouse manuals for safety related equipment. This review was made to determine if maintenance was being performed as per vendor recommendations. The manuals for the 31, 32 and 33 Emergency Diesel Generators and the Auxiliary Boiler Feed Pumps, Safety Injection Pumps, Containment Spray Pumps and Residual Heat Removal Pumps were reviewed. Based on these reviews and conversations with vendor representatives, the Maintenance Department determined that the Diesel Generators and listed Pumps are being adequately maintained. However, the frequency of maintenance for the Diesel Generators is currently being reviewed by the Authority and the vendor.

Performance Improvement Plan (PIP) Item # 174 has been developed as a long term action to systematically review and evaluate plant systems and components for their potential inclusion in the preventive maintenance program and to then review applicable vendor manuals and recommend changes to existing preventive maintenance procedures or develop new procedures as required.

ANALYSIS OF THE EVENT

The inlet dampers on 32, 34 and 35 FCUs were in a state of degraded operability during a period of intermittent plant operation above cold shutdown from July 23, 1992 to March 7, 1993. This condition is prohibited by Indian Point 3 Technical Specifications 3.3.B.1.b, 3.3.B.2.a and 3.3.B.3.b. During this period, while the plant was operating, there was the possibility that three of the five FCUs may have failed to perform their required function during a design-basis Loss of Coolant Accident (LOCA).

SAFETY SIGNIFICANCE

During the period when the subject condition existed, the two containment spray pumps and the two remaining FCUs were operable. The remaining components have the capability for containment heat and iodine removal for normal and accident conditions. The Authority performed an evaluation to determine the radiological impact of the inoperability of these inlet dampers on 32, 34 and 35 Fan Cooler Units. Based on these calculations the Authority concluded that the site boundary, low population zone and main control room radiation exposures following a design-basis LOCA would remain within the guidelines.

During the period in question an Emergency Diesel Generator was intermittently removed from service. The Authority will evaluate the potential radiological effects of the dampers failing to close coincident with a design basis event and a loss of power occurring during those relatively short periods when a diesel generator was inoperable. If those results exceed design-basis guidelines they will be reported in a supplement to this report.