



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

January 22, 2018

EA-17-201

Mr. James Cruickshank  
Radiation Safety Officer  
Prein & Newhof  
3355 Evergreen Drive NE  
Grand Rapids, MI 49525

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 03028571/2017001(DNMS) AND  
NOTICE OF VIOLATION – PREIN & NEWHOF

Dear Mr. Cruickshank:

On November 16, 2017, and November 17, 2017, an inspector from the U.S. Nuclear Regulatory Commission (NRC) conducted a routine inspection at your facilities in Grand Rapids, Cadillac, and Kalamazoo, Michigan, with continued in-office review through January 2, 2018. The purpose of the inspection was to review activities performed under your NRC license to ensure that activities were being performed in accordance with NRC requirements. The in-office review included a review of documentation and corrective actions not available during the onsite inspection. The enclosed inspection report (Enclosure 2) presents the results of the inspection.

During this inspection, the NRC staff examined activities conducted under your license related to public health and safety. Additionally, the staff examined your compliance with the Commission's rules and regulations as well as the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, one apparent violation of NRC requirements was identified and is being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's website at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>. The apparent violation concerned the licensee's failure to use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee, as required by Title 10 of the *Code of Federal Regulations* (CFR) 30.34(i).

Because the NRC has not made a final determination in this matter, the NRC is not issuing a Notice of Violation for this inspection finding at this time. Mr. Edward Harvey of my staff discussed the circumstances surrounding this apparent violation, the significance of the issue, and the need for lasting and effective corrective action with you at the inspection exit meeting on January 4, 2018.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either: (1) respond in writing to the apparent violation addressed in this inspection report within 30 days of the date of this letter; or (2) request a Predecisional Enforcement Conference (PEC).

**Please contact Aaron T. McCraw at 630-829-9650 or [aaron.mccraw@nrc.gov](mailto:aaron.mccraw@nrc.gov) within 10 days of the date of this letter to notify the NRC of your intended response.**

If you choose to provide a written response, it should be clearly marked as "Response to the Apparent Violation in Inspection Report No. 03028571/2017001(DNMS); EA-17-201," and should include, for the apparent violation: (1) the reason for the apparent violation, or, if contested, the basis for disputing the apparent violation; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to avoid further violations; and (4) the date when full compliance was or will be achieved. In presenting your corrective actions, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violation. The guidance in NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be useful in preparing your response. You can find the information notice on the NRC website at: <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/1996/in96028.html>. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. Your response should be sent to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Director, Division of Nuclear Materials Safety, U.S. Nuclear Regulatory Commission, Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision or schedule a PEC.

If you choose to request a PEC, it will afford you the opportunity to provide your perspective on the apparent violation and any other information that you believe the NRC should take into consideration before making an enforcement decision. The topics discussed during the conference may include the following: information to determine whether a violation occurred, information to determine the significance of a violation, information related to the identification of a violation, and information related to any corrective actions taken or planned to be taken. If a PEC is held, the NRC will issue a press release to announce the time and date of the PEC. The PEC will be open to public observation.

Because your facility has not been the subject of escalated enforcement action within the last two inspections, a civil penalty may not be warranted in accordance with Section 2.3.4 of the Enforcement Policy. In addition, based upon the NRC's understanding of the facts and your corrective actions, it may not be necessary to conduct a PEC in order to enable the NRC to make a final enforcement decision. Our final decision will be based on your confirming on the license docket that the corrective actions previously described to the staff have been or are being taken. Please be advised that the number and characterization of the apparent violations described in the enclosed inspection report may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

In addition, the NRC has also determined that one Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy. The violation concerned the licensee's failure to provide recurrent hazmat training at a frequency not to exceed three years in accordance with 10 CFR 71.5(a) and 49 CFR 172.704(c)(2). This violation is cited in the enclosed Notice of Violation (Notice) (Enclosure 1). The NRC is citing this violation in the Notice because the violation was identified by the inspector.

You are required to respond to the enclosed Notice and should follow the instructions specified in the enclosed Notice when preparing your response. The guidance in Information Notice 96-28 may also be helpful in preparing your response to the Notice. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC's Public Document Room or from the NRC's Agency wide Documents Access Management System (ADAMS), accessible from the NRC's website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made publicly available without redaction.

Please feel free to contact Mr. Harvey if you have any questions regarding this inspection. Mr. Harvey can be reached at 630-829-9819.

Sincerely,

**/RA/**

John B. Giessner, Director  
Division of Nuclear Materials Safety

Docket No. 030-28571  
License No. 21-18663-02

Enclosures:

1. Notice of Violation (Notice)
2. IR 03028571/2017001(DNMS)

cc w/encls: State of Michigan

Letter to James Cruickshank from John B. Giessner, dated January 22, 2018

SUBJECT: NRC ROUTINE INSPECTION REPORT NO. 03028571/2017001(DNMS) AND  
NOTICE OF VIOLATION – PREIN & NEWHOF

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DATE	1/18/2018		1/19/2018		1/19/2018		1/22/2018	

**OFFICIAL RECORD COPY**

## NOTICE OF VIOLATION

Prein & Newhof  
Grand Rapids, Michigan

License No. 21-18663-02  
Docket No. 030-28571

During a U.S. Nuclear Regulatory Commission (NRC) inspection conducted on November 16 and 17, 2017, with continued in-office review through January 2, 2018, one violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Title 10 of the *Code of Federal Regulations* (CFR) Section 71.5(a) requires that each licensee who transports licensed material outside the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, shall comply with the applicable requirements of the DOT regulations in 49 CFR Parts 107, 171 through 180, and 390 through 397, appropriate to the mode of transport.

Title 49 CFR 172.702 requires that each hazmat employer shall ensure that each hazmat employee is trained and tested, and that no hazmat employee performs any function subject to the requirements of 49 CFR Parts 171-177 unless trained, in accordance with Subpart H of 49 CFR Part 172. The terms Hazmat Employer and Hazmat Employee are defined in 49 CFR 171.8.

Title 49 CFR 172.704(c)(2) requires, in part, that a hazmat employee receive recurrent training at least once every three years.

Contrary to the above, as of May 12, 2009, the licensee failed to provide recurrent hazmat training, at an interval not to exceed three years, for one portable gauge user who satisfied the requirements of Subpart H to 49 CFR Part 172. Specifically, the gauge user was last provided hazmat training on May 11, 2006.

This is a Severity Level IV violation (Section 6.8).

Pursuant to the provisions of 10 CFR 2.201, Prein & Newhof is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region III, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or its severity level; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to prevent recurrence; and (4) the date when full compliance was or will be achieved. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

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, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

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

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

Dated this 22<sup>nd</sup> day of January 2018.

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.	030-28571
License No.	21-18663-02
Report No.	03028571/2017001(DNMS)
EA No.	EA-17-201
Licensee:	Prein & Newhof
Facilities:	3355 Evergreen Drive NE Grand Rapids, MI 49525  1202 North Mitchell Street Cadillac, MI 49601  7123 Stadium Drive Kalamazoo, MI 49009
Inspection Dates:	November 16, 2017, and November 17, 2017
Exit Meeting Date:	January 4, 2018
Inspector:	Edward Harvey, Health Physicist
Approved By:	Aaron T. McCraw, Chief Materials Inspection Branch Division of Nuclear Materials Safety

## EXECUTIVE SUMMARY

### **Prein & Newhof NRC Inspection Report 03028571/2017001(DNMS)**

This was a routine inspection of an engineering firm authorized under NRC Materials License No. 21-18663-02 to use licensed material for measuring physical properties of materials with nuclear gauging devices. Licensed material is authorized to be used at five locations of use throughout Michigan and a temporary jobsites within NRC jurisdiction. At the time of the inspection, the licensee possessed 21 Troxler Model 3400 Series portable gauges and authorized approximately 37 operators to use them.

During the inspection, the inspector identified an apparent violation of Title 10 of the *Code of Federal Regulations* (CFR) 30.34(i) involving the licensee's failure to use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever the portable gauges were not under the control and constant surveillance of the licensee.

As corrective action for the apparent violation, the licensee: (1) immediately restored compliance by securing the gauge in the permanent storage location in Grand Rapids and by locking the topper on the vehicle in Cadillac to implement a second physical control; and (2) provided all staff with additional chains and locks and provided a description, including photos, of how the gauges shall be secured during transport. Due to the malfunctioning of some topper locks, the licensee will no longer rely on them as a control. Instead, the licensee will use two other independent physical controls to form tangible barriers to secure portable gauges from unauthorized removal, whenever the portable gauges were not under the control and constant surveillance of the licensee.

In addition, the inspector identified one violation of 10 CFR 71.5(a) and 49 CFR 172.704(c)(2) for the licensee's failure to provide recurrent hazmat training to one individual at an interval not to exceed three years. As immediate corrective action, the licensee provided hazmat training to the individual on November 21, 2017.



## **REPORT DETAILS**

### **1.0 Program Overview and Inspection History**

Prein & Newhof is authorized under NRC Materials License No. 21-18663-02 to use licensed material for measuring physical properties of materials with nuclear gauging devices. Licensed material is authorized to be used at five locations of use throughout Michigan and a temporary jobsites within NRC jurisdiction. At the time of the inspection, the licensee possessed 21 Troxler Model 3400 Series portable gauges and authorized approximately 37 operators to use them.

The last NRC inspection of the licensee was on March 21, 2013. During this inspection, one violation of 10 CFR 30.34(i) was identified. Specifically, the licensee had used only one physical control to secure portable gauges from unauthorized removal at its facility in Kalamazoo, Michigan. During the current inspection, the inspector verified that the licensee had implemented its corrective actions. This violation was closed.

The previous inspection of this licensee occurred on October 30, 2008. No violations of NRC requirements were identified during the inspection.

### **2.0 Security of Portable Gauges**

#### **2.1 Inspection Scope**

The inspector reviewed the licensee's policies and procedures for securing portable gauges in storage and in transport.

#### **2.2 Observations and Findings**

On November 16, 2017 and November 17, 2017, during a routine inspection, the inspector identified an apparent violation of 10 CFR 30.34(i) for a failure to use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.

Specifically, on November 16, 2017, the inspector visited the licensee's Grand Rapids facility. The inspector reviewed the utilization log and determined that a portable gauge had been checked out of the storage location on November 9. The operator had been using the gauge locally and storing the gauge in a company truck while it was checked out. The operator had returned to the Grand Rapids facility before the inspector was able to observe the gauge in use; however, the inspector observed the configuration in which the gauge was secured in the truck and noted that there was only one control to prevent removal of the gauge case. When the inspector brought this to the operator's attention, the operator attempted to lock the topper on the bed of the truck to implement a second control, but he could not successfully lock it due to corrosion. The inspector informed the operator who had the gauge checked out since November 9 that he would need to implement an additional control before leaving the vehicle or put the gauge back into storage. The operator chose to secure the gauge in the permanent storage location at the Grand Rapids facility. Between November 9 and November 16, the gauge had been stored in the vehicle, without surveillance of the licensee, on numerous occasions with only one control to prevent unauthorized removal due to the malfunctioning lock. In discussing this observation with the licensee's Radiation Safety Officer (RSO), the RSO explained that some of the locks on the toppers were malfunctioning due to corrosion.

On November 17, 2017, the inspector visited the licensee's Cadillac facility. Upon arriving to the site, the inspector observed a truck with a topper on it that had a gauge inside. The inspector challenged the door of the topper and noted that it was unsecured. The inspector stayed in the parking lot and waited for licensee personnel to arrive. Once the licensee contact arrived, the inspector asked him to open the topper to observe the gauge within the vehicle. The inspector noted that the gauge had only been secured with one control to prevent removal of the case. Once this was brought to the licensee's attention, the licensee immediately locked the topper to implement a second control. The topper lock on this particular vehicle had worked properly.

The inspector identified two separate instances of an apparent violation of 10 CFR 30.34(i), indicating a non-isolated failure to comply with this requirement. In both instances the gauge cases had locks on the hasp to provide a barrier to prevent removal of the gauge from the case. However, there was only one control to prevent removal of the entire case, with the gauge inside, from the vehicle. The inspector determined that the root cause of the apparent violation was a misunderstanding of 10 CFR 30.34(i) in that the licensee was unaware that they needed to use two controls to prevent both the gauge case from being opened and from being removed from the vehicle when not under constant surveillance. The inspector determined that a contributing cause to the violation was reliance on inoperable locks to perform a security function.

As corrective action for the apparent violation, the licensee: (1) immediately restored compliance by securing the gauge in the permanent storage location in Grand Rapids and by locking the topper on the vehicle in Cadillac to implement a second physical control; and (2) provided all staff with additional chains and locks and provided a description, including photos, of how the gauges shall be secured during transport. Due to the malfunctioning topper locks, the licensee will no longer rely on them as a control. Instead, the licensee will use two other independent physical controls to form tangible barriers to secure portable gauges from unauthorized removal, whenever the portable gauges were not under the control and constant surveillance of the licensee.

On November 17, 2018, the inspector visited the licensee's location in Kalamazoo and verified that corrective actions were implemented for a previous violation of 10 CFR 30.34(i) in which the licensee failed to use a minimum of two independent physical controls to secure portable gauges within its storage location, when not under constant surveillance of the licensee. The inspector determined that there were no recurrences of compliance issues with gauges at permanent storage locations and closed the previous violation.

## 2.3 Conclusions

The inspector identified an apparent violation of 10 CFR 30.34(i) in which the licensee failed to use a minimum of two independent physical controls that form tangible barriers to secure portable gauges, when the gauges were not under the control and constant surveillance of the licensee.

### **3.0 Other Areas Inspected**

#### **3.1 Inspection Scope**

During the inspection, the inspector reviewed the elements of the licensee's radiation safety program including the following: records of the physical inventories, leak tests, training, and dosimetry records.

#### **3.2 Observations and Findings**

The inspector visited the main office in Grand Rapids and reviewed documentation pertinent to the licensee's radiation safety program including dosimetry, leak tests, inventories, utilization logs, program audits, and nuclear gauge user training records. Dosimetry records for all locations under this license were maintained at this location and indicated no exposures above regulatory limits. At the time of the inspection, all gauge use at temporary jobsites had been completed for the day; however, licensee personnel demonstrated adequate knowledge of radiation safety principles and emergency procedures in the event of an incident through interviews with the inspector.

At the Cadillac and Kalamazoo facilities, the inspector reviewed the respective utilization logs and verified the licensee's inventories. In addition, the inspector conducted independent surveys at all three locations, which revealed no readings that would indicate residual contamination or exposures to members of the public in excess of regulatory limits.

During a review of the licensee's hazmat training records, the inspector identified a current gauge operator who last received hazmat training on May 11, 2006. Title 10 CFR 71.5(a) requires, in part, that each licensee who transport licensed material outside the site of usage shall comply with the applicable requirements of the U.S. Department of Transportation regulations in 49 CFR Parts 107, 171 through 180, and 390 through 397, appropriate to the mode of transport. Title 49 CFR 172.704(c)(2) requires, in part, that a hazmat employee receive recurrent training at least once every three years.

The inspector identified the licensee's failure to provide recurrent hazmat training at an interval not to exceed three years as a violation of the aforementioned requirements. The inspector determined that the root cause of the violation was a management oversight of the training status of all gauge operators. As immediate corrective action, the individual received hazmat training on November 21, 2017.

#### **3.3 Conclusions**

The inspector reviewed the elements of the licensee's radiation safety program and identified one violation of NRC requirements for failure to provide recurrent hazmat training at an interval not to exceed three years, as required by 10 CFR 71.5(a) and 49 CFR 172.704(c)(2).

#### **4.0 Exit Meeting Summary**

The inspector presented preliminary inspection findings following the onsite inspection on November 17, 2017. The inspector conducted a final exit meeting by telephone with the licensee on January 4, 2018. The licensee did not identify any documents or processes reviewed by the inspectors as proprietary. The licensee acknowledged the findings presented.

#### **LIST OF PERSONNEL CONTACTED**

Chris Cruickshank  
# James Cruickshank  
Fernando Souto  
David Vriesman

# Participated in final telephonic exit meeting on January 4, 2018.

#### **INSPECTION PROCEDURES USED**

87124: Fixed and Portable Gauge Programs