U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No.	03038392/2011001
Docket No.	03038392
License No.	52-31423-01
Licensee:	Del Valle Group
Location:	P.O. Box 2319 Toa Baja, Puerto Rico 00951-2319
Inspection Dates:	October 5, 2010- March 23, 2011
Date Follow up Information Received:	October 27, 2010, February 22, 2011, and March 14, 2011

Inspector: ***/RA/*** _____ ***04/19/11*** _____
Craig Z. Gordon — date
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EXECUTIVE SUMMARY

Del Valle Group
NRC Inspection Report No. 03038392/2011001

On September 30, 2010, the Vice President of Del Valle Group (DVG) reported to the NRC that a Seaman Model C-200 portable moisture density gauge containing up to 5.5 mCi of radium-226 had been missing since the morning of September 29, 2010. The gauge had fallen off a company technician's vehicle while being transported in the municipality of San Lorenzo, Puerto Rico. A local citizen found the gauge and kept it in his possession for a brief period until DVG staff was able to communicate with the individual and arrange for its recovery. The gauge was returned to DVG on September 30, 2010. Examination of the gauge by a DVG consultant found it to be undamaged and operable. A leak test performed on October 1, 2010 was negative for contamination.

On October 5, 2010 through March 23, 2011, Region I performed a safety inspection of Del Valle Group at the company's facility in Tao Baja, Puerto Rico to review the circumstances surrounding the incident. Results of the inspection indicated that DVG's immediate actions in response to the incident were effective, as evidenced by recovery of the gauge by the company in approximately one day. However, one concern was noted. Under the Energy Policy Act of 2005, the NRC assumed the authority for licensing discrete sources of radium-226, and these sources are addressed in 10 CFR 30.3. Licensees possessing radium-226 sources were provided a twelve month waiver period within which to apply for an NRC license. Possession and use of the gauges required DVG to apply for an NRC License by November 30, 2008. Since DVG did not apply for an NRC license to possess its portable gauges prior to the waiver termination, an apparent violation of 10 CFR 30.3(a) was identified and is being considered for escalated enforcement.

During the inspection, DVG committed to prompt corrective actions. By letters dated October 27, 2010 and February 22, 2011, DVG provided a summary of appropriate corrective actions either taken or planned to address the NRC concerns. These included applying for and receiving an NRC license for the gauges, conducting interviews with individual members of the public to determine that no radiological consequences occurred, and retraining authorized users in gauge security and transportation requirements.

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

Del Valle Group is a civil engineering company that provides construction and testing services throughout the Commonwealth of Puerto Rico. DVG purchased three Seaman Model C-200 gauges, each containing sealed sources of up to 5.5 mCi of radium-226 (Ra-226) from an authorized distributor between 1995-1998, but the gauges were never registered as required by the Commonwealth of Puerto Rico Health Department.

As a result of the Energy Policy Act of 2005 (Act) the NRC assumed the authority for licensing discrete sources of Ra-226. Possession and use of the gauges required DVG to apply for an NRC License by November 30, 2008, in accordance with 10 CFR 30.3, and as described in the Commission-issued Regulatory Information Summary 2007-22 (RIS 2007-22). RIS 2007-22 informed recipients of the change in NRC licensing authority and regulations, including 10 CFR 30.3, regarding licensing of radioactive sealed sources and, specifically, that NRC's authority included licensing of radium-226 sealed sources. Licensees possessing sources addressed in the regulation were provided a twelve month waiver period in which to apply for an NRC license. The waiver applicable to DVG's licensed sources expired on November 30, 2008. DVG did not apply for an NRC license to possess its portable gauges prior to the waiver termination, an apparent violation of 10 CFR 30.3(a).

c. Conclusions

One apparent violation was identified that is being considered for escalated enforcement action.

10 CFR 30.3 requires, in part, that except for persons exempted, no person shall possess or use byproduct material except as authorized by a specific or general license issued in accordance with the regulations in 10 CFR Part 30.

Contrary to the above, from November 30, 2008, through October 28, 2010, Del Valle Group (DVG), was in the possession of byproduct material that was not authorized by a specific or general license issued in accordance with the regulations in 10 CFR Part 30, without a valid NRC license, and without being exempt from licensing. Specifically, DVG possessed three Seaman Model C-200 portable gauges each containing radium-226 (Ra-226) that required DVG to apply for an NRC License by November 30, 2008, in accordance with 10 CFR 30.3, and as described in the Commission issued Regulatory Information Summary (2007-22).

II. Incident Review, and Material Receipt, Use, and Control

a. Inspection Scope

The inspector reviewed the circumstances around the September 29, 2010 lost gauge incident and DVG's follow up actions for receipt, use, and control.

b. Observations and Findings

On September 30, 2010, the Vice President, DVG reported to the NRC that one of the three Seaman Model C-200 portable moisture density gauges used by the company was missing. On the morning of September 29, 2010, a company technician had transported the gauge from his residence on Road PR-9912 in the municipality of San Lorenzo, PR. Shortly after leaving his residence the gauge apparently fell off the back end of the technician's pick-up truck. Upon realizing the gauge was not on the truck, the technician searched the area where he had traveled, but was unable to locate the gauge. He immediately notified the State Police, who responded and issued a police report. DVG personnel also notified their radiation safety consultant, who provided DVG with verbal assistance and a list of instructions for responding to a lost gauge, which included instruction to notify the NRC.

In addition to NRC notification, the Vice President, DVG immediately notified a major radio station and provided an on-air interview which described the hazards and precautions related to handling of the gauge. A warning advertisement was placed in the local newspaper. A monetary reward was offered for return of the gauge.

Interviews with DVG personnel determined that the gauge was missing for a brief period of time on September 29, 2010, before it was found by a local citizen on road PR-9912. A relative of the technician assisted in communications with area residents around that road and was able to identify the individual who found the gauge. The gauge remained in the individual's possession until the relative picked up the gauge later that day and returned it to the technician. The individual stated that he opened the unlocked shipping container but did not handle the gauge. On October 1, 2010, the gauge was transferred to DVG's consultant for evaluation. The gauge was found to be in good working condition, undamaged, and operable. A leak test was negative for contamination.

On October 27, 2010, DVG submitted an investigation report to NRC detailing the events related to the missing gauge. Review of the report indicated that it did not provide details on how the case or gauge was handled by the individual who found and opened the case, or the relative who transferred the case back to the DVG technician. The Vice President, DVG, stated additional interviews of the incident would be performed to determine radiological dose estimates of the affected individuals.

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NRC inspection of the Del Valle Group was conducted at the company's Toa Baja, Puerto Rico facility on October 5, 2010. The three gauges were found stored securely inside the facility warehouse away from personnel and were not being used. Interviews with the Vice President, DVG and Executive Assistant, DVG indicated they were not cognizant of the NRC licensing requirements for portable gauges. The DVG representatives stated they were never informed by the Radiation Control Commission of the Health Department of the Commonwealth of Puerto Rico (RCCPR), the gauge distributor, or their consultant that registration was required at the time DVG took possession of the gauges in the late 1990s, or that NRC licensing was required by the Act.

DVG used the gauges on a regular basis for contract work (primarily for the PR Highway Authority), performed by trained technicians (users). DVG gauge users provided security and control while gauges were stored or used at temporary job sites. Gauges were calibrated annually to meet Highway Authority measurement standards; leak tests were performed along with annual calibrations. No additional efforts were noted to develop or implement a radiation safety program for maintaining the gauges. Also, from DVG interviews related to gauge security and observation of a demonstration of how a gauge is set up in a vehicle for transport, the inspector found that DVG personnel were not knowledgeable about NRC physical barrier requirements for control of gauges in unrestricted areas, and not trained in proper blocking and bracing techniques for transporting shipping containers in vehicles.

Following the incident on September 29, 2010, DVG committed to not using the three gauges and maintaining them in secure storage until receiving an NRC license. After discussion with the inspector about the licensing process and coordination with their consultant, on October 29, 2010, DVG applied for an NRC license. On January 6, 2011, NRC issued License No 52-31423-01 to Del Valle Group for possession and use of the gauges.

DVG continued their investigation into the missing gauge by conducting additional interviews with the individuals who encountered the gauge. In the letter dated February 22, 2011, to NRC, DVG concluded that no radiation exposure was received by the individuals who handled the gauge while it was out of DVG's control. The letter did not provide information about the location of the gauge and where it was stored by the individual who found it.

The inspector conducted another site visit on March 3, 2011 to discuss the status of DVG's follow up actions. The Vice President, DVG indicated that he would contact the individual who picked up the missing gauge to determine what was done with the gauge after he found it. In an electronic mail message to the inspector on March 14, 2011, the Vice President, DVG confirmed that the individual kept the gauge in his vehicle until DVG personnel picked it up on September 30, 2010. From the information provided by the Vice President, DVG, it appears there were no radiological consequences to the members of the public who handled the lost gauge. In addition, before beginning NRC licensed activities authorized users were provided additional training in gauge security and transportation requirements.

c. Conclusions

No concerns were identified. Corrective actions taken by Del Valle Group in response to the missing gauge were prompt and effective.

III. Exit Meeting

On March 23, 2011, the inspector contacted the Vice President, Del Valle Group to discuss the results of the inspection. One violation of NRC requirements was identified and was being considered for escalated enforcement action.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

*+ C. Calderon, Vice President
*J. Ocasio, Executive Assistant

* present at entrance meeting
\+ present at exit meeting