



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

May 27, 2010

EA-10-052

Terry Zenk
President and
Radiation Safety Officer
Apex Surveying, Inc.
P.O. Box 1751
Riverton, Wyoming 82501

SUBJECT: NRC INSPECTION REPORT 030-32073/10-001

Dear Mr. Zenk:

This refers to the unannounced inspection conducted February 11, 2010, at the Apex Surveying, Inc., facility in Riverton, Wyoming. The inspection was an examination of activities conducted under your license as they relate to radiation safety and security, and to compliance with the Commission's rules and regulations, as well as the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel. The inspectors discussed the preliminary inspection findings with you at the conclusion of the onsite portion of the inspection. The NRC conducted a final exit briefing telephonically with you on May 14, 2010. The enclosed report presents the results of this inspection.

Based on the results of this inspection, five apparent violations were identified. The licensee's failure to secure a portable gauge while in storage at the Apex Surveying, Inc., facility in Riverton, Wyoming, is being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html. The four apparent violations being considered for nonescalated enforcement involved the failure to lock a gauge or its case while in storage; the failure to perform periodic radiation program audits; and two failures to comply with Department of Transportation requirements. The Department of Transportation requirements involved shipping papers and hazardous material transportation training. The circumstances surrounding these apparent violations, the significance of the issues, and the need for lasting and effective corrective actions were discussed with you at the preliminary inspection exit briefing on February 11, 2010. As a result, it may not be necessary to conduct a predecisional enforcement conference in order to enable the NRC to make an enforcement decision.

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, or (2) request a predecisional enforcement

conference. If a conference is held, it will be open for public observation. The NRC will also issue a press release to announce the conference. Please contact Ms. Vivian Campbell at 817-860-8287 within 7 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 a "Response to Apparent Violations in Inspection Report 030-32073/10-001; EA-10-052" 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 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 violations. The guidance in the enclosed NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be helpful. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate response is not received within the time specified or the NRC has not granted an extension of time, the NRC will proceed with its enforcement decision or schedule a predecisional enforcement conference.

Since the NRC has not made a final determination in this matter, no Notice of Violation is being issued for these inspection findings at this time. In addition, please be advised that the number and characterization of 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 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, Enclosure 1, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC's Web site 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 available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such information, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information).

Apex Surveying, Inc.
EA-10-052

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Should you have any questions regarding this letter or the enclosed report, please contact Ms. Vivian Campbell, Chief, Nuclear Materials Safety Branch A, at (817) 860-8287.

Sincerely,

/RA/

Kriss M. Kennedy, Director
Division of Nuclear Materials Safety

Docket: 030-32073
License: 49-27058-01

Enclosures:

1. NRC Inspection Report 030-32073/10-001
2. NRC Information Notice 96-28

cc w/Enclosure 1:
Wyoming Radiation Control Program Director

Internal distribution via e-mail:

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U.S. Nuclear Regulatory Commission
Region IV

Docket: 030-32073
License: 49-27058-01
Report: 030-32073/10-001
EA: EA-10-052
Licensee: Apex Surveying, Inc.
Facilities: Main Office
Location: Riverton, Wyoming
Date: February 11, 2010
Inspectors: Jason Razo, Health Physicist
Nuclear Materials Safety Branch A
Latischa Hanson, Health Physicist
Nuclear Materials Safety Branch A
Approved By: Vivian Campbell, Chief
Nuclear Materials Safety Branch A
Attachment: Supplemental Inspection Information

ENCLOSURE 1

EXECUTIVE SUMMARY

Apex Surveying, Inc.
NRC Inspection Report 030-32073/10-001

This was an unannounced inspection of licensed activities involving the use and storage of byproduct material at the Apex Surveying, Inc. (Apex), facility located in Riverton, Wyoming. The inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel. This report describes the findings of the inspection.

Program Overview

Apex is authorized to use and store byproduct material (cesium-137 and americium-241) in the operation of portable moisture density-gauging devices at its facility located in Riverton, Wyoming, and at temporary job sites in areas of NRC jurisdiction. The licensee possesses one Troxler moisture density gauge for environmental testing. (Section 1)

Inspection Findings Considered for Escalated Enforcement

- The licensee failed to secure a portable gauge properly while in storage. The licensee used only one barrier when a minimum of two are required. This was identified as an apparent violation of 10 CFR 30.34(i). (Section 2.2)

Escalated Enforcement Corrective Actions

- On February 11, 2010, the licensee installed a second hasp and lock on the exterior of the gauge storage shed to provide a second independent physical control. (Section 2.4)
- On February 12, 2010, the licensee trained all gauge users in gauge security procedures. (Section 2.4)
- On April 08, 2010, the licensee committed to provide annual refresher training in gauge security procedures to all gauge users and committed to provide security training to new gauge users prior to initial use of the gauge. (Section 2.4)

Inspection Findings Not Considered for Escalated Enforcement

- The licensee failed to lock the gauge or its container when in storage. This was identified as an apparent violation of License Condition 16 of Amendment 2 to NRC License 49-27058-01. (Section 3.2)
- The licensee failed to perform periodic audits of the radiation safety program. This was identified as an apparent violation of 10 CFR 20.1101(c). (Section 3.2)
- The licensee failed to have the correct identification number on shipping papers as required by Department of Transportation regulations. This was identified as an apparent violation of 10 CFR 71.5 and 49 CFR 172.202(a) and (b). (Section 3.2)

- The licensee failed to ensure all hazmat employees received recurrent hazmat training as required by Department of Transportation regulations. This was identified as an apparent violation of 10 CFR 71.5 and 49 CFR 172.704(c)(2). (Section 3.2)

Nonescalated Enforcement Corrective Actions

- On February 11, 2010, the licensee took immediate corrective actions and locked the portable gauge plunger. (Section 3.4)
- In addition, the licensee committed to updating the identification number on the shipping papers, committed to performing an annual radiation protection program audit, and committed to providing hazardous material transportation training to all portable gauge users. (Section 3.4)

Report Details

1 Program Overview (87124 and 86740)

1.1 Inspection Scope

The inspectors reviewed the license and supporting documentation, interviewed licensee staff, and examined the storage location at the Apex facility at Riverton, Wyoming, on February 11, 2010. Collectively, the documents reviewed described the licensee's implementation of its NRC license requirements and its radiation safety and security program.

1.2 Observations and Findings

Apex operates an engineering consulting business from its main office in Riverton, Wyoming. Apex possesses an NRC specific materials license to use portable nuclear density gauges in NRC jurisdiction and has two authorized users at its Riverton office. The inspectors confirmed that licensed activities were limited to those authorized on NRC License 49-27058-01.

2 Apparent Violation Considered for Escalated Enforcement (87124 and 86740)

2.1 Inspection Scope

The inspectors assessed the licensee's implementation of the NRC's gauge security requirements when the portable gauge is not under the surveillance of an authorized user. The inspectors interviewed licensee staff, reviewed procedures, and observed the physical storage of a portable gauge in the licensee's permanent storage facility in Riverton, Wyoming.

2.2 Inspection Observations and Findings

10 CFR 30.34(i) requires that each portable gauge licensee shall 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.

On February 11, 2010, the inspectors arrived at the Apex office in Riverton, Wyoming, to conduct an unannounced inspection. The radiation safety officer (RSO) gave the inspectors a tour of the gauge storage location. The portable gauge was stored in a shed behind the main office building on Apex's property. A hasp with a secured padlock was on the door of the shed to provide security. The RSO maintained the key to the padlock. The RSO opened the shed and verified that the gauge was in its transportation case. The inspectors took confirmatory radiation measurements using a Thermo Electron Corp Radeye G radiation survey instrument, NRC Serial Number 086965 (calibration due April 28, 2010), and they confirmed that the radioactive sources were present in the portable gauge.

The inspectors asked the RSO if any other tangible barriers were used to secure the gauge besides the hasp with padlock. The RSO stated that the fence surrounding the perimeter of the property was locked after business hours to provide a second independent physical control. The inspectors asked if there were times when all licensee staff was out of the office during business hours when the perimeter fence was not secured. The RSO stated that there had been occasions when all employees were either at a job site or otherwise away from the office. In an electronic mail dated March 3, 2010, the RSO confirmed that on February 10, 2010, the perimeter fence was unlocked, and there were no licensee employees present to provide constant surveillance over the portable gauge stored in the shed.

Based on the February 11, 2010, inspection findings, the inspectors determined that the licensee failed to maintain adequate control of their portable gauge. The licensee's failure to use a minimum of two independent physical controls that form tangible barriers to secure the portable gauge from unauthorized removal, whenever the portable gauge was not under the control and constant surveillance of the licensee, was identified as an apparent violation of 10 CFR 30.34(i). (030-32073/10-001-01)

2.3 Conclusions

The inspection identified an apparent failure to secure a portable gauge while in storage at the Apex facility in Riverton, Wyoming, with a minimum of two independent physical controls. This was identified as an apparent violation of 10 CFR 30.34(i).

2.4 Corrective Actions

On the day of the inspection, the licensee installed a second hasp and lock on the exterior of the gauge storage shed to provide a second independent physical control. As a result, the licensee secured the portable gauge, within the shed, with two independent physical controls forming tangible barriers to prevent unauthorized access to the stored gauge.

The RSO, who was also one of the two authorized users, retrained the second authorized user on security regulations relating to portable gauges on February 12, 2010. This training included acceptable methods for complying with the regulations at the licensee's location in Riverton, Wyoming, and at temporary job sites.

In addition, in a telephone conversation with the inspector on April 8, 2010, the licensee committed to provide annual refresher training in gauge security procedures to all gauge users and committed to provide security training to new gauge users prior to initial use of the gauge.

3 Apparent Violations Considered for Nonescalated Enforcement (87124 and 86740)

3.1 Inspection Scope

Licensed activities were examined as they relate to the safety and security of the radioactive material and the licensee's policies and procedures for handling licensed materials. The inspectors evaluated training, shipping/transporting, posting, labeling, and storage of licensed material.

3.2 Inspection Observations and Findings

License Condition 16 of Apex's NRC materials license states that each portable gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport or storage or when not under the direct surveillance of an authorized user.

During the inspection, the licensee gave the inspectors a tour of the gauge storage area. When the licensee unlocked the shed where the gauge was stored, the inspectors observed that neither the portable gauge nor the outer container was locked. This was identified as an apparent violation of license condition 16 of NRC License 49-27058-01. (030-32073/10-001-02)

10 CFR 20.1101(c) requires that the licensee shall periodically (at least annually) review the radiation protection program content and implementation. The inspectors asked the licensee if an audit of the radiation protection program had been performed in the last few years. The licensee stated that no formal review of the radiation protection program had been conducted or documented since the last NRC inspection in 2004. This was identified as an apparent violation of 10 CFR 20.1101(c). (030-32073/10-001-03)

10 CFR 71.5 requires, in part, that NRC licensees comply with applicable requirements of the Department of Transportation regulations in Title 49 of the Code of Federal Regulations.

49 CFR 172.202(a) and (b) require, in part, with exceptions not applicable here, that the shipping description of a hazardous material on the shipping paper include, in the following sequence: (1) the identification number prescribed for the material as shown in Column 4 of the 172.101 table, (2) the proper shipping name prescribed for the material in 172.101 and (3) the hazard class prescribed for the material as shown in Column 3 of the 172.101 table. The inspectors reviewed the shipping paper that had accompanied the most recent gauge shipment. The shipping paper included the identification number UN2974 instead of UN3332 as required for radioactive material, Type A package, special form nonfissile or fissile-excepted. UN2974 is an expired identification number that no longer is used to identify hazardous material on shipping papers. The last shipment using the incorrect identification number was on November 13, 2009. On that day, the gauge was used at a temporary job site and was transported by public highway. The licensee confirmed that previous shipments also had been accompanied by shipping papers with the wrong identification number. This was identified as an apparent violation of 49 CFR 172.202(a) and (b). (030-32073/10-001-04)

49 CFR 172.704(c)(2) states, in part, that a hazmat employee receive hazmat training at least once every 3 years. 49 CFR 172.702(d) requires, in part, that hazmat employees are tested by appropriate means on the training subjects covered in 49 CFR 172.704. The licensee periodically reviews the Operating and Emergency Procedures with the authorized gauge users. The procedures include a section on transportation. The transportation section review did not meet all the requirements of the training specified in 49 CFR 172.704(a). Specifically, there was no test associated with the procedure review. This was identified as an apparent violation of 49 CFR 172.704(c)(2). (030-32073/10-001-05)

3.3 Conclusions

The inspectors identified four apparent violations that are being considered for nonescalated enforcement. These apparent violations included the licensee's failure to: (1) lock the gauge or its case while in storage, (2) perform periodic radiation program audits and comply with Department of Transportation requirements related to (3) shipping papers and (4) hazardous material transportation training.

3.4 Corrective Actions

On the day of the inspection, the licensee locked the portable gauge plunger. This lock placed the licensee back into compliance with License Condition 16 of their NRC materials license.

In addition, the licensee committed to updating the identification number on the shipping papers, committed to performing annual radiation protection program audits, and committed to providing hazardous material transportation training to all portable gauge users.

4 **Exit Meeting Summary**

A preliminary exit briefing was conducted with the RSO at the conclusion of the on site inspection. A final telephonic exit briefing was conducted with the RSO on May 14, 2010, to review the inspection findings as presented in this report. He acknowledged the inspectors' findings. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Terry Zenk, President/Radiation Safety Officer

INSPECTION PROCEDURES USED

87124 Fixed and Portable Nuclear Gauges
86740 Inspection of Transportation Activities

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

030-32073/10-001-01	APV	Apparent violation involving 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.
030-32073/10-001-02	APV	Apparent violation involving the failure to lock the gauge plunger or case while in storage.
030-32073/10-001-03	APV	Apparent violation involving the failure to perform periodic audits of the radiation safety program.
030-32073/10-001-04	APV	Apparent violation involving the failure to have the correct identification number on the transportation shipping papers.
030-32073/10-001-05	APV	Apparent violation involving the failure to provide hazardous materials transportation refresher training.

Closed

None

Discussed

None

LIST OF ACRONYMS USED

CFR	<i>Code of Federal Regulations</i>
EA	Enforcement Action
NRC	Nuclear Regulatory Commission
RSO	Radiation Safety Officer
APV	Apparent Violation