



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

September 14, 2016

EA-16-115

Mr. John Merrill
Radiation Safety Officer
Consumers Energy
135 W. Trail Street
Jackson, MI 49201

SUBJECT: NOTICE OF VIOLATION – CONSUMERS ENERGY; NRC ROUTINE INSPECTION
REPORT NO. 03004868/2016001(DNMS)

Dear Mr. Merrill:

This letter refers to the U.S. Nuclear Regulatory Commission (NRC) inspection conducted April 6-7, 2016, at your facility in Jackson, Michigan, with continued in-office review through May 20, 2016. The purpose of the inspection was to review activities performed under your NRC license to ensure that those activities were being performed in accordance with NRC requirements. During the inspection, an apparent violation of NRC requirements was identified. The significance of the issue and the need for lasting and effective corrective actions were discussed with you during the telephonic exit meeting that was held on June 2, 2016.

The apparent violation involved the failure of each radiographer or radiographer's assistant to wear a direct reading dosimeter, an operating alarm ratemeter, and a personnel dosimeter while performing radiographic operations, as required by Title 10 of *the Code of Federal Regulations* (CFR) 34.47(a). Specifically, on April 7, 2016, the licensee's staff used a single device (Mirion DMC2000S) to perform functions of both a direct reading dosimeter and an alarm ratemeter simultaneously. Details regarding the apparent violation were provided in the subject inspection report dated June 22, 2016. The inspection report is available electronically in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession Number ML16174A333.

In the letter transmitting the inspection report, we provided you with the opportunity to address the apparent violation identified in the report by either providing a written response or requesting a Predecisional Enforcement Conference. By letter dated July 20, 2016, you provided a written response (ADAMS Accession Number ML16211A063). In your response, you disagreed with the apparent violation of 10 CFR 34.47(a). You believe the regulation does not specifically require separate devices nor does it prohibit the combination of functionality into a single device. Further, you were concerned that there is no written interpretation stating that an electronic direct reading dosimeter cannot be simultaneously used as an alarm ratemeter. Lastly, you asked to reduce the apparent violation to a non-escalated offense.

We considered the information provided in your response dated July 20, 2016. The NRC's position involving the apparent violation reflects a consultation with the NRC's Office of General Counsel. The staff reviewed the final rule published on May 28, 1997, in volume 62 of the Federal Register (FR), page 28948. The "Supplementary Information," section contains a statement on page 28958, that states, "those electronic personal dosimeters that also have alarm ratemeter capabilities are not to be used as a substitute for alarm ratemeters at the present time." Therefore, the NRC considers the use of a single device to simultaneously serve the functions of both, a direct reading dosimeter and an alarm ratemeter, to be contrary to the requirement in 10 CFR 34.47(a).

Based on the information developed during the inspection, the information you provided in your response dated July 20, 2016, and the NRC staff's review of pertinent information, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The root cause of the violation was misinterpretation of the NRC requirements.

In your response, you also requested the NRC consider reducing the severity level of the violation. The NRC considers the failure to wear personnel monitoring in accordance with 10 CFR 34.47(a) to be a significant safety violation. The agency requires a defense-in-depth approach for dosimetry in industrial radiographic operations. Because of the radiation hazards involved in these operations, any failure to comply with the dosimetry or survey requirements merits consideration for escalated enforcement action. Although there were no actual safety consequences resulting from the failure to comply with the requirements in 10 CFR 34.47(a), there was a potential for significant exposure if the single device used during radiographic operations malfunctioned. Therefore, this violation has been categorized in accordance with the NRC Enforcement Policy at Severity Level III.

In accordance with the NRC Enforcement Policy, a base civil penalty in the amount of \$14,000 is considered for a Severity Level III violation.

Because your facility has not been the subject of an escalated enforcement action within the last two inspections, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section 2.3.4 of the Enforcement Policy. Based on the commitments you made during the exit meeting and information provided in the letter dated July 20, 2016, the NRC has concluded that corrective action credit is warranted. As immediate corrective actions, you equipped each radiographer with a personnel dosimeter and two DMC2000S devices, one serving as a direct reading dosimeter and the other as an alarm ratemeter. Your long term corrective actions included supplying each radiographer with a personnel dosimeter, a calibrated NDS RA-500 alarm ratemeter, and a DMC2000S as a direct reading dosimeter.

Therefore, to encourage prompt and comprehensive correction of violations, and in recognition of the absence of previous escalated enforcement action, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty. In addition, issuance of this Severity Level III violation constitutes escalated enforcement action that may subject you to increased inspection effort.

The NRC has concluded that information regarding: (1) the reason for the violation; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved is already adequately addressed on the docket in the inspection report, and in your response dated July 20, 2016. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room and in ADAMS, accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. The NRC also includes significant enforcement actions on its Web site at <http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions>.

Sincerely,

/RA by Darrell J. Roberts acting for/

Cynthia D. Pederson
Regional Administrator

Docket No. 030-04868
License No. 21-08606-03

Enclosure:
Notice of Violation

cc: State of Michigan

J. Merrill

- 3 -

The NRC has concluded that information regarding: (1) the reason for the violation; (2) the corrective actions that have been taken and the results achieved; and (3) the date when full compliance was achieved is already adequately addressed on the docket in the inspection report, and in your response dated July 20, 2016. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room and in ADAMS, accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. The NRC also includes significant enforcement actions on its Web site at <http://www.nrc.gov/reading-rm/doc-collections/enforcement/actions>.

Sincerely,

/RA by Darrell J. Roberts acting for/

Cynthia D. Pederson
Regional Administrator

Docket No. 030-04868
License No. 21-08606-03

Enclosure:
Notice of Violation

cc: State of Michigan

Distribution:
See next page

ADAMS Accession Number ML16259A161

OFC	RIII	RIII		RIII	RIII	OE	RIII	RIII
NAME	MGryglak	AMcCraw GW for		JGiessner	JHeck	PHolahan ¹	RSkokowski	CPeders
DATE	08/22/16	08/23/16		08/24/16	08/24/16	09/12/16	09/14/16	09/14/16

OFFICIAL RECORD COPY

¹ OE concurrence provided via e-mail from Kerstun Norman on September 12, 2016.

Letter to J. Merrill from Cynthia D. Pederson dated September 14, 2016

SUBJECT: NOTICE OF VIOLATION – CONSUMERS ENERGY; NRC ROUTINE INSPECTION
REPORT NO. 03004868/2016001(DNMS)

Distribution:

RIDSSECYMAILCENTER

OCADistribution

Victor McCree

Glenn Tracy

Patricia Holahan

Robert Fretz

Kerstun Norman

Cynthia Pederson

Darrell Roberts

Edward Williamson

Jody Martin

Scott Moore

Daniel Collins

Michele Burgess

Robert Sun

Sophie Holiday

Brice Bickett

David Gamberoni

Michael Hay

Richard Skokowski

Holly Harrington

Hubert Bell

Kimberly Howell

Jeremy Bowen

David D'Abate

John Giessner

Christina Lipa

Geoffrey Warren

Ed Harvey

Allan Barker

Harral Logaras

James Lynch

Viktoria Mitlyng

Prema Chandrathil

Kenneth Lambert

Paul Pelke

Magdalena Gryglak

Sarah Bakhsh

RidsOeMailCenter Resource

OEWEB Resource

NOTICE OF VIOLATION

Consumers Energy
Jackson, Michigan

Docket No. 030-04868
License No. 21-08606-03
EA-16-115

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted April 6-7, 2016, at your facility in Jackson, Michigan, with continued in-office review through May 20, 2016, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 *Code of Federal Regulations* (CFR) 34.47(a) requires, in part, that the licensee not permit any individual to act as a radiographer or a radiographer's assistant unless, at all times during radiographic operations, each individual wears, on the trunk of the body, a direct reading dosimeter, an operating alarm ratemeter, and a personnel dosimeter that is processed and evaluated by an accredited National Voluntary Laboratory Accreditation Program (NVLAP) processor.

Contrary to the above, on April 7, 2016, at a temporary job site in Haslett, Michigan, the licensee permitted a radiographer and a radiographer's assistant to perform radiographic operations without wearing a direct reading dosimeter, an operating alarming ratemeter, and a personnel dosimeter at all times during radiographic operations. Specifically, each individual wore a device, Mirion DMC2000S, which functioned as a direct reading dosimeter and an alarming ratemeter simultaneously.

This is a Severity Level III Violation (Section 6.3).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved, is already adequately addressed on the docket in NRC Inspection Report no. 03004868/2016001(DNMS) dated June 22, 2016, and in your response dated July 20, 2016. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation, EA-16-115" and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region III, Suite 210, 2443 Warrenville Rd, Lisle IL, within 30 days of the date of the letter transmitting this Notice of Violation (Notice).

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

If you choose to respond, your response will be made available electronically for public inspection in the NRC Public Document Room or in the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Enclosure

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 14th day of September, 2016.