



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

September 08, 2023

EA-23-064

Brent Witte, Chief Financial Officer
Century Geophysical, LLC
1223 South 71st East Avenue
Tulsa, OK 74112

SUBJECT: CENTURY GEOPHYSICAL, LLC - NRC INSPECTION REPORT 030-11376/2022-001

Dear Brent Witte:

This letter refers to the announced routine inspection that was conducted on December 13, 2022, at your facility in Tulsa, Oklahoma, with subsequent inspections on March 29, 2023, at your field office in Gillette, Wyoming, and on April 25, 2023, again in Tulsa, Oklahoma. The inspection continued with in-office review through July 27, 2023. The inspection was conducted to examine activities conducted under your license as they relate to public health and safety and to confirm compliance with the U.S. Nuclear Regulatory Commission (NRC) rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of an examination of selected procedures and representative records, observation of licensed activities, independent radiation measurements, and interviews with personnel. The inspectors discussed preliminary inspection findings with your staff at your field office on March 29, 2023, and with you and your staff on April 25, 2023. The enclosed report presents the results of this inspection. A final exit meeting was conducted with you and your staff on August 24, 2023.

Based on the results of this inspection, seven apparent violations 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 involved the failure to: (1) secure licensed material from unauthorized removal or access; (2) properly train and evaluate well logging supervisors; (3) perform radiation surveys prior to transporting licensed material; (4) evaluate personnel dosimetry at least quarterly and promptly after replacement; (5) perform annual job performance audits of well logging supervisors; (6) maintain required documents and records at field stations. and inspections; and (7) document semiannual equipment maintenance. The circumstances surrounding these apparent violations, the significance of the issues, and the need for lasting effective corrective actions were discussed with you and your staff during the exit meeting on August 24, 2023.

The inspection results indicate that there is inadequate management oversight at Century Geophysical's field office in Gillette, Wyoming. Your radiation protection program was impacted when your previous long-term Radiation Safety Officer changed roles. The NRC has not seen the prioritization of resources to assist your new Radiation Safety Officer to ensure adequate oversight at the field office, make necessary updates to your radiation safety procedures, or

provide your staff in Gillette, Wyoming, the training necessary to implement that change. Therefore, the NRC is concerned about Century Geophysical's ability to effectively provide oversight at the field office for the radioactive materials in its possession, exhibited by the multiple violations identified during this inspection.

Before the NRC makes its enforcement decision, we are providing you an opportunity to: (1) respond in writing to the apparent violations addressed in the inspection report within 30 days of the date of this letter; (2) request a predecisional enforcement conference (PEC); or (3) request alternative dispute resolution (ADR) mediation. If a PEC is held, it will be open for public observation and the NRC may issue a press release to announce the time and date of the conference. Please contact Dr. Lizette Roldán-Otero, Chief, Materials Inspection Branch, at 817-200-1455 or Lizette.Roldan-Otero@nrc.gov within 10 days of the date of this letter to notify the NRC of your intended response to either provide a written response, participate in a PEC, or pursue ADR. A PEC should be held within 30 days and an ADR session within 45 days of the date of this letter.

If you choose to provide a written response, it should be clearly marked as a "Response to Apparent Violations in NRC Inspection Report 030-11376/2022-001; EA-23-064" 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; and (4) the date when full compliance will be achieved. Your response may reference or include previously docketed correspondence if the correspondence adequately addresses the required response. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the public without redaction.

Your written response, should you choose to provide one, should be emailed to R4Enforcement@nrc.gov within 30 days of the date of this letter, and hard copies may be sent to: U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, and to Director, Division of Radiological Safety & Security, Region IV, 1600 East Lamar Boulevard, Arlington, TX 76011. 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, the conference will afford you the opportunity to provide your perspective on these matters and any other information that you believe the NRC should take into consideration before making an enforcement decision. The decision to hold a PEC does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference would be conducted to obtain information to assist the NRC in making an enforcement decision. The topics discussed during the conference may include 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.

In lieu of a written response or PEC, you may request ADR with the NRC in an attempt to resolve these issues. Alternative dispute resolution is a general term encompassing various techniques for resolving conflicts using a neutral third party. The technique that the NRC has decided to employ is mediation. Mediation is a voluntary, informal process in which a trained neutral 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 at Cornell University has agreed to facilitate the NRC's program as a neutral third party. Please contact the Institute on Conflict Resolution at 877-733-9415 within 10 days of the date of this letter if you are interested in pursuing resolution of these issues through ADR. Alternative dispute resolution sessions are not conducted with public observation though the outcome of the ADR agreement is made public.

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 NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be helpful in preparing your response (Agencywide Documents Access and Management System (ADAMS) Accession No. ML061240509).

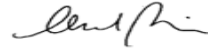
Please be advised that the number and characterization of the apparent violations described in the enclosed inspection report may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

In addition, the violation documented in the NRC letter dated August 11, 2020 (ML20231A647), was adequately addressed by the corrective actions taken, and the violation is now considered closed as documented in Section 2.9 of the enclosed report.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," 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 or in the NRC's ADAMS, accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the public without redaction.

If you have any questions concerning this matter, please contact Dr. Lizette Roldán-Otero of my staff at 817-200-1455.

Sincerely,



Rivera-Varona, Aida signing on behalf
of Miller, Geoffrey
on 09/08/23

Geoffrey B. Miller, (Acting) Director
Division of Radiological Safety & Security

Docket No. 030-11376
License No. 35-04017-04

Enclosure:
NRC Inspection Report 030-11376/2022-001

cc w/Enclosure:

Keisha Cornelius
Environmental Programs Manager
Radiation Management Section
keisha.cornelius@deq.ok.gov

Dillon Conner
Radiological Program Manager
Wyoming Office of Homeland Security
Dillon.Conner@wyo.gov

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CENTURY GEOPHYSICAL LLC - NRC INSPECTION REPORT 030-11376/2022-001 - DATED SEPTEMBER 08, 2023

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ADAMS ACCESSION NUMBER **ML23237B466**

SUNSI Review: ADAMS: Non-Publicly Available Non-Sensitive Keyword: NRC-002
 By: JCD Yes No Publicly Available Sensitive EA-23-064

OFFICE	MIB	MIB	MIB	MIB	ACES
NAME	MKawasmi	JDykert	JThompson	LRoldan-Otero	JGroom
SIGNATURE	/RA/ E	/RA/ E	/RA/ E	/RA/ E	/RA/ E
DATE	08/09/23	08/09/23	08/28/23	08/29/23	08/28/23
OFFICE	RC	NMSS	OE	OGC	DRSS
NAME	DCylkowski	MBurgess	PSnyder	RAugustus	GMiller
SIGNATURE	/RA/ E	/RA/ E	/RA/ E	NLO	AVR for GMB
DATE	08/29/23	09/07/23	09/07/23	09/06/23	09/08/23

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**U.S. NUCLEAR REGULATORY COMMISSION
REGION IV**

Docket No.: 030-11376

License No.: 35-04017-04

Inspection Report No.: 030-11376/2022-001

EA No.: EA-23-064

Licensee: Century Geophysical, LLC

Locations Inspected: 5361 Swanson Road, Gillette, Wyoming, and
1223 South 71st East Avenue, Tulsa, Oklahoma

Inspection Dates: December 13, 2022, through July 27, 2023

Exit Meeting Date: August 24, 2023

Inspectors: Mohanned Kawasmi, Health Physicist
Materials Inspection Branch
Division of Radiological Safety & Security

Jason Dykert, Health Physicist
Materials Inspection Branch
Division of Radiological Safety & Security

Janine F. Katanic, PhD, CHP, Senior Health Physicist
Materials Inspection Branch
Division of Radiological Safety & Security

James L. Thompson, Senior Health Physicist
Materials Inspection Branch
Division of Radiological Safety & Security

Approved by: Lizette Roldán-Otero, PhD
Chief, Materials Inspection Branch
Division of Radiological Safety & Security

Attachment: Supplemental Inspection Information

Enclosure

EXECUTIVE SUMMARY
Century Geophysical, LLC
NRC Inspection Report 030-11376/2022-001

On December 13, 2022, the Nuclear Regulatory Commission (NRC) began an announced routine inspection of Century Geophysical, LLC (Century Geophysical or licensee) at its corporate office location in Tulsa, Oklahoma. A subsequent onsite inspection was performed at the field office in Gillette, Wyoming, on March 29, 2023, and again at the corporate office in Tulsa on April 25, 2023, with continued in-office review through July 27, 2023.

Program Overview

Century Geophysical was licensed to conduct well logging operations at temporary job sites in the United States where NRC maintains jurisdiction. The well logging activities performed by Century Geophysical consisted primarily of shallow logging of water wells. The licensee had a corporate office in Oklahoma, an Agreement State, and NRC licensed activities were dispatched out of two locations in Wyoming.

Inspection Findings

The following seven apparent violations were identified and are being considered for escalated enforcement. The apparent violations involved the failure to: (1) secure licensed material from unauthorized removal or access; (2) properly train and evaluate well logging supervisors; (3) perform radiation surveys prior to transporting licensed material; (4) evaluate personnel dosimetry at least quarterly and promptly after replacement; (5) perform annual job performance audits of well logging supervisors; (6) maintain required documents and records at field stations, and (7) document semiannual equipment maintenance.

Corrective Actions

The licensee immediately initiated corrective actions to address the preliminary inspection findings. During the onsite inspection performed on March 29, 2023, the licensee secured licensed material from unauthorized removal or access and immediately implemented changes to its method of securing vehicles with sources stored on them. Many of the corrective actions discussed during the onsite debrief in Gillette, Wyoming, were in progress during the in-office review portion of the inspection. The licensee's additional corrective actions included: (1) re-training of staff and implementing changes to the staff's methods of securing licensed materials while on vehicles; (2) beginning construction of a permanent storage area at the field office; (3) reviewing the training requirements and procedural commitments for well logging supervisors; (4) committing to perform radiation surveys before transporting licensed material; (5) locating unreturned dosimeters and sending them out for analysis; (6) providing Radiation Safety Officer oversight in person at the field office for the radiation protection program and job performance audits; and (7) committing to maintain all required documents and records at the Gillette, Wyoming field office.

REPORT DETAILS

1 Program Overview (Inspection Procedure (IP) 87123)

1.1 Program Scope

Century Geophysical, LLC (Century Geophysical or licensee) is licensed under NRC License 35-04017-04, Docket 030-11376, to conduct well logging operations at temporary job sites in the United States where NRC maintains jurisdiction. The well logging activities performed by Century Geophysical consisted primarily of shallow logging of water wells.

The licensee has its main corporate office in Tulsa, Oklahoma, where the corporate Radiation Safety Officer (RSO) resides, and has a radioactive materials license with the State of Oklahoma. The NRC licensed activities were dispatched out of two locations, one in Buffalo, Wyoming, and the second at a commercial building in Gillette, Wyoming.

1.2 Inspection Scope

The inspectors conducted interviews of licensee personnel, reviewed license requirements, and observed storage locations in order to understand the scope of the licensee's radiation safety program. The inspectors reviewed the following program areas: (1) licensee's controls to ensure licensed materials were secured from unauthorized access or removal; (2) adequacy of well logging assistant and well logging supervisor training program; (3) measures for the safe handling, use, and storage of radioactive materials; (4) radiation dosimetry program; (5) use of radiation monitoring instrumentation; (6) personnel knowledge of radiation safety practices in normal and emergency situations; (7) implementation and management of the radiation protection program; (8) practices to assure that radiation doses were as low as reasonably achievable; and (9) overall radiation safety program effectiveness.

2 Inspection Findings (IP 87123)

2.1 Observations

During the inspection, seven apparent violations of NRC requirements were identified, and one previously identified violation was closed.

2.2 Surveillance Over Licensed Materials

Upon arrival at the Gillette, Wyoming field office on March 29, 2023, the inspectors observed that two licensee vehicles were running with keys in the ignition, unattended, and all doors of the vehicles unlocked. These vehicles were outside of the field office building. The inspectors announced their presence and did not observe any personnel outside or near the vehicles. The inspectors entered through an open door to the shop and continued to announce their presence with no one in the shop area or immediate vicinity of the open shop door. The inspectors observed an office area toward the back corner of the shop area.

The field office manager, who was also a well logging supervisor, emerged from the office area and met with the inspectors. The inspectors immediately confirmed whether

sources were stored on the unlocked running vehicles, and then requested that both vehicles be locked and secured while not under direct supervision. One of the unlocked running vehicles had an approximately 5 curie (Ci) americium-241/beryllium (AmBe) sealed source and an approximately 250 millicurie (mCi) cesium-137 sealed source being stored in the truck bed. The second unlocked running vehicle contained an approximately 1 Ci AmBe sealed source and an approximately 250 mCi cesium-137 sealed source stored in the unattended and unlocked truck bed.

Through discussions with the office manager, the inspectors determined it was a common practice for the vehicles to be left unlocked with sources on them, in the winter when they were warming up. Although these sources were properly secured to the vehicles in transport containers, the vehicles themselves were susceptible to unauthorized removal or access as they were warming up. Additionally, the keys to the source transport containers were kept on the truck keyring that had been left in the ignition. In summary, the licensee left two vehicles running, unlocked and unattended with the keys left in the ignition while storing radioactive materials in the vehicles.

The failure of the licensee to secure these sealed sources from unauthorized removal or access was identified as an apparent violation of 10 CFR 20.1801.

2.2.1 Apparent Violation of 10 CFR 20.1801

Title 10 CFR 20.1801 requires that licensees shall secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas.

Contrary to the above, on March 29, 2023, the licensee failed to secure from unauthorized removal or access licensed materials that were stored in controlled or unrestricted areas. Specifically, the licensee left two vehicles unlocked and unattended with the keys left in the ignition while storing radioactive materials in the vehicles. (030-11376/2022-001-01)

2.3 Qualification of Well Logging Supervisors

A well logging supervisor is an individual who provides personal supervision in the use of licensed material at a temporary jobsite, and is responsible to the licensee for assuring compliance with NRC requirements and the conditions of the license. Logging supervisors' formal training and testing requirements, annual refresher training, and annual job performance audit requirements are found in 10 CFR 39.61 and are also committed to in the license. Individuals permitted to be well logging supervisors must meet these training requirements to be qualified as a supervisor of licensed materials.

The inspectors noted that the licensee had hired and trained two individuals to be well logging supervisors in 2022. The first individual was hired on April 18, 2022. Through interviews with licensee personnel and review of job sheets, the inspectors identified that the licensee permitted this individual to perform work as a well logging supervisor beginning on June 5, 2022. Based on these dates and discussions with the RSO and field office manager, the inspectors determined that the licensee did not have provided the amount of on-the-job training time committed to in the license application and

required by regulation. Additionally, the first individual did not have a documented field evaluation or job performance audit prior to beginning to perform work as a well logging supervisor.

The second individual was hired on July 11, 2022. Through interviews with licensee personnel and review of job sheets, the inspectors identified that the licensee permitted this individual to perform work as a well logging supervisor beginning August 22, 2022. Based on these dates and discussions with the RSO and field office manager, the inspectors determined that the licensee did not have provided the amount of on-the-job training time committed to in the license application and required by regulation. The second individual did not have a documented field evaluation or job performance audit either, prior to performing work as a well logging supervisor.

The failure of the licensee to provide adequate on-the-job training prior to permitting two individuals to act as logging supervisors was identified as an apparent violation of 10 CFR 39.61(a)(3) and License Condition 21.A.

2.3.1 Apparent Violation of 10 CFR 39.61(a)(3) and License Condition No. 21.A

Title 10 CFR 39.61(a)(3) requires, in part, that a licensee may not permit an individual to act as a logging supervisor until that person has completed on-the-job training and demonstrated competence by a field evaluation.

NRC Materials License 35-04017-04, Amendment 38, License Condition 21.A requires, in part, that the licensee conduct its program in accordance with the license application dated November 7, 2018. The license application, Item 8, "TRAINING FOR WELL LOGGING SUPERVISORS AND WELL LOGGING ASSISTANTS," under the section titled "LOGGING SUPERVISOR TRAINING [§39.61(a) and (d)]," for on-the-job training includes: 3 months (520 hours), and 1 month (160 hours) mineral well logging.

Contrary to the above, from April 18 through December 13, 2022, the licensee permitted an individual to act as a logging supervisor prior to completing the on-the job training and demonstrating competence by a field evaluation. Specifically, two individuals began to act as well logging supervisors and did not complete 3 months (520 hours) and 1 month (160 hours) for mineral well logging on-the-job training. The first individual was hired on April 18, 2022, and began working as a well logging supervisor on June 5, 2022; the second individual was hired on July 11, 2022, and began working as a well logging supervisor on August 22, 2022. In both cases, these were periods less than 3 months for required on-the-job training, and neither had a documented field evaluation.
(030-11376/2022-001-02)

2.4 Radiation Surveys Prior to Transporting Licensed Material

The inspectors noted that the licensee had been permanently storing licensed material on the work vehicles instead of storing it in a shielded area at the field office. Because the vehicles had been authorized as a permanent storage location, the licensee failed to realize that radiation surveys were required every time the vehicle was used, since licensed materials were being transported. Through interviews with licensee personnel about daily vehicle use, and review of the licensed material use logs, the inspectors identified that the licensee did not perform radiation surveys prior to transporting licensed material. This was identified as an apparent violation of 10 CFR 39.67(b).

2.4.1 Apparent Violation of 10 CFR 39.67(b)

Title 10 CFR 39.67(b) requires that before transporting licensed materials, the licensee shall make a radiation survey of the position occupied by each individual in the vehicle and of the exterior of each vehicle used to transport the licensed materials.

Contrary to the above, from March 2020 through March 2023, the licensee failed to, before transporting licensed materials, make a radiation survey of the position occupied by each individual in the vehicle and of the exterior of each vehicle used to transport the licensed materials. Specifically, radioactive materials were transported every day the truck was driven because materials were only stored on the truck, but the licensee did not perform surveys prior to transport with the vehicle. (030-11376/2022-001-03)

2.5 Evaluation of Personnel Dosimetry

The inspectors reviewed dosimetry records that the licensee provided and noted that dosimetry records were missing for an individual for two consecutive quarters, between April 2022 to October 2022. Through interviews with licensee personnel, the inspectors identified that the missing record for one of the quarters was due to this individual being assigned a spare dosimeter upon beginning employment, but that spare dosimeter was never returned to the dosimetry vendor for evaluation.

The individual was assigned their own personal dosimeter in the following quarter but subsequently left employment during that monitoring period. The individual's assigned dosimeter was never returned to the dosimetry vendor for evaluation. Once the inspectors brought this to the attention of the licensee, licensee personnel located the unreturned dosimeters and sent them off for evaluation in May 2023.

The licensee's failure to evaluate all personnel dosimeters at least quarterly or promptly after replacement was identified as an apparent violation of 10 CFR 39.65(a).

2.5.1 Apparent Violation of 10 CFR 39.65(a)

Title 10 CFR 39.65(a) requires, in part, that all personnel dosimeters must be evaluated at least quarterly or promptly after replacement.

Contrary to the above, from April through October 2022, the licensee failed to evaluate personnel dosimeters at least quarterly or promptly after replacement. Specifically, the licensee failed to evaluate an employee's personal dosimeter promptly after replacement for two consecutive quarterly monitoring periods and did not return the dosimeters for evaluation. (030-11376/2022-001-04)

2.6 Annual Job Performance Audits of Well Logging Supervisors

An annual job performance audit of each well logging supervisor and logging assistant helps ensure that the NRC's regulations, license requirements, and the licensee's operating and emergency procedures are followed in the field. This audit must include observation of the job performance of each logging supervisor providing personal supervision in the use of licensed materials. The licensee committed in the license application to having a program for inspecting the job performance of each logging supervisor annually.

During discussions with the field office manager and through a review of records, the inspectors noted that job performance evaluations in the field were not performed annually for two well logging supervisors operating out of Wyoming. The most recent performance audit for the two well logging supervisors was done in November of 2020.

The failure of the licensee to perform annual job performance audits of well logging supervisors was identified as an apparent violation of License Condition 21.A.

2.6.1 Apparent Violation of License Condition No. 21.A

NRC Materials License 35-04017-04, Amendment 38, Condition 21.A requires, in part, that the licensee conduct its program in accordance with the license application dated November 7, 2018. In the license application, Item 8, "TRAINING FOR WELL LOGGING SUPERVISORS AND WELL LOGGING ASSISTANTS," under the section titled "ANNUAL JOB PERFORMANCE AUDIT OF WELL LOGGING SUPERVISORS [§39.13(d)]," the licensee committed to inspect each logging supervisor at intervals not to exceed 1 year.

Contrary to the above, from November 2020 through March 2023, the licensee failed to conduct its program in accordance with the license application dated November 7, 2018. Specifically, the licensee did not conduct job performance audits for two well logging supervisors at intervals not to exceed 1 year.
(030-11376/2022-001-05)

2.7 Records Maintained at Field Stations

When the inspectors attempted to review the records required to be kept at the Gillette, Wyoming field office on March 29, 2023, they discovered that many records relating to the licensee's radiation protection program were not available for inspection, neither in hard copy nor electronic format. The licensee had historically kept these records in Tulsa, Oklahoma, at the corporate office with the RSO. Prior to this inspection, the NRC had not inspected at the field office in Gillette, Wyoming, and was not aware that copies were not kept at both office locations.

The failure of the licensee to maintain records at the field office was identified as an apparent violation of 10 CFR 39.73.

2.7.1 Apparent Violation of 10 CFR 39.73

Title 10 CFR 39.73 requires, in part, that each licensee shall maintain the following documents and records at field stations: records of radiation survey instrument calibrations required by 10 CFR 39.33; records of leak test results required by 10 CFR 39.35; utilization records required by 10 CFR 39.39; training records required by 10 CFR 39.61(d); and survey records required by 10 CFR 39.67.

Contrary to the above, from March 2020 through March 2023, the licensee failed to maintain the following documents and records at field stations: records of radiation survey instrument calibrations required by 10 CFR 39.33; records of leak test results required by 10 CFR 39.35; utilization records required by 10 CFR 39.39; training records required by 10 CFR 39.61(d); and survey records required by 10 CFR 39.67.

Specifically, the licensee did not keep records required by 10 CFR 39.73 at the field station in Gillette, Wyoming. (030-11376/2022-001-06)

2.8 Semi-Annual Equipment Inspections and Maintenance

The inspectors discussed how equipment was inspected with the field office manager, who described a periodic inspection but was not sure whether it was performed at least every 6 months. During review of the licensee's "Radiation Inspection Forms" for the years 2020-2023, the inspectors identified that some of the required bi-annual equipment inspections were not documented, and it could not be determined when or if they occurred.

The failure of the licensee to implement its program for documenting semi-annual equipment and maintenance inspections was identified as an apparent violation of License Condition 21.A.

2.8.1 Apparent Violation of License Condition No. 21.A

NRC Materials License 35-04017-04, Amendment 38, Condition 21.A requires, in part, that the licensee conduct its program in accordance with the license application dated November 7, 2018. In the application, Radioactive Source Operations Procedures Technical Report (TR-155), Section XII, "Radioactive Equipment Inspection and Maintenance" Step B, "Records of Equipment Inspections," states, in part, that records of equipment inspections will be documented on the company's "Radiation Inspection Form" at 6-month intervals.

Contrary to the above, from March 2020 through December 2022, the licensee failed to document records of equipment inspections on the company's "Radiation Inspection Form" at 6-month intervals. Specifically, the licensee did not document records of equipment inspections to demonstrate that 6-month equipment maintenance and inspection occurred. (030-11376/2022-001-07)

2.9 Open Violation from the previous NRC Inspection

On March 4, 2020, an announced inspection was conducted at the corporate office in Tulsa, Oklahoma where one violation of NRC requirements was identified. The violation involved failure to provide annual safety reviews for logging supervisors and logging assistants, as required by 10 CFR 39.61(c). This Notice of Violation was communicated in a letter dated June 30, 2020, and the licensee responded with its corrective actions in a letter dated July 14, 2020.

During this inspection, the inspectors reviewed records of annual safety reviews. The inspectors were able to verify that the licensee's implementation of corrective actions afforded safety reviews for logging supervisors and assistants to be performed annually, as required. This violation is considered closed. (030-11376/2020-001-01)

3 Corrective Actions

During the inspection, the licensee initiated several corrective actions to address the preliminary inspection findings, details of which should be forthcoming from the licensee

in response to this inspection report. Many of the corrective actions were in progress during the in-office review portion of the inspection.

In March 2023, the licensee immediately secured licensed material from unauthorized removal or access and immediately implemented changes to its method of securing vehicles with sources stored on them. The licensee also decided that it would not permanently store licensed material on vehicles, but instead store materials at the commercial office building in Gillette, Wyoming. This storage configuration will help ensure that radiation surveys are performed before transporting licensed materials.

The licensee noted that the RSO recently took over the position in 2019, just before the COVID-19 pandemic. Due to pandemic travel restrictions, the RSO was unable to provide onsite oversight of the Wyoming program. The licensee's procedures for training (Licensee procedure TR-155, "Radioactive Source Operations Procedures Technical Report," Section XIII "Training Requirements,") contains a sentence that references an "NRC authorized radiation safety course," but the NRC has not authorized any such course. The licensee plans to review the training program, and its procedures for training and evaluation of well logging supervisors were discussed with the RSO.

Additionally, the licensee discussed providing enhanced RSO oversight at the field office to look at staff dosimetry use and processing, bi-annual equipment inspections, the conduct of annual job performance audits, and ensuring appropriate records were kept at the field office.

4. Exit Meeting Summary

On August 24, 2023, a final exit briefing was conducted telephonically with the licensee's representatives. The licensee acknowledged the inspection findings and did not dispute any of the details presented during the call.

Supplemental Inspection Information

LIST OF PERSONS CONTACTED

Brent Witte, Chief Financial Officer
Miguel Barahona, Radiation Safety Officer
Anthony Marshall, Assistant Radiation Safety Officer
Keith Herrigel, Western Regional Office Manager

INSPECTION PROCEDURES USED

IP 87123 – Well Logging Programs

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

030-11376/2022-001-01	AV	10 CFR 20.1801; Inadequate surveillance over licensed materials
030-11376/2022-001-02	AV	10 CFR 39.61(a)(3); Unqualified well logging supervisors
030-11376/2022-001-03	AV	10 CFR 39.67(b); Radiation surveys not performed prior to transporting licensed materials
030-11376/2022-001-04	AV	10 CFR 39.65(a); Failure to evaluate personnel dose quarterly or promptly after dosimeter replacement
030-11376/2022-001-05	AV	License Condition 21.A; Failure to perform annual job performance audits of well logging supervisors
030-11376/2022-001-06	AV	10 CFR 39.73; Required records not kept at Field Office
030-11376/2022-001-07	AV	License Condition 21.A; Failure to document semi-annual Equipment Maintenance and Inspections

Closed

030-11376/2020-001-01	NOV	10 CFR 39.61(c); Safety reviews were provided for logging supervisors and assistants annually
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Discussed

None

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
ADR	Alternative Dispute Resolution
AmBe	Americium-241/Beryllium
AV	Apparent Violation
CFR	<i>Code of Federal Regulations</i>
Ci	Curie
GPS	Global Positioning System
IP	Inspection Procedure
mCi	millicurie
NOV	Notice of Violation
NRC	U.S. Nuclear Regulatory Commission
PEC	Predecisional Enforcement Conference
RSO	Radiation Safety Officer