

APPENDIX A

NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY

Consolidated Edison Company  
of New York, Inc  
Indian Point 2

Docket No. 50-247  
License No. DPR-26  
EA 81-11

The NRC conducted an investigation into the flooding of containment at Indian Point 2 on October 22, 1980 through November 21, 1980. This investigation found that the management system, which is designed to prevent or mitigate a serious safety event, was not able to perform its intended function under the conditions preceding and during the containment flooding. As a result, the NRC proposes to impose a civil penalty in accordance with the Interim Enforcement Policy as published in the Federal Register October 7, 1980 (45 FR 66754). Pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (42 USC 2282, P. L. 96-295), and 10 CFR 2.205 of the Commission's Regulations, in the amount set forth below for the following violations:

- I. The Commission regulations and the facility license require the licensee to report occurrences important to safety as indicated below.

- A. 10 CFR 50.72(a), "Notification of significant events", requires that:

"Each licensee of a nuclear power reactor, licensed under para. 50.21 or para. 50.22 shall notify the NRC Operations Center as soon as possible and in all cases within one hour by telephone of the occurrence of any of the following significant events and shall identify that event as being reported pursuant to this section:

- (3) Any event that results in the nuclear power plant not being in a controlled or expected condition while operating or shutdown."

Contrary to the above, the following condition was not reported within one hour of identification:

The discovery on October 17, 1980 of unexpected conditions not specifically considered in the safety analysis report or technical specifications that required remedial action to prevent existence or development of an unsafe condition, specifically the existence of: a flooded reactor vessel pit, about four inches of river water on the vapor containment floor, and steam exiting the instrument thimble holes.

The containment flooding condition was found on October 17, 1980, but not reported to the NRC until October 20, 1980, which did not comply with the one hour reporting requirements of 10 CFR 50.72. Each day that the violation continued constitutes a separate violation for the purpose of computing the civil penalty.

This is a Severity Level III violation (Supplement I.C.2 of the Interim Enforcement Policy) Applying the civil penalty for each day that the violation continued results in a civil penalty of - \$120,000.

- B. Technical Specification 6.9.1.7.1 states, in part, that:

"The types of events listed below shall be reported within 24 hours of identification...

c. Abnormal degradation discovered in...primary containment....

Contrary to the above on October 17 and 18, 1980, leaks were discovered in several fan cooler units. These leaks constituted abnormal degradation of primary containment and was not reported to the NRC until October 20, 1980. This violates the 24 hour reporting requirement.

In accordance with Footnote 17 to Section B of the Interim Enforcement Policy this is categorized as a Severity Level III violation.

- II. The station Technical Specifications and Quality Assurance Program prescribe the management controls designed to prevent or mitigate a serious safety event. A number of violations of management controls required in these documents occurred. The highest severity level associated with these violations is Severity Level III. Because you could reasonably have been expected to have taken effective measures to prevent this occurrence, civil penalties for these violations have been increased by 25%. Therefore a Civil Penalty - \$50,000 is proposed. The civil penalty has been distributed to the separate violations as indicated below:

A. Technical Specification 6.5.1.6 states in part that, "The Station Nuclear Safety Committee shall be responsible for:...

f. Review of facility operations to detect potential safety hazards..."

Contrary to the above, the Station Nuclear Safety Committee did not review, prior to a reactor startup on October 20, 1980, the potential safety hazards associated with the flooding event of October 17, 1980 during which the hot reactor vessel and various stainless steel components were wetted with cold, brackish river water.

This is a Severity Level III violation (Supplement I.C.2 of the Interim Enforcement Policy). Civil Penalty - \$20,000.

B. Technical Specification 6.8.1 requires that procedures shall be established, implemented and maintained to meet the requirements and recommendations of Appendix A to Regulatory Guide 1.33-1972, and ANSI N18.7-1972, sections 5.1 and 5.3.

1. Regulatory Guide 1.33-1972, Appendix A, paragraph H.1, calls for procedures of a type appropriate to the circumstances to assure that instruments and controls are properly calibrated and adjusted to maintain accuracy.
2. Regulatory Guide 1.33, Appendix A, paragraph H.2 calls for procedures to implement each surveillance test, inspection or calibration listed in the Technical Specifications. Technical Specification 3.1.F.1 requires a safety evaluation whenever reactor coolant system leakage is indicated by the means available.

3. ANSI N18.7-1972, Section 5.3, states that procedures shall provide an approved preplanned method of conducting operations. Section 5.3.2.6 states that limitations on parameters being controlled and appropriate corrective measures to return the parameter to the normal control band should be specified.
4. ANSI N18.7-1972, Section 5.1.6.1, states that maintenance or modifications that may affect functioning of safety related systems shall be performed to assure quality and that maintenance shall be properly preplanned and performed in accordance with written procedures appropriate to the circumstances.

Contrary to the above, procedures were not established, implemented and maintained in that, respectively:

1. No setpoints for containment sump pump operation were included in the surveillance test, PT-R2A, "Containment Sump Level Analog Test", Revision 2, which verified sump pump operability; and
2. Procedures were not established or implemented for the condensate flow leak detection system or the containment humidity detectors which would satisfactorily implement Technical Specification 3.1.F.1 to detect reactor coolant system leakage; and,
3. Procedures were not established which would provide for a pre-planned method of controlling the containment sump level. Specifically, no control band or maximum sump level was specified, nor were corrective measures detailed; and
4. Site administrative procedures were not established, implemented and maintained to provide guidance as to when written approved procedures were required for maintenance activities or as to when maintenance activities would constitute a modification, both of which require review and concurrence by the Station Nuclear Safety Committee.

In accordance with Footnote 17 to Section B of the Interim Enforcement Policy this is categorized as a Severity Level III. Civil Penalty - \$10,000.

- C. 10 CFR 50, Appendix B, Criterion II requires that:

"...The quality assurance program shall provide control over activities affecting the quality of the identified..systems, and components..."

FSAR Volume A, Attachment A-2, "Quality Assurance Program (ANSI N18.7 Format) Revised June, 1977", Foreward, states that:

"The following quality assurance program conforms to the requirements of 10 CFR 50, Appendix B. Additionally, Con Edison commits to have a Quality Assurance Program satisfying the requirements and guidelines of the following ANSI Standards and complying with the Regulatory Position in the Regulatory Guides as modified by Table A and Table B.

ANSI Standards

N18.7-1976 'Administrative Control and Quality Assurance for the Operational Phase of Nuclear Power Plants'."

ANSI 18.7, Paragraph 5.2.7.1, "Maintenance Programs" states that

"The causes of malfunctions shall be promptly determined, evaluated and recorded..."

Contrary to the above, despite continued malfunctions (i.e., leaks) in the fan cooler units between 1973 and October 1980, the causes of the malfunctions had not been determined or recorded, and evaluations of the causes had not been completed.

In accordance with Footnote 17 to Section B of the Interim Enforcement Policy this is categorized as a Severity Level III Violation. Civil Penalty - \$10,000.

- D. 10 CFR 50, Appendix B, Criterion II, states "...The quality assurance program shall provide control over activities affecting the quality of the identified...systems, and components..."

FSAR Volume A, Attachment A-2, "Quality Assurance Program (ANSI N18.7 Format) Revised June, 1977", Foreword, states "The following quality assurance program conforms to the requirements of 10 CFR 50, Appendix B. Additionally, Con Edison commits to have a Quality Assurance Program satisfying the requirements and guidelines of the following ANSI Standards..."

ANSI Standards

N18.7-1976 'Administrative Control and Quality Assurance for the Operational Phase of Nuclear Power Plants'."

ANSI 18.7-1976, Paragraph 5.2.7.1, Maintenance Programs, states in part, "A maintenance program shall be developed to maintain safety related... systems...at the quality required for them to perform their intended functions...Planning for maintenance shall include evaluation of the use of...materials in the performance of the task..."

10 CFR 50.59(b) states, in part, that the licensee shall maintain records of changes in the facility which include a written safety evaluation that provides the bases for the determination that a change does not involve an unreviewed safety question.

Technical Specification 6.5.1.6 requires that "The Station Nuclear Safety Committee (SNSC) shall be responsible for: ...

- d. Review of all proposed changes or modifications to plant systems of equipment that affect nuclear safety..."

Contrary to the above, modifications were made to the fan cooler unit

cooling coils and service water lines during maintenance performed between 1973 and July, 1979 without review by the SNSC and without an evaluation being conducted to demonstrate that an unreviewed safety question was not involved or to demonstrate the suitability of epoxy sealant material to perform its intended function under loss of coolant accident (LOCA) conditions. In August, 1979 an evaluation of the epoxy sealant material was made, which did not consider all of the post-LOCA conditions or the specific mode in which the sealant was used. Subsequent to this, the plant was operated at power and additional repairs were made on July 7 and 25, 1980 and on October 3, 18 and 19, 1980.

In accordance with Footnote 17 to Section B of the Interim Enforcement Policy this is categorized as a Severity Level III Violation. Civil Penalty - \$5,000.

- E. 10 CFR 50, Appendix B, Criterion XVI requires that "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected."

FSAR Volume A, Attachment A-2, "Quality Assurance Program (ANSI N18.7 Format) Revised June, 1977", Section 5.2.11, "Corrective Actions", states "Measures have been established which ensure that conditions adverse to plant safety which may occur during work, e.g., maintenance, are promptly identified in a Quality Control Inspection Report (QCIR) or a Deficiency Report (DR) and corrected...The action addressee on the Quality Control Inspection Report (QCIR)...is responsible for either correcting the nonconformance or designating the organization responsible for completing the necessary corrective actions. The managements of these designated organizations are responsible for taking the necessary corrective actions." Implementing Procedure SAO-113, Quality Control Reports and Stop Work Authority, Revisions 0 and 1, Paragraph 2.7, states in part, "In any case where the recipient of a QCIR is unable to make a schedule...or does not agree with the specific action called for, he will so inform the ... QA Engineer in writing. Feedback to the QA Engineer per the requirements above should be provided promptly, i.e., generally within three (3) working days of the QCIR receipt."

Contrary to the above, the measures established did not assure prompt correction in that:

1. The following QCIRs had not been responded to promptly as no response has been received as of October 29, 1980.

- 79-2-14, issued April 2, 1979
- 79-2-27, issued May 27, 1979
- 79-2-43, issued July 17, 1979
- 79-2-44, issued July 20, 1979
- 79-2-74, issued September 17, 1979
- 80-2-17, issued February 16, 1980
- 80-2-19, issued March 17, 1980
- 80-2-33, issued September 4, 1980

2. The following QCIRs were closed by the Quality Assurance Engineer based on various types of followup action but had never been responded to in writing.

- 78-2-27, issued February 23, 1978
- 79-2-66, issued August 27, 1979
- 79-2-77, issued November 29, 1979
- 79-2-75, issued September 20, 1979
- 80-2-13, issued February 14, 1980
- 80-2-28, issued July 25, 1980
- 80-2-29, issued July 25, 1980
- 80-2-39, issued October 2, 1980

3. The following QCIRs which are closed had not been responded to promptly.

- 73-2-184, issued November 15, 1973; responded to May 5, 1974
- 76-2-001, issued January 19, 1976; responded to March 9, 1976
- 77-2-89, issued June 9, 1977; responded to August 3, 1977
- 80-2-25, issued May 13, 1980; responded to July 17, 1980

In accordance with Footnote 17 to Section B of the Interim Enforcement Policy this is categorized as a Severity Level III Violation. Civil Penalty - \$5,000.

- F. 10 CFR 50, Appendix B, Criterion VIII, "Identification and Control of Materials, Parts, and Components", states that:

"Measures shall be established for the identification and control of materials, parts, and components, including partially fabricated assemblies. These measures shall assure that identification of the item is maintained by heat number, part number, serial number, or other appropriate means, either on the item or on records traceable to the item, as required throughout fabrication, erection, installation, and use of the item. These identification and control measures shall be designed to prevent the use of incorrect or defective material, parts, and components."

FSAR Volume A, Attachment A-2, "Quality Assurance Program (ANSI N18.7 Format) Revised June, 1977", Foreword, states that "The following quality assurance program conforms to the requirements of 10 CFR 50, Appendix B. Additionally, Con Edison commits to have a Quality Assurance Program satisfying the requirements and guidelines of the following ANSI Standards..."

ANSI Standards

N18.7-1976                      'Administrative Control and Quality Assurance for the Operational Phase of Nuclear Power Plants'."

ANSI 18.7-1976, paragraph 5.2.7 states that:

"Maintenance or modifications which may affect functioning of safety-related structures, systems, or components shall be performed in a manner to ensure quality at least equivalent to that specified in original design bases ...Maintenance or modification of equipment shall be preplanned and performed in accordance with written procedures, documented instructions or drawings appropriate to the circumstances which conform to applicable codes."

Contrary to the above, maintenance repairs on the fan cooler unit water heat exchanger flexible hoses were not conducted in a preplanned manner and did not provide for the control and identification of materials in that: MWR 4156 and MWR 6508 completed in 1976 failed to identify the as installed flexible hoses as Inconel 625 per Addendum No. 1 (dated September 2, 1972) to Specification 9321-01-248-76, assumed the materials to be austenitic stainless steel, removed the center section of the existing hose leaving a short 2 inch stub section of the original hose and installed a stainless steel replacement. A P8 to P8, austenitic stainless steel welding procedure was utilized for the P8 to Inconel dissimilar metal joint. An austenitic stainless steel flexible hose was substituted for the Inconel 625 hose required by the design specification.

In accordance with Footnote 17 to Section B of the Interim Enforcement Policy this is categorized as a Severity Level III.

- III. NRC's Confirmatory Order to Consolidated Edison Company of New York, Inc., dated February 11, 1980, ordered the licensee to establish and man the Shift Technical Advisor (STA) position within ninety days.

NRC's letter to All Operating Nuclear Power Plants, dated September 13, 1979, titled "Followup Actions Resulting From The NRC Staff Reviews Regarding The Three Mile Island Unit 2 Accident," stated that licensees should establish the Shift Technical Advisor position by January 1, 1980, and that "...in order to provide both perspective in assessment of plant conditions and dedication to the safety of the plant, this function (Accident Assessment Function) should have a clear measure of independence from duties associated with the commercial operation of the plant."

- A. NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations," states: "...that additional technical and analytical capability, dedicated to concern for the safety of the plant, needs to be provided in the control room to support the diagnosis of off-normal events and to advise the shift supervisor on actions to terminate or mitigate the consequences of such events..."; that the position of Shift Technical Advisor (STA) be established to fulfill this function; and that "...when assigned as shift technical advisor, these personnel are to have no duties or responsibilities for manipulation of controls or command of operations."

During the investigation, from October 22, 1980 to November 21, 1980, the NRC interviewed STAs who performed duties during the period from 11:00 PM on October 16, 1980 to 07:00 AM on October 20, 1980. The STA, stated that, contrary to the above, they are not always called

to the Control Room when problems are identified and that operations personnel utilize STA's for routine activities not involving engineering review or evaluation of plant safety, once the plant is shut down.

Also the STAs, on their shift, had not evaluated the propriety of a return to power when it occurred twice on October 17, 1980 and once on October 20, 1980, nor did they evaluate the potential significance of the degraded plant conditions involving leakage from the fan cooler units, wetting of the reactor vessel with cold brackish river water and steam exiting from the instrument thimble holes.

This is a Severity Level III violation (Supplement I.C.2 of the Interim Enforcement Policy) Civil Penalty - \$30,000. The civil penalty of \$40,000 for Severity Level III violation has been distributed between this item of noncompliance and the following one, both of which together comprise an event.

- B. NRC's letter to All Operating Nuclear Power Plants, dated October 30, 1979, titled "Discussion of Lessons Learned Short Term Requirements," provided additional clarification of these requirements, and stated "...it is not acceptable to assign a person, who is normally the immediate supervisor of the shift supervisor to STA (Shift Technical Advisory duties...)".

Contrary to the above, the Chief Operations Engineer, the immediate supervisor of the Senior Watch Supervisor, the licensee's equivalent title to a shift supervisor, was assigned to perform STA duties on the 7:00 AM to 3:00 PM, shift of October 17, 1980.

This is a Severity Level III violation. (Supplement I.C.2 of the Interim Enforcement Policy) Civil Penalty - \$10,000.

- IV. Technical Specification 6.8.1 requires that: "Written procedures shall be established, implemented and maintained..." Procedure E-12, "Nuclear Instrument Malfunction", Rev. 3 dated 7/5/78, step C-4.1.3 requires as "Immediate Operator Action", if one channel fails, that C-5.5 of Procedure E-12 subsequently requires that all the nuclear bistables associated with the defective channel be tripped by removing the control power fuses.

Contrary to the above: On October 17, 1980, the licensee removed the control power fuses associated with the defective channel N42, with reactor power level at about 90%. This resulted in an automatic runback to less than 75% reactor power.

This is a Severity Level V violation (Supplement I.E of the Interim Enforcement Policy).

Pursuant to the provisions of 10 CFR 2.201, Consolidated Edison Company of New York, Inc. is hereby required to submit to this office within twenty-five days of the date of this notice, a written statement or explanation in reply, including: (1) admission or denial of the alleged violations: (2) the reasons for the violations if admitted: (3) the corrective steps which have been taken



and the results achieved; (4) corrective steps which will be taken to avoid further violations; and (5) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation.

Consolidated Edison Company may, within twenty-five days of the date of this Notice pay the civil penalty in the cumulative amount of Two Hundred Ten Thousand Dollars (\$210,000) or may protest the imposition of the civil penalty in whole or in part by a written answer. Should Consolidated Edison fail to answer within the time specified, this Office will issue an order imposing the civil penalty in the amount proposed above. Should Consolidated Edison Company elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, such answer may (a) deny the item of noncompliance listed in the Notice of Violation in whole or in part; (b) demonstrate extenuating circumstances; (c) show error in the Notice of Violation; or (d) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate by specific reference (e.g., giving page and paragraph numbers) to avoid repetition.

Consolidated Edison Company's attention is directed to the other provisions of 10 CFR 2.205 regarding, in particular, failure to answer and ensuing orders; answer, consideration by this office, and ensuing orders; requests for hearings, hearings and ensuing orders; compromise; and collection.

Upon failure to pay any civil penalty due which has been subsequently determined in accordance with the applicable provisions of 10 CFR 2.205, the matter may be referred to the Attorney General and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Atomic Energy Act of 1954, as amended (42 USC 2282).

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Victor Stello, JR.  
Director  
Office of Inspection and Enforcement

Dated at Bethesda, Maryland  
this        day of December, 1980