

**Doerflein, Lawrence**

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**From:** Knutson, Ed  
**Sent:** Friday, May 06, 2011 2:47 PM  
**To:** Doerflein, Lawrence  
**Subject:** FW: FitzPatrick Hardened Vent  
**Attachments:** Fitz Hardened Vent.pdf

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**From:** Knutson, Ed  
**Sent:** Thursday, March 17, 2011 1:47 PM  
**To:** Vaidya, Bhalchandra  
**Subject:** FitzPatrick Hardened Vent

Attached is from a 1995 inspection report concerning completion of the TI that looked at hardened vents.

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

April 18, 1995

Mr. Harry P. Salmon, Jr.  
Resident Manager  
New York Power Authority  
James A. FitzPatrick Nuclear Power Plant  
Post Office Box 41  
Lycoming, New York 13093

SUBJECT: NOTICE OF VIOLATION (NRC REGION I INSPECTION NO. 50-333/95-06)

Dear Mr. Salmon:

This refers to the results of the routine resident safety inspection conducted by Messrs. W. Cook and R. Fernandes from February 12, 1995 to March 25, 1995 at the James A. FitzPatrick Nuclear Power Plant, Scriba, New York. A summary of the inspection findings was presented to you and members of your staff at an exit meeting on April 12, 1995.

This inspection was directed toward areas important to public health and safety. Areas examined during the inspection are described in the NRC Region I inspection report, which is enclosed with this letter. Within these areas, the inspection consisted of observation of activities, interviews with personnel, and document reviews.

Performance by the plant staff during this inspection period was mixed. NYPA's deliberate and cautious approach to verifying the extent of fuel assembly debris and potential fuel pin damage demonstrated a safety conscious philosophy. On the other hand, a number of personnel performance errors that involved radiation protection requirements and surveillance testing procedural noncompliances indicated carelessness by members of your staff for administrative controls. Several examples of procedural noncompliance were cited and are discussed in detail in the enclosed report. We note that these events occurred during your 1994-95 refuel outage and that NYPA has experienced similar performance declines during previous planned outages. Your continued strong management attention is warranted.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice of Violation (Notice) when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room. The response directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96.511.

- Two component hangers on the A emergency filter train were not reflected on plant drawings and are a different design than those similarly depicted on the drawings. The licensee initiated drawing changes to reflect the supports and provided the inspector with calculations to demonstrate the structural integrity of filter system supports. The inspector reviewed the calculations and had no further questions.
- Two MODs, 70MOD-114 and 70MOD-113, were disconnected and lock wired in the closed and open position, respectively. The inspector subsequently learned that the configuration was the result of a temporary modification (No. 93-152) put into place to address single failure concerns previously identified by the licensee. The temporary modification placed the modulating dampers in fail-safe positions to ensure that the control room is provided a maximum supply of fresh air, and to ensure positive control room air pressure during emergency conditions. The inspector also learned that a minor modification was in progress to convert this temporary modification into a permanent system modification. The inspector reviewed the minor modification package and had no further questions.
- As part of the system walkdown the inspector identified to the NYPA staff that two MODs, MOD-113 and MOD-114, and flow element FE-102 were omitted from as-built drawing FB-35C, Rev. 12, Equipment Room Heating, Vent and Air Conditioning. However, the inspector noted that the components were identified on the control room flow diagram FB-45A and identified in the FSAR. The inspector was concerned that despite a temporary modification and a minor modification being processed for two safety-related components, this deficiency in the as-built drawing was not identified by the NYPA staff. The inspector identified his concerns to NYPA. NYPA's evaluation was not complete at the end of the period. The issue will remain unresolved pending completion of NYPA evaluation and subsequent NRC review. (URI 95-06-03)

The inspectors concluded that the control room emergency ventilation system was operable, and with the exception of the observations noted above, had no further questions.

#### 4.3 TI 2515/121 - Verification of Mark I Hardened Vent Modifications

As part of a comprehensive plan for closing severe accident issues, the NRC staff undertook a program to determine if any actions should be taken, on a generic basis, to reduce the vulnerability of BWR Mark I containments to severe accident challenges. At the conclusion of the Mark I Containment Performance Improvement Program, the staff identified a number of plant modifications that would substantially enhance the plants' capability to both prevent and mitigate the consequences of severe accidents. Recommended improvements included improved hardened wetwell vent capability. On September 1, 1989, the NRC issued Generic Letter (GL) 89-16, "Installation of a Hardened Wetwell Vent," requesting licensees with Mark I containments to consider installation of hardened wetwell vent systems under the provisions of 10 CFR 50.59. Using guidance provided in Temporary Instruction (TI) 2515/121, "Verification of Mark I Hardened Vent Modifications (GL 89-16)," the NRC is in

the process of conducting inspections to verify licensees' implementation of commitments made in response to GL 89-16.

By letters dated October 27, 1989, and July 25, 1990, NYPA notified the NRC staff that it would defer its decision on hardened wetwell vent installation until the Fitzpatrick Individual Plant Examination (IPE) was completed. The NRC reviewed the information provided in those letters and also inspected the existing wetwell vent path at FitzPatrick. As a result of these activities, the NRC identified weaknesses in procedures and operations training and also determined that all Boiling Water Reactor Owners Group (BWRG) criteria were not met by the licensee's current design. However, because the design was expected to achieve the desired reduction in core damage frequency, the NRC approved NYPA's request to defer its decision to fully implement the BWRG hardened vent general design criteria until completion of their IPE. This approval and initial safety evaluation is documented in an NRC letter dated January 24, 1991.

The January 1991 letter also approved the deferral of improvements in operator training and procedures until IPE completion. After the FitzPatrick IPE was completed, the NRC reviewed the changes to the training and procedures proposed by the licensee. The subsequent NRC safety evaluation of the vent-related procedures and proposed training was transmitted by NRC letter dated April 27, 1992.

In a September 28, 1992 letter, the NRC determined that the current vent path met the intent of the BWRG design criteria, based on additional information provided by NYPA and results of the previous NRC inspection of the vent path. This letter forwarded the NRC staff's safety evaluation for the hardened vent. In addition, the NRC found that the plant procedures and training were adequate to provide the information and guidance necessary for operators to effectively use the FitzPatrick hardened wetwell vent.

The inspector reviewed the referenced reports and determined that all applicable portions of TI 2515/121 for the hardened vent at FitzPatrick have been effectively addressed. The FitzPatrick hardened wetwell vent met the intent of the NRC approved BWRG guidelines. Emergency Operating Procedures were available to direct the initiation and termination of venting, operator training on the system was acceptable, and operators were found to be knowledgeable of the design and function of the system. TI 2515/121 is closed.

#### 4.4 Previously Identified Items

(Updated) Unresolved Item (92-14-01): Relay Room CO<sub>2</sub> System Testing

As noted in inspection report 50-333/95-02, Section 4.2.1, NYPA conducted special test procedure, STP-76AU, Relay Room Enclosure Integrity Test, to collect data for an engineering analysis performed in lieu of a full discharge test of the relay room CO<sub>2</sub> fire suppression system. The engineering analysis was performed for NYPA by Yankee Engineering Services via a February 1995 Engineering Report to NYPA and captured under a memorandum (JAF-RPT-FPS-02009) dated March 2, 1995. Based upon satisfactory completion of this engineering