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March 21, 2000

Re: Indian Point Unit No. 2  
Docket No. 50-247

Document Control Desk  
US Nuclear Regulatory Commission  
Mail Station P1-137  
Washington, DC 20555-0001

Subject: NEI Pilot Program for Use of NUREG-1465

As part of the NEI Pilot Program for the use of NUREG-1465, Consolidated Edison Company of New York, Inc., the owner and operator of Indian Point Unit No. 2, hereby submits the following document for the Nuclear Regulatory Commission review:

Responses to Requests for Additional Information  
Received from the Regulatory Staff

This document revises our response dated February 14, 2000, and includes revised analyses utilizing the Alternate Source Term for Fuel Handling Accident Control Room and offsite Dose. The Revised Fuel Handling Accident Control Room Dose analysis takes no credit for the Control Room HVAC filters, thus demonstrating that the Control Room filters need not be available during refueling. This analysis has been revised to demonstrate margins available with fuel rod iodine gap fractions different than previously provided, and for margins available for different meteorological dispersion coefficients (X/Q) for the control room. In addition, further detail on the proposed design modifications to the central control room are provided. Please note that the revised design remains consistent with the assumptions contained in the analyses submitted on October 8, 1999 and with this letter, and with the license amendment request submitted on November 18, 1999.

Should you or your staff have any questions regarding this submittal, please contact Mr. John McCann, Manager, Nuclear Safety and Licensing.

Very truly yours,



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Enclosure

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**Responses to Requests for Additional Information**

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**March 21, 2000**

Question:

Provide analyses of the Fuel Handling Accident for Indian Point 2 with different fuel rod iodine gap fractions, and without credit in the ARCON96 X/Q calculation for velocity from the vent stack.

Response:

Con Edison continues to believe that the 5% iodine gap fraction previously used in analyses provided to the staff conservatively bounds available fuel rod data. Nevertheless, additional calculations utilizing an 8% gap fraction have been performed. These calculations demonstrate margin is still available to proposed regulatory limits. In addition, the control room dose calculations have been revised to show margin available with X/Q values taking no credit for velocity from the vent stack. The following table summarizes the results of these calculations:

Fuel Handling Accident doses --

**5% Gap Fraction**

<u>Location</u>		20,000 CFM Control <u>Room X/Q (5.53E-4 sec/m<sup>3</sup>)</u>	0 CFM Control <u>Room X/Q (6.24E-4 sec/m<sup>3</sup>)</u>
Site Boundary	1.6 rem TEDE	NA	NA
LPZ Boundary	0.75 rem TEDE	NA	NA
Control Room		0.94 rem TEDE	1.1 rem TEDE

**8% Gap Fraction**

<u>Location</u>		20,000 CFM <u>Control Room X/Q</u>	0 CFM <u>Control Room X/Q</u>
Site Boundary	2.6 rem TEDE	NA	NA
LPZ Boundary	1.2 rem TEDE	NA	NA
Control Room		1.5 rem TEDE	1.7 rem TEDE

Revised Response to Question 4 of August 27, 1999

Should the Technical Specification amendment be approved, the Central Control Room (CCR) HVAC system will be modified to perform in the following modes of operation:

Mode 1 (Normal) will remain the normal mode of operation mixing approximately 920 cfm of unfiltered outside air with approximately 8280 cfm of return air to the CCR. In this mode, approximately 920 cfm of air is exhausted to the outside atmosphere via the toilet exhaust fan.

Mode 2 (Pressurized) will be the new incident mode of operation. Mode 2 will be automatically initiated by a Safety Injection signal or a high radiation signal. In this mode, **2000 cfm of outside air will be drawn through HEPA and carbon filters via booster fans and discharge into to the CCR system.** The outside air serves to pressurize the CCR to a pressure positive to adjacent areas.

Mode 3 (Recirculation) will remain the incident mode of operation during a toxic gas or smoke event. Mode 3 will be automatically initiated by a toxic gas signal or a signal from the smoke detector. **The only difference from the current mode 3 is that the booster fans will not start or run in the recirculation mode.**

As there are now two incident modes of operation, the control system will be configured to have the Safety Injection and high radiation signals initiating mode 2 take precedence over the mode 3 initiating signals.