May 31, 2001

Mr. John Groth
Senior Vice President - Nuclear Operations
Consolidated Edison Company of
New York, Inc.
Indian Point 2 Station
Broadway and Bleakley Avenue
Buchanan, NY 10511

SUBJECT: ANNUAL ASSESSMENT LETTER - INDIAN POINT UNIT 2

Dear Mr. Groth:

On May 8, 2001, the NRC staff completed its end-of-cycle plant performance assessment of Indian Point Unit 2 (IP2). The end-of-cycle review for IP2 involved the participation of all technical divisions in evaluating performance indicators (PIs) for the most recent quarter and the inspection results for the period April 2, 2000 to March 31, 2001. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

Overall, IP2 operated in a manner that preserved public health and safety. While IP2 met all cornerstone objectives, it remained in the Multiple/Repetitive Degraded Cornerstone column of the NRC's Action Matrix. The degraded cornerstones were based on several inspection findings and performance indicators in the initiating events, mitigating systems, and emergency preparedness cornerstones. These degraded cornerstones are associated principally with performance problems identified during an August 1999 reactor trip with electrical distribution system complications, and a February 2000 steam generator tube failure (SGTF). Additionally, there were two white PIs that occurred during the assessment period in the initiating events and mitigating systems cornerstones. Enclosures 1 and 2 provide additional details regarding performance indicators and significant inspection findings for degraded cornerstones.

Several significant activities occurred over the assessment period. The plant began the assessment period in a cold shutdown condition due to the February 15, 2000, SGTF event. In August 2000, you initiated the SG replacement project which was completed in early November. The NRC noted generally good performance during SG replacement. Subsequently, the plant was readied for startup, heatup began in December, and the reactor was brought critical on December 30. Although there were some emergent issues during power escalation, the plant reached full power by the end of January. In parallel with your activities, the NRC completed a number of inspections and assessments. For example, our December 22, 2000, letter, highlighted, among other activities, system readiness walkdowns; augmented restart coverage by NRC inspectors; and inspection of emergent issues affecting design inputs and analyses, including an assessment of your corrective actions in addressing recurring issues.

During the time frame encompassing plant startup, you had a number of issues in design control, equipment reliability, problem identification and resolution, and human performance. In the area of design control, for example, a December 2000 inspection identified further examples of the lack of formal design interface controls, and weaknesses in your organization's ability to correct this condition. Equipment reliability issues were illustrated by secondary plant equipment problems which caused several power reductions in the plant restart phase. With respect to human performance, a January 2, 2001, turbine trip revealed problems with procedure quality and usage, crew communications, and reactivity management. Throughout this time frame, we monitored your corrective actions to address these issues.

In January and February 2001, an extensive supplemental team inspection was conducted by 14 inspectors using NRC Inspection Procedure 95003. The team concluded that the IP2 facility is being operated safely. The team also noted problems similar to those that have been previously identified at the IP2 facility, including those in the areas of design control, human and equipment performance, problem identification and resolution, and emergency preparedness. While some performance improvements were noted, progress was slow overall and limited in some areas. One such area is that of design control, where recurrent problems have been noted, for example, in the translation of important design assumptions into plant operating procedures, drawings, calculations, and testing programs. Also, the team noted that although some improvement in your problem identification and resolution program has occurred, aspects of your program warrant continued attention (e.g., prioritizing issues for resolution, trending causal factors, timeliness and the effectiveness of corrective actions).

While the team noted that your business plan relies heavily on department level implementation strategies that varied in quality and depth, the team found that appropriate alignment exists between the business plan and previously identified performance issues at the facility. We consider your May 7, 2001, letter captured well the nature of the issues that you are facing. We agree, as you stated in this response, that the issues facing IP2 are not amenable to "fast fixes," and that many of your improvement efforts will necessitate multi-year efforts. The NRC plans to carefully monitor the effectiveness of your performance improvement efforts, including the effect of any significant changes to your business plan or the department level activities either prior to or subsequent to any license transfer.

In order to verify that appropriate corrective actions have been taken to address the previously identified performance issues, the NRC plans to conduct several activities beyond the NRC baseline inspection program at the facility. These activities include supplemental inspections to review progress in addressing the underlying issues that resulted in the degraded cornerstones. These focused inspections will also provide insights into your performance improvement efforts. Enclosure 3 details inspections that are planned through May 31, 2002. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability issues to be resolved prior to onsite arrival. Routine resident inspections are not listed due to their ongoing and continuous nature. Additionally, site visits, management meetings, and quarterly assessments, will be conducted as necessary. In this regard, we conducted a meeting on April 30, 2001, focused principally on design and engineering issues.

Consistent with the Reactor Oversight Process, we are finalizing plans to meet with you to discuss NRC's assessment of your performance, and your continuing actions to effect performance improvement at IP2. This meeting, which will be open for public observation, is scheduled for 7:00 p.m., June 13, 2001, at the Energy Education Center. Additionally, consistent with guidance in the NRC Action Matrix, the NRC considered the need for additional regulatory actions beyond those described herein, and has concluded that none are required at this time. The staff will continue to consider the appropriateness of additional regulatory actions as new performance information becomes available. Finally, in accordance with IMC 0305, "Operating Reactor Assessment Program," IP2 will be discussed at the upcoming Agency Action Review meeting. We will notify you via separate correspondence if any agency actions change, as an outcome of this meeting.

For your information, the NRC is in the process of aligning the inspection and assessment cycle with the calender year. In order to transition to a calender year cycle (January 1- December 31), the next inspection and assessment cycle will consist of only three quarters (i.e., the second, third and fourth calender quarters of CY 2001). As a result, for all plants a quarterly review will be conducted for the third calender quarter (July 1- September 30) in lieu of a mid-cycle review.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/NRC/ADAMS/index.html (the Public Electronic Reading Room). To get information about the assessment terms used in this document refer to NRC's program for overseeing the safe operation of commercial nuclear power reactors. It is described in the NRC Reactor Oversight Process web site at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Mr. Peter Eselgroth at 610-337-5234 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Hubert J. Miller
Regional Administrator

Docket No. 05000247
License No. DPR-26

Enclosures:
1. IP2 Performance History Chart
2. IP2 Performance History Details
3. IP2 Inspection Schedule

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ENCLOSURE 1
INDIAN POINT 2 (April 2001 Evaluation)
SUMMARY, by Quarter, of INPUTS TO NRC ACTION MATRIX

	CY 1999		CY 2000				CY 2001		
Cornerstone	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
IE				PI4 White	IF3[1] Red	IF3 Red	IF3 Red	IF3 Red	➜[3]
MS	IF1[2] Yellow	IF1 Yellow	IF1 Yellow PI2[4] White	IF1 Yellow PI2 White	➜ PI2 White	➜ PI2 White	➜	➜	➜[3]
BI			PI3[4] Yellow						
EP	IF2 White	PI1[5] White IF2 White	IF2 White	IF2 White IF4 White IF5 White IF6 White	IF4 White IF5 White IF6 White	IF4 White IF5 White IF6 White	IF4 White IF5 White IF6 White	➜[3]	
Matrix Column	N/A	N/A	N/A	Multiple Degraded	Multiple Degraded	Multiple Degraded	Multiple Degraded	Multiple Degraded	Multiple Degraded

[1]Classification based on event effects on CDF and LERF. NRC concluded that the tube failure was caused by a licensee performance issue.

[2]Published in the ROP "Feasibility Review," Attachment 7 to SECY 00-0049. The review of this event preceded the initiation of the Reactor Oversight Program (ROP). While the August 1999 event pre-dates the initial implementation of the ROP, useful risk insights can be derived from considering the results of the SDP for that event.

[3]In accordance with Inspection Manual Chapter 0305, this inspection finding will not be removed from consideration of future agency actions (per the Action Matrix) until the requirements of the appropriate supplemental inspection procedure have been completed.

[4]As posted on the NRC's external web page for the first quarter of 2000.

[5]In accordance with Inspection Manual Chapter 0305, if a finding and PI turn color because of the same underlying issue, only one will be counted (double jeopardy considerations).

ENCLOSURE 2

IP2 Performance Details (Inputs to NRC Action Matrix)

ASSESSMENT OF PERFORMANCE INDICATORS:

The **performance indicators** for the cornerstones were in the licensee response band over the entire assessment cycle with the following exceptions:

- An **Emergency Preparedness PI** crossed the **white** threshold for drill/exercise performance based on the fourth quarter 1999 PI data. This was due to weaknesses in classifications, notifications, and protective action recommendations. Licensee-reported data for the first quarter 2000 show a return to the green range for this indicator. (PI1)

- A **Mitigating Systems PI** crossed the **white** threshold based on excessive emergency diesel generator unavailability. This was due to an improper setpoint for an Emergency Diesel Generator breaker as revealed by investigation of the August 1999 event. This PI is currently shown as **green**. (PI2)

- Due to the February 2000 steam generator tube failure, a **Barrier Integrity PI** crossed the **yellow** threshold based on exceeding the Technical Specification Leak Rate (ConEd Reported 109 gpm) for Steam Generator Tube Integrity. Although prior to ROP implementation, this PI data would have resulted in a degraded cornerstone in the first quarter 2000. This PI is currently shown as **green**. (PI3)

- An **Initiating Events PI** crossed the **white** threshold based on excessive reactor trip frequency. This was primarily due to the August 1999 automatic and the February 2000 manual reactor trips. Currently, the PI for reactor trip and unplanned power changes is shown as **gray** because the plant has not operated at power for a sufficient period of time for the PI to be considered valid. (PI4)

ASSESSMENT OF INSPECTION FINDINGS:

NRC inspections identified and/or confirmed risk significant findings (above the **green** threshold) in three cornerstones: Initiating Events, Mitigating Systems, and Emergency Preparedness. These were based on applying the Significance Determination Process **(SDP)** to findings that were the result of licensee performance problems or issues.

- Based on inspection follow-up of the August 1999 event, **there were findings of substantial safety significance for the Mitigating System Cornerstone** based on the unavailability of certain auxiliary feedwater components and a degradation in feed and bleed capability. Some of the important licensee performance issues that led to these findings were the improper configuration of a Station Auxiliary Transformer Tap Changer and an improper setpoint for an Emergency Diesel Generator breaker. Although this event predated the reactor oversight process (ROP), it provided important insights about ConEd performance. This event was evaluated from a risk perspective in a feasibility study for the ROP which characterized this event as having substantial safety significance (i.e., would be a yellow issue under the ROP) due to the degradation of post accident feed and bleed capability.

- **!** Based on NRC observations of a September 1999 exercise, an **inspection finding for the Emergency Preparedness Cornerstone** crossed the **white** threshold based on a failure to identify an improper classification during self-critique of a September exercise. (IF2)

- **!** **An inspection finding for the Initiating Event Cornerstone** crossed the **red** threshold based on a significant increase in the likelihood of a steam generator tube rupture with a corresponding increase in Core Damage Frequency (CDF) and large early release frequency (LERF). This conclusion was based on a review of the February 2000 event which characterized the underlying problem as highly risk significant. The licensee performance issue that led to this finding resulted from poor performance during the steam generator (SG) inspections conducted during the 1997 refueling outage, and indicated weaknesses with ConEd's corrective action program. After significant evaluation, the NRC concluded that this finding was **red**, which places plant performance in the Multiple/Repetitive Degraded Cornerstone column of the NRC Action Matrix. (IF3)

- **!** **Three Inspection findings for the Emergency Preparedness Cornerstone** crossed the **white** threshold because of problems associated with ERO augmentation, accountability of onsite personnel, and joint news center effectiveness. These inspection findings resulted in a degraded cornerstone. (IF4, IF5, IF6)

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Indian Point 2
Inspection / Activity Plan
04/01/2001 - 05/31/2002

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	7111105T - FIRE PROTECTION		**5**			
2	IP 7111105T	Fire Protection		04/09/2001	04/13/2001	Baseline Inspections
	71121 - OCC RAD SAFETY		**1**			
2	IP 7112101	Access Control to Radiologically Significant Areas		04/16/2001	04/20/2001	Baseline Inspections
2	IP 7112102	ALARA Planning and Controls		04/16/2001	04/20/2001	Baseline Inspections
2	IP 7112103	Radiation Monitoring Instrumentation		04/16/2001	04/20/2001	Baseline Inspections
2	IP 71151	Performance Indicator Verification		04/16/2001	04/20/2001	Baseline Inspections
	71130 - SECURITY		**1**			
2	IP 7113001	Access Authorization Program (Behavior Observation Only)		05/21/2001	05/25/2001	Baseline Inspections
2	IP 7113002	Access Control (Search of Personnel, Packages, and Vehicles: Identification and Authorizatior		05/21/2001	05/25/2001	Baseline Inspections
	7/9 EXAM - INIT OPER LIC EXAM		**3**			
2	U01427	INDIAN POINT 2 O/L INITIAL EXAM 07/09-07/13/2001		06/11/2001	06/15/2001	Not Applicable
2	U01427	INDIAN POINT 2 O/L INITIAL EXAM 07/09-07/13/2001		07/09/2001	07/13/2001	Not Applicable
	71114 - EP PROGRAM REVIEW		**1**			
2	IP 7111402	Alert and Notification System Testing		06/18/2001	06/22/2001	Baseline Inspections
2	IP 7111403	Emergency Response Organization Augmentation Testing		06/18/2001	06/22/2001	Baseline Inspections
2	IP 7111404	Emergency Action Level and Emergency Plan Changes		06/18/2001	06/22/2001	Baseline Inspections
2	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		06/18/2001	06/22/2001	Baseline Inspections
	95002SP - EP EXERCISE & (3) WHITE FINDINGS REVIEW		**4**			
2	IP 71151	Performance Indicator Verification		06/18/2001	06/22/2001	Baseline Inspections
2	IP 95002	Inspection For One Degraded Cornerstone Or Any Three White Inputs In A Strategic Performar		06/18/2001	06/22/2001	Supplemental Progran
	71121 - OCC RAD SAFETY		**1**			
2	IP 7112101	Access Control to Radiologically Significant Areas		07/09/2001	07/13/2001	Baseline Inspections
2	IP 7112103	Radiation Monitoring Instrumentation		07/09/2001	07/13/2001	Baseline Inspections
2	IP 71151	Performance Indicator Verification		07/09/2001	07/13/2001	Baseline Inspections
	ENG INIT - OVERSIGHT - ENGR PROJ & RX TRIP WHITE PI		**2**			
2	IP 7111102	Evaluation of Changes, Tests, or Experiments		07/23/2001	07/27/2001	Other Routine
2	IP 7111117B	Permanent Plant Modifications		07/23/2001	07/27/2001	Other Routine
2	IP 95001	Supplemental Inspection For One Or Two White Inputs In A Strategic Performance Area		07/23/2001	07/27/2001	Supplemental Progran
	7112202 - RADWASTE		**1**			
2	IP 7112202	Radioactive Material Processing and Transportation		10/01/2001	10/05/2001	Baseline Inspections
	SSDI - OVERSIGHT-SSFA, 8/99 YELLOW, HUMAN PERF		**5**			
2	IP 7111121	Safety System Design and Performance Capability		10/22/2001	10/26/2001	Other Routine
2	IP 95002	Inspection For One Degraded Cornerstone Or Any Three White Inputs In A Strategic Performar		10/22/2001	10/26/2001	Supplemental Progran
2	IP 7111121	Safety System Design and Performance Capability		11/05/2001	11/09/2001	Other Routine

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Indian Point 2
Inspection / Activity Plan
04/01/2001 - 05/31/2002

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	SSDI - OVERSIGHT-SSFA, 8/99 YELLOW, HUMAN PERF		**5**			
2	IP 95002	Inspection For One Degraded Cornerstone Or Any Three White Inputs In A Strategic Performar		11/05/2001	11/09/2001	Supplemental Progran
	7111112B - MAINT RULE		**1**			
2	IP 7111112B	Maintenance Rule Implementation		10/29/2001	11/02/2001	Baseline Inspections
	71152 - AUGMENTED PI&R, SG RED & EDG PI REVIEW		**4**			
2	IP 71152	Identification and Resolution of Problems		11/26/2001	11/30/2001	Baseline Inspections
2	IP 95001	Supplemental Inspection For One Or Two White Inputs In A Strategic Performance Area		11/26/2001	11/30/2001	Supplemental Progran
2	IP 95002	Inspection For One Degraded Cornerstone Or Any Three White Inputs In A Strategic Performar		11/26/2001	11/30/2001	Supplemental Progran
2	IP 71152	Identification and Resolution of Problems		12/10/2001	12/14/2001	Baseline Inspections
	71121 - OCC RAD SAFETY		**1**			
2	IP 7112101	Access Control to Radiologically Significant Areas		11/26/2001	11/30/2001	Baseline Inspections
2	IP 7112103	Radiation Monitoring Instrumentation		11/26/2001	11/30/2001	Baseline Inspections
2	IP 71151	Performance Indicator Verification		11/26/2001	11/30/2001	Baseline Inspections
	7113003 - SECURITY - RESPONSE		**2**			
2	IP 7113003	Response to Contingency Events (Protective Strategy and Implementation of Protective Strate		11/26/2001	11/30/2001	Baseline Inspections
	7112201 - RETS		**1**			
2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		12/17/2001	12/21/2001	Baseline Inspections
	7111117B - MODS		**3**			
2	IP 7111102	Evaluation of Changes, Tests, or Experiments		01/14/2002	01/18/2002	Baseline Inspections
2	IP 7111117B	Permanent Plant Modifications		01/14/2002	01/18/2002	Baseline Inspections
	71121 - OCC RAD SAFETY		**1**			
2	IP 7112101	Access Control to Radiologically Significant Areas		02/04/2002	02/08/2002	Baseline Inspections
2	IP 7112102	ALARA Planning and Controls		02/04/2002	02/08/2002	Baseline Inspections
2	IP 7112103	Radiation Monitoring Instrumentation		02/04/2002	02/08/2002	Baseline Inspections
2	IP 71151	Performance Indicator Verification		02/04/2002	02/08/2002	Baseline Inspections
	SUPPLEME - SUPPLEMENTAL INSPECTION (IF NECESSARY)		**2**			
2	IP 95002	Inspection For One Degraded Cornerstone Or Any Three White Inputs In A Strategic Performar		03/04/2002	03/08/2002	Supplemental Progran
	71121 - OCC RAD SAFETY		**1**			
2	IP 7112101	Access Control to Radiologically Significant Areas		04/29/2002	05/03/2002	Baseline Inspections
2	IP 7112102	ALARA Planning and Controls		04/29/2002	05/03/2002	Baseline Inspections
2	IP 7112103	Radiation Monitoring Instrumentation		04/29/2002	05/03/2002	Baseline Inspections
2	IP 71151	Performance Indicator Verification		04/29/2002	05/03/2002	Baseline Inspections
	71130 - SECURITY		**1**			
2	IP 7113001	Access Authorization Program (Behavior Observation Only)		05/20/2002	05/24/2002	Baseline Inspections
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