

Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511
914 736.8001



**New York Power
Authority**

John H. Garrity
Resident Manager

September 27, 1993
IPN-93-111

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop PI-137
Washington, D.C. 20555

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License Event Report # 93-031-00
"Noncompliance With 10 CFR 50.48 and 10 CFR
50, Appendix R Due to the Lack of an Approved
Exemption for a Particular Postulated Fire."

Dear Sir:

The attached Licensee Event Report (LER) 93-031-00 is hereby submitted in accordance with the requirements of 10CFR50.73. This event is of the type defined in the requirements pursuant to 10CFR50.73(a)(2)(ii)(B). Also attached are the commitments made by the Authority in this LER.

Very truly yours,

A handwritten signature in cursive script that reads "JHGarrity".

John H. Garrity
Resident Manager
Indian Point 3 Nuclear Power Plant

JHG/DOB/vjm

cc: See Next Page

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Mr. Thomas T. Martin
Regional Administrator
Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

INPO Records Center
700 Galleria Parkway
Atlanta, Georgia 30339-5957

U.S. NRC Resident Inspector's Office
Indian Point 3

Attachment
List of Commitments

Number	Commitment	Due Date
IPN-93-111-01	The Authority will improve the licensing review process to ensure that technically knowledgeable personnel perform thorough reviews of inputs to submittals.	Prior to plant startup
IPN-93-111-02	The Authority will submit an exemption request pursuant to 10 CFR 50.12 to address the issue of operator access to the instrument isolation cabinets for a postulated fire at the entryway to the electrical tunnels.	Prior to plant startup

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Indian Point Unit 3		DOCKET NUMBER (2) 05000286	PAGE (3) 1 OF 7
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TITLE (4) **Noncompliance With 10 CFR 50.48 and 10 CFR 50, Appendix R Due to the Lack of an Approved Exemption for a Particular Postulated Fire.**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
08	27	93	93	-- 031 --	00	09	27	93	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)									
POWER LEVEL (10) 000	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)						
	20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)						
	20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER						
	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	(Specify in Abstract below and in Text, NRC Form 366A)						
	20.405(a)(1)(iv)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)							
	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)							

Name Kenneth J. Vehstedt, Sr. Nuc. Operations Engineer	TELEPHONE NUMBER (Include Area Code) (914) 681-6314
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>					

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On August 27, 1993, the Authority determined that Indian Point 3 (IP3) was not in compliance with section III.G, of 10 CFR 50, Appendix R. On September 19, 1985, the Authority incorrectly determined the fire barrier wraps installed at the entryway to the electrical tunnels constituted compliance with the regulations and as a result withdrew an exemption request that if approved would have placed IP3 in compliance. The cause of this event is not fully determinable. The available evidence indicates that the reviewers did not perform an adequate review. The reason for this is indeterminate because the key reviewers are no longer available for interviews or do not recollect the events specifically enough. The identified deficiency was reported under 10 CFR 50.72(b)(2)(i) at 1258 hours on August 27, 1993. Corrective actions will include improvements to the process utilized for the development and review of NRC submittals and a re-submittal of the subject exemption request.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

DESCRIPTION OF EVENT

The Authority has initiated and is in the process of implementing a comprehensive fire protection improvement program. One aspect of the program involves verification of 10 CFR 50, Appendix R compliance. One of the tasks associated with the verification process is the detailed review of fire barrier wrap (ISL) installations credited for 10 CFR 50, Appendix R, section III.G compliance. In the course of reviewing the bases for the fire barrier wraps installed at the entryway to the electrical tunnels (FA), the Authority determined the wrap installation had mistakenly been credited with achieving 10 CFR 50, Appendix R section III.G.2.b compliance for a postulated fire at that location. This determination was made on August 27, 1993 with a four hour report made pursuant to 10 CFR 50.72(b)(2)(i) at 1258 hours on that date. That technical misconception was transmitted to the Nuclear Regulatory Commission (NRC) in correspondence in 1985 and 1986 and served as the technical basis for the Authority's withdrawal of a necessary exemption request. The misconception was restated in a NRC Safety Evaluation Report (SER) dated January 7, 1987.

In order to shut down the plant for a postulated fire at the entrance to the electrical tunnels, an operator must access the electrical penetration area of the upper electrical tunnel in order to reconfigure the instrument loops for the alternate safe shutdown panels (PL). When the initial 10 CFR 50, Appendix R analysis was performed in 1981-1982, the Authority recognized an operator would have to access instrument isolation cabinets (CAB) located in the upper electrical tunnel penetration area for any fire scenario mitigated by use of the alternate safe shutdown system. One such scenario would involve a fire located at the entryway to the electrical tunnels. In letters dated July 1, 1982 and November 22, 1982 (References 1 and 2), the Authority transmitted the results of the 10 CFR 50, Appendix R analyses performed to date and submitted several exemption requests per 10 CFR 50.12. At that time, i.e., prior to the NRC-sponsored regional 10 CFR 50, Appendix R meetings held early in 1984, the need for submittal of an exemption request to "allow" operator entry into the fire area of consideration was not recognized.

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In September 1983, the Authority informed the NRC of its intention to perform a comprehensive reevaluation of 10 CFR 50, Appendix R, section III.G compliance (Reference 3). That decision was based on discussions with NRC staff personnel regarding the draft SER (Reference 4) which would disposition the exemption requests submitted in 1982. The key technical reasons for performing that reevaluation were recognition of the need to utilize fire areas instead of zones for the safe shutdown analysis and the need to consider cable insulation as an intervening combustible material. The NRC subsequently approved four exemptions related to the electrical tunnels in a SER (Reference 5). That SER concluded the fire protection features of the electrical tunnels, including the entryway, provide equivalent protection to literal 10 CFR 50, Appendix R, sections III.G.2 and III.G.3 compliance. The SER is based to a great extent on the fire retardant qualities of the cables installed at Indian Point 3 (IP3) and on the results of Consolidated Edison's bonfire testing of power cables. A subsequent SER (Reference 6) acknowledged the cable tunnel entryway as an alternate safe shutdown area.

When the Authority submitted the results of the reevaluation to the NRC in August 1984 (Reference 7), a two part exemption was requested relative to the electrical tunnels. One part of the exemption dealt with the non-fire-rated enclosure which connects the upper and lower electrical tunnels near the Vapor Containment Building (NH) end of the electrical tunnels and the second part dealt with the entryway to the electrical tunnels from the cable spreading room. The exemption was submitted because 10 CFR 50, Appendix R, section III.G.2.b requires twenty feet of separation between redundant normal safe shutdown circuits. The width of the electrical tunnels is approximately four feet from tray edge to tray edge. The exemption request noted alternate capability existed for a postulated entryway fire and specifically mentioned the distance between the fire location and the instrument isolation cabinets in the upper electrical tunnel penetration area. The exemption justified such access based on the distance from the fire to the cabinets (the length of the upper tunnel, approximately 165 ft), the extensive automatic fire suppression and detection equipment installed in the electrical tunnels, the access path from the Primary Auxiliary Building (PAB) (NF) to the instrument isolation cabinets, and the limited stay time required to reconfigure the instrument loops.

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In 1985 and 1986, the Authority submitted letters to the NRC (References 8 and 9) which withdrew the exemption request regarding the postulated fire at the entrance to the electrical tunnels. Those submittals and the ensuing NRC SER (Reference 10) are based on the erroneous conclusion that Indian Point 3 was already in compliance with the regulation. Absent the approved exemption request, the Authority is in technical noncompliance with 10 CFR 50.48 and 10 CFR 50 Appendix R for that one particular fire scenario.

The misconception that the reviewers seemed not to recognize was that the fire barrier wraps, while preventing fire damage to the instrument cables at the entryway to the electrical tunnels, do not ensure the availability of safe shutdown instrumentation indications at the remote (to the central control room) locations manned as part of the alternate safe shutdown system. Had the exemption request submitted with the 1984 reevaluation report been approved, the plant would be in compliance with 10 CFR 50, Appendix R, sections III.G.3 and III.L.

CAUSE OF EVENT

The specific cause of this event is indeterminate. The available evidence indicates a personnel error in that inadequate technical reviews of submittals to the NRC were performed. The cause of this is indeterminate because the key reviewers are either unavailable or do not recollect the events specifically enough.

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CORRECTIVE ACTIONS

No immediate compensatory action is required because the unit is in the cold shutdown condition.

The following corrective actions will be performed prior to startup from the current outage to prevent recurrence of the event:

- the Authority will improve the licensing review process to ensure that technically knowledgeable personnel perform thorough reviews of inputs to submittals, and
- the Authority will submit an exemption request pursuant to 10 CFR 50.12 to address the issue of operator access to the instrument isolation cabinets for a postulated fire at the entryway to the electrical tunnels.

ANALYSIS OF THE EVENT

The lack of an approved exemption is reportable pursuant to 10 CFR 50.72(b)(2)(i) and 10 CFR 50.73(a)(2)(ii)(b) as the plant was outside of its licensing basis relative to 10 CFR 50, Appendix R compliance for the one fire scenario. This event does not involve violation of Technical Specification requirements. Absent the approved exemption, the Authority has been in technical violation of 10 CFR 50, Appendix R since the necessary exemption was withdrawn via Reference 8, in September 1985, and via Reference 9, in March 1986. No similar LERs have been submitted relative to 10 CFR 50, Appendix R compliance.

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SAFETY SIGNIFICANCE

This event had no significant effect on the health and safety of the public. The Authority believes operator access of the electrical tunnel penetration area for a postulated fire at the entryway to the electrical tunnels to be reasonable and prudent. The plant operating procedure ONOP-FP-1A, revision 8, "Safe Shutdown From Outside The Control Room," dictates such access be made in order to support safe shutdown of the facility remote from the central control room. The lack of an approved exemption for such access, while important to the Authority's 10 CFR 50, Appendix R compliance status, did not in any way degrade our ability to achieve and maintain safe shutdown in the unlikely event of a fire at the entryway to the electrical tunnels from the cable spreading room. The Authority has no reason to believe the exemption submitted in 1984, via Reference 7, would not have been approved had it not been withdrawn. Performance Improvement Program (PIP) project 177.1 will evaluate and correct the extent of this condition as it pertains to the 10 CFR 50, Appendix R requirements.

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References

- (1) NYPA letter IPN-82-49, "10 CFR 50, Appendix R, Section III.G Fire Protection Requirements", dated July 1, 1982
- (2) NYPA letter IPN-82-75, "Appendix R", dated November 22, 1982
- (3) NYPA letter IPN-83-80, "Appendix R Fire Protection Review", dated September 26, 1983
- (4) "Draft Safety Evaluation Report on Appendix R, III.G.2 Exemption Requests for the Indian Point Nuclear Generating Plant, Unit no.3", transmitted via NRC letter S. A. Varga to J. P. Bayne dated July 22, 1983
- (5) "Exemptions from the Requirements of 10 CFR 50, Appendix R, for the Indian Point Nuclear Generating Plant, Unit no.3", transmitted via NRC letter D. G. Eisenhut to J. P. Bayne dated February 2, 1984
- (6) "Appendix R, Sections III.G.3 and III.L, Final Safety Evaluation (SE) for the Indian Point Nuclear Generating Plant, Unit no.3", transmitted via NRC letter S. A. Varga to J. P. Bayne dated April 16, 1984
- (7) NYPA letter IPN-84-32, "Appendix R Fire Protection Program", dated August 16, 1984
- (8) NYPA letter IPN-85-47, "Information to Support the Evaluation of IP-3 to 10 CFR 50.48 and Appendix R to 10 CFR 50", dated September 19, 1985
- (9) NYPA letter IPN-13-86, "Electrical Tunnel Cable Fire Wrap", dated March 11, 1986
- (10) NRC Safety Evaluation Dispositioning (a total of seven) Exemption Requests from the Technical Requirements of Sections III.G and III.J of Appendix R to 10 CFR 50, transmitted via NRC letter S. A. Varga to J. C. Brons dated January 7, 1987