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

February 4, 2000

SUBJECT: EVALUATION OF RELIEF REQUESTS NOS. 44, 45 AND 49: IMPLEMENTATION OF SUBSECTIONS IWE AND IWL OF ASME SECTION XI FOR CONTAINMENT INSPECTION FOR INDIAN POINT NUCLEAR GENERATING UNIT NO. 2. (TAC NO. MA6949)

Dear Dr. Blind:

By letter dated October 6, 1999, supplemented December 15, 1999, Consolidated Edison Company of New York, Inc., the licensee, submitted three relief requests for containment examination requirements in the Indian Point Nuclear Generating Unit No. 2 Inservice Testing Program. The staff has reviewed the proposed alternatives and, based on the information provided (Relief Requests Nos. 44, 45 and 49), the staff concludes that, for Relief Request No. 45, the licensee's proposed alternative will provide an acceptable level of quality and safety. Therefore, the proposed alternative may be authorized pursuant to 10 CFR 50.55a(a)(3)(i). For Relief Requests Nos. 44 and 49, the staff concludes that compliance with the code requirements would result in a hardship without a compensating increase in the level of quality and safety, and that the licensee's proposed alternatives will provide reasonable assurance of containment pressure integrity. Therefore, these proposed alternatives may be authorized pursuant to 10 CFR 50.55a(a)(3)(ii). The enclosure contains the staff's evaluation.

This completes the staff's efforts on TAC No. MA6949. If you have any questions, please contact the Project Manager, Jefferey Harold, at (301) 415-1421.

Sincerely,

/RA/

Marsha Gamberoni, Acting Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-247

Enclosure: Safety Evaluation

cc w/encl: See next page

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

February 4, 2000

SUBJECT: EVALUATION OF RELIEF REQUESTS NOS. 44, 45 AND 49: IMPLEMENTATION OF SUBSECTIONS IWE AND IWL OF ASME SECTION XI FOR CONTAINMENT INSPECTION FOR INDIAN POINT NUCLEAR GENERATING UNIT NO. 2. (TAC NO. MA6949)

Dear Dr. Blind:

By letter dated October 6, 1999, supplemented December 15, 1999, Consolidated Edison Company of New York, Inc., the licensee, submitted three relief requests for containment examination requirements in the Indian Point Nuclear Generating Unit No. 2 Inservice Testing Program. The staff has reviewed the proposed alternatives and, based on the information provided (Relief Requests Nos. 44, 45 and 49), the staff concludes that, for Relief Request No. 45, the licensee's proposed alternative will provide an acceptable level of quality and safety. Therefore, the proposed alternative may be authorized pursuant to 10 CFR 50.55a(a)(3)(i). For Relief Requests Nos. 44 and 49, the staff concludes that compliance with the code requirements would result in a hardship without a compensating increase in the level of quality and safety, and that the licensee's proposed alternatives will provide reasonable assurance of containment pressure integrity. Therefore, these proposed alternatives may be authorized pursuant to 10 CFR 50.55a(a)(3)(ii). The enclosure contains the staff's evaluation.

This completes the staff's efforts on TAC No. MA6949. If you have any questions, please contact the Project Manager, Jefferey Harold, at (301) 415-1421.

Sincerely,
/RA/
Marsha Gamberoni, Acting Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-247
Enclosure: Safety Evaluation
cc w/encl: See next page
DISTRIBUTION

File Center	SLittle	ACRS	GHill (2)
PUBLIC	JHarold	PEselgroth, RGN-I	MTschiltz
PDI-1 Reading	OGC	TCheng	
MGamberoni	DTerao	EAdensam (email)	

DOCUMENT NAME: G:\PDI-1\IP2\RELA6949.WPD ****** SE dated 1/10/00 provided no major changes were made
To receive a copy of this document, indicate in the box: "**C**" = Copy without attachment/enclosure "**E**" = Copy with attachment/enclosure "**N**" = No copy

OFFICE	PDI-1:PM	E	PDI-1:LA		PDI-1:SC(A)		OGC*		EMCB**	
NAME	JHarold/		SLittle		MGamberoni		AHodgden		EMCB	
DATE	02/ 2 /00		02/ 2 /00		02/ 3 /00		01/27/00		01/10/00	

Official Record Copy

SAFETY EVALUATION BY THE OFFICE NUCLEAR REACTOR REGULATION

OF RELIEF REQUESTS

FOR CONTAINMENT INSPECTION

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

DOCKET NO. 50-247

1.0 INTRODUCTION

In the Federal Register dated August 8, 1996 (61 FR 41303), the Nuclear Regulatory Commission (NRC) amended its regulations to incorporate by reference the 1992 edition with 1992 addenda of Subsections IWE and IWL of Section Xl of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code (Code). Subsections IWE and IWL provide the requirements for inservice inspection (ISI) of Class CC (concrete containment), and Class MC (metallic containment) of light-water cooled power plants. The effective date for the amended rule was September 9, 1996, and it requires the licensees to incorporate the new requirements into their ISI plans and to complete the first containment inspection by September 9, 2001. However, a licensee may propose alternatives to or submit a request for relief from the requirements of the regulation pursuant to Section 50.55a(a)(3) or (g)(5) of Title 10 of the Code of Federal Regulations (10 CFR), respectively.

By the letter dated October 6, 1999, supplemented December 15, 1999, Consolidated Edison Company of New York, Inc., (Con Ed) the licensee, proposed three alternatives to the requirements of Subsections IWE and IWL of Section XI of the ASME Code for its Indian Point Nuclear Generating Unit No. 2 (IP2). In the letter dated December 15, 1999, the licensee provided supplemental information for Relief Request No. 45. The NRC's findings with respect to authorizing or denying the proposed alternatives are discussed below.

2.0 EVALUATION

2.1 Relief Request No. 44:

2.1.1 Code Requirements:

Subarticle IWA-2300 requires qualification of nondestructive examination (NDE) personnel to CP-189, as amended by the ASME Section XI, 1992 Edition including the 1992 Addenda.

ENCLOSURE

2.1.2 Basis for Relief:

Relief is requested in accordance with 10 CFR 50.55a(a)(3)(ii). Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Title10 of the Code of Federal Regulations (10 CFR) Section 50.55a was amended in the Federal Register (61 FR 41303) to require the use of Section XI, 1992 Edition, including the 1992 Addenda, (hereafter referred to as the 1992 Code) when performing containment examinations. Subsection IWE also imposes the requirements of Subsection IWA of the 1992 Code. Subarticle IWA-2300 requires qualification of nondestructive examination personnel to CP-189.

A written practice for qualification and certification of NDE personnel based on the requirements of CP-189, as required by Subarticle IWA-2300 of the 1992 Code, to implement Subsection IWE would duplicate similar procedures already in place for Subsections IWB, IWC and IWD. The IP2 Third 10-Year Inservice Inspection Program is written to meet the requirements of Section XI, 1989 Edition, no addenda, (hereafter referred to as the 1989 Code). Subarticle IWA-2300 of the 1989 Code requires a written practice based on SNT-TC-1A, 1984 Edition. The Third 10-Year Interval, for Quality Group A, B and C components, extends to May 18, 2005, at which time it will be updated to the edition of the Code in effect 1 year prior. Further, Subarticle IWA-2300 of the 1992 Code states, "Certifications based on SNT-TC-1A are valid until recertification is required."

Visual examination is the primary nondestructive examination method required by Subsection IWE. Neither CP-189 nor SNT-TC-1A specifically includes visual examination. Therefore, the Code requires qualification and certification to comparable levels as defined in CP-189 or SNT-TC-1A, as applicable, and the employer's written practice. Ultrasonic thickness examinations may also be required as indicated by Table IWE-2500-1.

These particular examinations are relatively simple and do not require an extensive training and qualification program. Therefore, use of CP-189 in place of SNT-TC-1A would not improve the capability of examination personnel to perform the visual and ultrasonic thickness examinations required by IWE.

Development and administration of a second program would not enhance safety or quality, but would instead serve as a burden, particularly in developing a second written practice, tracking of certifications, and duplication of paperwork. This duplication would also apply to NDE vendor programs. Updating to the 1992 Code for Subsections IWB, IWC and IWD would require a similar request for relief.

The requirement to comply with IWA-2300 has been removed in the 1998 Edition of Section XI, IWE and IWL.

Electric Power Research Institute (EPRI) Proposed Alternate No. 2 was approved by the NRC for use at Davis-Besse (Reference 1) as RR No. E2.

2.1.3 Proposed Alternative Requirements:

Examinations required by Subsections IWE shall be conducted by personnel qualified and certified to a written practice based on SNT-TC-1A, 1984 Edition as required by Section XI for Quality Groups A, B and C. Visual examination personnel will receive specific training in conducting concrete containment examinations. This relief is requested for the Third Inspection Interval, July 1, 1994, through June 30, 2004, and the interval has been extended to May 18, 2005 as set forth in Con Ed's letter to NRC dated April 9, 1999.

2.1.4 Justification for Granting Relief:

The requirement for examination of Quality Group A, B and C components, from Section XI 1989 Edition, is to establish a program of qualification and certification for NDE personnel to ASNT SNT-TC-1A, 1984 Edition. This is appropriate until May 18, 2005, for the Third Interval ISI Program. The requirement for examination of containment from Section XI 1992 Edition including the 1992 Addenda, is to establish a program to the requirements of ASNT CP-189, 1991 Edition. There is no benefit in having two separate certification programs when they both address the same topics.

EPRI Proposed Alternate No. 2 was approved by the NRC for use at Davis-Besse (Reference 1) as RR No. E2.

2.1.5 Staff Evaluation of Relief Request No. 44:

In lieu of using the requirements of Section IWA-2300 of the 1992 Edition and Addenda of ASME Section XI that examination personnel be qualified and certified in accordance with ANSI/ASNT CP-189, "Standard for Qualification and Certification of Nondestructive Testing Personnel," the licensee proposes an alternative that examinations are to be conducted by personnel qualified and certified to a written practice based on SNT-TC-1A, 1984 Edition as required by ASME Section XI for Quality Groups A, B and C components. This relief is requested for the third 10-year containment inspection interval which was scheduled for July 1, 1994, through June 30, 2004, and has been extended to May 18, 2005.

The staff recognizes that under the licensee's inspection program, examinations are to be conducted by personnel qualified and certified to a written practice based on SNT-TC-1A in accordance with the 1989 Edition of ASME Section XI. The staff also realizes that a written practice based on the requirements of CP-189, as amended by the requirements of Section IWA-2300, to implement Sections IWE and IWL, duplicates efforts already in place for all other subsections. To develop and to administrate a second program would not enhance safety or quality and would constitute a burden, particularly in developing a second written practice, tracking of certifications, and duplication of paperwork. In addition, Section IWA-2300 of the 1992 Edition, 1992 Addenda, states that certification based on SNT-TC-1A is valid until recertification is required. Furthermore, Con Ed indicated that this relief is requested for the third 10-year containment inspection interval of IP2.

On the basis discussed above, the staff concludes that developing and implementing two qualification programs for NDE personnel would result in a burden on the licensee. The alternative proposed will provide adequate qualifications for personnel performing containment examinations. Therefore, the request for relief is authorized pursuant to 10 CFR 50.55a(a)(3)(ii) on the basis that compliance with the specific requirements of the Code would result in hardship without a compensating increase in the level of quality and safety.

2.2 Relief Request No. 45:

2.2.1 Code Requirements:

Subarticle IWL-2310, Visual Examination, Personnel Qualifications and Responsible Engineer, includes requirements for minimum illumination and maximum direct examination distance (of Class CC components) under paragraph IWA-2210.

Currently for IP2, ASME Section XI, 1989 Edition with no Addenda, is mandated for the third 10-year interval of the ISI Program for Quality Group A, B & C. The 1989 Code visual examination criteria for illumination and distance are applicable only to VT-1. This is a requirement of the current ISI Program, for Quality Group A, B & C, until the end of the third interval on May 18, 2005.

2.2.2 Basis for Relief:

Relief is requested in accordance with 10 CFR 50.55a(a)(3)(ii). Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Approximately 15% of the concrete containment surface is accessible for direct visual examination. Accessibility to higher portions of the dome and the containment building itself make it a hardship to obtain the maximum direct examination distance and minimum illumination requirements. The installation of extensive temporary scaffold systems or a climbing scaffold system to access these portions of the containment would be necessary.

The amendment to 10 CFR 50.55a (61 FR 41303), for remote examination of the containment liner, permits alternatives to the requirements specified in Table IWA-2210-1. The maximum direct examination distance requirements may be extended, and the minimum illumination requirements may be decreased provided that the conditions or indications for which the visual examination is performed can be detected at the chosen distance and illumination. Furthermore, IWA-2210 permits remote examination techniques to be substituted for direct examination, and IWA-2240 provides for alternative examinations, provided the authorized nuclear insurance inspector (ANII) is satisfied that the results are demonstrated to be equivalent or superior to those of the specified method.

2.2.3 Proposed Alternative Requirements:

An IP2, site-specific visual acceptance criteria document, "Visual Inspection Acceptance Criteria for In-Service Inspection (ISI) of Indian Point, Unit No. 2 Concrete Containment Structure," has been developed. The IP2 containment is a reinforced concrete structure with a metal liner. An evaluation of the structure has identified threshold values that the structure is

able to tolerate without compromising its structural integrity. The primary degradation mechanism is corrosion, with corrosion products being the indicator of degradation and not cracks. This evaluation divided the containment into three areas based on stresses to the reinforcement bars. In two areas, the dome and shell, the reinforcement bars were designed with sufficient margin to allow for corrosion. The third area, the hatch and penetration area, is where the design stresses are maximized. All three areas will be inspected, relative to their threshold values, to determine the continued structural integrity of both the reinforcing steel and structural concrete. For the three containment areas identified, the specific examination procedures and acceptance criteria to be followed will be based upon the threshold values as determined in the above-mentioned evaluation.

The registered professional engineer (RPE) will identify the minimum size of the indications of interest. For remote visual examinations, the procedure and equipment to be used will be demonstrated capable of resolving these minimum indications to the satisfaction of the RPE and the ANII. In addition, indications of corrosion products will be evaluated to determine the source and the effect on containment structural integrity.

2.2.4 Justification for Granting Relief:

IP2's containment has been tested per Appendix J as required by the plant technical specifications. The integrated leak rate test has not identified any unacceptable conditions associated with the containment. Completion of the required visual inspections and evaluation of the results for compliance with the site-specific acceptance criteria will adequately verify the continued acceptability of the concrete containment.

The Code Committee has acknowledged the difficulties in performing the containment examinations as required by the 1992 Edition of Section XI. The requirement to comply with IWA-2210 has been removed from Subsection IWL in the 1998 Edition of Section XI of the Code.

2.2.5 Staff Evaluation of Relief Request No. 45:

In lieu of using the requirements of the minimum illumination, maximum direct examination distance, and maximum procedure demonstration lower case character height requirements specified in IWA-2210 and Table IWA-2210-1, the licensee proposed to use the Indian Point Unit site-specific visual acceptance criteria document, "Visual Inspection Acceptance Criteria for Inservice Inspection (ISI) of Indian Point, Unit No. 2 Concrete Containment Structure." The alternative requires performance of a VT-3C visual examination based on the minimum illumination and maximum distance (decreased illumination and extended direct examination distance requirements) recommended by the RPE.

According to the code requirements, the performance of VT-3C examinations on the concrete containment based on the requirements specified in IWA-2210 and Table IWA-2210-1 is to determine if the damage or degradation, including cracks, wear, corrosion, erosion or other physical damage, warrants additional evaluation or repair of the structure. The staff finds that due to the nature of concrete, a concrete containment will have numerous, small "shrinkage-type" surface cracks or other imperfections that are not detrimental to the structural integrity of the containment. The staff also finds that the application of code requirements (IWA-2210 and Table 2210-1) for identifying these insignificant "shrinkage-type cracks" or other imperfections

is not necessary and could result in a large number of man-hours for erecting scaffolding, using lifts, and evaluating insignificant indications. In addition, the performance of examinations on concrete surfaces using distances and illumination requirements determined by a knowledgeable RPE will provide a reasonable degree of quality. Furthermore, the staff made changes to the requirements (10 CFR 50.55a(b)(2)(x)(B)) to allow the following: "When performing remotely the visual examinations required by Subsection IWE, the maximum direct distance specified in Table IWA-2210-1 may be extended and the minimum illumination requirements specified in Table IWA-2210-1 may be decreased provided that the conditions or indications for which the visual examination is performed can be detected at the chosen distance and illumination."

On the basis discussed above, the staff finds that the alternative examinations proposed by the licensee provide an acceptable level of quality and safety and are therefore authorized pursuant to 10 CFR 50.55a(a)(3)(i).

2.3 Relief Request No. 49:

2.3.1 Code Requirements:

ASME Section XI, 1992 Edition, 1992 Addenda, Table IWE-2500-1, Examination Category E-G, Pressure Retaining Bolting, Item 8.20, requires that a bolt torque or tension test be performed where the connection has not been disassembled or reassembled during the inspection interval.

2.3.2 Basis for Relief:

Relief is requested in accordance with 10 CFR 50.55a(a)(3)(ii). Compliance with the specified requirements of this section would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Title 10 of the Code of Federal Regulations (10 CFR) Section 50.55a was amended in the Federal Register (61 FR 41303) to require the use of the 1992 Edition, 1992 Addenda, of Section XI when performing containment examinations. Bolt torque or tension testing is required on bolted connections that have not been disassembled and reassembled during the inspection interval. Determination of the torque or tension value would require that the bolting be loosened, re-lubricated and then re-torqued or re-tensioned.

At IP2, the Weld Channel Penetration Pressurization System (WCPPS) provides pressurized air or nitrogen to each of the containment penetrations. In the event of penetration failure, a release would not occur since each penetration is pressurized by the WCPPS to a pressure that is higher than the anticipated containment accident pressure. This system is continuously monitored while above cold shutdown in order to identify leakage.

In addition, each penetration is subject to 10 CFR Part 50, Appendix J, Type B testing in accordance with the testing frequencies specified for Appendix J. As noted in 10 CFR Part 50, Appendix J, the purpose of Type B testing is to measure leakage of containment penetrations whose design incorporates resilient seals, gaskets, sealant compounds, and electrical penetrations fitted with flexible metal seal assemblies. The performance of Type B testing itself demonstrates that bolt torque or tension remains adequate to allow leakage rates that are within acceptable limits. The torque or tension value of bolting only becomes an issue if the

leak rate is excessive. Once a bolt is torqued or tensioned, it is not subject to dynamic loading that could cause it to experience significant change. Appendix J testing and visual inspection is adequate to demonstrate that the design function is met. Torque or tension testing is not required on any other ASME Section XI, Class 1, 2, or 3, bolted connections or their supports as part of the ISI Program.

The requirement to perform bolt torque or tension tests has been removed in the 1997 Addenda of ASME Section XI. This addenda has been approved by the ASME Main Committee.

EPRI Proposed Alternate No. 8 was approved by the NRC for use at Davis-Besse (Reference 1) as RR No. E7.

2.3.3 Proposed Alternative Requirements:

The following examinations and tests required by Subsection IWE ensure the structural integrity and the leak-tightness of Class MC pressure retaining bolting, and, therefore, no additional alternative examinations are proposed:

(1) Exposed surfaces of bolted connections shall be visually examined in accordance with requirements of Table IWE-2500-1, Examination Category E-G, Pressure Retaining Bolting, Item No. E8.10, and

(2) Bolted connections shall meet the pressure test requirements of Table IWE-2500-1, Examination Category E-P, All Pressure Retaining Components, Item E9.40.

This relief is requested for the remainder of the third inspection scheduled interval from July 1, 1999, to June 30, 2004. This interval has been extended to May 18, 2005, as set forth in the Consolidated Edison letter to NRC dated April 9, 1999.

2.2.4 Justification for Granting Relief:

(1) WCPPS is within the scope of the Maintenance Rule and monitors system leakage on a continual basis while in operation.

(2) The functionality of the containment, penetration seals and gaskets, (including those of electrical penetrations) is verified during the Type B testing as required by 10 CFR Part 50, Appendix J.

(3) The requirement to perform bolt torque or tension tests has been removed in the 1997 Addenda of ASME Section XI. This addenda has been approved by the ASME Main Committee.

(4) EPRI Proposed Alternate No. 8 was approved by the NRC for use at Davis-Besse (Reference 1) as RR No. E7.

2.3.5 Staff Evaluation of Relief Request No. 49:

ASME Section XI, 1992 Edition with the 1992 Addenda, Table IWE-2500-1, Examination Category E-G, Pressure Retaining Bolting, Item E8.20 requires bolt torque or tension testing on

bolted connections that have not been disassembled and reassembled during the inspection interval. This examination is used to aid in the determination that leak-tight seals exist and that the structural integrity of the subject bolted connections is maintained. In lieu of meeting the requirement that a bolt torque or tension test be performed where the connection has not been disassembled or reassembled during the inspection interval, the licensee proposes to use the 10 CFR Part 50, Appendix J, Type B, test together with the visual examination in accordance with requirements of Table IWE-2500-1, Item E8.10, as an alternative to the Code requirement to verify the integrity of penetrations with bolted connections.

The staff finds that bolt torque or tension testing on bolted connections that have not been disassembled and reassembled during the inspection interval would require the bolting be un-torqued and then re-torqued or re-tensioned, whereas the leak testing as required by 10 CFR Part 50, Appendix J would adequately verify the leak-tight integrity of the containment. Compliance with ASME Code requirements will cause a hardship or unusual difficulty because un-torquing and subsequent re-torquing bolted connections involve unnecessary radiation exposure and costs to perform the work without a compensating increase in the level of quality and safety. The staff also finds that the alternative approach proposed by the licensee (the test required by 10 CFR Part 50, Appendix J, together with a VT-1 visual examination to verify the leak-tight integrity of bolted connections for containment vessel leak-tight integrity) will provide reasonable assurance of the containment pressure boundary integrity. On this basis, the staff concludes that the alternative proposed by the licensee is authorized pursuant to 10 CFR 50.55a(a)(3)(ii).

3.0 CONCLUSION:

Based on our review of the information provided in the requests for relief (Relief Requests Nos. 44, 45 and 49), the staff concludes that for Relief Request No. 45, the licensee's proposed alternative will provide an acceptable level of quality and safety. Therefore, the proposed alternatives are authorized pursuant to 10 CFR 50.55a(a)(3)(i). For Relief Requests Nos. 44 and 49, the staff concludes that compliance with the code requirements would result in a burden without a compensating increase in the level of quality and safety, and that the licensee's proposed alternatives will provide reasonable assurance of containment pressure integrity. Therefore, these proposed alternatives are authorized pursuant to 10 CFR 50.55a(a)(3)(ii).

Principal Reviewer: T. Cheng

Date: February 4, 2000

4.0 REFERENCES:

1. NRC Letter to Davis-Besse dated June 30, 1998, TAC No. MA0414.

Mayor, Village of Buchanan
236 Tate Avenue
Buchanan, NY 10511

Mr. F. William Valentino, President
New York State Energy, Research,
and Development Authority
Corporate Plaza West
286 Washington Ave. Extension
Albany, NY 12203-6399

Mr. John McCann
Manager of Nuclear Safety and
Licensing
Consolidated Edison Company
of New York, Inc.
Broadway and Bleakley Avenue
Buchanan, NY 10511

Senior Resident Inspector
U. S. Nuclear Regulatory Commission
P.O. Box 38
Buchanan, NY 10511

Mr. Brent L. Brandenburg
Assistant General Counsel
Consolidated Edison Company
of New York, Inc.
4 Irving Place - 1822
New York, NY 10003

Charles Donaldson, Esquire
Assistant Attorney General
New York Department of Law
120 Broadway
New York, NY 10271

Ms. Charlene D. Faison, Director
Nuclear Licensing
Power Authority of the State
of New York
123 Main Street
White Plains, NY 10601

Mr. Thomas Rose
Secretary - NFSC
Consolidated Edison Company
Of New York, Inc.
708 First Avenue
New York, NY 10017

Regional Administrator, Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Paul Eddy
New York State Department of
Public Service
3 Empire State Plaza, 10th Floor
Albany, NY 12223

Mayor, Village of Buchanan
236 Tate Avenue
Buchanan, NY 10511

Mr. F. William Valentino, President
New York State Energy, Research,
and Development Authority
Corporate Plaza West
286 Washington Ave. Extension
Albany, NY 12203-6399

Mr. John McCann
Manager of Nuclear Safety and
Licensing
Consolidated Edison Company
of New York, Inc.
Broadway and Bleakley Avenue
Buchanan, NY 10511

Senior Resident Inspector
U. S. Nuclear Regulatory Commission
P.O. Box 38
Buchanan, NY 10511

Mr. Brent L. Brandenburg
Assistant General Counsel
Consolidated Edison Company
of New York, Inc.
4 Irving Place - 1822
New York, NY 10003

Charles Donaldson, Esquire
Assistant Attorney General
New York Department of Law
120 Broadway
New York, NY 10271

Ms. Charlene D. Faison, Director
Nuclear Licensing
Power Authority of the State
of New York
123 Main Street
White Plains, NY 10601

Mr. Thomas Rose
Secretary - NFSC
Consolidated Edison Company
Of New York, Inc.
708 First Avenue
New York, NY 10017

Regional Administrator, Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Paul Eddy
New York State Department of
Public Service
3 Empire State Plaza, 10th Floor
Albany, NY 12223