

Stephen B. Bram
Vice President

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

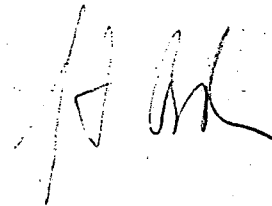
July 6, 1992

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 92-14-00

Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

The attached Licensee Event Report LER 92-14-00 is hereby
submitted in accordance with the requirements of 10 CFR 50.73.

Very truly yours,



Attachment

cc: Mr. Thomas T. Martin
Regional Administrator - Region I
US Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Francis J. Williams, Jr., Project Manager
Project Directorate I-1
Division of Reactor Projects I/II
US Nuclear Regulatory Commission
Mail Stop 14B-2
Washington, DC 20555

Senior Resident Inspector
US Nuclear Regulatory Commission
PO Box 38
Buchanan, NY 10511

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LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)
Indian Point Unit No. 2

DOCKET NUMBER (2)
0 5 0 0 0 2 4 7

PAGE (3)
1 OF 0 5

TITLE (4)
CCR Ventilation Isolation Due to Ammonia Toxic Gas Monitor Alarms

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 6	0 5	9 2	9 2	0 1 4	0 0	0 7	0 6	9 2		0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9) N

POWER LEVEL (10) 1 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

20.402(b)	20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.38(c)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.38(c)(2)	<input type="checkbox"/>	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	50.73(a)(2)(i)	<input type="checkbox"/>	50.73(a)(2)(viii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(viii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: George Dahl, Engineer

TELEPHONE NUMBER: 9 1 1 4 5 2 6 - 1 5 1 1 8 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

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15): 1 0 0 1 9 2

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

On June 5, 1992, and again at eight other times during the month, channel 2 of the Central Control Room (CCR) toxic gas monitor alarmed at the setpoint of 3 ppm and isolated the CCR ventilation system, which is an Engineered Safety Feature. Local manual sampling following each of the nine actuations determined there was no ammonia present in the CCR. Alarms were reset as indicated levels permitted and the ventilation system was eventually returned to the normal mode which uses outside air make-up. The specific cause for the actuations is under investigation. As of this date, several components of the monitor have been replaced. The alarm setpoint will be increased to avoid ventilation system isolations at non-toxic levels of ammonia after approval of a pending Technical Specification Amendment Application. The CCR ventilation system functioned as designed and the health and safety of the public were not affected by these events.

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

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FACILITY NAME (1) Indian Point Unit No. 2	DOCKET NUMBER (2) 0 5 0 0 0 2 4 7 9 2	LER NUMBER (6)			PAGE (3)						
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER							
		9	2	0	1	4	0	2	OF	0	5

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

PLANT AND SYSTEM IDENTIFICATION:

Westinghouse 4-Loop Pressurized Water Reactor

IDENTIFICATION OF OCCURRENCES:

Alarming of Central Control Room (CCR) channel 2 ammonia toxic gas monitor causes isolation of the CCR ventilation system, an Engineered Safety Feature (ESF).

EVENT DATES:

June 5, 9, 10, 15, 21, 25, July 1, 5, 6, 1992

REPORT DUE DATE:

July 6, 1992

REFERENCES:

Significant Occurrence Reports (SOR) 92-278, 92-284, 92-289, 92-299, 92-306, 92-310, 92-323, 92-330, 92-331

PAST SIMILAR OCCURRENCES:

Two events that occurred in May, 1992 were reported in LER 92-10. However, indications of ammonia were obtained on both channels and their differences were within the expected tolerance limits for the detection system. It is not clear at this time if those events had the same cause as the events reported herein, but this will be determined in the ongoing investigation.

DESCRIPTION OF OCCURRENCES:

There have been a number of recent events involving the CCR ammonia toxic gas monitors. All have occurred at 100% power and at various times although the majority have occurred in the early morning hours. In all cases, upon alarming of the channel 2 monitor at the setpoint of 3 ppm, the CCR ventilation system transferred from the normal outside air make-up alignment to full internal recirculation. Local manual sampling of the CCR indicated no presence of ammonia in all of the occurrences. Alarms were reset when indicated levels decreased sufficiently and the ventilation system was eventually returned to the normal mode.

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TEXT CONTINUATION**

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		9 2	- 0 1 4	- 0 0	0 3	OF 0 5	

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

DESCRIPTION OF OCCURRENCES: (continued)

The events have involved short-term trending, long-term trending or spiking of the indications and they are summarized as follows:

<u>Date</u>	<u>Actuation Time(hours)</u>	<u>Channel 2 Max ppm</u>	<u>Channel 1 Max ppm</u>
June 5	0025	6.0	0.0
June 9	0615	6.0	0.5
June 10	1132	5.5	0.0
June 15	2215	4.0	1.0
June 21	0328	6.0	1.5
June 25	0240	4.0	0.0
July 1	0955	3.0	0.0
July 5	1815	3.0	0.0
July 6	0659	3.0	0.0

It should be noted that the maximum concentrations recorded for each channel were not attained at the same time.

ANALYSIS OF OCCURRENCES:

The CCR ammonia toxic gas monitor consists of two channels that sample the intake air of the CCR ventilation system. The channels are newly installed electro-chemical type monitors which use a gas diffusion sensor that generates a current that is proportional to the concentration of the gas. The sensor communicates with a transmitter which relays a signal to a receiver. An alarm on either channel will automatically transfer the ventilation system from the normal line-up, which uses outside air make-up, to the incident mode of full recirculation. The alarm setpoint for ammonia is 3.0 ppm and the Technical Specification limit is 3.5 ppm.

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ANALYSIS OF OCCURRENCES: (continued)

For the events reported herein, channel 2 reached the alarm setpoint in all instances, channel 1 did not always indicate and the differences between the indications on the two channels are not within expected tolerance limits for the detection system. In all the occurrences, the CCR ventilation system functioned as designed by successfully isolating the CCR from the outside air supply upon the indication of ammonia. However, assuming there actually was ammonia present, because the levels indicated are well below the threshold limit value for toxic effects that is recognized by the American Conference of Government Industrial Hygienists (ACGIH), the isolation of the ventilation system was not required to mitigate any adverse condition. Further, since the levels indicated did not exceed the ACGIH recognized value for toxicity, a hypothetical failure of the ventilation system to isolate would not have resulted in any adverse effects. Therefore, there were no safety consequences of these events. This report is being made, however, because the CCR ventilation system is an ESF and it was actuated to its safeguards position.

CAUSE OF OCCURRENCES:

Investigation of the actual cause(s) of these events is ongoing and results will be presented in a supplemental report.

CORRECTIVE ACTIONS:

The sensor and transmitter for channel 2 has been replaced and both channels have been successfully calibrated several times. During the course of the investigation a loose connection on the channel 1 inlet tubing was discovered and repaired. Subsequent events have occurred since these corrective actions were taken. A sample vessel has been installed on the monitor exhaust line and a sample was obtained during the June 25 event. An analysis of its contents was performed to determine if there is another gas with the same signature that is causing the monitors to indicate, but no gases were identified. Samples were obtained during the last three events and they will be analyzed. The latest action taken was the replacement of the indicating module (a component of the receiver) for channel 2 with the module from channel 1 during the July 1 event, but this did not correct the situation.

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

CORRECTIVE ACTIONS: (continued)

Although there is no adverse impact on safety from these events as described above, and the monitors are operable, an investigation is ongoing to determine the cause for these events and to recommend any necessary corrective actions. The corrective actions will be detailed in the supplemental report.

It is important to note that previous analysis had determined that the Technical Specification limit for ammonia is overly conservative which results in an alarm setpoint very near the low end of the scale of the installed equipment. A Technical Specification Amendment Application is pending to increase the ammonia limit to 25 ppm. This threshold limit value adequately assures a non-toxic exposure over a 40 hour period. With the higher setpoint that will result, low non-toxic levels of ammonia will not actuate the CCR ventilation isolation.