

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No. 03030462/2004002
Docket No. 03030462
License No. 45-24974-01
Licensee: Engineering Consulting Services, Ltd.
Location: 14026 Thunderbolt Place, Suite 100
Chantilly, VA 20151
Inspection Dates: May 5 and 6, 2004
Date Followup
Information Received: May 10, 2004
May 25, 2004
June 22, 2004

Inspector:	<i>/RA by John Kinneman Acting For/</i>	<i>5/13/05</i>
	_____ N. Jeff Griffis Health Physicist	_____ date
Approved By:	<i>/RA/</i>	<i>5/13/05</i>
	_____ John D. Kinneman, Chief Security and Industrial Branch Division of Nuclear Materials Safety	_____ date

EXECUTIVE SUMMARY

Engineering Consulting Services, Ltd.
NRC Inspection Report No. 03030462/2004002

This reactive, unannounced inspection included discussions with cognizant licensee representatives, observations of licensed storage facilities, and a review of selected records.

The inspection was conducted at the licensee's offices in Chantilly, Virginia. Follow-up conversations were held with the licensee over the telephone on May 10, 2004, May 25, 2004 and June 22, 2004. During the inspection, the inspector determined that the licensee had transferred several portable moisture density gauges containing 40 millicuries (mCi) of cesium-137 (Cs-137) and 10 mCi of americium-241 (Am-241) to Universal Calibrations, which was a company that was contracted to calibrate and repair the licensee's gauges. At the time of the transfers, Universal Calibrations was a company that was not licensed by the NRC or an Agreement State to receive or possess byproduct material. Through discussions with licensee staff, the inspector concluded that these transfers had occurred for roughly one year. Since Engineering Consulting Services (ECS) staff had never verified that the transferee was licensed to receive byproduct material, these transfers were an apparent violation of 10 CFR 30.41©). The inspector also determined that ECS was conducting its own training of gauge operators at the time of the inspection. This was not in accordance with Condition 21 of their NRC license, which states that ECS shall only allow employees to use portable gauges after receiving training from an authorized vendor.

REPORT DETAILS

I. Organization and Scope of the Program

a. Inspection Scope

The inspector interviewed personnel and reviewed selected records to determine the program organization and scope

b. Observations and Findings

At the time of the inspection, the licensee was a large engineering firm with several branch offices located in Virginia and surrounding Agreement States where portable gauges were stored. The company had elected to maintain a separate NRC license for each office located in Virginia, and the Chantilly branch was considered the corporate office. At the time of the inspection, each office listed a separate Radiation Safety Officer (RSO) on their individual licenses, and the company also employed a Corporate RSO that worked out of the Chantilly office.

Through observations and discussions with the Chantilly RSO and the corporate RSO, the inspector determined that the Chantilly office possessed 51 portable moisture density gauges in a secure storage area (including Troxler Model 3400 and 4600 series, and CPN Model MC1 series). According to the RSO, the Chantilly office employed over 30 qualified gauge operators, and the gauges were used on a daily basis as work permitted. The branch RSO stated that all gauges were returned to the storage location at the office at the end of a work day.

c. Conclusions

No violations were identified.

II. Material Receipt, Use, Transfer, and Control

a. Inspection Scope

On May 5, 2004, a special inspection was conducted at the Chantilly, VA office of ECS, Ltd. to determine whether the licensee had transferred portable gauges containing licensed material to a company that was not licensed by the NRC or an Agreement State. The inspection included observations, interviews with knowledgeable ECS staff, and a review of selected records. The inspector also observed the licensee's storage area, and discussed security, use, and transport of licensed material.

b. Observations and Findings

Through discussions with ECS staff and review of licensee documents, the inspector determined that ECS allowed a representative of Universal Calibrations (a Maine based company) to take possession of several portable gauges containing licensed radioactive

sources. The RSO stated that this representative of Universal Calibrations removed the gauges off site in order to complete repairs. After interviewing cognizant ECS staff, the inspector determined that Universal Calibrations did not provide documents showing that the company was licensed by the NRC or an Agreement State to possess and use licensed material. Through discussions with the corporate RSO and a review of the licensee's utilization log, the inspector determined that several gauges had been taken offsite for repair by Universal Calibrations. At the time of the inspection, two gauges were still in the possession of Universal Calibrations (two CPN Model MC1DR gauges, serial numbers MD91005365 and MD00605685). According to licensee records, a Mr. John Myers of Universal Calibrations had picked up these two gauges to transport them to his office in Westbrook, Maine for repair on April 29, 2004. Through subsequent discussions with staff of the Maine Radiation Control Program (MRCP), the inspector determined that Universal Calibrations was not licensed by Maine, or any other Agreement State to possess licensed material on April 29, 2004. According to MRCP inspectors, Universal Calibrations had previously been found in possession of six other portable gauges belonging to ECS (five CPN Model MC1DR devices, serial numbers MD38038117, MD50602685, MD50802771, MD90404951, MD0050561 and one CPN Model MC3 device, serial number M38028083) on April 2, 2004. MRCP staff stated that Universal Calibrations did not possess an NRC or Agreement State license at the time these gauges were found in the Universal Calibration facility in Westbrook, Maine. Through physical observations and a review of the licensee's gauge inventory, the inspector determined that all six of these gauges had been returned to ECS.

The inspector interviewed ECS staff concerning the services that Universal Calibrations provided for ECS. The licensee stated that John Myers of Universal Calibrations was an authorized service and sales representative for CPN International, Inc. Through discussions with the ECS Equipment Managers and Engineers, the inspector determined that John Myers performed testing and calibration of nuclear gauges and non-nuclear engineering equipment at the ECS office. According to the RSO, gauges were taken off site only on infrequent occasions when repairs could not be performed at the ECS office. The licensee also stated that John Myers had provided gauge user training in the past, but ECS had recently organized their own training program that was proctored by the corporate RSO. This was not in accordance with their NRC license, which states that ECS employees shall only use portable gauges after receiving training from an authorized vendor representative. However, the inspector reviewed the course content and qualifications of the instructor, and found that the training met applicable guidance in NUREG 1556, Volume 1, Appendix D. The inspector informed the licensee that ECS should submit a request to amend their license so that the company training would be acceptable for ECS gauge users.

- 1) 10 CFR 30.41©) states that, before transferring byproduct material to a specific licensee of the Commission or an Agreement State or to a general licensee who is required to register with the Commission or with an Agreement State prior to receipt of the byproduct material, the licensee transferring the material shall verify that the transferee's license authorizes the receipt of the type, form, and quantity of byproduct material to be transferred.

10 CRF 30.41(d) further requires that the transferor verifies this by obtaining written documents, rather than oral certification, unless the transfer is an emergency situation.

Contrary to the above, on April 29, 2004, and on other occasions in the past, the licensee transferred portable gauges containing 11 millicuries of Cesium-137 and 40 millicuries of Americium-241 to Universal Calibrations, without verifying that the company was licensed to receive the licensed material. This constituted a transfer of licensed material to a company that was NOT licensed by the NRC or an Agreement State to possess or use byproduct material.

- 2) License Condition 21 states, in part, that the licensee shall conduct its program in accordance with the commitments in the letter dated September 26, 2003.

In the licensee letter dated September 26, 2003, Item 8 states, in part, that licensed material shall be used by individuals who have satisfactorily completed the device manufacturer's training program for safe use of portable gauging devices.

Contrary to the above, at the time of the inspection, the licensee was providing employees with internal training on gauges rather than vendor training.

c. Conclusions

On April 29, 2004, and other undetermined dates in the past, the licensee failed to verify that Universal Calibrations was licensed to receive a portable gauge containing 11 millicuries of Cesium-137 and 40 millicuries of Americium-241. This failure was an apparent violation of 10CFR 30.41(d), and resulted in the transfer of licensed material to a company that did not possess an NRC or Agreement State license to receive byproduct material. The inspector also determined that the licensee was conducting training of gauge users that was not in accordance with their NRC license

III. Exit Meeting

An exit meeting was held at the licensee's Chantilly, VA at the conclusion of the inspection on May 6, 2004. In addition, the inspector requested additional information regarding the inspection from the licensee over the phone on May 10 and 25, 2004 and June 22, 2004, and via email dated May 10, 2004 and June 17, 2004. During the exit, the overall findings from the inspection were discussed, including the apparent violations of NRC regulatory requirements. The licensee was aware that the issues involved were part of an ongoing investigation. The licensee did not offer any dissenting comments.

During the exit meeting and subsequent telephone conversations, licensee representatives did not identify any documents or processes as proprietary in nature.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

- Theodros S. Bekele, Project Engineer
- Leo J. Titus, Vice President
- * Omer Murat Duzyol, RSO
- **Stanley J. Murphy, Corporate RSO
- # Douglas J. Cole, Corporate Counsel

- * Attended exit meeting.
- ** Attended exit meeting and subsequent phone conversation held on May 10, 2004 and June 22, 2004.
- # Attended exit meeting and subsequent phone conversation held on May 25, 2004.

State of Maine Radiation Control Program

Shawn Seeley, Senior Radioactive Materials Inspector