

July 22, 1998

Mr. S. A. Patulski  
Site Vice President  
Point Beach Nuclear Plant  
6610 Nuclear Road  
Two Rivers, WI 54241

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORTS 50-266/98012(DRS);  
50-301/98012(DRS))

Dear Mr. Patulski:

This will acknowledge receipt of your letter dated July 13, 1998, in response to our letter dated June 11, 1998, transmitting a Notice of Violation associated with the failure to calibrate emergency plan self-reading dosimeters in accordance with procedures, and the failure to control keys for locked high radiation areas in accordance with Technical Specifications. We have reviewed your corrective actions and have no further questions at this time. These corrective actions will be examined during future inspections.

Sincerely,

s/S.A. Reynolds /for

John A. Grobe, Director  
Division of Reactor Safety

Docket Nos.: 50-266; 50-301  
License Nos.: DPR-24; DPR-27

Enclosure: Ltr dtd 7/13/98 S. Patulski  
Point Beach to USNRC

See Attached Distribution

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M. Reddeman, Plant Manager  
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Potts & Trowbridge  
K. Duveneck, Town Chairman  
Town of Two Creeks  
B. Burks, P.E., Director  
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**Wisconsin Electric**  
A WISCONSIN ENERGY COMPANY

Scott A. Patulski  
Site Vice President

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NPL 98-0576

10 CFR 2.201

July 13, 1998

Document Control Desk  
U. S. NUCLEAR REGULATORY COMMISSION  
Mail Station P1-137  
Washington, DC 20555

Ladies/Gentlemen:

**DOCKETS 50-266 AND 50-301**  
**REPLY TO A NOTICE OF VIOLATION**  
**NRC INSPECTION REPORT NOS. 50-266/98012 AND 50-301/98012**  
**POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2**

In a letter from Mr. John Grobe dated June 11, 1998, the Nuclear Regulatory Commission forwarded the results of a radiation protection inspection conducted by your staff at our Point Beach Nuclear Plant. The inspection was conducted from May 18-22, 1998. The inspection report included a Notice of Violation which identified two violations of NRC requirements.

We have reviewed the Notice of Violation and, pursuant to the provisions of 10 CFR 2.201, have prepared a written response to the two violations requested by your letter of June 11, 1998. Our written response to these violations is included as an attachment to this letter.

We believe that the attached reply is responsive to the Notice of Violation and fulfills the requirements identified in your June 11, 1998, letter.

If you have any questions or require additional information regarding this response, please contact me.

Sincerely,

for Scott A. Patulski  
Site Vice President  
Point Beach Nuclear Plant

Attachment

cc: NRC Resident Inspector  
NRC Regional Administrator

NRC Project Manager  
PSCW

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JUL 16 1998



**DOCKETS 50-266 AND 50-301**

**REPLY TO A NOTICE OF VIOLATION**

**NRC INSPECTION REPORTS 50-266/98012 AND 50-301/98012**

**POINT BEACH NUCLEAR PLANT UNITS 1 AND 2**

During an NRC inspection conducted from May 18-22, 1998, two violations of NRC requirements were identified. Inspection Reports 50-266/98012 and 50-301/98012 and the Notice of Violation (Notice) transmitted to Wisconsin Electric on June 11, 1998, provide details regarding the violations.

In accordance with the instructions provided in the Notice, our reply to the violation includes: (1) the reason for the violation, or if contested, the basis for disputing the violation; (2) the corrective action taken and the results achieved; (3) corrective action to be taken to avoid further violations; and (4) the date when full compliance will be achieved.

**Violation 1:**

"Technical Specification (TS) No. 15.6.11, "Radiation Protection Program," requires, in part, that radiological control procedures be written and made available to all station personnel, and shall state permissible radiation exposure levels. The radiation protection program shall meet the requirements of 10 CFR Part 20.

Health Physics Calibration Procedure HPCAL 1.28, a procedure required by TS 15.6.11 requires in part, that self reading dosimeters (SRDs) will be checked for response (calibration) at the following frequencies: prior to initial use, when damage may have occurred and routinely in June and December for the emergency plan SRDs.

Contrary to the above, as of March 22, 1998, two emergency plan SRDs, available for use in emergency plan sampling kits, were not calibrated in December 1997, and had not been calibrated since June 1997 (VIO 50-266/98012-01(DRS); 50-301/98012-01 (DRS).

This is a Severity Level IV violation (Supplement IV)."

**Response to Violation 1:**

We concur this is a violation of NRC requirements as characterized in the inspection report. We performed a detailed review of the March 22, 1998, event. In December 1997, Radiation Protection (RP), in accordance with Emergency Plan (EP) procedures, changed out 603 self-reading dosimeters (SRDs) in the emergency plan kits. During the changeout, a Radiation Protection Technologist (RPT) missed two of the SRDs. Lack of attention to detail by the RPT was the root cause for this violation. Factors that contributed to the event included the large number of SRDs involved, a lack of management oversight of the activity, the storage methodology for EP equipment in the EP-designated lockers, the method by which SRD changeout is accomplished, and the fact that SRDs were being inventoried by quantity rather than by serial number.

The corrective actions taken in response to a previous similar violation were not effective in preventing recurrence. A review of the previous corrective actions revealed that we had focused upon the specified quantity of SRDs needed to meet EP requirements, rather than directing our focus on the individual SRDs and the physical location where each SRD is stored for EP use. We also did not provide the additional management oversight needed to ensure that the corrective actions taken in response to the previous violation were effective in preventing recurrence. Accordingly, the corrective actions taken and planned, as described below, focus upon the programmatic and process aspects of our SRD calibration program.

**Corrective Actions Taken:**

1. The two SRDs identified to be out of calibration were replaced with calibrated SRDs on March 22, 1998.
2. An inventory of all EP SRDs was completed on March 22, 1998. No additional SRDs were discovered to be out of calibration.
3. In lieu of replacing SRDs on a one-for-one basis, two complete sets of SRDs have been dedicated to EP so total replacement of SRDs will be accomplished.
4. The dedicated EP SRDs are now being maintained in a physically separate location to ensure proper SRD assignment. A new storage locker has been procured for this purpose.
5. Each of the SRDs in the two sets of dedicated EP SRDs was color-coded on July 10, 1998, to improve visual recognition of the SRDs' calibration cycle.
6. Inventory practices have been changed to control SRDs by serial number and EP kit location. In conjunction with the change in inventory practices, overall RP group calibration schedules and practices have been reviewed and revised (i.e., leveled) to permit RP to focus on EP equipment during the months of June and December.
7. The duties of the RP supervisor responsible for instrumentation have been expanded to include direct responsibility and accountability for EP SRD changeout and program oversight.
8. A management team consisting of the EP and RP staff members has performed a follow-up verification of the June 1998 EP SRD changeouts which was controlled as outlined in Corrective Action 5 above.
9. The Quality Verification group performed an independent review of EP SRD changeouts on June 26, 1998.

**Corrective Actions to be Taken:**

There are no additional corrective actions to be taken.

**Date Of Full Compliance:**

Full compliance with NRC requirements was achieved on March 22, 1998, when the two out of calibration SRDs were replaced with calibrated SRDs.

**Violation 2:**

"Technical Specification No. 15.6.11, "Radiation Protection Program," requires that each entryway to high radiation areas with dose rates greater than 1 rem per hour at 30 centimeters from the radiation source or from any surface penetrated by the radiation, but less than 500 rads per hour at 1 meter from the radiation source or from any surface penetrated by the radiation, be conspicuously posted as a high radiation area and shall be provided with a locked door or gate that prevents unauthorized entry, and, in addition, that all such door and gate keys shall be maintained under the administrative control of the shift supervisor, radiation protection manager, or his or her designee.

Contrary to the above, on April 27, 1998, a key allowing access to high radiation areas having dose rates greater than 1 rem per hour at 30 centimeters from the radiation source, but less than 500 rads per hour at 1 meter, was not maintained under the control of the shift supervisor, radiation protection manager, or his or her designee. Specifically, a key which would allow entry into locked high radiation areas was left unattended on a contaminated area step-off pad in the Primary Auxiliary Building and a locked high radiation area existed on the -5 foot elevation of the Primary Auxiliary Building (50-266/98012-02(DRS); 50-301/98012-02(DRS)).

This is a Severity Level IV violation (Supplement IV)."

**Response to Violation 2**

We concur this is a violation of NRC requirements as characterized in the inspection report. However, it should be noted for the record that this event occurred on April 24, 1998, rather than on April 27, 1998, as indicated in the inspection report. Our investigation of this event revealed that on April 24, 1998, two Radiation Protection Technologists (RPTs) were assigned to provide health physics coverage of a boric acid evaporator filter changeout. The boric acid evaporator is located on El. 46' of the primary auxiliary building (PAB). One RPT was inside of the contaminated area of the evaporator while the filter changeout was taking place. The RPT bagged the filter to prevent the spread of contamination and transferred the bag to the second RPT, who was outside of the contaminated area.

The second RPT transported the bagged filter to an area on El. 46' called the "pillbox." The pillbox is a shielded area that contains a high integrity container (HIC). This area is posted and controlled as a locked High Radiation Area (HRA) and a contaminated area. The second RPT had protective clothing donned and was in possession of the HRA key. The RPT properly disposed of the filter in the HIC and relocked the HIC.

The dose rate at the top of the HIC was significantly less than 1 rem/hr. As the RPT was removing his PCs, he placed the HRA key on the step-off pad inside of the contaminated area.



He had intended to retrieve the key with a clean glove and then to frisk the key. However, after exiting the contaminated area and frisking himself, he forgot to retrieve the key. He returned to the boric acid evaporator filter cubicle, retrieved the air sample that had been taken of the area and transported the air sample to the counting room. The NRC inspector, who happened to be performing a routine tour of the radiation control area, observed the unattended HRA key on the step-off pad. The inspector notified an RP supervisor, who was in the area to observe the ~~key~~ changeout, of the discrepancy. The RP supervisor recovered and assumed control of the HRA key.

A lack of attention to detail was determined to be the root cause for this event. A recent change to our protective clothing practices may have contributed to the human performance aspects of the event. Protective clothing practices were recently changed to require full unsuiting when exiting a contaminated area. We consider this change to be necessary in order to improve our contamination control program. In the past, an individual exiting a contaminated area would have placed the HRA key in the pocket of his or her protective clothing, and would have removed and discarded only booties and gloves.

Subsequent to the event documented as Violation #2 in the inspection report, another event occurred that involving high radiation area key control. On June 24, 1998, at approximately 1245 hours, a set of keys on a ring was found laying on a countertop in the RP station directly below the shift RPT lock box. The keys were immediately placed in the HRA key lock box. It was subsequently determined that the key ring contained HRA Key #1, and that the identifier for the key ring had been contaminated and subsequently disposed of the previous shift. Following decontamination, the key ring and keys were locked in the shift RPT lock box. The NRC resident inspector was notified of the event at approximately 1535 hours on June 24, 1998, with subsequent notification of NRC Region III representatives at 1539 hours.

At the time of this event, the shift RPT lock box contained a number keys that were part of the corrective actions being taken in response to the first key control event. One of the intended corrective actions for the first HRA key event was the replacement of common locks with unique locks for each locked HRA. Implementation of this corrective action had been delayed to ensure it was not in conflict with existing Operations procedures. The unique keys were placed in the shift RPT lock box for safe-keeping until implementation of the new key control program.

Our investigation into this event revealed that sometime during the morning of June 24, 1998, the shift RPT lock box had been opened to retrieve another key. It is suspected that the HRA Key #1 ring and keys fell out of the shift RPT lock box onto the countertop. At approximately 1245 hours, an RP Supervisor noticed the keys on the countertop and immediately took control of them.

This second event was determined to be a violation of Technical Specification 15.6.11. The event was documented via Condition Report (CR) 98-2520. A root cause evaluation (RCE 98-145) was performed to fully evaluate this event and to re-evaluate corrective actions planned, but not yet fully implemented, as a result of the previous Technical Specification violation.

**Corrective Actions Taken:**

In response to the first HRA key violation, the following corrective actions had been implemented:

1. All locked HRAs were inspected on April 24, 1998, to ensure they were maintained as locked.
2. All HRA keys were inventoried and accounted for. This action was completed on April 24, 1998.
3. Personnel were reminded of their individual responsibilities for control and accountability of HRA keys. This action was performed on April 25, 1998.
4. Unique locks and keys for each HRA were procured and installed on June 24, 1998.
5. A tag was placed on each HRA key to reinforce the user of the key of the responsibilities and expectations associated with use and control of the HRA key on June 24, 1998.
6. Responsibilities were also assigned to the shift RPT to perform a shift key inventory and door verification.
7. A unique lock was procured and installed on the shift RPT lock box. This key is under the sole control of the shift RPT. A tag was placed on this key to reinforce the user of the key of the responsibilities and expectations associated with use and control of the shift RPT lock box key. These actions were completed on June 24, 1998.
8. Procedure HP 2.6, "High Radiation Area and Radioactive Source Key Control," was revised and issued on July 9, 1998, to reflect implementation of unique keys for each HRA. This revision incorporates a section defining individual personnel responsibilities and management expectations for maintaining positive HRA key control. Additionally, the procedure revision establishes requirements for an HRA key inventory to be performed once per shift and a verification to be performed on a daily basis of HRA doors that have been accessed for entry into HRAs.
9. Training on revised procedure HP 2.6 was completed on July 10, 1998.

**Corrective Actions to be Taken:**

None

**Date of Full Compliance**

Full compliance with NRC requirements was achieved on April 24, 1998.