



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

April 20, 2022

EA-22-020
EN 55577
NMED No. 210484 (open)

Mr. William Witzig
Radiation Safety Officer/Owner
Alt & Witzig Engineering, Inc.
4105 West 99th Street
Carmel, IN 46032

SUBJECT: NRC REACTIVE INSPECTION REPORT NO. 03035111/2021002(DNMS) – ALT
& WITZIG ENGINEERING, INC.

Dear Mr. Witzig:

This letter refers to the inspection conducted on November 17-18, 2021, at your Carmel, Indiana facility, with continued in-office review through March 17, 2022. The purpose of the inspection was to review activities performed under your U.S. Nuclear Regulatory Commission (NRC) license to ensure that activities were being performed in accordance with NRC requirements. The in-office review included a review of the circumstances surrounding the event you reported on November 15, 2021, (Event Notification 55577) and your written follow-up report dated December 9, 2021, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22062A144). The enclosed inspection report presents the results of the inspection. A final exit briefing was conducted telephonically with you on March 28, 2022.

Based on the results of this inspection, two apparent violations of NRC requirements were identified and are 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 violations concerned your failure to appropriately secure a portable nuclear gauge when it was not under the control and constant supervision of a licensee employee, as required by Title 10 of the Code of Federal Regulations (10 CFR) 20.1802 and 10 CFR 30.34(i), and to secure the gauge to prevent accidental or unauthorized removal of the source from its shielded position by not locking the gauge when not under the direct surveillance of an authorized user, as required by License Condition 17 of your NRC License 13-18685-02.

Because the NRC has not made a final determination in this matter, the NRC is not issuing a Notice of Violation for these inspection findings at this time. Mr. Jason Draper of my staff discussed the circumstances surrounding these apparent violations, the significance of the

issues, and the need for lasting and effective corrective action with you during the inspection exit meeting on March 28, 2022.

Since the apparent violations involve the loss of a device containing 8 millicuries of cesium-137 and 40 millicuries of americium-241, the NRC is considering proposing imposition of a civil monetary penalty. Consistent with Section 2.3.4, Civil Penalty, of the NRC Enforcement Policy, for violations where a licensee has lost required control of its regulated licensed material for any period of time, the NRC normally will impose at least a base civil penalty. The base civil penalty amount is based on approximately three times the expected average cost of authorized disposal of licensed material; however, the NRC may exercise its discretion to mitigate or escalate a civil penalty amount based on the merits of a specific case. Therefore, you may provide information regarding the actual expected cost of authorized disposal for the NRC to consider in making a final enforcement decision. However, the NRC will not normally decrease the civil penalty to an amount below the lowest base civil penalty for such cases.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either: (1) respond in writing to the apparent violations addressed in this inspection report within 30 days of the date of this letter; (2) request a Predecisional Enforcement Conference (PEC); or (3) request Alternate Dispute Resolution (ADR). If a PEC is held, it will be open for public observation and the NRC will issue a press release to announce the time and date of the conference. **Please contact Mr. Michael Kunowski, Chief of the Materials Inspection Branch, at 630-829-9618 or Michael.Kunowski@nrc.gov within ten 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 Violations in Inspection Report No. 03035111/2021002(DNMS); EA-22-020," and should include, for each 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. 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 NRC's Document Control Desk, Washington, DC 20555-0001, with a copy mailed to the NRC Region III Office, 2443 Warrenville Road, Suite 210, Lisle, Illinois 60532, within 30 days of the date of this letter. 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 violations and any other information that you believe the NRC should take into consideration before making an enforcement decision. The topics discussed during the PEC 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.


You may also request ADR with the NRC in an attempt to resolve this issue. ADR is a general term encompassing various techniques for resolving conflicts using a third party neutral. The technique that the NRC has decided to employ is mediation. Mediation is a voluntary, informal process in which a trained neutral (the "mediator") works with parties to help them reach resolution. If the parties agree to use ADR, they select a mutually agreeable neutral mediator who has no stake in the outcome and no power to make decisions. Mediation gives parties an opportunity to discuss issues, clear up misunderstandings, be creative, find areas of agreement, and reach a final resolution of the issues. Additional information concerning the NRC's program can be obtained at <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr.html>. The Institute on Conflict Resolution (ICR) at Cornell University has agreed to facilitate the NRC's program as a neutral third party. **Please contact ICR at 877-733-9415 within 10 days of the date of this letter if you are interested in pursuing resolution of this issue through ADR.**

In addition, 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 accordance with the NRC's "Rules of Practice" in 10 CFR 2.390, a copy of this letter, its enclosure, and any response you provide 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, any 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. Draper of my staff if you have any questions regarding this inspection. Mr. Draper can be reached at 630-829-9839.

Sincerely,

 Signed by Brock, Kathryn
on 04/20/22

Kathryn M. Brock, Acting Director
Division of Nuclear Materials Safety

Docket No. 030-35111
License No. 13-18685-02

Enclosure:
Inspection Report No. 03035111/2021002(DNMS)

cc w/encl: Mark Herber, Senior Project Engineer
State of Indiana

Letter to William Witzig from Kathryn M. Brock dated, April 20, 2022.

SUBJECT: NRC REACTIVE INSPECTION REPORT NO. 03035111/2021002(DNMS) – ALT
& WITZIG ENGINEERING, INC.

DISTRIBUTION w/encl:

Jack Giessner
Mohammed Shuaibi
Kathryn Brock
Joseph Nick
Shelbie Lewman
Kenneth Lambert
MIB Inspectors

ADAMS Accession Number: ML22089A124

OFFICE	RIII-DNMS		RIII-DNMS		RIII-NMSS		OGC	
NAME	JDraper		MKunowski		RSun		TSteinfeldt	
DATE	4/1/2022		4/1/22		4/7/22		4/18/22	
OFFICE	OE		RIII-EICS		RIII-DNMS			
NAME	LSreenivas		KLambert for SLewman		KBrock			
DATE	4/18/2022		4/19/22		4/20/22			

OFFICIAL RECORD COPY

**U.S. Nuclear Regulatory Commission
Region III**

Docket No.	030-35111
License No.	13-18685-02
Report No.	03035111/2021002(DNMS)
EA No./NMED No.	EA-22-020 / 210484
Licensee:	Alt & Witzig Engineering, Inc.
Facility:	4105 West 99th Street Carmel, IN
Inspection Dates:	November 17-18, 2021 – March 17, 2022
Exit Meeting Date:	March 28, 2022
Inspector:	Jason Draper, Health Physicist
Approved By:	Michael Kunowski, Chief Materials Inspection Branch Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

Alt & Witzig Engineering, Inc. NRC Inspection Report 03035111/2021002(DNMS)

On November 17-18, 2021, an inspector from the Nuclear Regulatory Commission (NRC) conducted an onsite reactive inspection of Alt & Witzig Engineering, Inc. (A&W), with continued in-office review through March 17, 2022, to review the circumstances surrounding a licensee-reported event (Event Notification (EN) 55577) in which a portable moisture/density gauge was lost by the licensee on November 13, 2021. The gauge was a Troxler Model 3430 containing an 8-millicurie cesium-137 source and a 40-millicurie americium-241 source.

On November 13, 2021, a licensee gauge technician removed the gauge from its case and unlocked the source rod to prepare it for use at a temporary job site but failed to return it from the tailgate of a licensee pickup truck to its transportation case when the job was cancelled. The gauge likely fell off the truck when the gauge technician left the jobsite and returned home in the truck.

The inspector identified two apparent violations of NRC requirements. The first was an apparent violation of Title 10 of the *Code of Federal Regulations* (10 CFR) 20.1802, which requires that the licensee control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage, and 10 CFR 30.34(i), which requires that each portable gauge licensee 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. The second apparent violation was of Condition 17 of NRC License 13-18685-02, which requires, in part, that the gauge or its container be locked when in transport or storage, or when not under the direct surveillance of an authorized user.

The root cause of the apparent violations was the lack of focus by the gauge technician. Specifically, he became distracted by a conversation with another individual after leaving the gauge unattended on the tailgate of the vehicle. The gauge technician then left the job site in the truck to go home without securing the gauge in its transportation case. During the drive, the gauge technician noticed the tailgate was down and stopped the truck to close it but did not remember that the gauge had been left on the tailgate, and he did not realize that the gauge had fallen off. Two days later, on November 15, 2021, when the gauge technician went to a job site and opened the gauge transport case, which was secured in the bed of the truck, he identified that the gauge was missing. As corrective actions, in addition to trying to recover the gauge, the licensee suspended the gauge technician from operating a nuclear gauge and provided retraining to him and refresher training to all of the licensee's other nuclear gauge users. The licensee also ensured that its other gauges and transportation cases were labeled with the licensee's contact information.

REPORT DETAILS

1 Program Overview and Inspection History

Alt & Witzig Engineering, Inc. is authorized under NRC Materials License No. 13-18685-02 to use licensed material for measuring physical properties of materials with nuclear gauging devices. Licensed material is authorized to be used anywhere in the United States in areas of NRC jurisdiction. The licensee uses the gauges daily for construction engineering projects throughout the State of Indiana. The licensee uses Troxler Model 3400 Series and CPN Model MC Series PORTAPROBE portable gauges, containing cesium-137 and americium-241 sealed sources.

2 Loss of Portable Nuclear Gauge

2.1 Inspection Scope

On November 17-18, 2021, with in-office review through March 17, 2022, the inspector conducted an onsite reactive inspection to review the facts and circumstances surrounding the licensee's November 15, 2021, report (EN 55577) of the loss of a portable gauge. The reactive inspection consisted of interviews of licensee staff, a review of the sequence of events, and a review of the actions the licensee took to recover the gauge.

2.2 Observations and Findings

Based on the licensee's investigation, on November 13, 2021, a licensee gauge technician (user) had removed the gauge (serial number 23266) from its transportation case to prepare it for use at a job site near Exit 101 of I-74 southeast of Indianapolis. The user set the gauge on the tailgate of his vehicle (a licensee pickup truck) and unlocked the source rod in anticipation of performing calibration activities. He then turned his attention away from the gauge to talk to the site superintendent, and during this conversation he moved to the cab of the truck. After approximately one hour, he learned that the job had been cancelled and then drove home from the job site, not remembering he had not put the gauge away. Along the route the user identified that his tailgate was down and stopped to close it but did not realize that the gauge was missing.

The next time the user drove the vehicle and arrived at a job site, on November 15, 2021, he entered the bed of the vehicle and noticed that the container holding the transportation case was not locked and the gauge was no longer in the truck bed. The user immediately notified his supervisor and the Senior Project Engineer. He then returned to the job site where he last used the gauge to search for it and inquire if others at the job site had seen the gauge. The user also retraced his route looking for the gauge on or near the road. Also, the licensee contacted the Indianapolis Police Department to report the loss of the gauge and hung posters along the route but has not been able to recover the gauge.

As a result of this inspection, the inspector identified two apparent violations of NRC requirements. The first was an apparent violation of 10 CFR 20.1802, which requires that the licensee control and maintain constant surveillance of licensed material that is in

a controlled or unrestricted area and that is not in storage, and 10 CFR 30.34(i), which requires that each portable gauge licensee 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. The second apparent violation was of Condition 17 of NRC License 13-18685-02, which requires, in part, that the gauge or its container be locked when in transport or storage, or when not under the direct surveillance of an authorized user. The root cause of the apparent violations was the lack of focus by the gauge technician while preparing to use the gauge. Specifically, the user became distracted when preparing to use the gauge such that he left it unattended on the tailgate of the vehicle and then left the job site without re-securing the gauge in its transportation case. As corrective actions, in addition to trying to recover the gauge, the licensee suspended the user from operating a nuclear gauge and provided retraining to him and refresher training to all other gauge users. The licensee also ensured that gauges and transportation cases were labeled with the licensee's contact information.

The inspector, from his review of the licensee's initial report dated November 15, 2021, of the loss of the gauge and of the subsequently submitted 30-day written report dated December 9, 2021 (ADAMS Accession No. ML22062A144), determined that the licensee had met the reporting requirements of 10 CFR 20.2201.

2.3 Conclusions

The inspector identified two apparent violations: an apparent violation of 10 CFR 20.1802 and 10 CFR 30.34(i) for the licensee's failure to secure the gauge while not under the control and constant supervision of the licensee, and an apparent violation of Condition 17 of NRC License 13-18685-02 for the licensee's failure to lock the gauge or its container when not under the direct surveillance of an authorized user.

3 **Exit Meeting Summary**

The NRC inspector presented preliminary inspection findings following the onsite inspection on March 28, 2022. The licensee did not identify any documents or processes reviewed by the inspector as proprietary. The licensee acknowledged the findings presented.

LIST OF PERSONNEL CONTACTED

- # Mark Herber, Senior Project Engineer
- Adam Smith, Nuclear Gauge Technician
- # William Witzig, Owner and RSO

- # Attended exit meeting on March 28, 2022.

INSPECTION PROCEDURES USED

- IP 87124 "Fixed and Portable Gauge Programs"
- IP 87103 "Inspection of Material Licensees Involved in an Incident or Bankruptcy Filing"