

Indian Point 3  
Nuclear Power Plant  
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L. M. Hill  
Resident Manager

September 26, 1994  
IPN-94-121

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop PI-137  
Washington, D.C. 20555

SUBJECT: Indian Point 3 Nuclear Power Plant  
Docket No. 50-286  
License No. DPR-64  
Licensee Event Report # 94-009-00  
"The Central Control Room Ventilation System Is Outside Of  
Design Basis Because Of Inoperable Seismic Supports Due To  
Personnel Error"

Dear Sir:

The attached Licensee Event Report (LER) 94-009-00 is hereby submitted as required by 10CFR50.73. This event is of the type defined in 10CFR50.73(a)(2)(ii)(B). Also attached are the commitments made by the Authority in this LER.

Very truly yours,

A handwritten signature in black ink, appearing to read 'L. M. Hill'.

L. M. Hill  
Resident Manager  
Indian Point 3 Nuclear Power Plant

LMH/vjm

cc: See next page

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cc: Mr. Thomas T. Martin  
Regional Administrator  
Region I  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, Pennsylvania 19406-1415

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Atlanta, Georgia 30339-5957

U.S. Nuclear Regulatory Commission  
Resident Inspectors' Office  
Indian Point 3 Nuclear Power Plant

Attachment 1  
List of Commitments

Number	Commitment	Due
IPN-94-121-01	Modification DC-94-3-268 CRHV will relocate, modify and replace degraded parts to assure the seismic supports for the CCR 31 and 32 air conditioning units meet their original design basis. This will correct the deficiency.	Prior to Startup
IPN-94-121-02	Return the CCR AC system to a material condition that ensures reliable performance by corrective maintenance and improvements. This commitment, made at an August 3, 1994 meeting with the NRC, will correct material condition deficiencies in the CCR HVAC system.	Prior to Startup
IPN-94-121-03	Institute a program to maintain the CCR AC system in a material condition that ensures reliable performance by enhanced preventive maintenance. This commitment, made at an August 3, 1994 public meeting with the NRC, will prevent recurrence of material condition deficiencies in the CCR HVAC system.	Prior to Startup

**LICENSEE EVENT REPORT (LER)**

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

<b>FACILITY NAME (1)</b> Indian Point Unit 3	<b>DOCKET NUMBER (2)</b> 05000286	<b>PAGE (3)</b> 1 OF 5
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**TITLE (4)**  
The Central Control Room Ventilation System Is Outside Of Design Basis Because Of Inoperable Seismic Supports Due To Personnel Error

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 NAME	DOCKET NUMBER
08	28	94	94	-- 009 --	00	09	26	94	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

<b>OPERATING MODE (9)</b> N	<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §:</b> (Check one or more) (11)			
<b>POWER LEVEL (10)</b> 000	<input type="checkbox"/> 20.402 (b)	<input type="checkbox"/> 20.405 (c)	<input type="checkbox"/> 50.73 (a) (2) (iv)	<input type="checkbox"/> 73.71 (b)
	<input type="checkbox"/> 20.405 (a) (1) (i)	<input type="checkbox"/> 50.36 (c) (1)	<input type="checkbox"/> 50.73 (a) (2) (v)	<input type="checkbox"/> 73.71 (c)
	<input type="checkbox"/> 20.405 (a) (1) (ii)	<input type="checkbox"/> 50.36 (c) (2)	<input type="checkbox"/> 50.73 (a) (2) (vii)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.405 (a) (1) (iii)	<input type="checkbox"/> 50.73 (a) (2) (i)	<input type="checkbox"/> 50.73 (a) (2) (viii) (A)	(Specify in Abstract below and in Text, NRC Form 366A)
	<input type="checkbox"/> 20.405 (a) (1) (iv)	<input checked="" type="checkbox"/> 50.73 (a) (2) (ii)	<input type="checkbox"/> 50.73 (a) (2) (viii) (B)	
<input type="checkbox"/> 20.405 (a) (1) (v)	<input type="checkbox"/> 50.73 (a) (2) (iii)	<input type="checkbox"/> 50.73 (a) (2) (x)		

**LICENSEE CONTACT FOR THIS LER (12)**

<b>NAME</b> John Bencivenga, Senior Mechanical Engineer	<b>TELEPHONE NUMBER (Include Area Code)</b> (914) 681-6227
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**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

<b>SUPPLEMENTAL REPORT EXPECTED (14)</b>				<b>EXPECTED SUBMISSION DATE (15)</b>	MONTH	DAY	YEAR
<b>YES</b> (If yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO					

**ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)**

ABSTRACT

On August 28, 1994, at approximately 1330 hours with the reactor in cold shutdown at atmospheric pressure, Technical Services concluded that the seismic supports of the Central Control Room air conditioning units were inoperable, and made a four hour report because the Central Control Room (CCR) Heating Ventilating and Air Conditioning (HVAC) system (air conditioners) was outside design basis. The event was caused by personnel error, misjudgment by management by not properly assessing, over a number of years, the significance and priority of the material condition of the CCR HVAC system. Immediate action was taken to provide temporary supports. Corrective action will restore the seismic supports to their design basis condition, return the air conditioning system to a material condition that ensures reliable performance and implement an enhanced preventive maintenance program to maintain the material condition.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Indian Point Unit 3	05000286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 5
		94	-- 009 --	00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

DESCRIPTION OF EVENT

On August 28, 1994, at approximately 1330 hours with the reactor in cold shutdown (reactor power level at 3 cps, reactor coolant temperature at 93 degrees F, reactor coolant pressure at atmospheric and pressurizer level at 0%), Technical Services Department (TSD) issued deviation event report (DER) 94-740 to identify that the supports (SPT) for the Central Control Room (CCR) (NA) air conditioning unit (ACU) 31 were inoperable due to heavy corrosion and loss of support material. The condition of the supports of CCR ACU 32 was not known at the time because maintenance inspection and repair had not been performed. TSD conservatively assumed that they were in a similar condition. TSD reported the event as a four hour report made on August 28, 1994 at approximately 1654 hours.

Maintenance inspection and repair of the CCR ACU supports was scheduled as part of material condition improvement work whose purpose was to restore the air conditioning units including their supports and ductwork to their original condition. While preparing (i.e., sandblasting and wirebrushing) the baseplates supporting the air conditioner casing for a protective coating, Maintenance found that an unacceptable amount of the metal on the seismic supports of the 31 CCR ACU was rusted through. TSD concluded, with support from the Nuclear Engineering Department (NED), that the seismic supports could have failed under seismic loads causing the loss of CCR ACU 31 and that CCR ACU 32 could also fail as a direct consequence of the seismic loads or consequential damage from the CCR ACU 31.

TSD performed the initial investigation of the event and determined that the degradation of the seismic supports was caused by condensate. As a result of a corroded and leaky condensate drip pan and a corroded drain pipe, the evaporator (EVP) had dripped on the supports over a long period of time. The ductwork was not insulated which caused condensate ("sweat") to drip, resulting in pooling of water on the floor and subsequent corrosion. Plant personnel had recognized the poor material condition over a period of years but no action was taken to correct the condition. The time when the supports became inoperable is indeterminate.

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Indian Point Unit 3	05000286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 5
		94	-- 009 --	00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

Interim action was taken immediately by the Maintenance Department. Wooden blocks and boards were placed underneath both air conditioning units to provide additional support. These additional supports did not provide seismic support capability. The CCR Heating Ventilating and Air Conditioning (HVAC) (SI) system is not required to be operable by the Technical Specifications until containment integrity is required. The wooden blocks and boards will be removed when corrective action is completed.

Corrective action has been initiated to restore the CCR ACU supports to meet their original design basis and to prevent similar corrosion. An effort to restore material condition has corrected the deficiencies that directly resulted in the corrosion (i.e., the degraded drip pan under the evaporators has been replaced, the ductwork has been insulated and the degraded drain pipe has been replaced with upgraded material). Modification DC-94-3-268 CRHV will relocate, modify and replace degraded parts to assure the supports meet their original design basis.

CAUSE OF THE EVENT

The event was caused by personnel error, misjudgment by management by not properly assessing, over a number of years, the significance and priority of the material condition of the CCR HVAC system.

CORRECTIVE ACTION

The following actions have been or will be performed to correct and prevent recurrence of this event:

1. Modification DC-94-3-268 CRHV will relocate, modify and replace degraded parts to assure the seismic supports for the CCR 31 and 32 air conditioning units meet their original design basis. This will correct the deficiency and be completed prior to startup.
2. Return the CCR air conditioning system to a material condition that ensures reliable performance by corrective maintenance and improvements. This commitment, made at an August 3, 1994 meeting with the NRC, will correct material condition deficiencies in the CCR HVAC system and will be completed prior to startup.

**LICENSEE EVENT REPORT (LER)**  
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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Indian Point Unit 3	05000286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 5
		94	-- 009 --	00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

3. Institute a program to maintain the CCR air conditioning system in a material condition that ensures reliable performance by enhanced preventive maintenance. This commitment, made at an August 3, 1994 public meeting with the NRC, will prevent recurrence of material condition deficiencies in the CCR HVAC system. The program will be instituted prior to startup.
4. The "Restart And Continuous Improvement Plan" transmitted to the NRC in IPN-94-063 on May 27, 1994 defined the Authority's plans to assure effective plant management. The Authority will implement corrective actions for plant startup as outlined in Section II of the Restart And Continuous Improvement Plan. This commitment repeats commitment IPN-94-063-01.

ANALYSIS OF THE EVENT

This event was initially reported in a four hour report under 10 CFR 50.72(b)(2)(iii)(A). The Licensee shall report any event or condition that resulted in the plant being in a condition that affected the safe shutdown capability. The event is also reportable under 10 CFR 50.73(a)(2)(ii)(B). The Licensee shall report any event or condition that resulted in the plant being in a condition that was outside the design basis of the plant. The supports for the CCR ACUs are designed to remain operable during and following a seismic event. Failure of the 31 CCR ACU supports under seismic loads could have rendered both CCR ACUs inoperable. At least one CCR ACU is required to meet the "Functional Capacity" of the Control Room HVAC system.

Other events related to inadequate inspection or maintenance of the CCR HVAC system are reported in LERs 93-36 and 93-44. Other events related to material conditions that were not identifiable or inadequate due to material inspections or preventive maintenance are reported in LERs 93-13, 93-18, 93-19, 93-20, 93-24 and 93-41.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Indian Point Unit 3	05000286	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	5 OF 5
		94	-- 009 --	00	

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**SAFETY SIGNIFICANCE**

This event did not affect the health and safety of the public. The design basis event of a Loss of Coolant Accident (LOCA) coincident with a Loss of Offsite Power (LOOP) or a toxic gas release would not have resulted in consequential failure of the CCR ACU supports since no additional loads (i.e., seismic) would have been imposed. Therefore, the CCR ACU would have continued to perform their intended function. Although the CCR HVAC system is designed to remain functional following an earthquake, the plant design basis does not include an earthquake concurrent with a LOCA or toxic gas release. A seismic event after these events would not be significant because the toxic effects are gone within the hour and most radiological dose is received in the first 8 hours (radiological effects are essentially gone within 30 days). It is not considered reasonable to postulate the earthquake in this time period. Loss of both air conditioning units following an earthquake induced failure of their supports would not have prevented the safe shutdown of the plant. The operators would have become aware of the loss of CCR air conditioning due to rising temperature. Corrective action such as that identified in LER 93-045-01 (i.e., opening control room doors and using nearby fire exhaust fans) or actions specified for the loss of all AC power event would allow the operators time to safely shutdown the plant.

The potential for degraded seismic supports due to condensation is restricted to the CCR HVAC system because this is the only safety related heating, ventilating and air conditioning system that employs air conditioning. The extent of condition is therefore limited to the 32 AC unit. The corrective action applies to both the 31 and 32 ACUs.