

# NMSS Quarterly Newsletter



**U.S. Nuclear  
Regulatory  
Commission**

**Office of Nuclear  
Material Safety  
and Safeguards**

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## **SECURITY REQUIREMENTS for PORTABLE GAUGES CONTAINING BYPRODUCT MATERIAL**

Recent events in the nation and the world have increased public interest in and sensitivity to the frequency of theft of gauges containing nuclear material. It is important to keep in mind that the number of incidents of stolen gauges (about 50 out of about 22,000 or less than one quarter of 1 percent) reported per year is small when compared with the total number of gauges in use. The amount of radioactive material used in a portable gauge is also relatively small. The most commonly used portable gauges contain two encapsulated sources: a sealed gamma source containing 0.30 to 0.37 gigabecquerels (8 to 10 millicuries) of cesium-137 (Cs-137) and a sealed neutron source containing 1.48 to 1.85 gigabecquerels (40 to 50 millicuries) of americium-241/beryllium (Am-241/Be).

To date, there have not been any reported incidents of individuals suffering from a radiation injury or

overexposure associated with a stolen portable gauge, but the potential exists for an individual to receive a radiation exposure exceeding the regulatory limits as a result of close contact with the sealed source. The dose rate on the surface of a typical portable gauge is about 0.2 millisievert per hour (mSv/hr) [20 millirem per hour (mrem/hr)]; and the dose rate on the source is more than 10 mSv/hr (1,000 mrem/hr).

Furthermore, it is also a concern if a portable gauge is abandoned in the environment or recycled in a steel mill. Many landfills and recycling facilities are now equipped with radiation monitors; therefore, radioactive sources are often detected and removed early in the process. Granted, the potential for radioactive material to enter a metal recycling plant is small, but the cost for cleanup is large if such an event occurs. For example, in 2001, a radioactive source was melted in a steel mill in Florida. The metal recycling plant was shut down for more than a month, and the cost for cleanup was more than \$10 million.

Citing the reasons above, the U.S. Nuclear Regulatory Commission (NRC) believed that existing regulatory controls were insufficient to reduce the current rate of stolen gauges. NRC has issued several Information Notices (INs) to remind licensees of their responsibilities concerning the security of portable gauges, but the number of reported incidents has not significantly decreased. In order to protect the public from the potential health and safety risks caused by lost or stolen gauges, and to enhance public confidence, it is prudent to require additional controls to reduce the number of stolen portable gauges.

Based on the number of portable gauges in operation and the number of licensees that will be impacted by this rule, the staff believes that increasing the number of physical controls to two is the best option in achieving the goal of reducing the

current number of stolen gauges and, at the same time, providing sufficient flexibility for the licensees in selecting controls that are most suitable to the licensee. There are approximately 1100 NRC licensees and 4000 Agreement State licensees that will be impacted by the final rule.

As discussed in Commission Paper (SECY) 03-0092 (<http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2003/secy2003-0092>) for the proposed rule, the staff evaluated various control options, including: (a) no action alternative; (b) prohibiting unattended storage in vehicles at an annual cost impact of about \$70 million; (c) prohibiting unattended storage at locations other than licensed facilities (e.g., requiring daily return of gauges) at an annual cost of about \$220 to \$625 million; (d) requiring use of a metal enclosure with a one-time cost of about \$10 million and an annual cost of \$400,000; and (e) requiring two physical controls with a one-time cost of about \$5 million and an annual cost of \$200,000. The estimated benefit gained is about \$170,000 per year from resources saved from reduction of the need to replace lost or stolen gauges, and the response to events. To help determine these costs, a 50-percent reduction in the number of stolen gauges was assumed in the benefit analysis.

This amended rule was developed on the basis of public health and safety, not on the basis of common defense and security. As stated in the International Atomic Energy Agency (IAEA) "Categorization of Radioactive Sources" (TECDOC-1344), a portable gauge is a Category 4 source. Since the IAEA "Code of Conduct on the Safety and Security of Radioactive Sources" only covers Categories 1, 2 and 3 sources, the Code of Conduct does not apply to portable gauges. Also, under the IAEA interim guidance on the "Security of Radioactive Sources" (TECDOC-1355), the designated security grouping for a portable gauge is Group C, which requires access control at the source location and one technical measure separating the source from unauthorized personnel. Currently, the United States has not adopted IAEA interim guidance TECDOC-1355.

### ***Rulemaking Background and Comments***

On January 25, 2002, the staff provided the Commission with proposed interim compensatory measures for various categories of NRC licensees, including materials licensees, to increase security in response to the September 11, 2001, terrorist attacks. A supplement to the interim compensatory measures was developed proposing that the

Commission issue Orders, under its retained authority to provide for the common defense and security for four categories of material licensees. These categories include: (1) large irradiators; (2) large unsealed sources; (3) self-shielded irradiators; and (4) industrial radiography and well logging sources. The supplement also proposed to undertake a rulemaking for portable gauges on a health and safety basis. The Commission approved the staff's proposal to initiate discussions with the Agreement States in a Staff Requirements Memorandum dated July 2, 2002.

In August 2002, a working group was formed to explore various options and requirements for the proposed rulemaking. The working group was comprised of NRC staff and personnel from the Agreement States of Florida and Arkansas. During the rulemaking process, staff also consulted with the U.S. Department of Transportation (DOT) hazardous material transportation staff. In addition, a steering group was formed to address issues and facilitate concurrences.

During the rulemaking process, the working group developed the proposed rule (SECY-03-0092, June 5, 2003), which was approved for publication by the Commission in a SRM dated July 14, 2003. The proposed rule was published in the *Federal Register* (FR) (68 FR 45172) on August 1, 2003. The comment period on the proposed rule closed on October 15, 2003, and 11 comment letters were received. The commenters included a member of the public, members of an industry advisory group, three licensees, one radiation service company, two manufacturers, and three States.

Among the 11 comment letters, six indicated that they supported the goal to reduce the loss or theft of portable gauges, but some believed that NRC had not effectively addressed the root cause; two stated that current requirements were adequate; one indicated that the rule was well-intended; one expressed the view that a double-lock requirement might be excessive; and one believed that the current practice of using a chain to secure a gauge in an open-bed pickup truck was not adequate security. These comments and further NRC responses are discussed in detail in the *Federal Register* notice (68 FR 45172).

Similarly, three States submitted comments on the published proposed rule. The State of Washington indicated that NRC security measures did not go far enough, noting that its requirements exceeded NRC's proposed rule requirements regarding visibility and daily return of portable gauges to an

approved storage location. The State of North Carolina believed that current regulations were sufficient to ensure the protection of the occupational worker, members of the public, and the environment, with regard to the hazards associated with the safe use of portable gauges. Also, it did not believe that the NRC rule would effectively address the root cause of unauthorized removal or theft of portable gauges. In the State of North Carolina's view, the visibility of the transportation cases or the easy access to the portable gauges are the root causes. The Commonwealth of Virginia supported the goal of the rule, but believed the proposed rule to be impractical to implement.

### ***Working Group Recommendation***

After considering public comments, and discussions with the DOT staff, the working group recommended that no changes should be made to the proposed rule for enhancing the security requirements for portable gauges. Therefore, the final rule contains exactly the same requirements as the proposed rule. The final rule requires that each portable gauge licensee use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.

The final rule is expected to reduce the frequency of unauthorized removal or theft of portable gauges, consistent with the NRC Security Goal to "Ensure the secure use and management of radioactive materials." Fewer incidents of unauthorized removal or theft of portable gauges should result in a lower potential for public exposure, and a lower probability of events such as inadvertent steel smelting of gauges. This result would be consistent with the NRC Safety Goal to "Ensure protection of public health and safety and the environment." The final rule is consistent with the NRC Effectiveness Goal to "Ensure that NRC actions are effective, efficient, realistic, and timely," because the new requirement increases control of licensed material, without undue burden on the regulated community. Finally, consistent with the NRC Openness Goal to "Ensure openness in our regulatory process," the staff developed the rule through a rulemaking process involving a working group with non-NRC members (i.e., Agreement States), consulted with another cognizant Federal agency, and received stakeholder and public input in the development of the rule through posting on the NRC rulemaking forum website and publication in the *Federal Register* of the proposed rule. In addition, the *Federal Register* notice of the final rule addressed

public and State comments on the proposed rule and NRC's responses. The staff plans to incorporate implementing guidelines through future routine updates of the consolidated guidance document, NUREG-1556, Vol. 1, "Program-Specific Guidance About Portable Gauge Licenses."

### ***Agreement State Issues***

In accordance with the procedures established in Part III of Handbook 5.9 to NRC Management Directive 5.9, "Categorization Process for NRC Program Elements," the staff has determined that the amendment, 10 CFR 30.34(i), should be classified as Compatibility Category "C." An Agreement State should adopt the essential objectives of the Compatibility Category "C" program elements to avoid conflict, duplication, gaps, or conditions that would jeopardize an orderly pattern in the regulation of Agreement material on a nationwide basis. The staff has determined that the essential objective of the amendment, 10 CFR 30.34(i), is to reduce the frequency of unauthorized removal or theft of portable gauges by requiring licensees to provide a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever portable gauges are not under the control and constant surveillance of the licensee.

(Contact: Michael K. Williamson, Office of Nuclear Material Safety and Safeguards, 301-415-6234; e-mail: [mkw1@nrc.gov](mailto:mkw1@nrc.gov) or Lydia Chang, Office of Nuclear Material Safety and Safeguards, 301-415-6319; e-mail: [lwc1@nrc.gov](mailto:lwc1@nrc.gov) )

### **NRC's ANNUAL REPORT on the STATUS of the DECOMMISSIONING PROGRAM**

The staff of the Division of Waste Management and Environmental Protection (DWMEP) has completed work on NUREG-1814, "Status of Decommissioning Program - 2004 Annual Report." This NUREG report provides a comprehensive status of the U.S. Nuclear Regulatory Commission's decommissioning program. Its purpose is to provide a stand-alone reference document that describes the decommissioning process and summarizes the status of all decommissioning activities since the last report, through August 1, 2004, including the decommissioning of complex decommissioning sites, commercial reactors, research and test reactors, uranium mill tailings facilities, and fuel cycle facilities. In addition, this report discusses accomplishments in the decommissioning program since last year's report (SECY-03-0161), and it

informs the Commission of decommissioning issues that the staff will address in the coming year.

Because the annual report contains information that is not expected to change from year to year (i.e., discussion of the materials decommissioning process), the staff will publish the report in the form of a NUREG document every 2 years, beginning with this report. In the odd-number years, the staff will publish the report as a shortened paper to the Commission, referencing the decommissioning Website.

The NUREG is one part of the overall communication strategy for the decommissioning program. To support the Commission Paper issued in the odd years, the staff is updating its web page to reflect the entire decommissioning program, including site summaries. In addition, the staff plans to develop a general brochure, summarizing the decommissioning program, that can be handed out to members of the public.

(Contact: John Buckley, Division of Waste Management and Environmental Protection, 301-415-6607; e-mail: jtb@nrc.gov)

### **NMSS PARTICIPATED in ISO WORKING GROUP SESSION on TWO INTERNATIONAL STANDARDS for SEALED RADIOACTIVE SOURCES**

On February 23-24, 2005, staff from the Division of Industrial and Medical Nuclear Safety/Nuclear Material Safety and Safeguards, participated in a meeting of the International Organization for Standards (ISO) Working Group on Sealed Radioactive Sources. The meeting was held at the French national standardization institute, AFNOR, in St. Denis, France. In preparation for the meeting, ISO requested participation from the national standards organizations in 30 countries; in response, six countries and the International Atomic Energy Agency (IAEA) sent a total of 11 delegates to the meeting. Two international standards were the subject of the meeting.

1. The Working Group revised/updated International Standard ISO-2919, "Radiation Protection - Sealed Radioactive Sources - General Requirements and Classification." The objective was to update the Standard, revised last in 1999, to current industry practices, as well as to bring the Standard into agreement with the various national standards.

The major changes, developed by the Working Group, included the addition of

- two sets of tests for brachytherapy sources,
- tests for tritium-embedded titanium foils for neutron generators,
- specification of the working life in the source certificates, and
- references to other source safety and security guidance documents, such as IAEA TECDOC-1344, "Categorization of Radioactive Sources."

With these changes, the ISO standard will be in close agreement with the corresponding U.S. standard, ANSI 43.6, "Sealed Radioactive Sources - Classification," which was updated in 2004, and will be issued in 2005. The only major differences are in the additional performance tests that the ISO standard contains for brachytherapy sources, medical surface applicators, and tritium-embedded titanium foils. The two standards are sufficiently close that, in the next revision cycle, due in 5 years, they can be made identical to the current joint standard on quality assurance, ANSI/ISO/ASQ 9001, issued in 2001. U.S. manufacturers prefer joint standards because, in such cases, their products need to meet only one set of requirements for both the domestic and the international markets.

2. The Working Group drafted a new international standard, ISO-21482, "Warning Symbol for High-Level Radioactive Sources." The new standard is based on IAEA's initiative for a sign that would supplement the current trefoil, to convey worldwide to untrained persons the danger when encountering orphan or stolen sources. IAEA is currently testing five final sign candidates in 11 countries. IAEA intends to issue guidelines for the member countries on the use of the warning sign, develop a "tool kit" for users such as scrap yard operators or customs agents, and submit a request to ISO for a standard in 2005. The draft standard is scheduled to be sent to the national standardization bodies for vote in early 2006, and the new international standard is to be issued in June 2006.

(Contact: John Jankovich, NMSS, 301-415-7904; e-mail: jjp2@nrc.gov)

## **SPENT FUEL PROJECT OFFICE LICENSING PROCESS CONFERENCE**

A conference sponsored by the Spent Fuel Project Office (SFPO) was held on February 8, 2005, in Rockville, Maryland. SFPO held the conference as part of the staff's initiative to continuously improve the licensing process for 10 CFR Part 71 and 10 CFR Part 72 licensing actions. Approximately 150 people were in attendance.

Conference topics included SFPO's "Rules of Engagement" with licensees, lessons learned regarding the existing licensing processes, and an open discussion on ideas for improving the effectiveness and efficiency of the licensing process.

The conference key note speaker was Margaret Federline, Deputy Director of the Office of Nuclear Material Safety and Safeguards. She discussed the need for SFPO processes and procedures to provide a sense of stability and predictability for licensees, applicants, and stakeholders. She emphasized that while the principle focus of a regulator must always be health and safety, that does not mean the regulator should be disengaged from the state of the industry. She also invited the audience to discuss their experiences, both positive and negative, such that SFPO could acknowledge it and factor it into the agency's continuous improvement initiatives.

Bill Brach, SFPO Director, emphasized that SFPO wanted feedback from its stakeholders regarding the efficiencies and effectiveness of its licensing and certification process for conducting transportation and storage reviews. He stated that SFPO wanted to hear and understand stakeholder comments, suggestions and recommendations on ways to improve the effectiveness and efficiency of SFPO programs.

The conference included three sessions. Session 1, included SFPO staff presentations, and was meant to provide the audience with the context and backdrop for the SFPO conference. Information was provided on a continually growing program for transportation of radioactive material and storage of spent fuel. Staff also presented SFPO's "Rules of Engagement." The rules were disseminated to industry on December 16, 2004, in Regulatory Issue Summary (RIS) 2004-20, "Lessons Learned from Review of 10 CFR Parts 71 and 72 Applications." These rules were developed 6 years ago and have evolved based on lessons learned. They provide a clearly defined review process.

Session 2, was a series of individual industry/ stakeholder presentations, and was meant to inform the audience of concerns and issues relative to things that worked well and things that did not work as well. The six-person panel: three representatives from transportation and storage certificate holders, two representatives from independent spent fuel storage installations, and one media press representative. This panel shared their historical perspectives on lessons learned and experiences that they had gained in their interactions with SFPO. Each panel member gave a short 10-15 minute presentation.

Session 3 consisted of a facilitated open dialogue with stakeholders. The primary goal of the session was for SFPO to obtain feedback and ideas on how to make the licensing process more effective and efficient while maintaining the high level of safety. This session was facilitated by Chip Cameron, of the NRC's Office of the General Counsel. Mr. Cameron engaged the audience through a list of questions and issues, which were developed prior to the conference and identified through discussions during Session 2. The questions focused on broad licensing process topics, such as communications, schedules and timeliness, quality of requests for additional information (RAIs), safety evaluation reports (SERs), Certificates of Compliance (CoCs), Technical Specifications, etc.

The "next steps" that SFPO will take in evaluating the information discussed during the conference were also discussed. The conference planning committee and SFPO's management team will review the information, feedback, and recommendations provided by the stakeholders. A status of SFPO actions taken to implement these recommendations will be presented to industry at a later date.

(Contact: Julia Barto, Spent Fuel Project Office, 301-415-8512; e-mail: jam4@nrc.gov)

### **GENERIC COMMUNICATIONS ISSUED (December 17, 2004 - March 1, 2005)**

The following are summaries of U.S. Nuclear Regulatory Commission (NRC) generic communications. If one of these documents appears relevant to your needs and you have not received it, please call one of the technical contacts listed below. The Internet address for the NRC library of generic communications is : <http://www.nrc.gov/reading-rm/doc-collections/gen-comm/index.html>. Please note that this address is case-sensitive and must be entered exactly as shown. If you have any

questions or comments about generic communications in general, please contact Angela R. McIntosh at (301) 415-5030, or e-mail: arm@nrc.gov.

### ***Bulletins (BlS)***

No bulletins have been issued from December 17, 2004 – March 1, 2005.

### ***Information Notices (INs)***

No information notices have been issued from December 17, 2004 – March 1, 2005

### ***Regulatory Issue Summaries (RIS)***

**RIS 2005-02, “Clarifying the Process for Making Emergency Plan Changes,”** was issued on February 14, 2005. This RIS was issued to all holders of operating licenses for nuclear power reactors including research and test reactors and to fuel facility licensees, to: (1) clarify the meaning of “decrease in effectiveness (DIE),” as stated in 10 CFR 50.54(q); (2) clarify the process for making changes to emergency plans; and (3) provide some examples of changes that are not DIEs and some examples of DIE emergency plans.

(General Contact: Angela R. McIntosh, NMSS, 301-415-5030; e-mail: arm@nrc.gov)

## **SIGNIFICANT EVENTS**

### ***Event 1: Dose to Fetus***

***Date and Place:*** November 16, 2004, Riverside Methodist Hospital, Cleveland, Ohio

***Nature and Probable Causes:*** The licensee reported that a pregnant patient was administered radioactive iodine. The patient was administered 7.59 Megabecquerel (205 microcuries) of Iodine-123 (I-123) on November 2, 2004, during an uptake study pursuant to a diagnosis of hyperthyroidism. On November 16, 2004, the patient was administered 469.9 Megabecquerel (12.7 millicuries) of Iodine-131 (I-131) as treatment. Before this administration, the patient was counseled regarding pregnancy and acknowledged in writing that she was not and could not be pregnant at that time. A pregnancy test was not performed to confirm this declaration. Later, the patient saw her physician because of abdominal pain. A radiograph of the abdomen revealed the pregnancy. A prenatal specialist determined that the fetus was 17 weeks old at the time of the I-131 administration. The

dose estimate for the fetus was 2.0432 centigray (rad) to the whole body and 22,400 centigray (rad) to the fetal thyroid from both the I-123 and I-131 administrations. The Ohio Department of Health investigated the licensee on January 28, 2005, and determined that the licensee followed all required procedures. The patient will carry the fetus to term. The perinatal specialist has performed a blood test on the fetus and has confirmed that the fetus has hypothyroidism. An ultrasound test on the fetus showed no abnormalities in fetal development. The perinatal specialist will perform treatments in-utero to mitigate the effects of hypothyroidism.

### ***Actions Taken to Prevent Recurrence***

Licensee: The licensee has implemented a policy of performing a serum pregnancy test and receiving the results within 80 hours of administration of therapeutic amounts of I-131. This test will be performed on all women 13 to 50 years of age, unless the women have been surgically sterilized.

(Contact: Angela R. McIntosh, NMSS, 301-415-5030; e-mail: arm@nrc.gov)

## **SIGNIFICANT ENFORCEMENT ACTIONS**

The U.S. Nuclear Regulatory Commission’s (NRC’s) enforcement program can be accessed via the NRC’s homepage, “[<http://www.nrc.gov/>]” under “What We Do.” Documents related to cases can be accessed at “[<http://www.nrc.gov/>],” “Electronic Reading Room,” “Documents in ADAMS.” ADAMS is the Agency-wide Document Access and Management System. Help in using ADAMS is available from the NRC Public Document Room, telephone: 301-415-4737 or 1-800-397-4209.

### ***Gauges***

#### **Triad Engineering, Inc. (EA-04-235)**

On February 24, 2005, a Notice of Violation and Exercise of Enforcement Discretion was issued for a Severity Level III violation involving the failure to verify that the receiver of a transferred portable gauge was authorized to receive it before shipping it to the receiver. Although a civil penalty would normally have been issued for this type of violation, a decision was made not to issue a civil penalty in accordance with the exercise of enforcement discretion process in Section VII.B.6 of the Enforcement Policy, based on the fact that: (1) the violation was not willful; (2) it was unrelated to the

willful violations that were the subject of an April 2004 civil penalty; (3) the violation occurred in November 2003, which was the same time frame as the violations that were the subject of the April 2004 civil penalty; and (4) corrective actions implemented in response to these violations have demonstrated program improvement.

#### **Materials Testing Incorporated (EA-05-003)**

On January 24, 2005, a Notice of Violation was issued for a Severity Level III violation involving the failure to secure, control, or maintain constant surveillance of licensed material in a nuclear gauge. Specifically, during an inspection at a temporary job site in Bridgeport, Connecticut, NRC concluded that over a period of approximately two months before this inspection, a Humbolt nuclear gauge was routinely not secured or controlled while being stored in an unlocked employee's vehicle, and not under the direct surveillance of the authorized user.

#### **Engineering Consulting Services, Ltd. (EA-05-005)**

On February 1, 2005, a Notice of Violation was issued for a Severity Level III violation involving three instances where the licensee failed to secure, control or maintain constant surveillance of portable nuclear gauges containing NRC licensed material in unrestricted areas. Specifically, on those three occasions, the portable gauges were left unattended in unrestricted areas at temporary job sites, and during those times, the gauges were damaged by construction vehicles.

#### **U.S. Department of Agriculture (EA-05-004)**

On January 28, 2005, a Notice of Violation was issued for a Severity Level III violation involving the failure, on three separate occasions, to secure, control, or maintain constant surveillance of portable nuclear gauges containing NRC licensed material in unrestricted areas.

#### ***Irradiator***

#### **Baxter Healthcare Corporation (EA-04-118)**

On January 26, 2005, NRC issued an immediately effective Confirmatory Order to confirm recent commitments made as part of a settlement agreement concerning a Notice of Violation and Proposed Imposition of a Civil Penalty in the amount of \$44,400 issued on October 25, 2004, to Baxter Healthcare Corporation (Baxter). The action was issued for two willful Severity Level II

violations (assessed \$28,800 for three occurrences of failure to adhere to emergency procedures and \$9600 for failure to perform an adequate survey) and a willful Severity Level III violation (\$6000 for failure to provide an individual radiation monitoring device) related to an event involving personnel entering an irradiator when the source was stuck in an unshielded position. In response to that Notice, Baxter requested the use of Alternative Dispute Resolution to resolve differences it had with NRC concerning the Notice. As part of the settlement agreement, Baxter agreed to characterize the three violations as a one Severity Level II problem, pay a civil penalty in the amount of \$31,200, and take additional corrective action. Baxter and the NRC also agreed to disagree on the willful characterization of the third violation.

#### ***Medical***

#### **Washington Hospital Center (EA-04-157)**

On February 15, 2005, a Notice of Violation was issued to Washington Hospital Center for a willful Severity Level III violation involving the use of licensed radioactive material in humans by an individual who was not an authorized user and who was not under the supervision of an authorized user. The violation occurred when a Nuclear Medicine Technologist was injected with a diagnostic dosage of technetium-99m without the knowledge nor approval of a physician or authorized user.

#### ***Radiography***

#### **KTL Roudebush Testing (EA-04-178)**

On December 30, 2004, an Order Revoking License was issued to KTL Roudebush based on the licensee's deliberate acts and omissions involving radiography activities (previously identified and addressed in an immediately effective Order Suspending License and Demand for Information issued by NRC on March 11, 2004) and the Commission's lack of requisite reasonable assurance that the public health and safety are adequately protected by continuing activities under the existing license.

#### ***Other***

#### **United States Enrichment Corporation (EA-04-123)**

On January 27, 2005, an immediately effective Confirmatory Order was issued the United States Enrichment Corporation to confirm certain

commitments involving training related to employee protection. The Order was discussed during an Alternative Dispute Resolution session and, subject to satisfactory completion of the commitments, NRC will not pursue further enforcement action on this issue.

**Soil Consultants, Inc.** (EA-04-103)

On January 27, 2005, NRC issued an Order Imposing Civil Monetary Penalty in the amount of \$9,600 to Soil Consultants Inc. (SCI). The action was based on an October 6, 2004, Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$9,600 for a Severity Level II violation for discrimination against an employee for engaging in certain protected activities (reporting safety concerns to his employer or the NRC). In its November 5, 2005, response, SCI denied that a violation occurred. After considering SCI's response, NRC concluded that a violation occurred as stated and that SCI did not provide an adequate basis for withdrawing the violation, reducing the severity level, or mitigating or rescinding the civil penalty.

**University of Sciences** (EA-04-219)

On December 21, 2004, Notice of Violation was issued for a Severity Level III violation involving the failure to control and maintain constant surveillance of licensed material in three laboratories that were in unrestricted areas, and where the material was not in storage. The Notice of Violation was issued to the University of Sciences.

**Individual Actions**

**Lawrence Diah** (IA-04-023)

On February 15, 2005, a Notice of Violation was issued to Lawrence Diah for a Severity Level III violation based on his deliberate activities while employed at the Washington Hospital Center. As a Nuclear Medicine Technologist, he knowingly used licensed radioactive material without the knowledge and approval of a physician or authorized user.

**Christopher V. Roudebush** (IA-04-019)

On December 30, 2004, an immediately effective Order Prohibiting Involvement in NRC-Licensed Activities (for five years) was issued to Christopher V. Roudebush, based on his deliberate misconduct while working at KTL Roudebush Testing. As the president, owner, and Radiation Safety Officer, he

deliberately failed to: have sufficient number of qualified personnel present at temporary job sites; provide safety and dosimetry training to employees; conduct inspections and maintenance of industrial radiography equipment at specified intervals; maintain records of NRC required inspection and maintenance records; and provide complete and accurate information to the NRC.

(General Contact: Sally Merchant, Office of Enforcement, 301-415-2747; e-mail: slm2@nrc.gov)

**SELECTED FEDERAL REGISTER NOTICES**  
(December 15, 2004 - February 28, 2005)

10 CFR Parts 25 and 95, "Broadening Scope of Access Authorization and Facility Security Clearance Regulations," 69 FR 74949, December 15, 2004.

(Contact: Dr. Anthony N. Tse, Office of Nuclear Material Safety and Safeguards, 301-415-6233; e-mail: ant@nrc.gov)

10 CFR Parts 19, 34, 40, 55, and 60, "Minor Correction Amendments for FY2004," 69 FR 76599, December 22, 2004.

(Contact: Alzonja Shepard, Office of Administration, 301-415-6864; e-mail: aws1@nrc.gov)

10 CFR Part 71, "Packaging and Transportation of Radioactive Material; Withdrawal of Subpart I," 70 FR 312, January 4, 2005.

(Contact: Neelam Bhalla, Office of Nuclear Material Safety and Safeguards, 301-415-6843; e-mail: nxb@nrc.gov)

10 CFR Part 30, "Security Requirements for Portable Gauges Containing Byproduct Material," 70 FR 2001, January 12, 2005.

(Contact: Lydia Chang, Office of Nuclear Material Safety and Safeguards, 301-415-6319; e-mail: lwc1@nrc.gov)

10 CFR Part 20, "Sander C. Perle, ICN Worldwide Dosimetry; Denial of Petition for Rulemaking," 70 FR 2577, January 14, 2005.

(Contact: Torre Taylor, Office of Nuclear Material Safety and Safeguards, 301-415-7900; e-mail: tmt@nrc.gov)



NUREG-1600, “ NRC Enforcement Policy; Extension of Enforcement Discretion of Interim Policy,” 70 FR 2662, January 14, 2005.

(Contact: Sunil Weerakkody, Office of Nuclear Reactor Regulation, 301-415-2870; e-mail: sdw1@nrc.gov or Rene Pedersen, Office of Enforcement, 301-415-2742; e-mail: rmp@nrc.gov)

10 CFR Part 20, “Northeast Ohio Regional Sewer District; Denial of Petition for Rulemaking,” 70 FR 3898, January 27, 2005.

(Contact: Lydia Chang, Office of Nuclear Material Safety and Safeguards, 301-415-6319; e-mail: lwc1@nrc.gov)

10 CFR Parts 2, 30, 40, 50, 52, 60, 63, 70, 71, 72, 73, 76 and 150, “Protection of Safeguards Information,” 70 FR 7196, February 11, 2005.

(Contact: Marjorie Rothschild, Office of the General Counsel, 301-415-1633; e-mail: mur@nrc.gov or Bernard Stapleton, Office of Nuclear Security and Incident Response, 301-415-2432; e-mail: BWS2@nrc.gov)

10 CFR Parts 170 and 171 “Revision of Fee Schedules; Fee Recovery for FY 2005,” 70 FR 8678 February 22, 2005.

(Contact: Tammy Croote, Office of the Chief Financial Officer, 301-415-6041; e-mail: txc1@nrc.gov)

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(Contact: Dr. Anthony N. Tse, Office of Nuclear Material Safety and Safeguards, 301-415-6233; e-mail: ant@nrc.gov)

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## **ISSUANCE of MULTI-AGENCY RADIOLOGICAL LABORATORY ANALYTICAL PROTOCOLS MANUAL**

Staff from the NRC Offices of Nuclear Material Safety and Safeguards and Nuclear Regulatory Research participated with representatives from other Federal agencies in development of the **Multi-Agency Radiological Laboratory Analytical Protocols (MARLAP)** manual. In addition to NRC, the other participating Federal agencies included: (1) Department of Defense; (2) Department of Energy; (3) Department of Homeland Security; (4) Environmental Protection Agency; (5) Department of Commerce (National Institute of Standards and Technology); (6) Department of Interior (U.S. Geological Survey); and (7) the Department of Health and Human Services (Food and Drug Administration). On December 27, 2004, the participating agencies announced the availability of the MARLAP manual (69 *Federal Register* 77228 - 77230). The MARLAP manual provides guidance for planning, implementation, and assessment phases of projects that require laboratory analysis of radionuclides. The manual offers a framework for a performance-based approach to achieving data requirements and needs. This framework should promote national consistency in the generation of radioanalytical data of known quality appropriate for the intended use. The MARLAP manual supports activities such as: (1) site characterization; (2) decommissioning; (3) cleanup and compliance demonstration; (4) emergency response; (5) effluent and environmental monitoring; and (6) radioactive waste management. The MARLAP manual (NRC document number NUREG-1576) is issued in three volumes, and is available through the Internet at: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1576/>.

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