

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

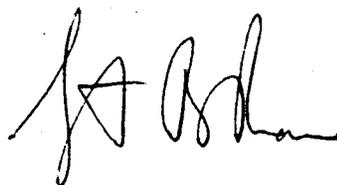
August 30, 1990

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 90-04-00

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

The attached Licensee Event Report LER 90-04-00 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. Donald S. Brinkman, Senior 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

9009070138 900830
PDR ADDCK 05000247
S FCC



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 3 |
|--|--------------------------------------|----------------------|

TITLE (4)
Containment Radiogas Monitor ESF Actuation due to Electrical Spike

| 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 7 3 1 | 9 0 | 9 0 | 0 0 4 | 0 0 0 | 0 0 0 | 0 8 3 0 | 9 0 | 9 0 | | | 0 5 0 0 0 |

| | | | | | | | | | | | |
|---------------------------|--|--|------------------|-----------------|--|----------------|---|--|--|--|--|
| 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 9 6 | 20.402(b) | | | 20.405(c) | | | <input checked="" type="checkbox"/> 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) | | | 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 George Dahl, Engineer | | | | | | | TELEPHONE NUMBER | | |
| | | | | | | | AREA CODE 9 1 4 | | |
| | | | | | | | 5 2 6 - 5 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) | | | | | | | EXPECTED SUBMISSION DATE (15) | | MONTH | DAY | YEAR |
| <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO | | | | | | | | | | | |

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

During the performance of a pressure relief of containment on July 31, 1990, with the plant at 96% power, the Containment Radiogas Monitor (R-12) experienced a spurious electrical spike, which in turn initiated Containment Ventilation Isolation and partially actuated the Weld Channel and Containment Penetration Pressurization system. After determining there had been no actual increase in gaseous activity, radiation monitor R-12 was reset and pressure relief was reinstated. The health and safety of the public were not affected by this event.

**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 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 | LER NUMBER (6) | | | PAGE (3) | | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
| | | 9 0 | — 0 0 4 | — 0 0 | 0 2 | OF | 0 3 |

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 OCCURRENCE:

Engineered Safety Feature (ESF) actuation due to a spurious electrical spike in the Containment Radiogas Monitor (R-12).

REPORTABILITY DETERMINATION DATE:

July 31, 1990

REPORT DUE DATE:

August 30, 1990

REFERENCES:

Significant Occurrence Report (SOR) 90-362

PAST SIMILAR OCCURRENCES:

- LER 90-03: ESF actuation due to spurious electrical spike in R-12
- LER 89-05: ESF actuation due to spurious electrical spike in R-14 (Plant Vent Gaseous Activity Monitor)
- LER 87-12: ESF actuation due to spurious electrical spike in R-11 (Containment Air Particulate Monitor)

DESCRIPTION OF OCCURRENCE:

On July 31, 1990, during a pressure relief of containment, the Containment Radiogas Monitor (R-12) experienced a spurious electrical spike at approximately 2301 hours which resulted in ESF actuation of the Weld Channel and Containment Penetration Pressurization (WCCPP) system and isolation of the Containment Ventilation system, which includes the pressure relief line. These safety systems functioned as required in accordance with plant design.

A review of other radiation monitoring instrumentation was conducted to verify that the instrument behavior was not due to an actual increase in gaseous activity. After confirming there was no actual increase of radiation, monitor R-12 was reset and pressure relief was reinstated at 2314 hours.

**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 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 | LER NUMBER (6) | | | PAGE (3) | | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
| | | 9 0 | - 0 0 4 | - 0 0 | 0 3 | OF | 0 3 |

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

CAUSE OF OCCURRENCE:

A spurious electrical spike in the circuitry of the Containment Radiogas Monitor (R-12) initiated ESF actuation of the WCCPP system and isolation of the Containment Ventilation System. As described below, electrical circuits in general can be subject to spurious electrical spikes of indeterminate cause.

ANALYSIS OF OCCURRENCE:

The Containment Ventilation system can be automatically isolated by a Containment Isolation Phase A signal, containment spray actuation, or a high radiation indication from Containment Air Particulate Monitor R-11, Containment Radiogas Monitor R-12, or Plant Vent Gas Monitor R-14. Any of these three initiating signals results in the isolation of the containment purge and supply lines and the containment pressure relief line, which are the components of the Containment Ventilation system. Coincident actuation of that portion of the WCCPP system that supplies sealing air to the three ventilation lines also occurs.

Electrical circuits can be subject to infrequent spurious electrical spikes to some degree. Occasionally, the spike is of sufficient amplitude to produce an undesired effect. For this particular event, a setpoint on monitor R-12 was exceeded and a Containment Ventilation isolation signal was generated. This setpoint is set conservatively low to provide early warning of an increase in gaseous activity. In this instance, there was no actual increase in activity and Containment Ventilation isolation and WCCPP system actuation were not required to mitigate any adverse condition.

The chart recorder for R-12 indicated an instantaneous increase, with radiation levels the same before and after the event. The chart recordings for monitors R-11, R-14 and the Plant Vent Air Particulate Monitor R-13 indicated no increase in activity for that instant of time. Subsequent investigation determined that monitor R-12 had not failed and did not require repair or recalibration.

CORRECTIVE ACTION:

As a result of a similar occurrence during the 1987 Refueling Outage involving monitor R-11 (LER 87-12), a program has been developed to replace certain radiation monitors, including R-12. The existing monitors are original installed equipment of an early vintage. The newer instruments have improved voltage regulation and signal processing circuitry which enables them to better discern spurious signals and be less susceptible to electrical spikes. Several monitors have already been replaced and monitor R-12 is currently scheduled for replacement in the 1991 Refueling Outage.