3/8/01

Discussion Points for Chman Pre-Brief for IP2 site visit - DRAFT
PREBRIEF- 3/8 1030
Site Viist - 3/9

1) Agenda (for site visit; participants) RI

2) 95003 Exit Meeting Summary; and Public Meeting RI
(Reference Exit slides; and attached notes from Public meeting)

3) Reactor Protection System issues RI
- technical
- Riccio/Lochbaum meeting

4) 50.54(f) Summary NRR/RI

5) Emergency Preparedness RI/NRR
- FEMA
- co-located site issue
- legal background (defense-in-depth; reasonable assurance; acts of nature)
- bus strike issue

6) 2.206 Petition / License Transfer NRR

7) IG Report and Staff Response NRR/RI
- continued public interest in conclusions

8) Chilling Effect letter (security guard/OSHA issue) RI
- allegation summary (other issues)

9) Future NRC Actions RI/EDO/NRR
- Ongoing assessment
- continued oversight of Performance Improvement Plan
- Meetings with Licensee
- Senior NRC official visits

J 148

Call Kane
Bill
2 pages
(Congressional Affairs March Joe Shea)

Public Citizen

Buyers Up • Congress Watch • Critical Mass • Global Trade Watch • Health Research Group • Litigation Group
Joan Claybrook, President

March 5, 2001

Chairman Richard A. Meserve
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Changing commitments - what does it mean for 50.54f status

Call Kane

Dear Chairman Meserve:

I am writing to urgently request that David Lochbaum of the Union of Concerned Scientists and I meet with you to discuss our concerns regarding the Indian Point 2 nuclear reactor at your earliest possible convenience.

We are extremely concerned that the NRC staff and Consolidated Edison have, once again, failed to identify significant safety problems at the reactor. We are concerned that the lack of a questioning attitude demonstrated by both the NRC staff and Consolidated Edison that resulted in the steam generator tube rupture has not been rectified and that this same attitude has resulted in incorrect and inaccurate information being disseminated by your agency.

The conclusions of an inspection report recently issued by your agency are in direct conflict with information we now have in hand. Your inspector reviewed only three condition reports generated by the licensee and determined that there was no safety significance associated with the Reactor Protection System (RPS) issues identified. Either your inspector chose not to review or Consolidated Edison failed to provide condition reports which called into question the design basis of the RPS. This raises issues with Consolidated Edison's 1997 50.54 (f) response to the NRC made under oath or affirmation and the ability of both NRC and Consolidated Edison to track commitments regarding adequacy and availability of design basis documentation at the Indian Point 2 nuclear reactor.

Since we have already provided this information to congressional oversight committees and the NRC's Inspector General, we thought it was only fair that we appraise you of our concerns. I am aware that you intend to visit Indian Point later this week and thought it would be appropriate to make you aware of these issues prior to your visit.

Sincerely,

James Riccio

James Riccio
Senior Policy Analyst
Public Citizen's Critical Mass Energy & Environment Program

- Copies CR - CPS
Ltr & response

Ralph Nader, Founder
215 Pennsylvania Ave SE • Washington, DC 20003 • (202) 546-4996 • www.citizen.org

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CC:

Commissioner Nils J. Diaz
Commissioner Greta J. Dicus
Commissioner Edward McGaffigan, Jr.
Commissioner Jeffrey S. Merrifield
U.S. NRC Office of the Inspector General

10 CFR 2.206 Petition Status for Indian Point Unit 2

Petitioner: James P. Riccio on behalf of Public Citizen

Issue: Emergency Preparedness

Petition Date: January 11, 2001

Status: Closed (Acknowledgment Letter rejecting Petition issued 3/1/2001)

Issues/Action Requested:

- The petitioners request that the NRC pursuant to 10 CFR 2.206 suspend or revoke Con Edison operating license for Indian Point Unit 2 (IP2) until there has been a full-participation biennial emergency planning exercise as required by 10 CFR 50, Appendix E.

- The petitioners also requested that if Con Edison's license to operate IP2 is not suspended or revoked, the NRC impose an alternative enforcement action of $110,000/day civil penalty against Con Edison for being in noncompliance with the regulations since January 1, 2001.

Response:

- A Petition Review Board (PRB) Meeting on the petition was held on January 30, 2001. The petitioners were provided with an opportunity to address the PRB in an open session with the licensee present.

- The staff issued its position concerning biennial exercise requirements for co-located licensees in the Commission Information Paper (SECY-00-0238) dated December 26, 2000.

- Riccio on behalf of Public Citizen submitted a letter to the Commission dated February 5, 2001 addressing their concerns regarding the completeness and accuracy of SECY-00-0238.

- The PRB informed Riccio by telephone February 27, 2001 of its initial determination that the petition did not meet MD 8.11 criteria for processing under 10 CFR 2.206. The determination was based on the staff's position given in the Commission Information Paper (SECY-00-0238).

- A teleconference was held on February 28, 2001 to allow the petitioners to address the PRB's preliminary decision that the January 11, 2001 Petition did not meet MD 8.11 criteria for treatment under 2.206. The Petitioners, however, did not provide any new information, but only argued the merits of the staff position concerning the biennial exercise requirements for co-located licensee as documented in SECY-00-0238.

Petitioner: Deborah Katz, Marilyn Elie, Tim Judson (Citizens Awareness Network)
Kyle Rabin (Environmental Advocates)
Mark Jacobs(Westchester Peoples Action Coalition)
Paul Gunter (Nuclear Information & Resource Service)
James P. Riccio (Public Citizen)

Issue: Systemic Mismanagement

Petition Date: December 4, 2000

Status: Open (Acknowledgment letter due 3/9/01)

Issues/Action Requested:

1. That the licensee, ConEd, have its license suspended for the IP2 facility due to persistent and pervasive negligent management, which has endangered the public health and safety and the environment due to significant safety problems existent at the site for decades.

2. Specifically, that NRC investigate the apparent misrepresentation of material fact by the utility to determine whether the significantly insufficient engineering calculations relied on to ensure adequacy of design of key systems, including the steam generator (SG) analysis and the electric bus analysis at the IP2 reactor, were due to a lack of rigor and thoroughness or a result of deliberately misleading information.

3. Should the investigation determine that ConEd deliberately provided insufficient and false information, the petitioners specifically request that ConEd's operating license be revoked for its IP2 reactor.

4. Should NRC not revoke the license, and the IP2 reactor returns to operation, the petitioners specifically request that it remain on the list of agency focus reactors to oversee the operation the reactor until such time as its management demonstrates that it can fulfill its regulatory requirements and commitments.

5. No license transfer requests should be approved for IP2 until such time that its management can demonstrate that the Updated Final Safety Analysis Report (UFSAR) backlog and the maintenance requirements are up-to-date and workers have been retrained to the complete and revised UFSAR.

6. NRC should keep IP2 off-line until the fundamental breakdown in management is analyzed and corrected.

Response:

- A Petition Review Board Meeting was held on December 20, 2000, to discuss the request for immediate action (Requested Action #6). The action was accepted for review as a 2.206, but the requested action was denied. The bases for the petitioner's requested action, given in the Background and Addendum sections of the Petition, were issues taken from NRC Inspection Reports, Licensee Event Reports, Plant Issue Matrix items, various assessment letters, and other correspondence between the NRC

and the licensee. The NRC staff had already evaluated these issues for their regulatory and safety significance. In addition, the findings and issues were previously evaluated collectively as part of NRC's ongoing assessment processes, and did not warrant prohibiting the restart of IP2. Deborah Katz was notified on December 29, 2000, of the PRB's decision before the restart of IP2.

- A Petition Review Board (PRB) Meeting on the petition was held on January 24, 2001. The petitioners were provided with an opportunity to address the PRB in a public meeting with the licensee present. During the meeting, the licensee gave the staff additional information to supplement their original petition.

- On February 7, 2001, the PRB reconvened to consider the petition and the supplemental information. The PRB concluded that the petition met the requirements for review and recemmended to NRC senior managers that the petition be accepted.

- On February 9, 2001, NRC senior managers concurred with the PRB's recommendation and accepted the petition for review. Ms. Katz was notified of the decision on Feb 9, 2001. Ms. Katz was also offered another opportunity to address the board, in accordance with MD 8.11. Ms. Katz said she would consider the opportunity, but did not request a meeting at that time.

- The acknowledgment letter to the petitioners has been drafted and in currently in concurrence with the ADT/NRR. Due date for the issuance of the acknowledgment letter is 3/9/01.

LICENSE TRANSFER

On December 12, 2000, Consolidated Edison and Entergy applied to transfer the IP2 operating license to Entergy Nuclear Operations, Inc.

On January 23, 2001, the staff forwarded to the Federal Register a "Notice of Consideration of Approval of Transfer of Facility Operating License and Conforming Amendments and Opportunity for a Hearing."

On February 22, 2001, the Town of Courtlandt and the Hendrick Hudson School district requested a hearing on the proposed IP2 license transfer. They cited concerns about

- The ability of ENO financially to operate and maintain the plant safely
- The levels of decommissioning funding
- The availability of on-site storage for spent fuel
- The cost of future environmental remediation
- The adequacy of the radiation emergency plan

On February 22, 2001, CAN requested a hearing on the proposed IP2 license transfer. CAN did not cite specific technical concerns in their request.

According to the current schedule, the transfer order will be issued in May 2001.

CONDITION REPORT

Condition Report 200008415 cites ambiguities in RPS drawings. The CR states that it is not possible to tell from drawings which modifications have been implemented and which have not been implemented.

Condition Report 200100327 cites numerous instances of configuration control problems with the RPS. The CR states that

- Discrepancies were resolved by changing drawings to match plant conditions
- Some discrepancies are the result of unauthorized modifications
- Operability determinations have not been rigorous
- Authorized modifications have impacts that may not have been considered

Below is a list of 36 CRs[1] created in the last 24 hours. (1/11/01 9:38:07 AM to 1/12/01 9:38:07 AM)

Condition Number	Condition Description
200100322 System: LGHT TagNumber: LGHTN	While changing lights on 33' unit 1 turbine bldg area noted that 8 flourescent fixtures in light & power room are inoperative, and 6 standard light fixtures are inoperative in various areas of 33'.
200100323 System: SIS TagNumber: LI-935A	During an Engineering Quality Review, it was noted that, the corrective actions and basis of operability descriptions for Operability Determination 99-036, and associated Condition Reports were considered to be weak since it does not appear that all appropriate issues were discussed. The Operability Determination was written in October 1999 to addressed drift problems with two Accumulator level transmitters that were occurring over a long period of time (on the order of a year). Accumulator 21 level transmitter LT-935A was noted to be drifting on several occasions and was re-calibrated in March and August of 1999. The Operability Determination corrective action did not completely address why it was out of calibration in a relatively short period of time, or what the corrective action was to address the drifting concern. There was no discussion on any need to increase the calibration frequency or if the amount of drift in the time period was consistent with the instrument uncertainty calculation. The Operability Determination was closed out without identifying if the drifting problem associated with LT-935A was resolved. Condition Report 200010884 written in December 2000, identified a drifting concern with the same transmitter (LT-935A). In the second issue, Accumulator 23 level transmitter LT-935C was noted to be deviating from its redundant transmitter on numerous occasions (at least five times in a year). The problem was attributed to gas binding in a sensing line due to a piping run that did not allow for proper venting of the instrument line. This allows nitrogen gas to be trapped in the line. The ultimate solution was to re-route one of the sensing lines to prevent trapping the gas. However, interim compensatory action until the modification was installed was weak, since it allowed drifting to proceed to the limit of the operator log sheet without discussing if the nature of the suspected drift phenomenon of nitrogen gas accumulation was included as a variable in the uncertainty calculation. The evaluation stated that the allowable instrument error was 15 to 18 percent, and therefore allowed drifting to proceed to the limits identified in the operator log. Further, the response placed reliance on the transmitter that appeared to be working properly to routinely identify a problem with the other transmitter, and did not address potential failures of this transmitter that was not identified with a drift problem. Additional compensation should have been specified in the Operability Determination, such as more frequent venting, until a permanent solution was implemented. A modification was done as part of the corrective action to address this problem.
200100324 System: IA TagNumber: IA-1281	22 Instrument Air dryer dewpoint for monthly test was -21 degrees F. Action level is greater than -30 degrees F. System Engineer to be notified.
200100325 System: N/A TagNumber: N/A	12:26- Received notification of a [redacted] with chest pains, dispatched [redacted] and [redacted], EMT already dispatched. 12:36- Requested ambulance on site for [redacted] who is complaining of chest pains. Notified security. 12:49- Notified by security that Verplank ambulance is on site. 12:52 - Ambulance departed the site. Notified Hudson Valley Hospital to expect the arrival of a non-contaminated individual complaining of chest pains.
200100326 System: N/A TagNumber: N/A	A [redacted] complained of chest pains while doing light work.
200100327 System: RPS TagNumber: N/A	CRS 200010125 identified discrepancies between design drawings and the as-built configuration of the Reactor Protection System. The investigation prompted by this CRS led to the identification of other CRS's that identified similar inconsistencies between design drawings and RPS wiring. A review of the corrective action associated with these CRS's revealed that the CRS actions were typically closed by revising plant drawings to reflect the as found configuration without performing a safety evaluation to determine the impact of the change on the design and licensing basis. In some cases the as-found condition affected the system design as depicted in the UFSAR text and/or figures. A summary of the subject CRS's and associated corrective action follows. The potential impact of these issues on system Operability is addressed under "Conclusions" below. • CRS199803574 identified a discrepancy between the RPS wiring configuration and a description in section 7.2.2.9 of the UFSAR of isolation between safety signals and annunciator and/or computer signals.

Contrary to the UFSAR statement that "The center and front decks (of RPS logic relays) are used for annunciator and computer signals respectively", 22 RPS logic relays were found to violate this criterion. The response to this CRS provided technical justification for a UFSAR wording change to support the as-found configuration. This technical justification included the statement that "The contacts of these (RPS logic) relays involve only one train. Therefore there is no potential for any interaction between redundant safety trains". CRS 199904968 (see below) identified additional RPS wiring that did not conform to design drawings. This as-found condition included contacts from both an "A" train and "B" train RPS relay (P10-2) connected to a common circuit. This configuration appears to invalidate a portion of the justification for allowing computer, annunciator, and RPS logic functions to be wired to a single deck of a RPS relay. • CRS 199902835 identified three distinct discrepancies between plant drawings and the as-built condition. These discrepancies involved: RPS logic relays used to block the "Source Range High Flux at Shutdown" annunciator, drawings showing RPS relay contact configuration different form the as-built condition, and incorrect RPS relay nomenclature on plant drawings. The corrective action for this CRS was limited to revising the affected drawings to agree with the as-found condition. No safety evaluation or review of UFSAR impact was performed. • CRS 199903445 was initiated because the drawing revisions prepared in response to CRS199902835 (see above) were in error. CRS 199903445 also identified an additional drawing error in which the drawing showed the incorrect RPS relay contacts used for the Source Range High Flux at Shutdown annunciator block. Again, the drawing were revised with no accompanying safety review or UFSAR impact review. • CRS 199904968 identified another discrepancy between design drawings and the as-found configuration of RPS. This discrepancy involved contacts from RPS relay P10-2 that are used to defeat the Source Range Loss of Detector Voltage annunciator above 10% reactor power which are not shown on plant drawings. The corrective action for this CRS involved a field verification of the configuration and revision of the affected drawing to reflect the as-found condition. No safety evaluation or UFSAR impact review was performed even though a re-examination of these corrective actions as part of the SL3 investigation of CRS 200010125 determined that this change has a potential impact on the UFSAR, plant test procedures, and DBD. This SL3 investigation also identified a potential nuclear safety concern with the as-found configuration; however, this is based on a scenario in which a wiring error causes a wrong contact to be connected in the RPS logic circuit. An intensive search for documentation that approved the as-found configuration was unsuccessful in identifying a modification to the affected circuit. • CRS 200007597 identified a number of potential internal wiring related discrepant conditions in the reactor protection racks. Isolated cases of wire routing and/or terminations were observed to be inconsistent with routing/separation requirements stated in the UFSAR. In response to this CRS, Operability Determination 00-018 was issued to address the wiring routing/separation issues. The OD determined that the RPS was Operable. • CRS 200009499 identified additional conditions in which the wiring in the RPS racks violated statements in the UFSAR. The CRS stated that "Wires (in RPS Racks 4 and 5) were carelessly strewn through multiple wire ways" and "Had the original design been followed, there would not only have been no mixing (of circuit functions) there would also be half as many new wires to mix". This issues raised in this CRS were also addressed with Operability Determination 00-018 (See CRS 200007597 above). • CRS 200009641 identified six (6) issues related to RPS wiring deficiencies or discrepancies, three of which were similar to or a repeat of issues identified in previous CRS's. The new issues identified in this CRS include: a wire associated with an NIS power range logic relay with a splice that is not represented on plant drawings, and a single cable containing both 125 VDC logic protection power and 118 VAC instrument bus power. Both of these issues were addressed in Operability Determination 00-018; however, no documentation could be found to confirm that the identified splice was prepared and approved in accordance with applicable procedures. • CRS 200010125 identified errors made on drawings as part of the corrective action for CRS 1999904968. It also identified discrepancies between drawings and the as-found RPS wiring that had not been previously identified. The SL3 investigation for this CRS has not yet been approved. Conclusions: The confluence of the issues identified in the CRS's that are summarized above represent design control concerns with the reactor protection system that have not been fully addressed in the responses to the CRS's individually, nor have the implications when considering these CRS's collectively been addressed. A review of these issues has led to the following conclusions: 1. Resolution of discrepancies between as-found plant conditions and design drawings have often been resolved by revising drawing to match the as-found plant condition. These "design changes by default" have been made without the required quality assurance requirements such as design verification or ensuring preservation of the licensing basis through a documented safety evaluation. Although not explicitly stated in the CRS responses, differences between as-built conditions and drawings are assumed to be the result of drawing errors. Discussions with Engineering personnel involved with RPS drawings reveal a lack of confidence that drawings accurately reflect field conditions and difficulty in working with and understanding the information shown on these drawings. 2. Several of the discrepancies identified in the above CRS's appear to have been the result of modifications that were not authorized (i.e. not conducted in accordance with procedures

	or regulatory commitments). An extensive search for an approved modification that led to the defeat of the Source Range Loss of Detector Voltage annunciator above P10 was unsuccessful in identifying a modification. This as-found condition was also found to be inconsistent with the Indian Point 3 configuration. Although experienced and knowledgeable personnel have judged these changes to be acceptable, bypassing of the quality assurance requirements for implementing these changes calls into question their validity. 3. The impact of the RPS wiring discrepancies identified in CRS's 200007597, 200009499 and 200009641 has been addressed in Operability Determination 00-018. This operability determination included a detailed and thorough evaluation of the impact of the wire routing and separation discrepancies on each of the five RPS design criteria. However, it was not within the scope of this operability determination to address functional design changes that some of the as-found conditions represent. Instead, it took credit for investigations performed under other CRS's that determined the as-found conditions to be acceptable. However, the scope of these "investigations" was limited to confirming the as-built condition and revising the drawings accordingly. Notwithstanding the limited scope of the previous operability determination, the implication of these issues on Operability of the reactor protection system has been discussed extensively within Design Engineering. Although I (initiator of this CRS) have concerns relative to the Operability and potential nuclear safety impact of these issues, my supervisor has considered these concerns and determined that the identified discrepancies are limited to configuration control (i. e. documentation) issues and involve no Operability or nuclear safety issues. 4. As part of the search for modifications that would explain the as-found configuration of the RPS, other approved modifications were found that affected the same or similar circuits in which discrepancies were found. These modifications were apparently developed based on circuit configurations shown on plant drawings. Because these drawings do not accurately reflect as-built conditions, previous modifications to the RPS circuits may have impacts that were not considered. 5. Conversations with individuals involved in development of RPS testing have confirmed that supplemental testing has been performed to address the as-found conditions described above. Recommendations: Based on the above conclusions, the following corrective actions are recommended: 1. Verify that previous system walkdowns of the RPS collectively provide a high degree of certainty as to the as-built configuration of the system. Conduct additional system walkdowns as necessary. 2. Evaluate each discrepancy between the as-built configuration of the RPS and design documentation and determine whether the design needs to be changed or whether a physical plant change is required. In cases where design changes are required, perform the required design reviews/verifications and safety evaluations. 3. Review each required design document and/or physical change against the licensing basis and make necessary revisions to the UFSAR. (The SL3 investigation of CRS 200010125 has already identified a UFSAR impact). The RPS DBD, test procedures, and system description will also likely require revision. 4. Perform an Operability Determination to supplement Operability Determination 00-018 which has already addressed the wire routing/separation issues associated with the identified discrepancies. This OD should address the functional changes that were not part of an approved modification and approved modifications that may have been impacted by the identified discrepancies. 5. Further evaluate the need for a major overhaul of the RPS drawings to improve readability and accuracy. This initiative appears to be a necessary part of the actions required to prevent recurrence of problems similar to those addressed in this CRS.
200100328 **System:** FW **TagNumber:** N/A	During the SG Replacement Project ultrasonic calibration blocks were borrowed from [redacted] At the conclusion of the project Calibration Block [redacted] which is a 3.5" T X 14"L X 7"W carbon steel block, was identified as contaminated. SGT brought it to the Unit 2 Decon area and was supposed to transport it to Trailer 68 once decon had been completed. After taking the block to decon, it was apparently mislaid Despite numerous tours of the Unit 1 & 2 decon, storage, and tool rooms the block could not be located. If this block is not located, SGT needs to take steps to procure a replacement block for [redacted] This block may be need for the April outage at [redacted]
200100329 **System:** ILWH **TagNumber:** 13 WDST	13 and 14 WDST EHT Chromolox controllers have a history of failures due to control cabinet water intrusion during periods of rain. Water is detrimental to the Chromolox controllers which are composed of solid state/digital components. Replacement of the Chromolox controllers is a short term solution since subsequent rain will again damage the controllers. For a permanent resolution, water intrusion into the control cabinets must be prevented. The following are some of the areas that require enhancement to prevent control cabinet water intrusion: 1. The control cabinet screw clamps that are designed to keep the door tightly closed should be secured at all times to prevent water intrusion via the door seal. 2. The conduits which connect to the control cabinets are rusty at the connections and may allow for water intrusion. 3. The Chromolox controllers do not appear to make a water tight seal protruding through the door. In addition, the Chromolox controller face is removable which may not be designed to prevent water intrusion. All these areas (and more as required) are to be enhanced to prevent water intrusion. Prevention of control cabinet water intrusion should prevent failure of the Chromolox controllers other electrical components existing in the cabinets during periods of rain.

200008415 System: RPS TagNumber: 52/BYA	Discrepancies have been found in the Controlled Metaphase Drawings which describe the interconnections in the CCR Reactor Protection Racks E3/E6 &F3/F6. Drawing 208859 shows relays LF-1X, LF-2X, LF-3X & LF-4X (Low Flow Trips) as residing in cabinet E3/F3 or L4, in the 38,39,40, & 41 positions in Dwg 208685. There is no Con Ed internal wiring diagram for the E/F racks, so relay-to-relay wiring is shown only in the inherited [redacted] wirelist drawings 615B119, 615B127&29, 615B130,31,32&33. [redacted] wirelist 615B119 Sh 10 has an extensive array of listings describing Relays LF-1X through LF-4X as being in the E4/F4 , or L3 cabinet, in the 5,6,7 & 8 positions, per Dwg 208685. Moreover, this same 615B119 sh 210 shows the E3/F3 , or L4 positions 38,39,40,& 41 now occupied by LF-1X,LF-2X,LF-3X & LF-4X (and verified by field inspection) as anomalously being occupied by unknown relays LF-1,LF-2,LF-3, & LF-4. In the opinion of this writer, a part of our RPS Design Basis has been lost, and must be reconstituted, in the case of wirelist 615B119. Further.. in the case of Reactor Trip wirelist 615B130, sheets 13,14,15,16,17,18, & 19 contain Change Orders such as "Remove...Add" or "Existing...Change to" on the parent drawing , with no means for the viewer to verify if the "Existing" conditions have been actually changed, or if the "Add" orders have actually been implemented. Therefore Two (2) conflicting versions of our Reactor Trip wiring exist side by side on the same issued drawings. The Schematic drawing representing this system, Dwg 110E073 in some cases does show, and in some cases does not show the Relay terminal numbers for the relays, so the ambiguity in 615B119, & 615B130, cannot be fully resolved by reference to 110E073. In the case of a recent mod FIX-95-11057-E, partial internal rack wiring diagrams such as 306373, were specially created for that mod alone, in lieu of a set of corrected overall Rack Internal Wiring Drawings. In the opinion of this writer, if the ambiguities in 615B130 sheets 13-19 are not resolved, this will lessen our margin of safety in any RPS emergency, and also places our RPS Design Basis in an ambiguous state. A suggested fix would be creation, by [redacted] of corrected versions of 615B119,615B130,110E073, AND the creation of NEW internal wiring drawings for our Reactor Protection Racks. Moreover any attempted change in these racks, prior to solution of these inconsistencies, would be, in my opinion, less than conservative Note: correct tag number did not appear in CRS menu, selected a random tag to initiate this CR.
200008416 System: N/A TagNumber: N/A	I recently received an e-mail from the [redacted] (transmitted to [redacted] with me and several [redacted] on courtesy copy) criticizing my findings in CRS 200005173 The transmittal was caustic and contained language that could discourage a questioning attitude and a willingness to document problems. That transmittal and two related documents, as follows, are attached: - The 10/27/00 e-mail which was sent from the [redacted] to the [redacted] - The text of the SL2 narrative prepared by [redacted] on August 29, 2000, and - A proposed revision of the SL2 narrative attached to the 10/27/00 e-mail. At issue in the CRS was whether a setpoint change for the gas turbines had been performed as there was no documented evidence of it in the work control process, and field personnel believed the setpoint change had not been performed. The [redacted], however, ignored the issue and stated "...the condition listed in the CR is not accurate"..."The real issue, as I see it, is the lack of appropriate review by the originator of the CR" . "I do not want to take anymore of this section's time addressing this non-issue" and "My recommendation is that this be assigned to the section that the CR originator is assigned." Subsequent investigation has shown the original issue described in CRS 200005173 to be valid, however, that isn't the issue of concern in this CR. The concern is not technical. The concern is that [redacted] responded to a CRS originator in a way that makes him appear to be inept and insisted that he take the issue back and perform the tasks to "erase" the problem. As previously noted, the e-mail was sent to [redacted]. This action serves to dampen the questioning attitude that WE are trying to cultivate here at IP2. Unfortunately, this is not the first episode of criticism of problem identification by [redacted] that I've witnessed. I am generating this condition report to formally document this as another incident of an adverse cultural attribute that is known throughout the industry at troubled plants as "chilling effect." By reviewing the attached documents it can be seen that in August the [redacted] agreed with the issue as described in the CR, and believed corrective actions were necessary. ICAs were assigned to resolve the issue. Two months later the [redacted] submitted a proposed revision to the SL2 report which offered no real new information and proposed the apparent cause for the condition as "...the lack

POINTS ON IP-2
DESIGN/CONFIGURATION ISSUES

Bottom line:

- NRC has had strong regulatory stance on IP-2 design/configuration control issues over past several years.

Background:

- Design/configuration control related discrepancies have been identified on numerous occasions over the past several years. For example:
  - 1996 IPAP inspection
  - 1997 extended shutdown problems (e.g., miswired annunciator circuits)
  - 1998 NRR- AE team inspection (e.g., Westinghouse calc interface problems)
  - 1999 -- August 31 complicated trip with loss of offsite power
  - 2000 -- pre-restart design issues (e.g., Westinghouse design calc problems)

- Design/configuration control problems were big part of IP-2 agency focus designation. They underly multiple degraded cornerstone classification.

- NRC heightened monitoring in this area has included the following <u>recent</u> activities:
  - held management meeting October 2000 to address this area. From this, ConEd performed special "vertical slice" inspection before plant restart.
  - <u>before</u> restart, inspected numerous issues being identified by licensee to assure there were no effects on operability of systems and equipment. We documented in "quick look letter" problems and raised concerns about slow progress. We pointedly raised concern about repetitive, longstanding nature of concerns.
  - performed 95-003 inspection taking "vertical slice" look at two risk-significant systems. Key points communicated in the exit meeting are the following:
    - additional examples of past identified weaknesses in design/configuration control area were found.
    - ConEd making progress but it is slow overall -- limited in some areas. This is one of the areas where progress has been limited.
    - Corrective action backlogs are large. This includes design related issues.
    - Timeliness and prioritization of corrective actions is a challenge.
    - All of this indicates the need for continued ConEd improvement program and continued (for some time) NRC heightened oversight.
    - Notwithstanding above, team found systems were operable

- Met with ConEd last Thursday to understand scope and schedules in this area. In exit meeting, RA specifically identified need for meeting in near future to review steps to be taken by ConEd in this area.

- RPS related inspections completed. See other writeup.

March 7, 2000

Information Regarding ConEd's Response to 10 CFR 50.54(f) Letter Regarding Adequacy and Availability of Design Basis Information

Attachments:

1. NRC letter to ConEd, Request for Information Pursuant to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Basis Information, October 9, 1996 (w/o atts)
2. ConEd letter to NRC, Response to Request for Information Pursuant to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Basis Information, February 13, 1997 (w/o Att. B)
3. ConEd letter to NRC, Status Update and Change of 10 CFR 50.54(f) Commitments Regarding Adequacy and Availability of Design Basis Information, February 17, 1999
4. ConEd letter to NRC, Amended Response to Notice of Violation and Proposed Imposition of Civil Penalty, June 5, 2000
5. Kristine Thomas memorandum to PMs, Closeout of TACs for October 9, 1996 Request for Information Pursuant to 10 CFR 50.54(f) Regarding Adequacy and Availability of Design Basis Information, October 23, 1997 (w/ attached Indian Point 2 WISP PMR data)
6. SECY-97-160, Staff Review of Licensee Responses to the 10 CFR 50.54(f) Request Regarding Adequacy and Availability of Design Basis Information, July 24, 1997
7. SECY-00-0141, Completion of Staff Followup Activities Related to Adequacy and Availability of Design Basis Information, June 23, 2000

POLICY ISSUE
INFORMATION

SECY-00-0141

June 23, 2000

FOR: The Commissioners

FROM: William D. Travers
Executive Director for Operations

SUBJECT: COMPLETION OF STAFF FOLLOWUP ACTIVITIES RELATED TO ADEQUACY AND AVAILABILITY OF DESIGN BASES INFORMATION

PURPOSE:

To inform the Commission of the completion of the staff followup inspection related activities described in SECY-97-160, "Staff Review of Licensee Responses to the 10 CFR 50.54(f) Request Regarding the Adequacy and Availability of Design Bases Information," dated July 24, 1997.

SUMMARY:

On October 9, 1996, the NRC staff issued a letter to power reactor licensees pursuant to 10 CFR 50.54(f) that required licensees to provide information regarding programs and processes designed to control and maintain the facility's design bases information. The followup inspections performed subsequent to the receipt of responses determined that, in general, the inspected systems and components were capable of performing their safety functions. In some cases, prompt corrective actions were required to resolve operability concerns and several escalated enforcement actions were taken. Overall, however, licensee programs and procedures for maintaining design bases were generally effective. The followup inspection related activities described in SECY-97-160 have been completed, and no further generic action is planned.

The followup NRC inspection reports and licensee event reports (LERs) described conditions in which the plant designs were not in compliance with plant design bases. The staff determined, as discussed below, that several of these issues were risk significant. In the staff requirements memorandum on SECY-97-205, "Integration and Evaluation of Results from Recent Lessons-Learned Reviews," the Commission directed the staff to develop guidance on the type of information to be considered as design bases information. A paper addressing this issue, SECY-00-0047, "Draft Regulatory Guide Providing Guidance and Examples for Identifying 10 CFR 50.2 Design Bases," was provided to the Commission on February 23, 2000. This guidance, combined with the proposed changes to 10 CFR 50.72 and 10 CFR 50.73 reporting requirements (SECY-00-0093), should enable the staff to provide a more appropriate safety focus on design bases issues.

During the development of the framework for the new reactor oversight process (ROP), the staff, as a result of lessons learned during the followup inspections described in SECY-97-160, recognized the need for a continued inspection focus on licensee control of their design bases, and has included within the baseline inspection program a biennial safety system design and performance capability inspection at each plant. These inspections are intended to periodically assess implementation of the licensee design control programs.

BACKGROUND:

NRC team inspections during 1995 -1996 identified concerns regarding the ability of licensees to maintain and implement the design bases at certain plants. Considering the potential scope of these concerns and the need to ascertain the extent of the problems within the population of operating reactors, the staff proposed that licensees be required to provide information regarding the availability and adequacy of design bases information. Following the Commission's approval, the NRC issued a letter to each licensee in accordance with 10 CFR 50.54(f) requesting the licensee to describe the programs and processes established to control and maintain operations within the facility's design bases. Additionally, the licensees were asked to discuss the effectiveness of these programs and processes.

In SECY-97-160, the staff described a four-phased approach to the review of the licensee responses to the 10 CFR 50.54(f) request. The SECY paper described the completion of the first three phases, which consisted of reviewing the licensee responses to identify significant regulatory concerns requiring prompt NRC followup, demonstrating the feasibility of the review process and review criteria, and reviewing all responses using the revised process and review criteria. For the last phase, the staff recommended that certain followup activities be performed. After reviewing the licensee responses, the staff concluded in SECY-97-160 that all licensees had established programs and procedures to maintain the design bases of their facilities and determined that no further generic action would be required after the completion of the last phase.

The staff recommended the followup activities either because of the staff's concern about the performance of particular licensees in controlling facility design bases or because there was a need to validate the effectiveness of a particular element of a licensee's design control program. The range of followup activities included the prioritization of sites for design inspections, performance of safety system functional inspections (SSFIs), augmentation of safety system engineering inspections (SSEIs) to specifically review some aspect of a licensee's design control program, and augmentation of routine inspections to review licensee design control initiatives outlined in the 10 CFR 50.54(f) responses, as well as related corrective actions. These followup activities were conducted in 1997-1999.

DISCUSSION:

The following actions were completed as described in SECY-97-160:

Attachment 7

- Design inspections were performed at 21 sites by three inspection teams, with each team consisting of an NRR team leader and five contractors from architect-engineer firms. The candidate plants were selected and prioritized after taking into consideration each licensee's response to the 10 CFR 50.54(f) letter, the plant's age, and the results of plant performance reviews. The teams reviewed design and licensing bases, calculations, operating procedures, safety analysis reports, drawings, and modifications for one or two risk-significant systems at each site.

- The staff determined that inspection of conformance with design bases should continue to be emphasized. Accordingly, a new inspection procedure (IP) 93809, "Safety System Engineering Inspection (SSEI)," was issued to provide another method of assessing a licensee's engineering effectiveness through an in-depth review of engineering calculations, analyses, and other engineering documents. The SSEI is similar in concept to an SSFI and the design inspections described earlier, albeit with a reduced scope and a smaller resource commitment.

- Manual Chapter 2515, Appendix A, "Core Inspection Program Procedures," was revised to allow regions the flexibility to choose one of the three following inspection procedures to perform engineering inspections at each site: IP 37550, "Engineering"; IP 93801, "Safety System Functional Inspection (SSFI)"; and IP 93809, "Safety System Engineering Inspection (SSEI)."

- Routine engineering inspections performed as a part of the core inspection program were customized to allow for the review of site-specific concerns, such as design control, configuration control, and corrective actions.

Approximately 70 design, engineering, and safety system performance inspections were performed between January 1997 and August 1999. In addition, a number of followup inspections were performed to close out the identified design issues. The total NRC resource expenditure (including NRC contractors) for design and engineering-related inspections was approximately 32 full-time equivalent (FTE) positions. These resource expenditures exclude inspection preparation, inspection report writing, and enforcement activities.

During this period in which the staff focused heightened attention on design bases, it identified several safety significant issues. The design-related inspections resulted in the issuance of one Severity Level II enforcement action to D. C. Cook for systemic failure of its design control, surveillance testing, and corrective action programs, and nine Severity Level III enforcement actions (Three Mile Island 1, Vermont Yankee, Indian Point 3, Oyster Creek, H. B. Robinson, Perry, Kewaunee, Point Beach, and Prairie Island). Of all the escalated enforcement actions taken during this period, approximately 13 percent were related to design issues.

Additionally, the increased focus on design bases issues by both the licensees and the NRC resulted in a notable increase in LERs. Those design bases issues reported in 1997-98 have recently been reviewed by the Office of Nuclear Regulatory Research (RES). While there were a number of LERs submitted, only a few design bases issues (three in 1997 and two in 1998 affecting multiple units) reported in the LERs met the Accident Sequence Precursor (ASP) Program guidelines for a significant event (i.e., events with conditional core damage probability 1×10^{-6}). New guidance clarifying what constitutes design bases information in accordance with 10 CFR 50.2 has been developed. In SECY-00-0093, dated April 21, 2000, the staff provided for Commission approval a final rule to modify event reporting requirements for power reactors in 10 CFR 50.72 and 10 CFR 50.73. As a result, it is expected that in the future, there will be fewer LERs associated with design bases issues, but those that remain will be better focused on issues of safety significance.

CONCLUSION:

The design and engineering inspections conducted after licensees responded to the October 9, 1996, 10 CFR 50.54(f) letters determined that, in general, the inspected systems and components were capable of performing their safety functions. However, a substantial number of issues related to compliance with design bases were identified either by licensees or during the NRC inspections, thus resulting in the characterization of a number of plants as being outside the design bases or in an unanalyzed condition. Most of these issues were not individually risk significant because the safety systems, although possibly degraded, were either still capable of performing their intended functions or other diverse systems would have compensated for the impact of the design errors. As stated earlier, several of the identified design issues were of such significance that they met the ASP risk significance threshold or required escalated enforcement actions.

Given the lessons learned from the previously discussed inspection activities, which highlighted the importance of design control, and because performance indicators associated with the ROP do not provide substantive information on design related issues, the staff has included an inspection of safety system design and performance capability at each site in the ROP. This is a team inspection similar in concept to the in-depth inspection of a safety system previously performed as a part of engineering inspections, such as the SSEI and the SSFI. This inspection is currently intended to be performed at each site every 2 years. Periodic and biennial inspections of plant modifications have also been included in the ROP.

The significance determination process developed for the ROP will be used to assess the risk significance of any inspection findings. If the baseline inspection reveals risk-significant design issues, additional inspections will be performed under the new supplemental inspection program. The ROP will also require the staff to periodically review inspection results and performance indicators and determine if there is a need to revise the frequency and scope of inspections, including the new design inspection. This process will be a part of the staff's ongoing self-assessment activities.

As described in this paper, the staff has completed the followup activities outlined in SECY-97-160 and plans to take no further action related to the review of the 10 CFR 50.54(f) responses on adequacy and availability of design bases information.

It is likely that the number of inspection findings related to design bases and licensee-reported design issues will be less in the future than the past several years, a situation that resulted because of a broad interpretation of what constituted "design bases" information and an increased agency attention in this area. The draft regulatory guide DG-1093, "Guidance and Examples for Identifying 10 CFR 50.2 Design Bases," provides a clear common understanding of what information is

considered as design bases to assist both licensees and the staff in bringing a more appropriate safety focus to design bases issues. Also as previously noted, reporting requirements are being revised to eliminate reporting of design deficiencies of minimal significance. The staff believes that the focus by the NRC and licensees on design bases over the last several years, coupled with inclusion of design inspection and plant modification inspection as elements in the baseline inspection program, provide the confidence that licensed facilities will maintain conformance with their design bases. The staff plans to evaluate the results of the initial implementation of the ROP, the experience with the use of regulatory guide DG-1093 (once finalized), and the trend in the licensee event reports following implementation of the revised rule requirements. The staff will incorporate the experience gained into any future revisions to the ROP. At that time the staff will also evaluate whether there is a need for further interactions with the industry on what constitutes design bases information.

COORDINATION:

The Office of the General Counsel has reviewed this Commission paper and has no legal objections to its content.

The Office of the Chief Financial Officer has reviewed this Commission paper for resource implications and has no objections.

/RA/

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NOTES FROM PUBLIC MEETING AT
CORTLANDT TOWN HALL
ON March 2, 2001

A Sampling of Concerns Raised during the Meeting

Congressman Gilman:

1. Need to closely monitor the maintenance backlog and the ongoing problems noted in emergency preparedness
2. Slow and/or limited accomplishment of corrective actions
3. Two inspectors may not be enough at this site
4. Is Entergy walking into the maintenance backlog?
5. GAO report of its results in the EP area due in May 01
6. General statements of concern over RPS engineer and security guard

Congresswoman Kelly:

1. Concerns over individual who resigned (RPS); as-built doesn't match design; other design control issues in CRs; "Design Changes by Default" without documented safety evaluations; questioned why design changes not being done in accordance with regulatory processes
2. ConEd could have avoided some problems if restart had not been rushed
3. Asked OIG to investigate circumstances surrounding RPS engineer resigning
4. Explain the 1997 commitment about design basis

Assemblywoman Galef:

1. Wants Con Edison to provide a specific corporate response to the issues raised in the inspection
2. Wants the information put on the internet
3. Are Con Edison's staff resources adequate?
4. Response to design basis concerns.
5. Wants NRC to establish a list of issues that Con Edison needs to resolve with a timetable for accomplishment of each issue (Believes NRC should report back in 2 months)
6. Thanked ConEd for establishing an "800" number for individuals to find out about radiological releases

Linda Puglisi:

1. Wants an opinion on the evacuation plans
2. Is the NRC satisfied with the report on Con Edison (95003)?

Marilyn Elie (CAN):

1. Why are adequate and acceptable enough?
2. Worried about Entergy's track record (fire skilled employees; numerous fines; postpone maintenance)
3. Why is Entergy establishing holding companies to limit its liability?

Fred Schmit

1. Concerns about occurrences of cancer among his friends

Kyle Rabin (Environmental Advocates)

1. Recited the concerns raised in the 2.206 petition on EP
2. Con Edison faltered during the 1994 and 1998 exercises

Mark Jacobs (CAN)

1. Will NRC conduct its own sample to assess the number of CRs not properly closed?
2. Need to eliminate backlogs before the license transfer
3. CRs show problems with compliance with FSAR (what if emergency repair is necessary)
4. Will you look at the entire plant?

CAN Member:

1. Concerned about NRC taking a "wait and see" approach

Lisa Rodrigues:

- References a letter sent to Westchester County by the Lakeland School District regarding emergency evacuation

Judy Shepherd

- Member of Sustainable Development Committee; looking at normal traffic on Rt. 9, 202 etc. Raises emergency plan implementation difficulties.

Highlights by Topical Area from the Meeting:

Workers ability to raise issues

- individuals have said they are not being heard....
- RPS issues by engineer
- chilling effect of security guard

Plant restarted too soon

- there has been an excessive number of issues and problems that prove the plant was restarted too early
- the "Nuclear Regulatory people" did not do their job --- didn't assure these problems didn't happen

Design related issues

- plant not in compliance with design basis
- concern about RPS system (issues raised by consulting engineer)
- design related commitments not met by ConEd (1997 50.54f commitments not met)
- changes made without safety evaluations
- backlog of issues
- NRC only telling half the story/truth
- why are you or ConEd not doing "vertical slice" reviews on each system in the plant?

Corrective Action Issues

- CRs give indication

Inspection followup

- need for metrics and time table for ConEd addressing of issues
- need continued special monitoring by NRC
- need to maintain resident inspectors at current level

Other issues

- offsite EP plan won't work for numerous reasons
- Spent Fuel storage issues