

April 10, 2001

Mr. David A. Lochbaum
Nuclear Safety Engineer
Union of Concerned Scientists
1707 H Street NW, Suite 600
Washington, DC 20006-3919

Dear Mr. Lochbaum:

Thank you for your letter of March 16, 2001. In that letter you challenge NRC's basis for stating that the Indian Point 2 plant is safe to operate. You do not state the plant is unsafe; however, you do question whether the NRC's conclusion is based on sufficient inspection and proper characterization of the conditions at the facility. To support your contentions, you refer to a number of performance issues at the Indian Point 2 plant, including design control and inspection issues related to past events at the plant, emergency preparedness and operator performance issues, as well as corrective action program problems.

NRC has maintained a very strong regulatory posture at the Indian Point 2 facility for the past several years. This is reflected in numerous inspection and assessment reports starting with inspections conducted in 1996 and 1997 which brought to light a variety of performance issues. The last Systematic Assessment of Licensee Performance report issued in March of 1997 captured these issues and conveyed NRC concerns to Consolidated Edison (ConEd) through significantly lower performance ratings. In response to these concerns, Region I significantly increased its oversight activities. Inspections by resident and region based inspectors increased significantly. Regional senior management attention was increased through numerous site visits and management meetings with the licensee. Civil penalties were issued in connection with several events and inspection findings. As performance problems continued, an independent, in-depth safety assessment was conducted at the plant in early 1998 under the auspices of a confirmatory action letter; an NRC team provided oversight of this independent effort. The plant underwent an extended outage to address plant equipment problems and operational issues.

During this period, Region I raised specific concerns with safety equipment, human performance, engineering and technical support, control of design activities, emergency preparedness and corrective action programs at the station. In response, ConEd developed improvement programs. While ConEd's performance improvement efforts yielded some progress, the complicated plant trip in August of 1999 and the steam generator tube failure of February, 2000 indicated these efforts had been of limited effect in remedying the underlying problems. Consequently, it was the assessment of senior NRC managers in May, 2000, that weaknesses in numerous areas warranted designating Indian Point 2 as an "agency focus" facility. Subsequently, following the plant assessment guidance established as part of the current Reactor Oversight Process, Indian Point 2 was determined to be a plant with "multiple degraded cornerstones," again, requiring heightened oversight and inspection.

Accordingly, over the past year we provided necessary, enhanced inspection and oversight at the plant. NRC inspection activities at Indian Point 2 during the past year were near double that of a normal single-unit site. Beyond baseline inspections, numerous special reviews and inspections were performed by regional and headquarters personnel. Throughout the period before restart, we employed a disciplined, internal process for screening and addressing issues that could impact safety of restart and subsequent power operation. Prior to plant restart, in addition to our inspection of steam generator replacement work and associated plant restoration activities, we inspected numerous equipment, training and system readiness issues. Important among these were design control deficiencies identified in ConEd's interface with its Nuclear Steam Supply System vendor. We documented preliminary results of these inspections in a letter issued on December 22, 2000.

Notwithstanding the inspection and oversight activities prior to and during restart, the NRC performed the supplementary inspection (95003) called for by the Reactor Oversight Process for a plant with multiple degraded cornerstones. As you are aware, this was a large team inspection. Fourteen inspectors spent three weeks on site examining attributes that are key to safety: human performance, equipment performance, design and configuration control, emergency preparedness and corrective action processes. Our purposes in this inspection were to make sure we had not missed important things and to provide supplemental assessment of the situation and underlying causes. Recognizing that performance problems and weaknesses exist at the station, the team was charged with independently evaluating whether an acceptable margin of safety exists at Indian Point 2. The inspection scope was selected in a manner consistent with the established 95003 procedure, a procedure developed as an integral part of the Reactor Oversight Process. Specifically, we selected two risk-significant safety systems for in-depth review, the Service Water and Emergency Diesel Generator/480 Volt AC Systems.

It is important to note, a number of NRC inspections and ConEd reviews over the past several years have involved a "vertical slice" look at design and functionality of risk-significant systems. For example, the NRC Integrated Performance Assessment Process inspection in late 1996 examined the Low-Head Recirculation and supporting systems. Auxiliary Feed Water, Safety Injection and Engineering Safeguards Actuation Systems were reviewed in the Architect-Engineer inspection performed in early 1998. Since 1997, ConEd has performed safety system functional assessments of Reactor Coolant, Weld Channel Pressurization, Isolation Valve Seal Water, Auxiliary Feed Water and 125 Volt DC Systems. We performed followup inspection in the latter two cases. Also, extent of conditions were examined following events that revealed configuration control issues. For example, ConEd performed extent-of-condition reviews of problems, such as improperly set breaker trip devices, that came to light in the August 1999 event. NRC oversight of these reviews was comprehensive.

Throughout all of these inspections and reviews, we have consistently assessed problems and issues arising in terms of their impact on plant safety. As you are aware, we expect all deficiencies identified by either NRC inspection or a licensee's corrective action process be assessed in terms of safety system operability. We were highly attentive to this, for example, in the period before restart.

More broadly, we examined our findings and assessments cumulatively in terms of guidance in NRC Manual Chapter 0305, "Operating Reactor Assessment Program," on what constitutes unacceptable performance -- that is, situations where reasonable assurance that a licensee can

or will conduct its activities without undue risk to public health and safety does not exist. To date, we have not identified the multiple significant violations of requirements or safety significant examples where the facility was determined to be outside its design basis that would cause us to lose confidence in the licensee's ability to maintain and operate the facility safely. If in any of these reviews and inspections, we encountered conditions which ultimately defeated the function of safety systems, the scope of reviews would have been expanded.

It is in this context that we stated at the supplemental inspection public exit meeting (on March 2nd) that acceptable margins of safety exist at the IP2 facility. We plainly stated at the same time that performance problems, similar in nature to those previously identified, exist at the station requiring continued ConEd attention. While we recognized some progress is being made, we expressed concern that it has been slow overall, and limited in some areas. For example, while some improvements were noted in Indian Point 2 corrective action programs, ConEd must continue strong efforts in this important area. As a consequence, we will continue heightened level of oversight until we can verify that sufficient progress has been made in addressing the underlying causes of identified performance issues.

There has been considerable public outreach by NRC on the Indian Point 2 case. The NRC has attempted to keep the public accurately informed of our inspections, assessments and findings at the plant through a special website and numerous public meetings over the past year. For example, a public meeting was held before restart to describe the nature of the issues that were under review and the process we were following. Technical meetings with ConEd have and will continue to be open for public observation. As we stated in the exit meeting for the 95003 inspection, we expect to meet with ConEd on their response to this inspection focusing, in particular, on design control activities to provide confidence that appropriate actions are being taken in this important area.

While I agree with you that, as at any plant, there may be undetected issues present in systems at the plant, I believe our inspections have provided reasonable assurance that there is adequate protection of public health and safety. We will remain vigilant, to assure that there is no unacceptable erosion of safety margins that are provided by the defense-in-depth concepts and technical conservatism that are embodied in our regulations and by the redundancy of safety equipment and processes that are important to assurance of safety. We are continuing to follow our process for assessing licensee performance at a plant with multiple degraded cornerstones. It is important to note that this process does incorporate additional regulatory actions that are routinely considered and can be implemented quickly should they be deemed appropriate. Finally, the NRC assessment of "end-of-cycle" inspection findings and performance indicators is occurring for each plant in May 2001. We will forward you that assessment.

David A. Lochbaum

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I understand that you have informed the NRC's Office of the Inspector General (OIG) of your concerns. We are similarly forwarding a copy of this response to the OIG. If you have any further questions please contact me.

Sincerely,

/RA/

Hubert J. Miller
Regional Administrator

Distribution:

David A. Lochbaum

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