July 14, 2000

EA No. 00-155

Mr. A. Alan Blind
Vice President - Nuclear Power
Consolidated Edison Company of
New York, Inc.
Indian Point 2 Station
Broadway and Bleakley Avenue
Buchanan, NY 10511

SUBJECT: INDIAN POINT 2 GENERATING STATION - NRC INSPECTION REPORT NO. 05000247/2000-006

Dear Mr. Blind:

This letter transmits the results of a follow-up safety inspection conducted by an NRC team at your Indian Point 2 facility after the February 15, 2000, event involving a steam generator tube failure. An Augmented Inspection Team (AIT) inspection was conducted immediately after the event to promptly establish the facts associated with the event. This inspection was performed after your initial recovery efforts and focused on your short-term corrective actions. Further, this inspection assessed the enforcement aspects of the emergency preparedness issues previously identified during the AIT inspection. As a result, many of the issues discussed are not new issues. Rather, this report constitutes further development of the broad issues identified in the AIT report.

The majority of the inspection was conducted from May 15 through June 2, 2000, and focused on the onsite exercise conducted June 1, 2000. In parallel, we completed a review of your emergency preparedness program. We discussed the findings from this inspection with you and your staff in an exit meeting on June 2, 2000. Further, the enclosed report documents a meeting held in Region I on April 26, 2000, to obtain the status of your corrective actions in the emergency preparedness area.

We found that the short-term corrective actions taken in response to the problems highlighted during the February event were adequate. While you continued to exhibit some weaknesses in the Joint News Center activities, the emergency response organization demonstrated its ability to implement the onsite emergency plan during the June 1, 2000, exercise.

* Exercise before restart

R Conte Note

4/18

This report discusses three preliminary findings of low to moderate safety significance (white). These programmatic deficiencies were initially identified by the AIT as (1) an untimely augmentation by the emergency response organization, (2) an untimely accountability of onsite radiation emergency workers, and (3) inconsistent dissemination of information to the media and a local official during the course of the event. These findings were also determined to be apparent violations of NRC requirements because you failed to meet NRC emergency planning standards (10CFR 50.47).

Although we believe that we have sufficient information to make our final significance determination, we are giving you the opportunity to send us your position on the significance of the findings and the bases for your position in writing. Also, please inform us if you would like to schedule a Regulatory Conference to discuss your evaluation and any differences with the NRC evaluation. A Regulatory Conference on this matter would be open for public observation. Accordingly, no enforcement is presently being issued for these inspection findings. Please contact Mr. Richard Conte (610-337-5183) of my staff within 10 days of the date of this letter, to notify the NRC of your intentions on this matter. If we have not heard from you by telephone regarding a conference or in writing within 14 days, we will continue with our significance determination and enforcement decisions. You will be advised by separate correspondence of the results of our deliberation on this matter.

The NRC identified six additional emergency preparedness findings involving failures to implement regulatory requirements. Those findings were evaluated under the Emergency Preparedness Significance Determination Process as very low safety significance (Green). These findings involved violations of NRC requirements, but because they had been entered into your corrective action program and because of their very low safety significance, the violations were not cited. If you contest these non-cited violations, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Indian Point Unit 2 Station.

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).

Should you have any questions regarding this report, please contact Mr. Richard J. Conte at (610) 337-5183.

Sincerely,

/RA/

Wayne D. Lanning, Director
Division of Reactor Safety

Docket No. 05000247
License No. DPR-26

Enclosure: Inspection Report 05000247/2000-006

cc w/encl:
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.	05000247
License No.	DPR-26
Report No.	05000247/2000-006
Licensee:	Consolidated Edison Company of New York, Inc.
Facility:	Indian Point 2 Nuclear Power Plant
Location:	Broadway and Bleakley Avenue Buchanan, New York 10511
Dates:	April 17, 2000 and May 15 through June 2, 2000
Team Leader:	David M. Silk, Senior Emergency Preparedness Inspector
Inspectors:	D. Barss, Emergency Preparedness Specialist, NRR (in-office part time) L. Briggs, Senior Reactor Engineer, DRS R. Bores, State Liaison Officer, ORA E. Fox, Emergency Preparedness Specialist, NRR P. Habighorst, Resident Inspector, IP2 J. Laughlin, Acting Senior Resident Inspector, Salem N. McNamara, Emergency Preparedness Specialist, DRS W. Raymond, Senior Resident Inspector, IP2 N. Sheehan, Public Affairs Officer, RI
Observers:	Federal Emergency Management Agency, FEMA Region II Representatives: R. Acerno, FEMA II K. Carroll, FEMA II B. Hasemann, FEMA II R. Ohlsen, FEMA II K. Reed, FEMA II R. Reynolds, FEMA II S. Thomas, FEMA II
Approved by:	Richard J. Conte, Chief Operational Safety Branch Division of Reactor Safety

SUMMARY OF FINDINGS

Indian Point 2 Nuclear Power Plant
NRC Inspection Report 05000247/2000-006

The inspection was conducted on April 17, 2000, and from May 15 through June 2, 2000 on the following emergency preparedness baseline activities: onsite exercise evaluations; Alert and Notification System Testing; Emergency Response Organization (ERO) Augmentation; Emergency Action Level and Emergency Plan (E-Plan) Changes; Correction of Emergency Preparedness Weaknesses and Deficiencies; and Emergency Preparedness (EP) Performance Indicator Verifications. The inspection followed an NRC Augmented Inspection Team (AIT) review of the steam generator tube failure event that occurred on February 15, 2000. The AIT inspection was conducted immediately after the event to promptly establish the facts associated with the event. The results of the AIT inspection are documented in Inspection Report No. 05000247/2000-002. This EP Follow-up inspection was performed after Con Edison's initial recovery efforts and focused on Con Edison's short term corrective actions. Further, this inspection assessed the enforcement aspects of the EP issues previously identified during the AIT inspection. As a result, many of the issues discussed are not new issues. Rather, this report constitutes further development of the broad issues identified in the AIT report. Separately, non-EP findings related to the event are discussed in Inspection Report No. 05000247/2000-007.

The inspection was conducted by region based and headquarters based emergency planning specialists, resident inspectors from onsite and another site, and other region based inspectors. The inspection identified three apparent white findings and six green findings, which were also non-cited violations. The significance of the findings is indicated by color (green, white, yellow, red) and was determined by the Significance Determination Process (further described in Attachment 1).

Cornerstone: Emergency Preparedness

- **White.** In response to the Alert of February 15, 2000, there was a failure to augment the ERO within 60 minutes of the declaration of the Alert contrary to the Indian Point 2 (IP2) E-Plan Figure 5.2-1. Followup inspection identified several program structure deficiencies or design problems that contributed to an apparent failure to meet NRC emergency planning standard 10 CFR 50.47(b)(2). This finding was an apparent violation of low to moderate safety significance because of the failure to meet an NRC emergency planning standard. (Section 1EP3 b.1).

- **White.** In response to the Alert of February 15, 2000, there was a failure to account for onsite radiation workers within 30 minutes of initiation contrary to the IP2 E-Plan section 6.4.1.d and E-Plan implementing procedure 1027 section 5.1.2.f. Followup inspection further identified several program deficiencies or design problems indicating an apparent failure to meet NRC emergency planning standard 10 CFR 50.47(b)(10) concerning accountability. This finding was an apparent violation of low to moderate safety significance because of the apparent failure to meet an NRC emergency planning standard. (Section 1EP3 b.2)

- **White.** In response to the Alert of February 15, 2000, there was a failure to properly disseminate information about the Alert conditions. As a result there was confusion in the public domain about whether there was a radiation release and its magnitude, and one local official was not notified in accordance with a pre-arranged agreement. This was contrary to the IP2 E-Plan section 5.2.3, which requires consistent information be disseminated. Followup inspection identified a number of program structure or design problems indicating an apparent failure to meet NRC emergency planning standard 10 CFR 50.47(b)(7) concerning dissemination of information. This finding was an apparent violation of low to moderate safety significance because of the failure to meet an NRC emergency planning standard. (Section 1EP3 b.3).

- **Green*.** The NRC identified a decrease in the effectiveness of the E-Plan because descriptions of some onsite ERO positions and the training program had been removed from the E-Plan. This finding was treated as a non-cited violation of 10 CFR 50.54(q) consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). (Section 1EP4 b)

- **Green*.** The NRC identified that there was an inadequate description in the E-Plan of the joint news center (JNC) facilities and staff responsibilities and of the siren testing equipment used to verify siren operability. This finding was treated as a non-cited violation of 10 CFR 50 Appendix E requirements consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). (Section 1EP4 b).

- **Green*.** The NRC identified the failure to correct ERO notification deficiencies found as a result of drills or exercises as early as November 1999. Problems with the notification process still existed as demonstrated during the event of February 15, 2000, and as late as June 1, 2000, as evidenced by equipment reliability problems and inconsistent activation by assigned personnel. This finding was treated as a non-cited violation of 10 CFR 50.47(b)(14) consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). (Section 1EP5 b.1).

- **Green*.** The licensee identified that they had not conducted an off-hours exercise at the required frequency. E-Plan Section 8.1.3, Drills and Exercises, commits the licensee to conduct an off-hours exercise once every six years. Prior to the February 15, 2000, event, the last off-hours exercise was conducted in 1993 and thus exceeded the six year periodicity. This finding was treated as a non-cited violation of 10 CFR 50.54(q) consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). (Section 1EP5 b.2).

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* In accordance with the Emergency Preparedness Significance Determination Process, the violations which were Green findings were of very low safety significance because each involved a "failure to implement" (in distinction to a "failure to meet") an NRC emergency planning standard. Also the violation was not a failure to implement a risk significant emergency planning standard or requirement during the Alert of February 15, 2000.

- **Green*.** During the February 15, 2000, event the licensee's failure to activate the Emergency Response Data System (ERDS) within one hour of an Alert was contrary to 10 CFR 50.72(a)(4). The ERDS was not made operable until approximately seven and one-half hours after the Alert declaration due to a problem with the telephone lines. This finding was treated as a non-cited violation of 10 CFR 50.72(a)(4) consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). (Section 1EP5 b.4).

- **Green*.** The licensee failed to establish a continuous communication line as requested by NRC. 10 CFR 50.72(c)(3) requires that during emergencies licensees maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC. The finding was treated as a non-cited violation of 50.72(c)(3) consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). (Section 1EP5 b.5).

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Report Details

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation

a. Inspection Scope

(1) Reviewed exercise objectives and scenario to determine if the exercise would test major elements of the licensee's E-Plan.

(2) Observed and evaluated the licensee's June 1, 2000, exercise performance by focusing on important EP activities and areas where problems had been previously identified at the emergency response facilities (ERFs) which included the simulator control room (SCR), the technical support center (TSC) , the operations support center (OSC), the emergency operations facility (EOF), and the joint news center (JNC).

(3) Assessed the ERO's recognition of abnormal plant conditions, classification of emergency conditions, notification of offsite agencies, development of protective action recommendations (PARs), command and control, communications, utilization of repair and field monitoring teams (FMT), communication of information to the media, and the overall implementation of the E-Plan.

(4) Observed the post-exercise critique to evaluate the licensee's self-assessment of the exercise.

b. Findings

The team review of the initial proposed scenario indicated a lack of opportunity for the TSC and OSC staff to demonstrate remediation of past exercise weaknesses related to technical support and coordination of repair activities. Prior to the exercise, the licensee was informed of the scenario's limitation to assess previous weaknesses. The licensee understood the problem and modified the scenario such that it would challenge the TSC and OSC to demonstrate their ability to provide technical support and coordinate repair activities.

No significant findings were identified regarding the onsite ERFs. Overall, while there continued to be weaknesses in the dissemination of information, the ERO demonstrated its ability to implement the onsite E-Plan during the June exercise. For example, the team identified a number of implementation problems related to the briefings provided at the JNC, an offsite ERF. The JNC did not receive detailed information regarding plant and radiological conditions from the EOF and that lack of information resulted in the JNC staff having little understanding of the emergency (condition of the reactor and containment, offsite radiological conditions). Consequently, briefings and press releases were inconsistent and contained incorrect information.

The licensee's critique conducted on June 2, 2000, was an improvement from the critique observed during the September 22, 1999 exercise. However, the licensee failed to identify the problems related to JNC media briefings. In addition, the following exercise problems at other ERFs were not identified during the licensee's critique.

- Cooldown rates for the reactor (simulated) as controlled from the SCR at times exceeded the 100 degrees F per hour cooldown limit as specified in Technical Specification 3.1.b.1. During one nine-minute period, the cooldown rate was 180 degrees F/ hour. (The licensee exceeded the cooldown limit on the reactor during the February 15, 2000, event.)

- The SCR crew was not made aware of the Site Area Emergency declaration until they inquired about the classification status 11 minutes after the emergency director made the declaration. This reflected a communications problem.

- The EOF procedures for dose assessment have no methodology for confirming the noble gas to iodine ratios for field monitoring measurements.

- Field Monitoring Team (FMT) No. 1 was not provided specific directions, when directed to relocate during the exercise; and, as a result, the team received unnecessary dose by driving through the plume instead of around it. Also, this team drew an air sample and delayed counting it for about an hour.

- FMTs were not specifically informed that a release had started.

1EP2 Alert and Notification System Testing

a. Inspection Scope

The inspectors reviewed documentation regarding the design of the siren system and the procedures used to ensure that the system was properly tested. Maintenance records and testing data results were reviewed to assess licensee corrective actions associated with the sirens. The licensee's E-Plan was reviewed to determine if the siren system is adequately addressed.

b. Findings

No findings were identified.

1EP3 ERO Augmentation

a. Inspection Scope

The inspector reviewed the licensee requirements for ERO augmentation and evaluated if the process would support specified augmentation times. Changes to the process were reviewed as well as data from system testing. Corrective actions related to ERO augmentation issues were reviewed.

Inspection in this area was conducted in conjunction with the followup of performance problems associated with ERO augmentation which were identified by the AIT in response to the February 15, 2000, steam generator tube failure event.

The team reviewed licensee corrective actions for EP-related performance problems from the February 15, 2000 event which included ERO augmentation, accountability of onsite personnel, and operation of the JNC. The team also reviewed the results of the following drills and exercises:

-- April 17, 2000, Drill for Notification and Augmentation in the Off-hours.

-- May 10, 2000, Drill for practice with focus on Notification and Activation.

-- June 1, 2000, Exercise Evaluation with limited off-site participation.

-- Various accountability drills conducted on March 30, April 14, April 25, May 10, and May 24, 2000.

b. Findings

b.1 On-shift Augmentation, Facility Activation, and ERO Notification

NRC Event Review

The licensee's ERFs were not activated in a timely manner following the Alert declaration at 7:29 p.m. on February 15, 2000, due to a steam generator tube failure at 7:17 p.m. Specifically, the following staffing problems were noted:

-- The TSC was supporting the event response at 8:59 p.m. (30 min. beyond 60 min. from the Alert declaration) and was not fully staffed until 10:20 p.m. (1 hr. and 51 min. beyond 60 min. from the Alert declaration) due to the inability to staff the following positions: core physics engineer, electrical and mechanical engineers.

-- The OSC was not fully staffed until 9:15 p.m. (46 min. beyond 60 min. from the Alert declaration) due to the inability to staff Health Physics positions.

-- The EOF was not fully staffed until 9:15 p.m. (46 min. beyond 60 min. from the Alert declaration) due to the inability to staff the onsite and offsite monitoring teams.

- The JNC was not staffed until about 10:30 to 11:00 p.m. (about 2 to 2.5 hours from the Alert declaration). No activation or staffing requirements were listed in the Media Relations Emergency Plan for the facility.

Full staffing and activation did not occur because notification of the ERO and site access was delayed. The IP2 E-Plan requires that the minimum emergency facility staffing be completed within 60 minutes of an Alert or higher declaration for the TSC, OSC and EOF. Section 7.1.4 of the IP2 E-Plan did not include the JNC staffing and activation.

Although the licensee had conducted monthly pager/Community Alert Notification System (CANS - a notification by telephone system) tests prior to the event, they did not have a mechanism in place to review the data to determine if the pagers and the CANS were operating properly. During the event, some pagers did not activate and the CANS did not notify all responders. Failure to ensure the adequacy and effectiveness of the notification system contributed to untimely notification for ERO augmentation and ERF activation and staffing.

Several procedure and related training problems were underlying causes as to why the licensee did not meet the augmentation times within the requirement of 60 minutes. The licensee's procedure stated that before the pagers are activated, the activator needed to fill out a questionnaire sheet for gathering facts about the event. This effort took approximately 15-20 minutes. Also, when the activator went to activate the CANS, he found the outgoing message to be incorrect and they had to record a different message prior to sending out the signal. The deficiencies in the licensee's procedures and related training for activating the ERO pagers contributed significantly to the licensee's delay in activating ERFs and in responding to the event.

Further, there was no procedure or related training describing the duties of security guards (once the main entrance had been secured) regarding how to allow access for the ERO personnel for onsite response to the ERFs. As a result, security personnel were uncertain as to where to send responders for accountability and facility assignments. Some responders were also unfamiliar with where to report. These procedure and related training problems contributed to the delay in augmentation.

Licensee Corrective Actions on Augmentation

As part of the licensee's corrective actions, they performed a number of practice drills/exercises to improve EP implementation. The licensee identified process and equipment problems pertaining to the IP2 notification systems. Several short-term corrective actions to improve augmentation capabilities were successfully implemented. For example, one corrective action following the event was to remove the activation responsibility from the Corporate Information Group (CIG) to the onsite security staff under the security shift supervisor. The licensee developed new procedures and conducted training for security personnel. Also, a study has been initiated to evaluate pager reliability.

Drills conducted by the licensee served to identify a number of notification systems activation problems. Corrective actions taken by the license included personnel training to activate both pagers and CANS simultaneously to notify all ERO members of an event in order to achieve a satisfactory ERO staff complement. However, during the June 1, 2000 exercise, while successful augmentation was demonstrated, a portion of one type of pager did not activate despite several attempts. As a result, the licensee is evaluating the reliability of the pager and CANS systems for improvements.

Determination/Summary

The team used the Emergency Preparedness Significance Determination Process (MC 0609) for the review of the findings above. For the Alert of February 15, 2000, there was a failure to augment the ERO within 60 minutes of the declaration of the Alert as required by the IP2 E-Plan (sections 7.1.5, 7.1.6, 7.1.7, and Figure 5.2-1). Follow-up inspection further identified a number of program structure or design deficiencies indicating an apparent failure to meet NRC emergency planning standard 10 CFR 50.47(b)(2) during the event. These deficiencies were: ERO notification process and equipment reliability problems, ERO delays in onsite access by the security force due to procedure and training problems, and some ERO delays due to personnel not knowing where to report once onsite. This finding is an apparent violation (AV) of NRC requirements and was of low to moderate safety significance because of the apparent "failure to meet" an NRC emergency planning standard (White). **(AV 05000247/2000-006-01)**

b.2 Site Accountability

NRC Event Review

The licensee was not able to complete its accountability process until 138 minutes after the initiation of the accountability process during the event on February 15, 2000. Section 6.4.1.d of the E-Plan and implementing procedure 1067, section 5.1.2.f, requires accountability to be completed within approximately 30 minutes from the time of the sounding of the site accountability alarm. Planning standard 10 CFR 50.47(b)(10) requires, in part, that a range of protective actions be developed for plume exposure pathway emergency planning zone for emergency workers. Accountability is the initial action to ensure a range of protective actions for emergency workers is properly taken.

Initially, accountability was considered completed in 75 minutes when apparently all personnel had been located. However, about that time, it was realized that accountability of individuals had not been maintained as individuals had entered and left the protected area (PA) while the initial accountability was being performed. Thus, the first accountability was declared void and a second accountability was completed at 138 minutes from initiation. Also, the accountability procedure and related training were inadequate for describing the accountability process and when accountability was considered to be accomplished.

Once accountability was initiated, security personnel were to secure the PA as well as the owner controlled area. At the same time, security personnel were to allow emergency responders access to their designated onsite ERFs. The Unit 3 access gate, which also is an entrance to the Unit 2 owner controlled area, was not guarded until midnight and not locked until 3:00 a.m on February 16, 2000. This permitted some ERO staff to bypass the main gate and enter from the Unit 3 side which contributed to the delay in response personnel manning their ERF stations and to the delay in accounting for personnel. There was no security procedure in place for ensuring the owner controlled area (common to Units 2 and 3) was secured.

Licensee Corrective Actions on Accountability

As part of the licensee's corrective actions, they performed a number of practice drills/exercises to improve EP implementation. To complete the accountability process in a timely manner, the licensee revised procedures by removing designated onsite (within the PA) assembly areas and by requiring non-essential personnel to evacuate the PA to the Emergency Education Center (EEC). Although the licensee had been successful in completing the accountability process in 30 minutes, some performance issues remain regarding the licensee's corrective actions taken to improve accountability.

Although the revised method can account for personnel in the PA, it did not meet 10 CFR 50.47(b)(10) in that the licensee did not have the capability to perform site accountability during any emergency condition, without requiring an evacuation. By removing the assembly areas within the PA, the licensee could only perform a site accountability when a site evacuation was initiated. Consequently, the licensee's method would not be an appropriate action for the protection of emergency workers under infrequent scenarios (e.g., natural events, security threats).

The revised accountability process evacuated the non-essential personnel to the EEC. The corrective actions neglected to change the accountability procedures to use the EEC as an assembly area including provisions for communications and measures for the protection of personnel both working in or sent to the EEC.

The licensee has put these problems in their corrective action process.

Determination/Summary

The team used the Emergency Preparedness Significance Determination Process (MC 0609) for the review of the findings. For the Alert of February 15, 2000, there was a failure to account for onsite radiation workers within 30 minutes of when initiated, as required by the IP2 E-Plan, section 6.4.1.d and implementing procedure 1027, section 5.1.2.f. Follow-up inspection further identified a number of program structure or design deficiencies indicating an apparent failure to meet NRC emergency preparedness standard 10 CFR 50.47(b)(10) during the event. These deficiencies were: deficient knowledge of the accountability process by the assigned individual; no security procedures in place for ensuring site control at all times during an emergency event; and problems in achieving accountability within the protected area within 30 minutes. This

finding is an apparent violation of NRC requirements and was of low to moderate safety significance because of the apparent "failure to meet" an NRC emergency planning standard (White)[1]. **(AV 05000247/2000-006-02)**

b.3 Dissemination of Information

NRC Event Review

During the event, problems were identified in the operation of the JNC. There was an apparent lack of coordination of information from the licensee to the counties and state prior to issuance to the general public, which resulted in the issuance of conflicting information regarding the radiological release. In addition, a local official was not notified of the event in accordance with Appendix 5 of the Media Relations Emergency Plan, because of an incorrect telephone number.

This inspection team identified procedural and related training problems. The licensee's EP staff did not ensure that the JNC activities met the commitments stated in the E-Plan for the overall maintenance and operation of the JNC, because the Media Relations Emergency Plan was not an E-Plan Implementing Procedure. In addition, the licensee did not adequately describe the function of the JNC or the roles of the JNC staff in the E-Plan as required in 10 CFR Appendix E (section 1EP4). Further, changes made to the Media Relations Emergency Plan were not reviewed to ensure the changes did not decrease the effectiveness of the commitments made in the E-Plan.

Licensee Corrective Actions for Dissemination of Information

The licensee's short-term corrective actions included revised procedures, drills, training and revisions to the media relations emergency plan. During the exercise conducted on June 1, 2000, improvements were noted in staffing and activation and procedure implementation, but challenges still existed regarding dissemination of information (Section 1EP1 b).

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[1]In accordance with the current draft revision of the Emergency Preparedness Significance Determination Process, a failure to meet planning standard 10 CFR 50.47(b)(10) as it applies to radiation worker protection is assessed as a failure to meet a planning standard and not a failure to meet a risk-significant planning standard because members of the public are not directly effected. The SDP panel that met on this case used this position in the determination process and this staff position will be incorporated into the next revision of the SDP Inspection Manual Chapter 0609.

Determination/Summary

The team used the Emergency Preparedness Significance Determination Process (MC 0609) for the review of the findings. For the Alert of February 15, 2000, there was a failure to properly disseminate information about the Alert in that there was confusion in the public domain on whether or not there was a radiation release and its magnitude, and one local official was not notified in accordance with the Media Plan. This was contrary to the IP2 E-Plan (section 5.2.3), which requires consistent information be disseminated. Follow-up inspection further identified a number of program structure or design deficiencies indicating an apparent failure to meet NRC emergency planning standard 10 CFR 50.47(b)(7) concerning the dissemination of information. These deficiencies were related to minimal training or guidance for briefing personnel on what information should be disseminated and a wrong number in the media relations procedure for notifying local officials. This finding is an apparent violation of NRC requirements and was of low to moderate safety significance because of the apparent "failure to meet" an NRC emergency planning standard (White).
(AV 05000247/2000-006-03)

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

In conjunction with this inspection, representatives from the Office of Nuclear Reactor Regulation (NRR) reviewed recent emergency action level (EAL) changes and selected E-Plan changes to determine if the changes decreased the effectiveness of the E-Plan and if the changes continued to meet the emergency planning standards of 10 CFR 50.47(b) and the requirements of 10 CFR 50 Appendix E.

b. Findings

As a result of failing to declare an Unusual Event (UE) during the August 31, 1999, loss of offsite power event, the licensee reviewed their EALs and submitted changes for EALs 6.1.1, 6.1.3, 6.2.1, and 6.2.2, which address various electrical abnormalities. The team determined that the revised EALs were consistent with regulatory guidance and did not decrease the effectiveness of the E-Plan.

The team reviewed changes as reflected in Revision 00-01 to the IP2 E-Plan and identified 19 problems or discrepancies. Most of the problems dealt with clarification of intent, consistency among various parts of the E-Plan, or incorrect references to other documents. However, two problems reflected decreases in the effectiveness of the E-Plan per 10 CFR 50.54(q) which were not approved by the NRC. One change removed several ERO position descriptions and another change removed the ERO training program description. These two changes were decreases in effectiveness, because these descriptions are required by 10 CFR 50 Appendix E IV.A.2 and IV.F.1. In response to all 19 problems, the licensee initiated Condition Report (CR) 200003878 (a related CR is 199905877). Since the licensee placed the specific problems in their corrective action process, this finding was treated as a non-cited violation of 10 CFR

50.54(q), consistent with Section VI.A of the NRC Enforcement Policy issued on May 1, 2000 (65 FR 25368). The violation was of very low safety significance because this problem involved a "failure to implement" (in distinction to a "failure to meet") an NRC emergency planning standard. Also this violation was not a failure to implement a risk significant emergency planning standard or requirement during the Alert of February 15, 2000 (Green). **(NCV 05000247/2000-006-04)**

Also, during the course of this inspection, other E-Plan discrepancies were identified. The description of the JNC was inadequate in that roles, responsibilities and the facilities were insufficiently described. A more detailed description was in the Media Relations Emergency Plan but this document was not considered an E-Plan implementing procedure per 10 CFR 50, Appendix E, section V. Also, if changes were made regarding the function of the JNC, the change would not be subject to a review for a decrease in the effectiveness of the IP2 E-Plan. Further siren testing equipment, used to verify siren operability, was likewise not sufficiently described in the IP2 E-Plan. The team determined that these areas were contrary to 10 CFR 50 Appendix E IV.E which requires that there shall be a description of emergency facilities and equipment. Since the licensee placed the problems in the corrective action process (CR 200004981), this finding was treated as a non-cited violation of 10 CFR 50 Appendix E section IV.E consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). This violation was of very low safety significance because the problem involved a "failure to implement" (in distinction to a "failure to meet") an NRC emergency planning standard. Also this violation was not a failure to implement a risk significant emergency planning standard or requirement during the Alert of February 15, 2000 (Green). **(NCV 05000247/2000-006-05)**

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies

a. Inspection Scope

The team reviewed licensee efforts to identify EP-related problems, such as from audit and drill reports, CRs, self-assessments, and peer review reports. The team reviewed licensee corrective actions for various programmatic, exercise, and event related issues to assess the effectiveness of those actions. These reviews included follow-up of issues identified during an exercise in September 1999. These issues were documented in Inspection Report No. 05000247/99012. Inspection in this area was conducted in conjunction with the follow-up of issues identified during the February 15, 2000, event and was also documented in section 1EP3.

b. Findings

b.1 ERO Notification Systems

Equipment reliability problems with the ERO notification systems were identified by the licensee in CR 199909377 during monthly notification drills on November 30, 1999 and December 17, 1999. As of the June 1, 2000 exercise, some problems with the notification systems remained uncorrected. The problems as described in section 1EP3 were not only related to equipment reliability but also to the adequacy of procedures and related training for personnel responsible for activating the notification systems. The 10 CFR 50.47(b)(14) requires in part that deficiencies identified as a result of exercises or drills will be corrected. Since the licensee placed this problem in their corrective action process (CR 200004264), the finding was treated as a non-cited violation of E-Plan, section 8.1.3 and 10 CFR 50.47(b)(14), consistent with Section VI.A of the NRC Enforcement Policy issued on May 1, 2000 (65 FR 25368). This violation was of very low safety significance because it involved a "failure to implement" (in distinction to a "failure to meet") an NRC emergency planning standard. Also this violation was not a failure to implement a risk significant emergency planning standard or requirement during the Alert of February 15, 2000 (Green). **(NCV 05000247/2000-006-06)**

b.2 Failure to Conduct an Off-hours Exercise Once Every Six Years

During the AIT inspection, the licensee determined that they had not conducted an off-hours exercise at the required frequency. The failure to conduct the exercise contributed to the accountability problem going undetected. E-Plan Section 8.1.3, Drills and Exercises, requires the licensee to conduct an off-hours exercise once every six years. It was determined that prior to the event, the last off-hours exercise was conducted in 1993 and this exceeded the six year periodicity. 10 CFR 50.54(q) requires that a licensee shall follow and maintain in effect emergency plans. Since the licensee entered this problem in their corrective action process (CRs 199909119, 200000983, and 200000136), this finding was treated as a non-cited violation of 10 CFR 50.54(q) consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). This violation was of very low safety significance because it involved a "failure to implement" (in distinction to a "failure to meet") an NRC emergency planning standard. Also this violation was not a failure to implement a risk significant emergency planning standard or requirement during the Alert of February 15, 2000 (Green). **(NCV 05000247/2000-006-07)**

The licensee successfully conducted an unannounced off-hours exercise on April 17, 2000 to address that requirement in the IP2 E-Plan.

b.3 Co-location of TSC/OSC and Unapproved Procedures Used During the Event

Prior to the February event, the licensee was in the process of implementing an upgrade to the TSC and OSC facilities which included the development of new procedures. Facility training was scheduled to be conducted during the months of February and

March 2000. As a part of the licensee's improvement program in the E-Plan area, the OSC was moved to be co-located with the TSC.

The licensee decided to move the OSC during the event. Although not described in the E-Plan at the time of the event, co-location of these facilities was not detrimental to the overall response effort. However, some ERO personnel in the TSC and OSC were uncertain as to which procedures were applicable and therefore implemented current procedures and the new (unapproved) procedures. The licensee representatives indicated that the requirements in the new procedures were similar to the existing procedures but contained improved guidance for ERO personnel. Because the licensee was implementing approved procedures, the use or reference of the new procedures did not adversely affect the performance of ERO personnel. ERO personnel reported that the additional guidance was helpful.

Since the event, the licensee has formally combined the TSC and OSC into the TSC/OSC Complex by co-locating the OSC with the TSC. The team reviewed the new procedures and the E-Plan changes, toured facilities, and observed equipment tests and activities in the TSC/OSC Complex during the June 1, 2000 exercise.

b.4 TSC Equipment Problems

During the event, several equipment problems were observed in the TSC. Specifically, the Emergency Data Display System (EDDS) had been removed from the facility and the NRC required Emergency Response Data System (ERDS) was not made operable until about 3:00 a.m. on February 16, 2000 (approximately seven and one-half hours after the Alert declaration). The ERDS problem was due to an inoperable telephone line that had been previously identified, but uncorrected, by the licensee.

Part 10 CFR 50.72(a)(4) requires that ERDS be activated as soon as possible but not later than one hour after declaring an emergency class Alert or higher. Thus, there was a failure to activate ERDS within one hour of an Alert declaration. Because the licensee entered this problem into their corrective action process (CR 200001094), this finding was treated as a non-cited violation of 10 CFR 50.72(a)(4) consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). This violation was of very low safety significance because it involved a "failure to implement" (in distinction to a "failure to meet") an NRC emergency planning standard. Also this violation was not a failure to implement a risk significant emergency planning standard or requirement during the Alert of February 15, 2000 (Green). **(NCV 05000247/2000-006-08)**

Since the event, the EDDS display systems have been replaced and the cause of the ERDS problem has been corrected. An impromptu test of these TSC components demonstrated that licensee personnel were knowledgeable regarding activation of this equipment and that the equipment functioned properly. The equipment also functioned properly during the June 1, 2000, exercise.

b.5 Licensee Manning of the Emergency Notification System (ENS) Telephone Line

At approximately 2:00 a.m. on February 16, 2000 the licensee stopped the continuous manning of the ENS line apparently due to shift relief without a replacement. At 7:00 a.m., on February 16, 2000, the NRC requested that a communication link be established and continuously manned. At about 9:00 a.m. on February 16, 2000, the licensee established a mutually agreeable communication link. 10 CFR 50.72(c)(3) requires that licensees maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC. Because the licensee entered this problem in their corrective action process (CR 200001223), this finding was treated as a non-cited violation of 10 CFR 50.72(c)(3) consistent with Section VI.A of the NRC Enforcement Policy, issued on May 1, 2000 (65 FR 25368). This violation was of very low safety significance because it involved a "failure to implement" (in distinction to a "failure to meet") an NRC emergency planning standard. Also this violation was not a failure to implement a risk significant emergency planning standard or requirement during the Alert of February 15, 2000 (Green). **(NCV 05000247/2000-006-09)**

Since the event, the licensee has taken action to ensure that the communications link is manned in a timely manner. Additional technical staff have been added to the TSC. The TSC manager's checklist directs the manager to ensure that information is transmitted to the NRC and that a communication link be manned when requested by the NRC.

b.6 Weak Technical Support

During the event, there were several examples as documented in the AIT report where the technical support staff was narrowly focused or failed to implement timely and effective corrective actions to resolve problems which complicated the event response. During this inspection, it was determined that the licensee re-organized the TSC and added personnel to provide additional support for an emergency. The licensee had been conducting drills regularly since the event. During the June 1, 2000 exercise, drill participants demonstrated pro-active thinking when addressing simulated malfunctions and degrading plant conditions.

(Closed) Inspector Follow Items 05000247/99-12-01 and 02: Weakness in performance of the TSC and the OSC. Based on the review conducted in section 1EP1, the weaknesses associated with the overall weak performance of the TSC and the OSC identified during the September 22, 1999, exercise can be closed.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors verified the licensee's process for identifying the data for the past two years that was utilized to determine the values for the three E-Plan PIs which are 1) Drill and Exercise Performance (DEP), 2) ERO Drill Participation, and 3) Alert and Notification System Reliability. While reviewing ERO drill participation, the inspectors sampled individual training records to ensure ERO qualifications were being maintained. The team also reviewed licensee action associated with the licensee reported "White" DEP performance indicator in January 2000. This indicator was "Green" based on the April 2000 report.

b. Findings

(Closed) Inspector Follow Item 05000247/1999-12-04: Lapse in ERO qualification and training. The sampling of ERO training records indicated that ERO personnel qualifications were being maintained. Therefore, based upon a review of drill participation and training, the problem of a lapse of ERO qualifications was resolved.

4OA5 Management Meetings

Entrance Meeting Summary

A preliminary (entrance) meeting was conducted on April 26, 2000 to obtain the licensee status on corrective actions in their improvement program for EP. Handout information is included in Attachment 2. During the meeting the licensee reported not having done a detailed root cause analysis for problems in the EP area. Individual problems were documented in condition reports which at a minimum had apparent causes identified.

Exit Meeting Summary

On June 2, 2000, the Team presented their overall findings to members of the licensee's management led by Mr. A. Blind. The licensee acknowledge the findings presented. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee:

F. Inzirillo, Emergency Preparedness Manager
A. Ferarro, Emergency Planner
M. Bister, Emergency Planner
J. Hughes Emergency Planner
K. Walker, Emergency Planner

Attendees from April 26, 2000 Meeting:

Con Ed Personnel:

C. Brovarski	Con Ed
V. Baumstark	Con Ed
J. Groth	Con Ed
F. Inzirillo	Con Ed
J. McCann	Con Ed
G. O'Dell	UWUA Local 1-2 Co-Chairman
M. Williams	UWUA Local 1-2 Chairman

NRC Personnel:

D. Barss	NRR (by video conference @ NRC Headquarters)
A. Blough	DRP, Region I
R. Conte	DRS, Region I
P. Eselgroth	DRP, Region I
E. Fox	NRR
J. Herald	NRR (by video conference @ NRC Headquarters)
L. James	DRS, Region I
W. Lanning	DRS, Region I
N. McNamara	DRS, Region I
H. Miller	Regional Administrator, RI
D. Screnci	PAO, Region I
D. Silk	DRS, Region I
R. Sullivan	NRR (by video conference @ NRC Headquarters)

Federal Emergency Management Agency (FEMA) Personnel:

R. Acerno	FEMA, Region II (by telephone conference)
R. Reynolds	FEMA, Region II (by telephone conference)
P. Tenorio	FEMA Headquarters (by video conference @ NRC Headquarters)
E. Chan	FEMA Headquarters (by video conference @ NRC Headquarters)

Others:

M. Wilson	New York Power Authority, IP3
J. Dunkleberger	New York State Department of Public Health (by telephone conference)

ITEMS OPENED AND CLOSED

Opened

05000247/2000-006-01	AV	Apparent failure to augment the ERO in a timely manner - failure to meet planning standard 10 CFR 50.47(b)(2), Timely Augmentation of ERO (apparent White)
05000247/2000-006-02	AV	Apparent failure to complete accountability in a timely manner - failure to meet planning standard 10 CFR 50.47(b)(10), Protection of Radiation Workers (apparent White)
05000247/2000-006-03	AV	Improper dissemination of information to public and local official - failure to meet planning standard 10 CFR 50.47(b)(7), public information (apparent White)

Opened and Closed

05000247/2000-006-04	NCV	Decreases in the effectiveness of the emergency plan
05000247/2000-006-05	NCV	Inadequate emergency plan content
05000247/2000-006-06	NCV	Failure to correct ERO notification problems identified during drills
05000247/2000-006-07	NCV	Failure to conduct off-hours exercise within six year period
05000247/2000-006-08	NCV	Failure to activate ERDS within one hour of an Alert
05000247/2000-006-09	NCV	Failure to staff ENS line during event in a timely manner

Closed

05000247/99-12-01	IFI	Exercise weakness due to overall poor performance in the TSC
05000247/99-12-02	IFI	Exercise weakness due to overall poor performance in the OSC
05000247/99-12-04	IFI	Lapse of ERO qualifications

NOTE: The following NCVs should have been previously Closed in Report 99-12

05000247/99-12-03	NCV	Inadequate corrective actions for previous exercise weaknesses and inadequate exercise critique
05000247/99-12-05	NCV	Inadequate EAL for loss of offsite power supplies

LIST OF ACRONYMS USED

AV	Apparent Violation
CANS	Community Alert Notification System
CFR	Code of Federal Regulations
CIG	Corporate Information Group
CR	Condition Report
EAL	Emergency Action Level
DEP	Drill and Exercise Performance
EDDS	Emergency Data Display System
EEC	Energy Education Center
ENS	Emergency Notification System
EOF	Emergency Operations Facility
EP	Emergency Preparedness
E-Plan	Emergency Plan
ERF	Emergency Response Facility (includes SCR (for exercise purposes), EOF, TSC, OSC,)
ERDS	Emergency Response Data System
ERO	Emergency Response Organization
FMT	Field Monitoring Team
GE	General Emergency
IP2	Indian Point 2
JNC	Emergency News Center
NRC	Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
ORAD	Offsite Radiological Assessment Director
OSC	Operations Support Center
PA	Protected Area
PI	Performance Indicator
SCR	Simulator Control Room
SGTF	Steam Generator Tube Failure
TSC	Technical Support Center

ATTACHMENT 1

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
• Initiating Events	• Occupational	• Physical Protection
• Mitigating Systems	• Public	
• Barrier Integrity		
• Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.