

January 20, 1998

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT
REPLY TO NOTICE OF VIOLATION FOR THREE VIOLATIONS REPORTED IN
INSPECTION REPORT 50-255/97015(DRS)

NRC Inspection Report No. 50-255/97015 identifies three violations. The Consumers Energy Company response to each violation is included in the attachments. Attachment 1 contains the reply to violation 97015-01, "Failure to post the high radiation area in the Clean Waste Filter Transfer Room". Attachment 2 contains the reply to violation 97015-02, "Failure to be aware of dose rate levels prior to entry into a high radiation area". Attachment 3 contains the reply to violation 97015-03, "Failure to comply with radiological survey requirements".

In addition to the three violations, a weakness was also identified. NRC identified the lack of clear communication of health physics management's expectations for certain radiation protection duties and the narrow focus of the health physics staff in the conduct of their specific duties. The identified weakness has been addressed within the response to violation 97015 -01 and is included in Attachment 1.

Consumers Energy Company agrees with all of the violations as written, with the exception of inaccurate event times and descriptions, which are corrected in our response; Attachments 1 and 3.

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SUMMARY OF COMMITMENTS

This letter contains no new commitments and no revisions to existing commitments..



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3 Attachments

ATTACHMENT 1

**CONSUMERS ENERGY COMPANY
PALISADES PLANT
DOCKET 50-255**

REPLY TO VIOLATION 50-255/97015-01

**FAILURE TO POST THE HIGH RADIATION AREA
IN THE CLEAN WASTE FILTER TRANSFER ROOM**

ATTACHMENT 1
REPLY TO VIOLATION 50-255/97015-01
FAILURE TO POST THE HIGH RADIATION AREA
IN THE CLEAN WASTE FILTER TRANSFER ROOM

NRC NOTICE OF VIOLATION

During an NRC inspection conducted November 5-7, 1997, three violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

1. *10 CFR Part 20.1902(b) requires that the licensee post each high radiation area with a conspicuous sign or signs bearing the radiation symbol and the words "CAUTION, HIGH RADIATION AREA" or "DANGER, HIGH RADIATION AREA".*

Pursuant to 10 CFR 20.1003 a high radiation area means an area, accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 100 millirem in 1 hour at 30 centimeters from the radiation source or from any surface that the radiation penetrates.

Contrary to the above, from approximately 11:30 a.m. on September 15, 1997, to 4:00 a.m. on September 16, 1997, the high radiation area in the Clean Waste Filter Transfer Room, with a radiation dose rate of approximately 500 millirem in an hour at 30 centimeters from the filter storage box, was not conspicuously posted with a sign bearing the radiation symbol and the words "CAUTION, HIGH RADIATION AREA" or "DANGER, HIGH RADIATION AREA".

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

CONSUMERS ENERGY COMPANY RESPONSE

Consumers Energy Company agrees with this violation as written, however, the evaluation for this event identified that the unposted High Radiation Area (HRA) may have occurred as early as 9:41 a.m. on September 15, 1997. Radiological boundary integrity could be verified only to as late as that time.

Background

On September 7, 1997, an attempt to sluice resins was aborted when the differential pressure on the Clean Waste Filter (F-57A) indicated the filter was plugged. To prepare for the filter change out, the Clean Waste Filter Room (Room 708) had a temporary

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contamination boundary and Step Off Pad (SOP) established. The F-57A filter was removed from the filter housing and stored in the waste filter storage box, which was posted as a High Radiation Area (HRA). The Radiological Area Status Sheet (Status Sheet) for Room 708 was updated with the temporary contamination boundary and SOP.

On September 15, 1997, two Radwaste Handlers entered Room 708 to decontaminate the area with the goal of removing the contamination boundary. This entry occurred sometime after 0941 Hours. One Radwaste Handler performed the decontamination activities, while the other Radwaste Handler provided materials as needed. The Radwaste Handlers left the room sometime before 1132 Hours, and requested a post-decontamination survey from the HP Crew leader. The Radwaste Handler performing decontamination activities stated during interviews that the HRA boundary was present when he arrived at the room, and present when he left the room. He also stated that he decontaminated the small area within the HRA by standing outside the HRA and pushing his mop under the rope boundary.

Sometime after 1303 Hours, a "B" shift HP Technician entered Room 708 and performed a detailed post-decontamination survey. The HP Technician used the appropriate RWP. The electronic dosimeter (ED) Dose Rate Alarm was set for 80 mR/hr. The HP Technician stated that when he arrived, the HRA boundary was down. He did not review the Status Sheet as required by the RWP, and did not question why this boundary was down. He did not take a survey meter with him, or consider verifying the downed posting. During his post-decontamination survey near the waste filter storage box, the HP Technician heard his ED Dose Rate Alarm (DRA) annunciate, but did not question its significance. There was a "Radioactive Material" placard attached to the front of the waste filter storage box which indicated a contact and 12 inch dose rate (ie., 900 and 500 mR/hr, respectively) from the box. The HP Technician did not review this placard. The HP Technician exited Room 708 sometime before 1328 Hours. The HP Technician stated that the boundary remained down upon his exit. Upon exiting the RCA, the HP Technician received an ED Dose Report which recorded a maximum dose rate of 128 mR/hr. However, the HP Technician again did not question the significance of the missing boundary.

At approximately 1630 Hours on September 15, 1997, during performance of the Auxiliary Building Walkdown, the "C" shift Health Physics (HP) Technician observed the rope boundary and posting not in place as expected within Room 708. The HP Technician did not review the Status Sheet, nor were the dose rates in the area verified.

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The HP Technician exited the area at 1800 Hours without replacing the HRA rope boundary and posting. Later, at approximately 0400 Hours on September 16, 1997, an "A" shift HP Technician noted the downed boundary and posting while performing daily rounds, and replaced it, but did not verify the posting position with a survey meter.

Evaluation of this event was unable to determine exactly why or how the boundary was initially removed.

Reasons for Violation

Less than clear management expectations for HP postings and work in the field, coupled with inadequate self assessment in the form of routine HP program monitoring, caused this violation. These causes resulted in confusion, lack of a questioning attitude, lack of self checking, misjudgment, and an apparent lack of sensitivity to the importance of High Radiation Area postings and alarms. Downed area rope gates have been identified in the past, and may have contributed to a lack of sensitivity for the proper positioning of other rope boundaries.

Corrective Actions Taken and Results Achieved

1. A comprehensive walkdown of all Status Sheets was conducted to verify the accuracy of the Status Sheets with actual room conditions.
2. Reverification of all radiological boundaries and postings that are set up, adjusted or removed was performed. This effort revealed compliance with expectations and standards.
3. The involved individuals were disciplined for their individual performance issues.
4. A Standdown Meeting was conducted with all Chemistry and Radiological Services (C&RS) personnel to discuss this event and communicate standards and expectations for Radiological Control postings and boundaries. In addition, Generic (INPO) standards and expectations for professional conduct were discussed.
5. The C&RS organization was restructured to allow the Duty HP Supervisor to spend more time in the field observing radiological performance and monitoring activities to ensure expectations are being implemented and understood.

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6. Radiological Standard #001, "Boundaries and Postings" was developed and communicated to all C&RS personnel to provide clear direction for postings and boundaries. Standard #001 identifies the materials to be used to establish and maintain postings and boundaries. This standard was also communicated to all Palisades Radiation Workers to enable them to recognize correct radiological boundary postings, to understand worker responsibilities for entering/exiting radiologically posted areas, to understand who is authorized to set up, adjust, or remove radiological postings and boundaries, and to understand the requirements for entry into HRAs.
7. A review schedule for all radiologically controlled areas with Status Sheets was implemented. As the Status Sheet for an area is completed, a member of C&RS management is required to verify that the boundary/posting is in accordance with Radiological Standard #001, "Boundaries & Postings".
8. HP Technician performance expectations have been developed and conveyed to all individuals. Management observation of these expectations will be performed and will provide a balance between positive reinforcement and accountability.
9. The Management Observation Program within C&RS was enhanced to emphasize and improve self checking practices, posting, boundary integrity and Status Sheet quality.

Corrective Actions Remaining to be Taken to Avoid Further Violations

1. A Self-Assessment within the C&RS Department will be conducted to determine continued compliance with management expectations.

Date When Full Compliance Will Be Achieved

Consumers Energy was in full compliance on September 16, 1997, when the posting was reestablished for the high radiation area in the Clean Waste Filter Transfer Room.

ATTACHMENT 2

**CONSUMERS ENERGY COMPANY
PALISADES PLANT
DOCKET 50-255**

REPLY TO VIOLATION 50-255/97015-02

**FAILURE TO BE AWARE OF DOSE RATE LEVELS
PRIOR TO ENTRY INTO A HIGH RADIATION AREA**

**ATTACHMENT 2
REPLY TO VIOLATION 97015-02
FAILURE TO BE AWARE OF DOSE RATE LEVELS
PRIOR TO ENTRY INTO A HIGH RADIATION AREA**

NRC NOTICE OF VIOLATION

During an NRC inspection conducted November 5-7, 1997, three violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

2. *Technical Specification 6.7.1 requires, in part, that any individual or group of individuals permitted to enter a high radiation area shall be provided with or accompanied by one or more of the following: a radiation monitoring device which continuously indicates the radiation dose rate; or a radiation monitoring device which continuously integrates the radiation dose rate and alarms when a preset dose is received and after the dose rate levels in the area have been established and personnel are aware of them; or a qualified individual with a radiation dose rate monitoring device who is responsible for positive control and performs periodic radiation surveillance.*

Contrary to the above, on September 15, 1997, a health physics technician who had an alarming dosimeter entered a high radiation area in the Clean Waste Filter Transfer Room without being aware of the dose rate levels and without a radiation dose rate monitoring device.

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

CONSUMERS ENERGY COMPANY RESPONSE

Consumers Energy Company agrees with this violation as written.

Background

At approximately 1303 Hours on September 15, 1997, a Health Physics (HP) Technician entered the Clean Waste Filter Transfer Room and performed a detailed post-decontamination survey using masslin. The electronic dosimetry (ED) Dose Rate Alarm was set for 80 mR/hr. The HP Technician did not review the Radiological Area Status Sheet (Status Sheet) as required by the Radiological Work Permit (RWP), nor did he take a survey meter. During the post-decontamination survey of the waste filter storage box area, the HP Technician heard his ED Dose Rate Alarm (DRA) annunciate,

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but did not question its significance. Entry into a High Radiation Area (HRA) without a survey meter to establish dose rate levels, is a violation of Technical Specification 6.7.1.b and Administrative Procedure 7.13, Section 5.2.3. A "Radioactive Material" placard attached to the front of the waste filter storage box stated that the contact and 12 inch dose rates were 900 and 500 mR/hr, respectively, from the box. The HP Technician did not review the placard. The HP Technician left the HRA upon receiving the DRA because his survey was completed, and he exited the room. When the HP Technician logged out through access control, the exit terminal indicated that an alarm was received on his ED, and instructed him to see the HP Crew leader. The ED Alarm report indicated a maximum dose rate of 128 mR/hr.

Reason for Violation

The root cause for HRA entry without a dose rate meter was the failure to have the HRA posted, as discussed in Attachment 1. However, individual performance deficiencies also contributed to this event.

A number of barriers were in place to prevent an inadvertent entry into this unposted HRA. These barriers included the Status Sheet, RWP, ED Dose Rate Alarm threshold, waste filter storage box inventory list, "Radioactive Material" placard, Self Checking practices, and HP Technician judgement and experience. However, these barriers were circumvented at the individual level, indicating performance deficiencies.

Corrective Actions Taken and Results Achieved

1. The individual involved was disciplined to address his performance issues.
2. HP Technician performance expectations have been developed and conveyed to all individuals. Management observation of these expectations will be performed and will provide a balance between positive reinforcement and accountability. Fundamental expectations, such as ED alarm response by HP Technicians, were included as part of the expectations and were proceduralized in HP 2.8, "Radiological Services Response to Unusual Radiological Occurrences".

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Corrective Action Remaining to be Taken

None.

Date When Full Compliance Will Be Achieved

Consumers Energy was in full compliance with the violated requirement on September 16, 1997, when the HP Technician exited the high radiation area.

ATTACHMENT 3

**CONSUMERS ENERGY COMPANY
PALISADES PLANT
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REPLY TO VIOLATION 50-255/97015-03

FAILURE TO COMPLY WITH RADIOLOGICAL SURVEY REQUIREMENTS

3 Pages

ATTACHMENT 3

REPLY TO VIOLATION 97015-03 FAILURE TO COMPLY WITH RADIOLOGICAL SURVEY REQUIREMENTS

NRC NOTICE OF VIOLATION

During an NRC inspection conducted November 5-7, 1997, three violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

3. *Technical Specification 6.4.1 requires that written procedures shall be established, implemented, and maintained covering activities recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978.*

Regulatory Guide 1.33, Appendix A, recommends that safety-related activities covered by written procedures include radiation protection procedures for radiation surveys.

- a. *Health Physics Procedure HP 2.17, Revision 13, "Performance of Radiation and Contamination Surveys", requires that plant personnel forward completed radiological survey documentation to the cognizant duty health physics supervisor for review and signature.*
- b. *Health Physics Procedure No. HP 2.14, "Radiological Survey Requirements", Revision 17 requires that plant staff perform contamination surveys to locate and post and/or verify contamination area boundaries and to determine the extent and magnitude of contamination levels.*
- c. *Health Physics Procedure No. 2.14, "Radiological Survey Requirements", Revision 17, requires that plant staff perform radiation surveys to locate and post and/or verify radiation area boundaries and to determine the extent and magnitude of radiation levels.*

Contrary to the above;

- a. *On September 10 and 16, 1997, the health physics staff did not forward completed documentation for radiological surveys of the clean waste filter transfer room to the duty health physics supervisor for review and signature.*

ATTACHMENT 3

REPLY TO VIOLATION 97015-03 FAILURE TO COMPLY WITH RADIOLOGICAL SURVEY REQUIREMENTS

- b. On September 8 and 10, 1997, the health physics staff did not perform contamination surveys in the Clean Waste Filter Transfer Room after the transfer of waste filters to the filter storage box.*
- c. On September 15 and 16, 1997, the health physics staff did not perform radiation surveys to verify the high radiation area boundary around the filter storage box in the Clean Waste Filter Transfer Room.*

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

CONSUMERS ENERGY COMPANY RESPONSE

Consumers Energy Company agrees with this violation as written, with the exception of the dates given in "item b" above. The Notice of Violation states that, "On September 8 and 10, 1997, the health physics staff did not perform contamination surveys in the Clean Waste Filter Transfer Room after the transfer of waste filters to the filter storage box". This should read, "On September 10, 1997...". This correction is based on details in the Inspection Report which identify activities that in reality were performed on September 7, 1997, and not on September 8, 1997 as described on page 5 of the report. It should be noted that a contamination survey was conducted on September 7, 1997.

Reasons for Violation

Lack of clear Chemistry and Radiological Services (C&RS) management expectations for the performance and documentation of radiological surveys, coupled with inadequate self assessment in the form of routine program monitoring, caused this violation. These causes resulted in several procedure non-compliances in the areas of performing surveys, documenting surveys, and ensuring reviews by the Duty Health Physics (HP) Supervisor.

Corrective Actions Taken and Results Achieved

1. HP Technician performance expectations have been developed and conveyed to all individuals. Management observation of these expectations will be performed and will provide a balance between positive reinforcement and accountability.

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REPLY TO VIOLATION 97015-03 FAILURE TO COMPLY WITH RADIOLOGICAL SURVEY REQUIREMENTS

2. The C&RS organization has been restructured to allow the Duty HP Supervisor to spend more time in the field observing radiological performance and monitoring activities to ensure survey expectations are understood and complied with.
3. Interim guidance for survey performance, documentation and review has been established and communicated to all HP Technicians until formal program guidelines are established.

Corrective Actions Remaining to be Taken to Prevent Further Violations

1. Develop and implement a Radiological Standard for survey performance, documentation and review.
2. A Self-Assessment within the C&RS Department will be conducted to determine continued compliance with management expectations.

Date When Full Compliance Will Be Achieved

With corrective actions taken to convey expectations, restructure our C&RS organization, and implement interim guidance for work performance, Consumers Energy is in full compliance.