



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

November 1, 2005

Docket No. 07000314  
EA-05-135

License No. SNM-296

Bruce E. Peterson, General Manager  
Ledoux & Company  
359 Alfred Avenue  
Teaneck, New Jersey 07666-5755

SUBJECT: Notice of Violation and Proposed Imposition of Civil Penalty - \$3,250  
(NRC Special Inspection Report 07000314/2005001)

Dear Mr. Peterson:

This letter refers to an NRC special inspection conducted between April 14 - July 8, 2005, at your facility in Teaneck, New Jersey. The purpose of the special inspection was to follow-up on the reported loss of an analytical sample containing 3.3 grams of uranium-235. The NRC was notified of the loss on April 13, 2005, and on May 11, 2005, you provided the NRC with a written report concluding that the package had been sent to a landfill and, therefore, the missing sample was unrecoverable. As described in the NRC special inspection report sent to you on July 20, 2005, three apparent violations of NRC requirements were identified and were being considered for escalated enforcement in accordance with the NRC Enforcement Policy.

The apparent violations involved failures to adequately survey, secure and dispose of licensed material in accordance with NRC requirements. Specifically, on March 30, 2005, your staff received a package containing seven analytical samples of uranium-235. Shipping documents maintained by the shipper confirm the number of samples shipped. A staff member opened the package on April 1, 2005, identified six of the seven samples shipped, and performed an unsuccessful cursory search for the seventh sample. On April 12, 2005, your staff initiated a more thorough search, discovered the package had been disposed of as normal trash, and concluded the missing sample had been disposed of with the package.

In violation of 10 CFR 20.1501(a)(1), on April 1, 2005, your staff failed to adequately survey a package containing uranium-235 samples and, because of this failure, one sample remained within the package. Furthermore, even though your staff member could not account for all seven samples, no action was taken to retain the package, and when this package was removed from the restricted area in the facility and placed in the facility dumpster, the uranium-235 sample was not under the licensee's control or constant surveillance in violation of 10 CFR 20.1802. Finally, this package was disposed of in a landfill in violation of 10 CFR 20.2001(a) and 10 CFR 70.42(a).

In the letter transmitting the inspection report, we provided you the opportunity to address the apparent violations identified in the report before we made our final enforcement decision by either providing a written response or attending a predecisional enforcement conference. In a letter dated August 30, 2005, you provided a response to the apparent violations. In your

response, you stated that you were not certain that you had ever received the seventh sample in question, but you had taken corrective actions concerning this matter to prevent recurrence. The corrective actions included: (1) all packages received that contain radioactive materials will be examined by two employees to verify and document, using a sample receipt form, that the contents and associated documentation are correct no later than three hours after receipt; and (2) the sample receipt form will contain information such as the description of the package, its contents, radiation survey, and the final disposition of the container. In addition, you sent your corrective action report to the shipper so that they could make some improvements to their shipping practices. You also stated that you have operated for many years without incident, and addressing this matter was of the utmost importance to the employees and owners of Ledoux & Company.

Based on the information developed during the inspection, which included a review of the shipping documents maintained by the shipper confirming seven samples were shipped, and the information that you provided in your response dated August 30, 2005, the NRC has determined that three violations of NRC requirements occurred as stated above. These violations are cited in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty.

The NRC considers the failure to secure and/or maintain control of radioactive material a serious matter. In this case, the failure to secure and maintain control of the radioactive material led to an improper transfer to an unauthorized recipient. The quantity of radioactive material lost was greater than 1000 times the quantity specified in Appendix C of 10 CFR Part 20 and, in accordance with the NRC Enforcement Policy, Supplement IV, Example 11.a, the three violations associated with your failure to adequately survey, maintain control, and transfer the sample containing 3.3 grams of uranium-235 to an authorized recipient, have been categorized collectively as a Severity Level III problem.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$3,250 is considered for a Severity Level III problem. Because your facility has not been the subject of escalated enforcement actions within the last two inspections, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process in Section VI.C.2 of the Enforcement Policy. Credit for *Corrective Action* is warranted because your actions, as described above, were comprehensive. Since credit was given for corrective action, a civil penalty would not normally be issued in this case.

However, to emphasize the importance of maintaining security and control of special nuclear material, I have been authorized, after consultation with the Director, Office of Enforcement, to exercise discretion in accordance with Section VII.A.1 of the Enforcement Policy and issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the base amount of \$3,250 for this Severity Level III problem. In addition, this Notice constitutes escalated enforcement action that may subject you to increased inspection effort.

In deciding to exercise discretion to issue the civil penalty, the NRC considered that Section VII.A.1(g) of the Enforcement Policy specifies that a case involving the loss or improper disposal of a sealed source or device is normally assessed a civil penalty of at least the base amount, notwithstanding the outcome of the normal civil penalty assessment process. Although the uranium-235 sample that was improperly disposed of in this case was not a sealed source, the same underlying concerns that caused the NRC to develop the policy set forth in Section VII.A.1(g) of the Enforcement Policy applies in this case, since the potential existed for

unnecessary exposures to members of the public if the material had ended up somewhere other than a landfill. While the amount of material involved in this case was not radiologically significant, the NRC concluded that, given the types and quantities of materials authorized by your license, your failure to maintain an adequate program for constant surveillance and control of such licensed material could have resulted in a more significant loss of radioactive material which could have led to members of the general public receiving an exposure to radiation in excess of the regulatory limits.

The NRC has concluded that the provisions of 10 CFR 2.201, i.e., the information regarding the reasons for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved, is already adequately addressed herein and on the docket in NRC Special Inspection Report 07000314/2005001 dated July 20, 2005. Therefore, although you are required to provide a response to the enclosed Notice and Proposed Imposition of Civil Penalty, you are not required to address the provisions of 10 CFR 2.201 unless the descriptions therein do 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.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if any, 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>. The NRC also includes significant enforcement actions on its Web site at [www.nrc.gov](http://www.nrc.gov); select **What We Do**, **Enforcement**, then **Significant Enforcement Actions**.

Sincerely,

/RA/ Original Signed by Marc Dapas for

Samuel J. Collins  
Regional Administrator

Enclosures:

- 1) Notice of Violation and Proposed Imposition of Civil Penalty
- 2) NUREG/BR-0254 Payment Methods (Licensee only)

cc:

Charles Avallone, Radiation Safety Officer  
State of New Jersey

Mr. B. E. Peterson

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Enclosure 1

NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Ledoux & Company  
Teaneck, New Jersey

Docket No. 07000314  
License No. SNM-296  
EA-05-135

During a special NRC inspection conducted between April 14 - July 8, 2005, violations of NRC requirements were identified. In accordance with the NRC Enforcement Policy, the NRC proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

1. 10 CFR 20.1501 (a) requires that each licensee make or cause to be made, surveys that may be necessary for the licensee to comply with the regulations in 10 CFR Part 20, and are reasonable under the circumstances to evaluate the magnitude and extent of radiation levels, concentrations or quantities of radioactive material, and the potential radiological hazards. *Survey* means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal or presence of radioactive material. When appropriate, such an evaluation includes a physical survey of the location of radioactive material and measurements or calculations of levels of radiation, or concentrations or quantities of radioactive material present.

Contrary to the above, on April 1, 2005, the licensee's staff failed to conduct an adequate survey of a package containing seven uranium-235 samples and, as a result, one sample containing 3.3 grams of uranium-235 remained in the package. Specifically, the shipping papers had been separated from the package and it was unclear to the licensee's staff if all seven samples had been shipped in the one package. Rather than performing a full and adequate survey, the licensee's staff performed a cursory search of the package for the seventh sample.

2. 10 CFR 20.1801 requires that the licensee secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas. 10 CFR 20.1802 requires that the licensee control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage. As defined in 10 CFR 20.1003, *controlled area* means an area, outside of a restricted area but inside the site boundary, access to which can be limited by the licensee for any reason; and *unrestricted area* means an area, access to which is neither limited nor controlled by the licensee.

Contrary to the above, sometime between April 1, 2005 and April 12, 2005, a package containing a 3.3 gram sample of uranium-235 was moved from a restricted area of the facility to the facility's dumpster, a controlled area, and the licensed material was not under the licensee's control or constant surveillance.

3. 10 CFR 20.2001 (a)(1) requires, in part, that a licensee dispose of licensed material only by proper transfer to an authorized recipient as provided in the regulations. 10 CFR 70.42 (a) requires that no licensee transfer special nuclear material except as authorized pursuant to the regulations in section 10 CFR 70.42.

Contrary to the above, sometime between April 1, 2005 and April 12, 2005, a package containing a 3.3 gram sample of uranium-235 was disposed of as trash to a landfill, which did not constitute an authorized recipient, pursuant to 10 CFR 70.42.

This is a Severity Level III problem (Supplement IV).  
Civil Penalty - \$3,250 (EA-05-135)

The NRC has concluded that the provisions of 10 CFR 2.201, i.e., the information regarding the reasons for the violations, the corrective actions taken and planned to correct the violations and prevent recurrence, and the date when full compliance was achieved, are already adequately addressed herein and on the docket in NRC Special Inspection Report 07000314/2005001 dated July 20, 2005. Therefore, although you are required to provide a response to the Notice and Proposed Imposition of Civil Penalty, you are not required to address the provisions of 10 CFR 2.201 unless the descriptions do not accurately reflect your corrective actions or your position. In that case, clearly mark your response as a "Reply to a Notice of Violation; EA-05-135," and send it to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a copy to the Regional Administrator, Region I, within 30 days of the date of the letter transmitting this Notice.

The licensee may pay the civil penalty proposed above, in accordance with NUREG/BR-0254 and by submitting to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, a letter clearly marked "Statement as to Payment of Civil Penalty" indicating when and by what method payment was made.

The licensee may protest imposition of the civil penalty in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the licensee fail to answer within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalty, an order imposing the civil penalty will be issued. Should the licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and shall: (1) deny the violations listed in this Notice, in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section VI.C.2 of the Enforcement Policy should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the licensee is

directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses noted above (Reply to a Notice of Violation; EA-05-135, Statement as to Payment of Civil Penalty, or Answer to a Notice of Violation) should be addressed to: Michael Johnson, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852-2738, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, PA 19406-1415.

Your response 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>. Therefore, to the extent possible, the response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction. In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 1<sup>st</sup> day of November 2005.