UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 14, 2008

Docket No. 03035281 License No. 41-25501-01

Trent B. Smith, P.E.
Project Manager
Southern Consulting, LLC
1208 Highway 47 East
Dickson, TN 37055

SUBJECT: INSPECTION 03035281/2007001, SOUTHERN CONSULTING, LLC, DICKSON, TENNESSEE SITE AND THE FT. CAMPBELL, KENTUCKY SITE, AND NOTICE OF VIOLATION

Dear Mr. Smith:

On June 27, 2007, Craig Gordon of this office conducted a safety inspection at the above address and the Ft. Campbell, Kentucky temporary job site of activities authorized by the above listed NRC license. The inspection was an examination of your licensed activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with personnel, and a selected examination of representative records. The circumstances surrounding the incident which occurred on April 19, 2007 involving one of your authorized gauge users was also reviewed. Additional information provided in the telephone conversations of September 6, 2007 and January 23, 2008 between you and Mr. Gordon was also examined as part of the inspection. The findings of the inspection were discussed with you at the conclusion of the inspection. The enclosed report presents the results of this inspection.

Based on the results of this inspection, the NRC has determined that a Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html.

The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation being cited in the Notice is a violation of Condition 17 of License No. 41-25501-01, because it involved the failure to ensure that a portable nuclear density gauge or its outer container (transport case) was locked when in transport or storage, or when not under direct surveillance of an authorized user.

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed on the docket in the enclosed Inspection Report. Therefore, you are not required to respond to this letter unless the description herein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

If you choose to respond in writing, your response should be clearly marked as a “Response to Violation in Inspection Report No. 03035281/2007001" and should include for the violation the reason for the violation, or, if contested, the basis for disputing the violation. To the extent possible, your response should not include any personal privacy, proprietary, or security sensitive information, so that it can be made available to the public without redaction.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), 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 Web site at http://www.nrc.gov/reading-rm/adams.html.

Please contact Mr. Gordon at 610-337-5216, if you have any questions regarding this matter.

Sincerely,

/RA/

Marie Miller, Chief
Security and Industrial Branch
Division of Nuclear Materials Safety

Enclosure:
1. Inspection Report No. 03035281/2007001
2. Notice of Violation

cc:
State of Tennessee
Brad Rhodes, Ft. Campbell

If you choose to respond in writing, your response should be clearly marked as a "Response to Violation in Inspection Report No. 03035281/2007001" and should include for the violation the reason for the violation, or, if contested, the basis for disputing the violation. To the extent possible, your response should not include any personal privacy, proprietary, or security sensitive information, so that it can be made available to the public without redaction.

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Division of Nuclear Materials Safety

Enclosure:
1. Inspection Report No. 03035281/2007001
2. Notice of Violation

cc:
State of Tennessee
Brad Rhodes, Ft. Campbell

Distribution:
D. J. Holody, RI

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NAME	CGordon czg		MMiller mtm1					
DATE	3/14/08		3/14/08					

NOTICE OF VIOLATION

Southern Consulting, LLC
Dickson, TN

Docket No. 03035281
License No. 41-25501-01

During an NRC inspection conducted on June 27, 2007, one violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

A. Condition 17 of License No. 41-25501-01 requires that each portable nuclear 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, storage or when not under the direct surveillance of an authorized user.

Contrary to the above, on April 19, 2007, near a temporary job site in Ft. Campbell Kentucky, the licensee's portable nuclear gauge and its transport case were not locked during transport.

This is a Severity Level IV violation (Supplement IV).

The NRC has concluded that information regarding the reasons for the violations, the corrective actions taken to correct the violations and prevent recurrence, and the date when full compliance was achieved is already adequately addressed in the letter transmitting this Notice and in the enclosed inspection report. Therefore, no response to this Notice is required. However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region I, 475 Allendale Rd., King of Prussia, PA 19406, within 30 days of the date of this letter. If you choose to provide additional information, clearly mark your response, "Exempt from Public Disclosure in Accordance with 10 CFR 2.390." Security-Related Information is marked so that it will not be made available for public inspection in the NRC Public Document Room or electronically from the NRC's document system (ADAMS).

If you contest this enforcement action, you should also provide a copy of your response with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, any response which contests an enforcement action shall be submitted under oath or affirmation.

If you choose to respond, your response will be exempt from public disclosure in accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," and will not 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 Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room), because disclosure to unauthorized individuals could present a security vulnerability.

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

Dated This _14th_ day of _March_ 2008

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No.	03035281/2007001
Docket No.	03035281
License No.	41-25501-01
Licensee:	Southern Consulting, LLC
Location:	1208 Highway 47 East Dickson, TN 37055
Inspection Dates:	June 27, 2007, September 6, 2007, and January 23, 2008

Inspector: ***/RA/*** _____ ***3/4/08*** _____

Craig Z. Gordon
Senior Health Physicist
date

Approved By: ***/RA/*** _____ ***3/14/08*** _____

Marie Miller, Chief
Materials Security and Industrial Branch
Division of Nuclear Materials Safety
date

Document Name: C:\FileNet\ML080780323.wpd

EXECUTIVE SUMMARY

Southern Consulting, LLC
NRC Inspection Report No. 03025501/2007001

On May 1, 2007, an incident was reported to the NRC related to a vehicle accident which occurred on April 19, 2007 at Ft. Campbell, Kentucky that involved personal injury to the driver, an authorized user of the Southern Consulting, LLC, NRC License No. 41-25501-01. Emergency responders found a CPN International Model MC-1DR-P moisture density gauge at the incident scene which had been transported by the authorized user. The gauge, found by itself away from the vehicle, became separated from the transport case and appeared undamaged. Surveys of the gauge and area showed no unexpected radiation exposure or spread of contamination. On June 27, 2007, Region I performed an unannounced inspection of the licensee's facility located in Dickson, Tennessee and at the Ft. Campbell site to review circumstances surrounding the incident. This report summarizes the inspection results.

The inspector identified one apparent violation:

1. Failure to ensure that a portable nuclear density gauge or its outer container (transport case) is locked when in transport or storage, or when not under direct surveillance of an authorized user is an apparent violation of Condition 17 of License No. 41-25501-01.

A concern was also identified during the inspection which related to the requirements of 10 CFR 30.34(i), security of portable gauges. An authorized user was not familiar with the use of two independent physical controls to secure a portable gauge to the rear bed of pick-up truck when not maintaining constant control and surveillance. In followup discussions with the Radiation Safety Officer, the licensee took prompt and comprehensive corrective actions to prevent an occurrence by reviewing the requirements for maintaining security of gauges with authorized users.

REPORT DETAILS

I. Organization and Scope of the Program

a. Inspection Scope

The inspector reviewed the organization and scope of the radiation safety program.

b. Observations and Findings

NRC License No. 41-25501-01 authorizes the use of portable gauging devices containing sealed sources of cesium-137 and americium-241, of which no single source can exceed the maximum activity specified in the certificate of registration issued by the NRC or an Agreement State. The licensee possesses three Humboldt, one CPN, and one Instrotek portable gauging devices, which are used primarily at the facilities located at the Ft. Campbell, Kentucky military reservation and at temporary job sites where NRC maintains jurisdiction. Other work using the devices within Tennessee is performed under Southern Consulting, LLC's Tennessee license. Mr. Trent Smith is the Radiation Safety Officer (RSO) named on the NRC and Tennessee licenses, and was responsible for overall implementation of the radiation safety program.

c. Conclusions

No violations or safety concerns were identified.

II. Management Oversight of the Program

a. Inspection Scope

The inspector reviewed the management and oversight of the radiation safety program.

b. Observations and Findings

The RSO, who is also the the project manager for the Dickson, Tennessee office supervises gauge users and is also responsible for coordinating job assignments for authorized users in the field. Each gauge user is assigned a gauge and stores the gauge overnight in their personal vehicle when working at temporary job sites during weekdays. Gauges were not stored at the Ft. Campbell site, and were returned to the Tennessee office on weekends. From interviews, the RSO appeared cognizant of NRC regulations and the company's radiation safety program commitments identified in the NRC license.

c. Conclusions

No violations or safety concerns were identified.

III. Material Receipt, Use, Transfer, and Control

a. Inspection Scope

The inspector reviewed the licensee's facilities, material use, control, and the April 19, 2007 incident at Ft Campbell. Kentucky.

b. Observations and Findings

On May 1, 2007, a concern from an individual was reported to the NRC Inspector General Hotline related to a vehicle accident which occurred on April19, 2007 at Ft. Campbell, Kentucky. The accident involved a portable moisture density gauge and personal injury to the driver. After leaving the Ft. Campbell site, the driver of the vehicle while traveling alone was transporting a CPN Model MC-1DR-P moisture density gauge (S/N MD 80604368) in the bed of his pickup truck when the incident occurred. The individual was an authorized user of the licensee.

Local police and fire departments provided immediate response, with on-scene assistance for radiation control activities provided by the Ft. Campbell Garrison Radiation Safety Officer (GRSO). From interviews with the licensee's RSO and the GRSO, and an internal memorandum dated May 2, 2007 issued by the GRSO which documented the incident, the inspector identified the following:

1. When the GRSO arrived at the accident location, he found the authorized user's truck had flipped over and was severely damaged. The authorized user was already taken to the hospital by emergency vehicle. A driver and tow truck had arrived at the scene and were about to remove the vehicle. The GRSO interviewed the tow truck driver and was informed he recovered the dispersed items from the truck including the gauge. The tow truck driver indicated the gauge had been separated from the shipping container. He stated he picked up the gauge by the handle and placed it back into the shipping container. The shipping container containing the gauge was located by the GRSO.

The GRSO's examination of the gauge indicated it did not appear damaged. Radiation survey of the shipping container found radiation levels at approximately 3 mR/hr on contact, with no spread of contamination. Although transport documents were missing, a document was located with the licensee's name and contact information. The GRSO contacted the licensee's RSO to provide information related to the incident.

2. The RSO responded to the scene and met the GRSO. He checked the source mechanism of the gauge and found it operable. The RSO took the gauge and transported it back to the Tennessee office. However, according to the GRSO memorandum, prior to leaving the scene he discussed a security concern with the RSO. The GRSO found that the gauge and shipping container had become dislodged from the vehicle, and were separated when found in a nearby ditch. The handles on the shipping container were not broken, an indication that a chain and lock were not used to secure the gauge and shipping container to the vehicle.

Based upon the severity of the accident, damage to the truck, and condition of the shipping container and gauge when found, it appeared that the shipping container containing the gauge was not properly secured to the authorized user's vehicle while

being transported, as required by License Condition No. 17. The GRSO indicated that the licensee's RSO agreed with his observation. After the accident occurred, control and constant surveillance of the gauge was not maintained until the GRSO responded to the scene, assessed the events, and secured the gauge until the RSO arrived.

3. Since the incident appeared to have occurred on a public access road, the RSO reported the incident to the State of Tennessee the next day, followed by a written report dated April 20, 2007. Followup discussions were also held with NRC staff. Tennessee staff took no action on the matter because it appeared the incident occurred on federal property. The gauge was sent to the licensee's contractor for inspection and leak test. Examination and leak test results indicated no damage or leakage of contamination. The gauge was recalibrated and placed back into service by the licensee.

On June 27, 2007, an unannounced inspection was performed at the licensee's Dickson, Tennessee facilities. The gauge was being maintained in storage and had not been used since the incident. Discussion of the licensee's practice of securing gauges while in storage and during transport in vehicles was discussed with the RSO. At a Ft. Campbell temporary job site the inspector also observed demonstrations by gauge users of the method used to secure the gauge in its transport case to the truck bed. It was found that when pickup trucks were used to transport gauges, shipping containers were placed in the rear bed of the vehicle, then chained and locked to the sides of the vehicle only by the side handles. The lid of the container was not locked.

In order to determine what security orientation was in place at the time of the incident, the inspector requested that the RSO contact the authorized user, who was recovering from the incident and remained out of work. Followup calls to the RSO indicated that he made several attempts to reach the authorized user, but was unable to obtain the requested information. In the telephone discussions held on September 6, 2007, and January 23, 2008, the RSO informed the inspector that several attempts were made to contact the authorized user to discuss the matter but were unsuccessful.

c. Conclusions

Based on interviews of the individuals involved in the incident, areas surveys, and leak test results, it appears that no radiation exposure occurred while the gauge was out of the licensee's control.

However, review of the incident indicates that the gauge was not properly secured when it was being transported. An apparent violation is identified for failure to ensure that a portable nuclear density gauge or its outer container (transport case) is locked when in transport or storage, or when not under direct surveillance of an authorized user as required by Condition 17 of License No. 41-25501-01.

The use of two independent tangible barriers to secure the gauge to the vehicle is not required by 10 CFR 30.34(i) while the gauge is in transport. Failure to secure or control the portable gauge is not being cited because the authorized user sustained severe injuries and was unable to perform followup actions, then was immediately transported from the accident scene by ambulance.

IV. Training of Workers

a. Inspection Scope

The inspector reviewed the gauge user's training and the licensee's training program.

b. Observations and Findings

The inspector verified that the gauge user was trained to use the gauge and that training was current. During an interview with another gauge user at the Ft. Campbell, Kentucky site on June 27, 2007, the gauge user provided a demonstration which described the method used to secure the gauge to the truck bed while the gauge was not under constant control and surveillance. The gauge user attached one side of the transport case to the truck with a chain and then locked it. No other chains, locks, or additional barriers were used in the demonstration. The inspector noted that the licensee also uses closed vehicles to transport portable gauges. A second security demonstration provided by another authorized user showed that two independent tangible barriers were used to secure the portable gauge to the vehicle and no concerns were identified.

No violations of 10 CFR 30.34(i) were observed during the inspection. The inspector explained to the authorized user who provided the demonstration on the pickup truck and to the RSO that it was necessary to secure transport cases in the bed of pickup trucks with two independent physical barriers when the vehicles are not under constant control and surveillance. The RSO provided periodic instructions to gauge users regarding proper handling and transport techniques. On occasion the RSO also inspected gauge users vehicles by visiting field sites and by inspecting vehicles at the Dickson, Tennessee office when available. The RSO indicated he would ensure authorized users were properly trained on the method to secure transport cases to vehicles.

c. Conclusions

No violations were identified which related to training of workers. A concern regarding the licensee's understanding of the additional security requirements of 10 CFR 30.34(i) was identified. The failure to properly secure the transport case is described in Section III of this report.

V. Exit Meeting

The initial findings of the inspection were discussed with the RSO at the conclusion of the inspection. The RSO indicated that he would review the circumstances surrounding the incident and would reinforce the requirements for gauge security during transport. On January 23, 2008, the inspector discussed the results of the inspection and apparent violation identified during the inspection by telephone with the RSO. The RSO indicated the authorized user remained out of work, and that he had informed all portable gauge users of the circumstances surrounding the Ft. Campbell. Kentucky incident and the need to secure gauges with two independent physical barriers, when not maintaining constant control and surveillance.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

#* T. Smith, RSO
W. Woolery, authorized user
V. Harrell, authorized user

#* attended entrance and exit meeting