UNITED STATES

NUCLEAR REGULATORY COMMISSION

In the Matter of

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. (Indian Point Nuclear Generating Station, Unit 2)	)	Docket No. 50-247 License No. DPR-26 EA 84-92

ORDER MODIFYING LICENSE

I

Consolidated Edison Company (the "licensee") is the holder of Facility Operating License No. DPR-26 which authorizes the licensee to operate the Indian Point Nuclear Generating Station, Unit 2 (the "facility") in Buchanan, New York.

II

On June 12-15, 1984, an NRC special safety inspection was conducted to review radiological safety concerns identified by the resident inspector. As a result of this inspection on June 21, 1984, a Confirmatory Action Letter was issued by the Regional Administrator of Region I to confirm the licensee's commitments to take immediate and effective measures to improve radiological controls and prevent recurrence of deficiencies affecting radiological controls, including upgrading controls on High Radiation Areas inside the Vapor Containment, ensuring that sampling of airborne radioactive material is consistent with the

requirements of 10 CFR 20.103, and reviewing the qualifications of all contractor radiation protection technicians and supervisors to ensure these individuals meet the minimum criteria of ANSI N18.1, 1971, "Selection and Training of Nuclear Power Plant Personnel."

On July 5-6, 1984, the NRC special safety inspection was resumed to review the circumstances associated with the unplanned occupational radiation exposures to two workers on June 19, 1984, of 1050 millirem and 1500 millirem, respectively. One of the workers received a total quarterly exposure of 2395 millirem. The 10 CFR 20 limit is 3000 millirem per calendar quarter. Although the unplanned exposures were not in excess of regulatory limits, a substantial potential for such an exposure did exist.

The workers received the unplanned exposures while in a High Radiation Area where they were waiting to be called to work inside steam generators. Although the workers believed that they were standing in a low-background radiation area inside the Vapor Containment, radiation surveys performed by the licensee after identification of the unplanned exposures indicated that the workers inadvertently waited in an area with radiation dose rates of between 2000 and 4000 millirem per hour. The required radiological controls regarding access to the High Radiation Area where the workers waited were not implemented. Specifically, the workers were not adequately instructed by the use of map routes or guides, or otherwise directed to the location of the actual low background area where they were to wait. Also, these areas which had dose rates greater than 1000 millirem per hour were not adequately barricaded to prevent unauthorized entry.

Further, the workers were sent to the area of low-background radiation without radiation survey meters, alarming dosimeters, or the equivalent that would have alerted them to the high radiation fields in which they finally waited. The provision of such equipment is required by Technical Specifications given that the area through which the workers were to proceed and in which they were to wait were both contained within an area posted as a High Radiation Area.

On July 18, 1984, an Enforcement Conference was conducted on-site to discuss the incidents. At this meeting, the licensee identified specific corrective measures and proposed a plan to upgrade and improve the radiation protection program at the facility.

On August 16-17, 1984, an NRC special safety inspection was conducted to review the circumstances associated with an unplanned exposure of approximately 2000 millirem to another worker on August 7, 1984. Although the unplanned exposure was not in excess of regulatory limits, a substantial potential for such an exposure did exist. The occurrence was reported to the NRC resident inspector on August 9, 1984 and involved an individual performing work inside a steam generator. The worker was standing in the manway of one of the steam generators with his arms and portions of his upper body located inside the steam generator. The radiation dose rate at the steam generator manway was between 10-15 rem per hour and as high as 30 rem per hour inside the steam generator. Although the worker's exposure was being controlled by a Radiation Protection Technician, the technician did not read all of the self-reading dosimeters located on the worker (upper arms,

head and chest) and did not use the highest dosimeter value (the upper arms in this case) to control the worker's time in the steam generator and to limit the worker's exposure as required by procedures. This unplanned exposure resulted in a total of 2900 millirem received by the individual during the calendar quarter (the 10 CFR 20 limit is 3000 millirem per calendar quarter).

The violations of NRC requirements associated with these incidents are set forth in a Notice of Violation issued to the licensee on this date and incorporated herein by reference. These recent violations at the facility represent a continuing problem in the effective implementation of radiological controls at Indian Point Nuclear Generating Station, Unit 2. On December 4, 1981, a Notice of Violation and Proposed Imposition of Civil Penalty was issued to the licensee in the amount of $40,000 for violations involving weaknesses in the control of personnel monitoring, access of personnel to high radiation areas, and failures of health physics contractor personnel to adhere to procedures (Reference EA No. 82-01). Also, on December 16, 1982, a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of $180,000 was issued to the licensee, $100,000 of which was for violations involving a radiation exposure in excess of regulatory limits to a contractor performing diving operations in the spent fuel pool. In that case, a spent fuel bundle was incorrectly moved near a location in the spent fuel pool where diving operations were to occur; the survey of the area did not identify the resulting high radiation fields associated with the bundle; and the diver's monitoring equipment did not identify and warn the diver of the resulting hazards associated with the area in which he was working (Reference EA No. 82-110).

III

Collectively, these occurrences at the facility represent inadequate planning, direction, and control of activities involving the potential for personnel exposure to radiation in excess of regulatory limits. These occurrences are indicative of programmatic deficiencies in the radiological controls program and they demonstrate the need for significant generic corrective measures to prevent similar occurrences in the future.

IV

In view of the foregoing, and pursuant to Sections 103, 161(i), 161(o), and 182 of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Part 2 and 10 CFR Part 50, IT IS HEREBY ORDERED THAT:

A. Within 30 days of the effective date of this Order, the licensee shall submit to the Regional Administrator, Region I, for review and approval:

(1) An action plan for upgrading the radiological controls program, a description of action items to be performed, and a schedule delineating a timetable for completion of those actions. All actions shall be completed no later than one year from the effective date of this Order. The plan for upgrading the radiological controls program shall provide a description of the program and shall define the subjects to be addressed by the administrative and implementing procedures.

The radiological controls program shall include:

(a) provisions for positive control of High Radiation Areas;

(b) a clear and effective Radiation Work Permit (RWP) system;

(c) a technically adequate and effective Respiratory Protection Program;

(d) an effective Training Program for both employee and contractor health physics staff and radiation workers, including provisions for informing individuals of the presence of radioactive material or radiation and instructions in precautions and procedures to minimize exposure;

(e) a program which documents existing corporate philosophy to maintain radiation exposures as low as is reasonably achievable; and,

(f) a system for auditing and evaluating program implementation by qualified assessors at least annually.

(2) Specific interim actions taken or planned for effecting improved radiological controls before the program required by Paragraph (1) is implemented, including consolidation of procedures, personnel training, enhanced high radiation area controls, and increased management oversight.

(3) A charter for a senior level Oversight Committee to monitor and report on the effectiveness and quality of the radiological controls program and the progress being made in implementing the planned upgrade of the program discussed in Paragraph (1) above. The Committee shall assign one or more individuals, independent of the radiological protection organization, to perform surveillance of the day-to-day activities and to provide assessments of the adequacy of performance of the radiation protection staff and radiation protection practices, and to periodically report on these assessments to the Committee chairman. This charter shall include provisions that the Committee will provide monthly a written report directly to a senior corporate officer (at the level of the Vice-President Nuclear Power or above), which documents the achievements made in upgrading the program. A copy of each report shall also be submitted to the Regional Administrator, Region I. The senior level Oversight Committee shall function at least until completion of the action plan, and the submittal and acceptance by the Regional Administrator, Region I, of a final report which summarizes program improvements and details plans to maintain the effectiveness of the program. The identity and qualifications for each member assigned to this Committee shall also be provided to the Regional Administrator along with the charter for the establishment of this Committee. The members of this Committee shall be independent of the licensee's radiological protection organization and from those persons responsible for developing and implementing the plan required by Paragraphs (1) and (2) of this Order.

B. Upon review and approval of the licensee's submittals by the Regional Administrator, Region I, they shall be implemented. Scheduled completion dates may not be extended without good cause and the concurrence of the Regional Administrator, Region I, or his designee.

C. The Regional Administrator, Region I, may relax or terminate any of the preceding conditions for good cause.

V

The licensee or any other person whose interest is adversely affected by this Order may request a hearing on this Order. Any request for hearing shall be submitted to the Director, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, within 30 days of the date of this Order. A copy of the request shall also be sent to the Executive Legal Director at the same address and to the Regional Administrator, Region I, 631 Park Avenue, King of Prussia, Pennsylvania 19406.

If a hearing is to be held concerning this Order, the Commission will issue an Order designating the time and place of hearing. If a hearing is held, the issue to be considered at such hearing shall be whether this Order shall be sustained.

This Order shall become effective upon expiration of the time during which the licensee may demand a hearing or, in the event that the licensee demands a hearing, on the date specified in an order issued following further proceedings on this Order.

FOR THE NUCLEAR REGULATORY COMMISSION

R C DeYoung

Richard C. DeYoung, Director
Office of Inspection and Enforcement

Dated at Bethesda, Maryland,
this 27th day of September 1984