

~~OFFICIAL USE ONLY - SECURITY-RELATED INFORMATION~~
November 10, 2008

Mr. Joseph Pollock
Site Vice President
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT 2 AND 3 – NRC TEAM
INSPECTION REPORT 05000247/2008008 AND 05000286/2008008

Dear Mr. Pollock:

On October 2, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Indian Point Nuclear Generating Units 2 and 3. The enclosed inspection report documents the inspection results, which were discussed on October 2, 2008, with Tony Vitale, and other members of your staff.

The inspection examined activities conducted under your licenses as they relate to the implementation of B.5.b Phase 2 and 3 mitigating strategies, your compliance with the Commission's rules and regulations, and with the condition of your operating license. Within these areas, the inspection involved examination of selected procedures and records, observation of activities, and interviews with station personnel. No findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of the NRC Agency-wide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). However, because of the sensitive information contained in the enclosure, and in accordance with 10 CFR 2.390, a copy of this letter's enclosure will not be available for public inspection.

Sincerely,

/RA/

John F. Rogge, Chief
Engineering Branch 3
Division of Reactor Safety

information in this record was deleted in
accordance with the Freedom of Information Act.
Exemptions 4
FOIA/PA 201-0204

When separated from the Enclosure, this
document is DECONTROLLED.

~~OFFICIAL USE ONLY - SECURITY-RELATED INFORMATION~~

c/3

Mr. Joseph Pollock
Site Vice President
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT 2 AND 3 - NRC TEAM
INSPECTION REPORT 05000247/2008008 AND 05000286/2008008

Dear Mr. Pollock:

On October 2, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Indian Point Nuclear Generating Units 2 and 3. The enclosed inspection report documents the inspection results, which were discussed on October 2, 2008, with Tony Vitale, and other members of your staff.

The inspection examined activities conducted under your licenses as they relate to the implementation of B.5.b Phase 2 and 3 mitigating strategies, your compliance with the Commission's rules and regulations, and with the condition of your operating license. Within these areas, the inspection involved examination of selected procedures and records, observation of activities, and interviews with station personnel. No findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of the NRC Agency-wide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room). However, because of the sensitive information contained in the enclosure, and in accordance with 10 CFR 2.390, a copy of this letter's enclosure will not be available for public inspection.

Sincerely,

/RA/

John F. Rogge, Chief
Engineering Branch 3
Division of Reactor Safety

SUNSI Review Complete: CGC/JFR (Reviewer's Initials)

DOCUMENT NAME: G:\DRS\Engineering Branch 3\Cahill B.5.b\Indian Point B5b IR rev 0.doc

After declaring this document "An Official Agency Record" it will be released to the Public.

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	RI/DRS	RI/DRP	HQ/NRR	RI/DRS	
NAME	CCahill/CGC*	MGray/MXG*	DNelson/via email*	JRogge/JFR	
DATE	11/4/08	11/5/08	11/06/08	11/10/08	

~~OFFICIAL RECORD COPY~~

* See Previous Concurrence Page

J. Pollock

Docket Nos: 50-247, 50-286
License Nos: DPR-26, DPR-64

Enclosure: Inspection Report 05000247/2008008 and 05000286/2008008
w/Attachment: Supplemental Information

cc w/encl: w/OUO-SRI:

D. Gagnon, Site Security Manager
J. Spath, New York State Energy Research, SLO Designee
M. Balboni, NY Deputy Secretary for Public Safety
F. Talbert, Assistant Director, NY State Department of Homeland Security

cc w/o encl: w/o OUO-SRI:

Senior Vice President, Entergy Nuclear Operations
Vice President, Operations, Entergy Nuclear Operations
Vice President, Oversight, Entergy Nuclear Operations
Senior Manager, Nuclear Safety and Licensing, Entergy Nuclear Operations
Senior Vice President and COO, Entergy Nuclear Operations
Assistant General Counsel, Entergy Nuclear Operations
Manager, Licensing, Entergy Nuclear Operations
C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law
A. Donahue, Mayor, Village of Buchanan
J. G. Testa, Mayor, City of Peekskill
R. Albanese, Four County Coordinator
S. Lousteau, Treasury Department, Entergy Services, Inc.
Chairman, Standing Committee on Energy, NYS Assembly
Chairman, Standing Committee on Environmental Conservation, NYS Assembly
Chairman, Committee on Corporations, Authorities, and Commissions
M. Slobodien, Director, Emergency Planning
P. Eddy, NYS Department of Public Service
Assemblywoman Sandra Galef, NYS Assembly
T. Seckerson, County Clerk, Westchester County Board of Legislators
A. Spano, Westchester County Executive
R. Bondi, Putnam County Executive
C. Vanderhoef, Rockland County Executive
E. A. Diana, Orange County Executive
T. Judson, Central NY Citizens Awareness Network
M. Elie, Citizens Awareness Network
D. Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists

~~OFFICIAL USE ONLY - SECURITY-RELATED INFORMATION~~

3

J. Pollock

Public Citizen's Critical Mass Energy Project
M. Mariotte, Nuclear Information and Resources Service
F. Zalcmán, Pace Law School, Energy Project
L. Puglisi, Supervisor, Town of Cortlandt
Congressman John Hall
Congresswoman Nita Lowey
Senator Hillary Rodham Clinton
Senator Charles Schumer
G. Shapiro, Senator Clinton's Staff
J. Riccio, Greenpeace
P. Musegaas, Riverkeeper, Inc.
M. Kaplowitz, Chairman of County Environment & Health Committee
A. Reynolds, Environmental Advocates
D. Katz, Executive Director, Citizens Awareness Network
K. Coplan, Pace Environmental Litigation Clinic
M. Jacobs, IPSEC
W. Little, Associate Attorney, NYSDEC
M. J. Greene, Clearwater, Inc.
R. Christman, Manager Training and Development
A. J. Kremer, New York Affordable Reliable Electricity Alliance (NY AREA)

~~OFFICIAL USE ONLY - SECURITY-RELATED INFORMATION~~

J. Pollock

4

Distribution w/o encl; w/o OUO:

S. Collins, RA
M. Dapas, DRA
S. Williams, RI OEDO
R. Nelson, NRR
M. Kowal, NRR
J. Boska, PM, NRR
J. Hughey, NRR
M. Gray, DRP
B. Bickett, DRP
T. Wingfield, DRP
C. Hott, RI - Indian Point 2
A. Koonce, RI - Indian Point 3
Region I Docket Room (with concurrences)
ROPreports@nrc.gov
M. Gamberoni, DRS
D. Roberts, DRS

Distribution w/encl; w/ OUO:

C. Cahill, DRS
J. Rogge, DRS
G. Malone, SRI, Indian Point 2
P. Cataldo, SRI, Indian Point 3
D. Nelson, NRR
D. Riffle, NSIR
E. Bowman, NRR

~~OFFICIAL USE ONLY - SECURITY RELATED INFORMATION~~

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos. 50-247, 50-286

License Nos. DPR-26, DPR-64

Report No. 05000247/2008008 and 05000286/2008008

Licensee: Entergy Nuclear Operations, Inc.

Facility: Indian Point Units 2 and 3

Location: Buchanan, NY 10511-0249

Inspection Period: September 29, 2008 through October 2, 2008

Inspectors: C. Cahill, Senior Reactor Analyst, Division of Reactor Safety
P. Cataldo, Senior Resident Inspector, Division of Reactor Projects
C. Hott, Resident Inspector, Division of Reactor Projects
C. Petrone, Nuclear Reactor Regulations (NRR)

Approved By: John F. Rogge, Chief
Engineering Branch 3, DRS

~~OFFICIAL USE ONLY - SECURITY-RELATED INFORMATION~~

Enclosure

~~OFFICIAL USE ONLY - SECURITY RELATED INFORMATION~~

SUMMARY OF FINDINGS

IR 05000247/2008008 and 05000286/2008008; 09/29/2008-10/02/2008; Indian Point; Temporary Instruction 2515/171, "Verification of Site Specific Implementation of B.5.b Phase 2 and 3 Mitigating Strategies," Revision 1.

The report covered a one week period of inspection by the Unit 3 senior resident inspector, the Unit 2 resident inspector, a region-based senior reactor analyst and one headquarters-based reviewer. No findings or violations were identified. The significance of findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP); for B.5.b findings, reference Temporary Instruction 2515/171, Appendix C, "B.5.b Significance Determination Process." Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

None

B. Licensee-Identified Violations

None

Enclosure

ii
~~OFFICIAL USE ONLY - SECURITY RELATED INFORMATION~~

Report Details

4. **Other Activities**

4OA5 Other Activities (TI 2515/171)

The objective of Temporary Instruction (TI) 2515/171, "Verification of Site Specific Implementation of B.5.b Phase 2 & 3 Mitigating Strategies," is to verify that the commitments for implementing the Phase 2 and 3 strategies were completed by the licensee. The strategies for pressurized water reactors (PWRs), such as Indian Point Units 2 and 3, are listed in Table 1 of the TI. Inspection of all strategies listed in Table 1 was necessary to complete this TI. The team discussed the strategies with plant staff, reviewed documentation, and where appropriate, performed plant walk downs to verify that the strategies could be implemented as stated in the licensee's submittals and the NRC staff prepared Safety Evaluation Report (SER). For most strategies, this included verification that the strategy was feasible, procedures and/or guidance had been developed, training had been provided to plant staff, and required equipment had been identified and staged. Specific details of the team's inspection activities are described in the following sections.

1. Program Reviews

a. Inspection Scope

Procedures: The team examined the station's established guidelines and implementing procedures for the B.5.b mitigation strategies. The team assessed how the licensee coordinated and documented the interface/transition between existing off-normal and Emergency Operating Procedures (EOPs) with the newly developed mitigation strategies. The team selected a number of mitigation strategies and conducted plant walk downs with licensed operators and responsible plant staff to assess: the adequacy and completeness of the procedures; familiarity of operators with the procedure objectives and specific guidance; staging and compatibility of equipment; and the practicality of the operator actions prescribed by the procedures, consistent with the postulated scenarios. The team also examined the licensee's plans and guidance associated with coordination of expected Emergency Response Organization (ERO), fire brigade, and security guard force response coincident with implementation of the B.5.b mitigation strategies.

Engineering Basis (Evaluations and Flow Calculations): The team reviewed the licensee's supporting engineering evaluations and calculations prepared as the basis that the available pumps, piping, hoses, and nozzle configurations used in the various mitigation strategies will provide the minimum required pressures and flows specified by NEI 06-12, "B.5.b Phase 2&3 Submittal Guideline," Revision 2, dated December 2006.

The team discussed these calculations and evaluations with the responsible engineers, independently reviewed the adequacy of the calculations and engineering assumptions, and conducted field verifications to compare the assumed configurations with the as-found and postulated bounding configurations.

Equipment: The team evaluated the adequacy of installed and portable equipment staged explicitly for implementation of the mitigation strategies. The types of equipment examined included: interior fire water supply piping and hose stations; portable pump and associated suction and discharge hoses, adapters, and tools; supplies; portable radios and communications devices; and equipment lockers and associated tools. The team's review included field verification and inventory checks of standby and staged equipment, and compatibility of the portable equipment with installed systems. In addition, the team evaluated the staging/storage locations of B.5.b related equipment to ensure the survivability and availability of equipment, with respect to the proximity (>100 yards) to the postulated damage footprint. The team also reviewed and discussed with responsible station personnel the results of any field testing of equipment performed to validate its applications in the postulated scenarios.

Modifications: No plant modifications were needed to support implementation of the B.5.b mitigation strategies at Indian Point. Adaptors were fabricated to support the makeup of the steam generators, makeup of the refueling water storage tank and flooding of the containment flooding strategies using the portable diesel powered pump. The team examined the fabricated adapters and hardware changes to ensure the adequacy of these changes to support the mitigation strategy, consistent with the licensee's submittals and SER.

Maintenance and Testing of Equipment: The team reviewed Indian Point procedures/programs for periodic maintenance and testing of the equipment specified for B.5.b applications to ensure continued reliability and minimum unavailability. The licensee had performed an initial test program to validate the performance of the diesel powered portable pump. This testing confirmed the pump performance curve supplied by the manufacturer. In addition the licensee established a periodic work task to perform an equipment inventory and surveillance of the B.5.b diesel pump every three months and a run test every six months.

Training: The team examined the introductory and planned periodic/refresher training provided to the Operations, Maintenance and Security Department staffs most likely to be tasked with implementation of the B.5.b mitigation strategies. The team also reviewed the introductory and planned periodic training provided to the Emergency Response Organization (ERO) personnel. The team's review consisted of examination of training presentations, lecture notes, and training records, as well as, interviews with station personnel.

(EX 4)

(15 pages)