

NMSS Licensee Newsletter



**U.S. Nuclear
Regulatory
Commission**

**Office of Nuclear
Material Safety
and Safeguards**

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NMSS Licensee Newsletter (March 2003)

<i>Contents</i>	<i>Page</i>
1. NRC Effort to Enhance Security of Radioactive Materials	1
2. U.S. Department of Energy Off-Site Source Recovery Project	2
3. License Application Received from U.S. Enrichment Corporation	4
4. Significant Events	5
5. Generic Communications Issued (November 1, 2002 – January 31, 2003)	6
6. Significant Enforcement Actions	7
7. Selected <i>Federal Register</i> Notices (December 1, 2002 – February 28, 2003)	10

NRC EFFORT TO ENHANCE SECURITY OF RADIOACTIVE MATERIALS

The U.S. Nuclear Regulatory Commission (NRC) is leading the effort to improve security for radioactive materials at the local, national, and international levels. The goal is to prevent radioactive material from falling into the wrong hands, where it could be used by terrorists to frighten, injure, or kill Americans.

After the events of September 11, 2001, NRC Chairman Richard A. Meserve ordered a comprehensive review of the Agency's safeguards and security programs. Security at commercial

nuclear reactors is the headline news, but NRC has also been working hard to enhance the security of radioactive materials. Initial steps included issuance of a number of advisories to licensees containing, at first, common-sense security improvements.

These enhancements included measures such as higher awareness of potential threats, improved access control, and better security measures to search and limit vehicles near important facilities. Subsequently, the Agency has been developing additional measures to spell out, in detail, for licensees, the safeguards and security enhancements that need to be implemented.

In the materials arena, the first priority was given to large fuel cycle licensees, facilities that store spent fuel, and spent fuel transportation activities. Orders have already been issued to implement security measures at Independent Spent Fuel Storage Installations, in spent fuel transportation, at Category I and Category III fuel cycle and uranium conversion facilities. Orders to Category III facilities were issued February 6, 2003. These orders make binding specific security enhancements that, in some cases, were first mentioned in our initial advisories, but also include better alarms, vehicle barriers, tighter background checks on workers, more extensive emergency preparations, and other measures necessary to protect against security risks.

For other materials licensees, radioactive sources could be stolen or lost and end up in terrorist hands, where they could be used to fashion a radiological dispersal device (RDD), sometimes called a "dirty bomb." Intelligence reports show that acquiring RDDs has been one of al Qaeda's goals. Press reports describe an RDD as a "poor man's nuclear

weapon,” although the hazard is dramatically less than a true nuclear weapon.

NRC is working with Agreement States, the Department of Energy, the Department of Homeland Security, and others to identify licensees that have radioactive sources that pose the greatest concern for use in RDDs. We are also examining security measures that may be needed to reduce the risk from the radioactive material used by these licensees.

NRC’s efforts are just part of a larger, U.S. Government effort to enhance control over radioactive material. The Office of Homeland Security, Department of Energy, and other agencies are working with NRC to understand and counter the RDD threat.

For example, the agencies have been cooperating to: calculate the risk from dispersal of radioactive material, using available data; evaluate which isotopes pose the greatest threat, identify existing material tracking systems; and look at disposal options for old, unwanted sources.

NRC staff are involved in groups looking at the feasibility of a system to track radioactive materials, how to manage sources that are discarded, how to more securely transport radioactive materials and detect sources concealed in shipment, how to manage the consequences of a successful RDD attack, and other challenges.

The effort doesn’t stop at America’s borders. NRC is also heavily involved with the International Atomic Energy Agency, a United Nations agency, to carry the effort to the rest of the world. One of the goals of this work is to gain better control of radioactive material, including enhancements to security during its import, export, and subsequent use.

The effort to enhance security for radioactive materials is substantial and comprehensive. But, we believe the improved security that results will reduce the risk of a successful terrorist attack, using radioactive materials, while allowing continued use of the material for the benefit of society.

(Contact: Fritz Sturz, NSIR, 301-415-6678; e-mail; fcs@nrc.gov)

U.S. DEPARTMENT OF ENERGY OFF-SITE SOURCE RECOVERY PROJECT FOR GTCC SOURCES

Many greater than Class C (GTCC) sealed sources are excess, unwanted, and orphaned in the industrial, medical, academic, and government sectors. This presents a growing problem because these sources are not suitable for disposal in shallow land burial facilities. Other appropriate disposal options are not yet available. The Off-Site Source Recovery (OSR) Project, managed by the U.S. Department of Energy (DOE) at the Los Alamos National Laboratory (LANL), collects and stores these sources.

GTCC sealed sources consist mainly of americium neutron sources, other americium-241 sources, plutonium-238 heat sources, plutonium-239 neutron sources, and large strontium-90 sources. Large cesium-137 sources also typically exceed the U.S. regulatory criteria for shallow low-level radioactive waste (LLW) disposal, but are largely recycled and remanufactured into new sources.



An Emergency Response Team Recovers a Damaged Americium Neutron Source in Texas

Public health and safety risks are posed by unwanted GTCC sealed sources. One of the most common isotopes used is americium-241. Many of these are used in oil and gas well-logging activities. Small firms lacking the physical capability and financial resources to provide safe storage commonly own these neutron sources.

Considerable numbers of heat sources containing plutonium-238 once were used in manufacturing cardiac pacemakers.

These pacemakers and plutonium-238 batteries became obsolete in the 1970s, with the onset of long-life chemical battery technology. The OSR Project has recovered approximately 2000 excess and unwanted pacemakers.

Licensees in the U.S. use GTCC sealed sources primarily in portable and fixed industrial gauges. Approximately 9000 such sources, chiefly containing americium-241, are found in manufacturing and general commerce. Recovering these sources is particularly important, because many are excess and unwanted, and commonly are lost, stolen, or inadvertently discarded.

Source Recovery and Storage

Beginning in the late 1990s, DOE greatly expanded the sealed source handling capacity at LANL to accommodate thousands of excess sealed sources from the commercial sector. Initially, neutron sources were chemically processed to eliminate neutron generation. However, this was determined to be unnecessary. Instead, excess and unwanted sealed sources are simply stored as radioactive waste at government nuclear facilities.

This strategy required developing new nuclear material containers specifically for neutron sources. The first of these is a special-form overpack capsule for individual sources. The second is a multi-function container capable of providing safe storage, transportation, and ultimately disposal.

The special-form capsule has been designed, tested, and certified in several configurations. Composed of thick-walled stainless steel, it safely stores and ships damaged sealed sources, or sources that, for other reasons, cannot be certified for transportation. Once closed, a special-form capsule cannot be reopened. DOE and LANL continue to modify and fabricate these capsules to accommodate unique sources as they appear, especially from nuclear research and development laboratories. These capsules are available for both government and commercial radioactive waste management activities.

The multi-function container evolved from containers used by DOE for transportation and disposal of transuranic waste. The container incorporates neutron shielding and accommodates



The special form over-pack capsule

considerable quantities of neutron sources without special handling requirements. The pipe overpack concept was modified to provide a narrow-diameter [15-centimeter (5.9-inch)] inner payload container, within a standard 208-liter (55-gallon) drum. The annular space is filled by neutron shielding material. This multi-function container has been evaluated and approved by the transuranic waste certification program, and is now acceptable for field recovery, transportation, long-term storage, and disposal in the waste repository

Cost, Capacity, and Schedule

The OSR Project reached a 5000-source recovery milestone in 2002. Another 4000 sealed sources are known to be excess and unwanted, and are slated for recovery by 2005. The OSR Project expects to store more than 14,000 GTCC sealed sources by



Sealed Sources Prepared for Loading into a Multi-Function Drum

2010. Subsequent sealed source recovery will occur at a pace depending on numbers of sources declared excess, and funding levels.

Current OSR Project operating costs for sealed source recovery and management average less than \$3000 per source. Large licensees may incur the costs for packaging, shipment, and storage of sources at LANL. However, DOE is working with small licensees to reduce or eliminate costs.

Ultimate Disposition

No established disposition path exists for most GTCC sealed sources. The only suitable disposal site is the Waste Isolation Pilot Project (WIPP), a geological repository mined in bedded salt formations in southeastern New Mexico. It is restricted to transuranic waste generated from the nuclear defense program. A large share of waste from the OSR Project will be generated by the commercial and academic sector. These waste streams cannot be disposed of with Federal Government waste at WIPP.



Packaged Sealed Sources Are Prepared for Shipping to LANL

Therefore, the OSR Project will develop and provide storage capacity until a disposal pathway is developed. OSR Project projections indicate less than 500 cubic meters (654 cubic yards) of waste in shielded containers will require indefinite storage. The next step is to examine final disposal options.

The OSR Project for managing large numbers of excess and unwanted GTCC sealed sources

addresses a substantial public health and safety risk; recovers sources from the commercial and academic sector, more promptly than previously; and provides safe, long-term storage.

You Can Help

DOE requests cooperation from GTCC radioactive source holders to register all sources, even those that are currently in use, with the OSR Project on line at <http://osrp.lanl.gov/>. Source registration is voluntary, but allows DOE to plan and prioritize recovery efforts. The source registry is a key component in planning to ensure that adequate funding, facility, and personnel resources are available to recover, store, and eventually dispose of GTCC sources.

To register sources online, visit <http://osrp.lanl.gov/>. For more information about the OSR Project, visit the new DOE OSR Project website at <http://www.doeal.gov/OSRP>.

(Contact: Joel Grimm, 505-845-5463; e-mail: jgrimm@doeal.gov)

LICENSE APPLICATION RECEIVED FROM U.S. ENRICHMENT CORPORATION

On February 12, 2003, the U.S. Nuclear Regulatory Commission received a license application, from the U.S. Enrichment Corporation (USEC), to operate a gas centrifuge uranium enrichment test and demonstration facility (Lead Cascade) for 5 years. The proposed facility will be based on U.S. Department of Energy (DOE) advanced gas centrifuge technology. USEC plans to assemble and operate the Lead Cascade in an existing DOE gas centrifuge building located at the Portsmouth Gaseous Diffusion Plant site in Piketon, Ohio. The Lead Cascade, which will consist of up to 240 centrifuges, will provide USEC with reliable information on the machines and auxiliary systems, as they would be used in commercial operations.

The staff anticipates completing its acceptance review of the Lead Cascade facility application by March 14 and issuing a Notice of Opportunity for Hearing by March 28, 2003. Final licensing approval for this site is expected to be issued in early 2004. USEC plans to submit a license application

for its commercial-scale facility in late 2004 or early 2005.

In a separate action, Louisiana Energy Services (LES) has delayed the submittal of its application for a commercial-scale gas centrifuge enrichment facility. LES notified the staff, on January 29, 2003, that the application, originally scheduled for January 30, would be delayed for approximately 6 weeks. The reason cited for the delay was to resolve utility contractual commitments regarding output.

(Contact: Yawar Faraz, 301-415-8113,
e-mail: yhf@nrc.gov)

SIGNIFICANT EVENTS

The U.S. Nuclear Regulatory Commission (NRC) is providing summaries of these events to inform licensees of conditions they may encounter and of actions that may be taken to deal with them.

Event 1: Industrial Radiographer receives a Total Effective Dose Equivalent in Excess of 25 centiSievert (rem) from a Single Event

Date and Place: October 18, 2002; Huntington Testing and Technology, Ghent, Kentucky.

Nature and Probable Consequences: An Agreement State licensee reported an overexposure, to an industrial radiographer, of 31.4 centiSievert (cSv) (rem) for 2002. A radiographer was reeling in the 3.81-terabecquerel (103-curie) iridium-192 source after an exposure, when the source did not fully retract to its shielding position. The radiographer, unaware of this situation, entered the restricted area for approximately 3 minutes. When he realized that the source was not fully retracted, he immediately left the area, extended the source, and then retracted it to the shielded position. [The exposure device (Model 660-B, Serial #B2954) involved was manufactured by AEA Technologies.] The licensee's Radiation Safety Officer (RSO) was contacted and the radiographer was removed from radiological work. His dosimetry was sent for processing and results indicated a whole-body exposure of only 4.86 cSv (rem). However, the licensee, with assistance from the AEA Technologies' RSO, completed a reconstruction of

the whole-body exposure to the radiographer. The final result of the incident was an event exposure of 30 cSv (rem) whole-body, in addition to his year-to-date exposure of 1.4 cSv (rem), for a total yearly whole-body exposure of 31.4 cSv (rem). Discussions with the State regulatory agency, along with independent calculations, confirmed the 30 cSv (-rem) event exposure. The licensee stated that the thermoluminescent dosimeter and operating ratemeter were in the radiographer's pocket. Consequently, the badge did not reflect true whole-body exposure and the alarm ratemeter was never heard in an alarming condition. The cause of the event included inadequate operating procedures for the exposure device, the radiographer having his alarm ratemeter in his pocket, and failure to survey the exposure device on completion of the radiograph.

Actions Taken to Prevent Recurrence

Licensee: The licensee's corrective actions included revising the operating procedure for restoration of the source to the exposure device; personnel training on the revised procedure and proper wearing of dosimetry devices; and annual refresher training on proper operation and responses of survey instrumentation. Also, the radiographer involved in this event will receive an additional 40 hours of radiation safety training before returning to work in radiography, and will be evaluated at least once a month for the next year. The State of Kentucky has accepted the licensee's corrective actions.

Event 2: Individual Members of the Public Receive Doses in Excess of 0.1 centiSievert (rem)

Date and Place: July 1, 2002; Saint Joseph Mercy Hospital; Ann Arbor, Michigan.

Nature and Probable Consequences: An NRC licensee reported that several members of the public (all over 18 years of age) received radiation exposures in excess of regulatory limits. The exposures occurred during visits by family members to a patient who had received a therapeutic dose of 10.6 gigabecquerel (285 millicuries) of iodine-131 (I-131) on July 1, 2002. The individuals visited throughout the treatment period and were in prolonged, close contact with the patient. Because of the patient's poor renal function,

typical biological elimination of the I-131 did not occur. Radiation levels measured on July 1 were 4 millisieverts (mSv)/hr (400 mrem/hr) at the bedside and 0.4 mSv/hr (40 mrem/hr) at 1 meter (3.3 feet). The Radiation Safety Officer (RSO) estimated that one individual received a radiation dose in the range of 3.0 to 5.673 centisievert (cSv) (rem). The RSO estimated that approximately 10 other individuals received radiation doses as high as 0.5 cSv (-rem). The licensee had placed shielding around the patient to reduce the radiation levels and counseled the individuals on the need to minimize their time and proximity to the patient. Many of the individuals did not adhere to the directions and controls established to minimize radiation exposure. Based on additional information received during interviews, NRC inspectors estimated the highest dose received to be 0.15 sievert (15 rem).

Actions Taken to Prevent Recurrence

Licensee: Corrective actions include staff education regarding potential safety concerns of staff and family members; notifying NRC of any unusual circumstances when family members fail to follow procedures; convening a family care conference to discuss a plan for care of the patient and discuss family concerns; and modifying the procedures for allowing visitors into rooms of patients undergoing therapy.

NRC: The NRC Region III conducted a special inspection from October 4 through October 16, 2002, with in-office review through November 15, 2002. NRC has not made a final determination in this matter.

(Contact: Roberto Torres, NMSS, 301-415-8112; e-mail: rjt@nrc.gov)

GENERIC COMMUNICATIONS ISSUED (November 1, 2002–January 31, 2003)

Note that these are only 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](http://www.nrc.gov/doc-collections/gen-comm/index.html). Please note that this address is case-sensitive and must be entered exactly as shown.

Information Notices (INs)

IN 2002-30, “Control and Surveillance of Portable Gauges during Field Operations,” was issued on October 30, 2002. This notice was issued to all licensees authorized to possess, use, transport, and store portable gauges, to remind them of their responsibility to maintain control and constant surveillance of portable gauges during field operations.

(Contact: Michael T. Markley, NMSS, 301-415-5723, e-mail: mtm@nrc.gov)

IN 2002–31, “Potentially Defective UF₆ Cylinder Valves (1-Inch),” was issued on October 31, 2002. This notice was issued to all licensees authorized to possess and use source material and/or special nuclear material for the heating, emptying, filling, or shipping of uranium hexafluoride (UF₆) in 30-inch and 48-inch cylinders. The purpose of this notice was to inform addressees about safety concerns related to UF₆ cylinder valves manufactured by the Hunt Valve Company, Inc., of Salem, Ohio. The two safety concerns involve: (1) cracked packing nuts and (2) the loss of material traceability and failure to conduct hardness testing of the valve stems.

(Contacts: William Troskoski, NMSS, 301-415-8076, e-mail: wmt@nrc.gov; Geoffrey Hornseth, NMSS, 301-415-2756, e-mail: gph@nrc.gov)

IN 2002–33, “Notification of Permanent Injunction against Neutron Products Incorporated of Dickerson, Maryland,” was issued on November 22, 2002. This notice was issued to all teletherapy and radiation processing licensees to inform them that the State of Maryland has placed a permanent injunction on the company Neutron Products, Inc. (NPI), 22301 Mount Ephraim Road, Dickerson, Maryland 20842, radioactive materials license number MD-31-025-01. The State has requested that NRC licensees be informed of this action because of potential impact on those using NPI sources.

(Contact: Raymond Manley, Supervisor, Radioactive Material Licensing Section, State of Maryland Radiological Health Program, Maryland Department of the Environment, 1800 Washington Boulevard, Suite 705, Baltimore, MD 21230-1720; telephone: 410-537-3301; e-mail: rmanley@mde.state.md.us)

IN 2002-35, “Changes to 10 CFR Parts 71 and 72 Quality Assurance Programs,” was issued on December 20, 2002. This notice was issued to all holders of 10 CFR Part 71 quality assurance program approvals and all 10 CFR Part 72 licensees and certificate holders to remind them of the requirement to obtain NRC approval of all changes to Parts 71 and 72 quality assurance programs before implementation of the changes.

(Contact: Frank Jacobs, NMSS, 301-415-3961, e-mail: fxj2@nrc.gov)

IN 2002-36, “Incomplete or Inaccurate Information Provided to the Licensee and/or NRC by any Contractor or Subcontractor Employee,” was issued on December 27, 2002. This notice was issued to all materials and fuel cycle licensees and certificate holders to remind them of the importance of diligently ascertaining the accuracy of educational background and professional qualifications of any contractor or subcontractor employees subject to such qualification requirement. This notice also alerts addressees to the potential penalties that could result from intentionally providing incomplete or inaccurate information to NRC.

(Contacts: Ivelisse M. Cabrera, NMSS, 301-415-8152, e-mail: imc1@nrc.gov; Thomas R. Decker, RII, 404-562-4721, e-mail: trd@nrc.gov)

Regulatory Issue Summaries (RISs)

RIS 2002-20, “Clarification of Requirements under 10 CFR 35.432—Calibration Measurements of Brachytherapy Sources,” was issued on November 7, 2002. This summary was issued to all medical licensees to provide clarification to them concerning the requirements under 10 CFR 35.432, “Calibration of Measurements of Brachytherapy Sources.”

(Contact: Linda Psyk, NMSS, 301-415-0215, e-mail: lmp1@nrc.gov)

RIS 2002-23, “Availability of Guide for Diagnostic Nuclear Medicine,” was issued on November 27, 2002. This summary was issued to all medical licensees to inform them of the availability, from NRC, of a “Guide for Diagnostic Nuclear Medicine,” prepared by the American College of Nuclear Physicians and the Society of Nuclear Medicine and published under the auspices of the Society of Nuclear Medicine.

(Contact: Roger W. Broseus, NMSS, 301-415-7608, e-mail: rwb@nrc.gov)

RIS 2003-04, “Use of the Effective Dose Equivalent in place of the Deep Dose Equivalent in Dose Assessments,” was issued on February 13, 2003. This summary was issued to all NRC licensees to provide guidance on situations in which it is permissible to use the effective dose equivalent, in place of the deep dose equivalent, in showing compliance with regulatory requirements.

(Contacts: Sami Sherbini, NMSS, 301-415-7853, e-mail: sxs2@nrc.gov; Roger Pedersen, NRR, 301-415-3162, e-mail: rlp1@nrc.gov)

(General Contact: Ivelisse M. Cabrera, NMSS, 301-415-8152, e-mail: imc1@nrc.gov)

SIGNIFICANT ENFORCEMENT ACTIONS

The U.S. Nuclear Regulatory Commission’s (NRC’s) enforcement program can be accessed via 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

Advance Testing Company, Inc. (EA-03-001)

On January 28, 2003, a Notice of Violation was issued for a Severity Level III violation involving the failure to control and maintain constant surveillance of licensed material [296 meqabecquerel (mBq) (8 millicuries) (mCi) of cesium-137 and 1480 mBq

(40 mCi) of americium-241 in a moisture density gauge] located at a temporary job site, which was in an unrestricted area.

Columbia Curb & Gutter Company (EA-02-263)

On January 21, 2003, a Notice of Violation was issued for a Severity Level III violation involving the failure to secure from unauthorized removal or limit access to, licensed material [289 megabecquerel (mBq) (7.8 millicuries) (mCi) of cesium-137 and 1480 mBq (40 mCi) of americium-241 contained in a moisture density gauge] in an unrestricted area, and the failure to control and maintain constant surveillance of this licensed material.

Rio Construction Corporation (EA-02-215)

On January 15, 2003, a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$3000 was issued for a Severity Level III violation. This involved an individual who had not been provided required radiation safety training, and who did not work under the supervision and in the physical presence of an individual who had the required radiation safety training, using a moisture density gauge, despite this.

Delta Consulting Engineers, Inc. (EA-03-002)

On January 13, 2003, a Notice of Violation was issued for a Severity Level III violation involving the failure to control and maintain constant surveillance of licensed material [approximately 333 megabecquerel (mBq) (9 millicuries) (mCi) of cesium-137 and 1628 mBq (44 mCi) of americium-241 in a portable moisture density gauge] that is in a controlled or unrestricted area and that is not in storage.

Medical

Medical Providers Capital Network (EA-02-205)

On February 11, 2003, a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$3000 was issued for a willful Severity Level III problem involving: (1) the failure of the authorized user/radiation safety officer (AU/RSO) to perform monthly visits to the licensee's facilities to review

the use of byproduct material, as required by a condition of the license; (2) the creation of false records that the visits had occurred; and (3) the receipt, possession, and use of a byproduct material without the supervision of an AU/RSO.

University of Puerto Rico (EA-02-227)

On February 7, 2003, a Notice of Violation and Proposed Imposition of Civil Penalties in the amount of \$9000 was issued for three willful Severity Level III violations involving: (1) the failure to perform daily radiation surveys of areas where radiopharmaceuticals are routinely administered to patients; (2) the failure of the radiation Safety Officer (RSO) to calibrate contamination survey instruments annually in accordance with requirements; and (3) the failure to notify the RSO immediately, after unexpectedly high radiation levels were found, in accordance with requirements.

Community Health Center of Branch County (EA-02-23)

On December 11, 2002, a Notice of Violation was issued for a Severity Level III violation involving the failure to secure, from unauthorized removal, or limit access to, licensed material, and the failure to control and maintain constant surveillance of licensed material.

University of Pennsylvania (EA-02-214)

On December 11, 2002, a letter was issued documenting NRC's decision to exercise enforcement discretion in accordance with Section VII.B.6 of the Enforcement Policy for a violation involving an exposure in excess of regulatory limits to a member of the public. The violation involved the parent of a child treated with iodine-131 who received a total effective dose equivalent of 0.7 centisievert (cSv) (rem) while providing care for the child during a treatment in September 2002. Discretion was warranted because the licensee took reasonable actions to keep the dose as low as is reasonably achievable by giving training and direction to the parent and by monitoring the parent's dose with a personal dosimeter. In addition, NRC recently approved the licensee's request to authorize a 2.0-cSv (rem) annual dose limit for the parent involved with the treatment, so that the parent

could provide care to the child during a second treatment, which was subsequently completed in November 2002.

Washington Hospital (EA-02-244)

On November 26, 2002, a Notice of Violation was issued for a Severity Level III violation involving the failure to properly prepare written directives on multiple occasions for brachytherapy treatments.

Radiography

H&H X-Ray Services, Inc. (EA-02-195)

On February 3, 2003, a Notice of Violation was issued for a Severity Level III problem involving: (1) the failure to reduce the allowable dose limit for an individual by 1.25 centisievert (cSv) (rem) for each quarter for which complete records were unavailable; and (2) as a result, the failure to limit the annual occupational dose to an adult radiographer to 5 cSv (rem) total effective dose equivalent.

Magna Chek, Inc. (EA-02-221)

On January 29, 2003, a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$6000 was issued for a Severity Level III violation involving the performance of radiographic operations by an uncertified individual at the licensee's permanent radiographic facility, and at temporary job sites. Since the licensee does not intend to use the material in the future, the license was amended for storage incident to disposal. To encourage prompt disposal of the sources, NRC has given the licensee 60 days to dispose of the material, in which case, NRC will forego the proposed civil penalty.

Testing Technologies, Inc. (EA-02-166)

On January 22, 2003, a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$9600 was issued for a Severity Level II problem involving the willful: (1) performance of radiographic operations at temporary job sites by radiographers' assistants and helpers who were not accompanied by at least one qualified radiographer;

(2) performance of radiographic operations by individuals who had not met training requirements; (3) failure to wear a combination of a direct reading pocket dosimeter, an alarming ratemeter, and either a film badge or thermoluminescent dosimeter; and (4) failure of the corporate and site Radiation Safety Officer to oversee the radiation safety program.

Dayton X-Ray Company (EA-02-201)

On November 29, 2002, a Notice of Violation was issued for a Severity Level III violation involving the performance of radiographic operations at a temporary job with only one qualified individual present.

Individual Actions

Stuart Jones, M.D. (IA-02-046)

On February 11, 2003, a Notice of Violation was issued for a Severity Level III violation based on the individual's deliberate activities while employed at Medical Providers Capital Network. As the authorized user/radiation safety officer (AU/RSO), the individual deliberately failed to provide required AU/RSO oversight of the licensee's facilities and deliberately falsified records with respect to the performance of these duties.

Dr. Heriberto Torres (IA-02-054)

On February 7, 2003, a Notice of Violation was issued for a Severity Level III violation based on the individual's deliberate activities while employed by the University of Puerto Rico. As the Radiation Safety Officer, the individual was aware that direct radiation level surveys were not being performed daily in areas where radiopharmaceuticals were routinely prepared for use or administered to patients, and he took no effective action to correct the situation.

Dr. Frieda Silva (IA-02-053)

On February 7, 2003, a Notice of Violation was issued for a Severity Level III violation based on the individual's deliberate activities while employed by the University of Puerto Rico. As the Chairman of the Radiation Safety Committee and Chief

of Nuclear Medicine, the individual was aware that direct radiation-level surveys were not being performed daily in areas where radiopharmaceuticals were routinely prepared for use or administered to patients, and he took no effective action to correct the situation.

James Fowler (IA-02-057)

On January 29, 2003, a Notice of Violation was issued for a Severity Level III violation based on the individual's deliberate activities while employed at Magna Chek, Inc., Madison Heights, Michigan. The individual deliberately performed radiographic operations without being certified through a recognized radiographer certification program. The radiographic operations by this individual were performed at the licensee's permanent radiographic facility, and at temporary job sites.

Scott Kinsella (IA-02-043)

On January 22, 2003, a Notice of Violation was issued for a Severity Level III violation, based on the individual's deliberate activities while employed at Engineering and Inspections, Unlimited, Inc., a company authorized to conduct radiographic activities under the materials license of Testing Technologies Inc., an NRC licensee. The individual participated in radiographic operations at multiple temporary job sites, with the knowledge that these operations did not conform to NRC requirements and dispatched individuals to conduct radiographic operations at multiple temporary job sites, with the knowledge that the dispatched individuals were not in compliance with NRC training requirements.

Brian McKenna (IA-02-030)

On January 22, 2003, a Notice of Violation was issued for a Severity Level II violation, based on the individual's deliberate activities while employed at Engineering and Inspections, Unlimited, Inc., a company authorized to conduct radiographic activities under the materials license of Testing Technologies Inc., an NRC licensee. The individual participated in radiographic operations at multiple temporary job sites with the knowledge that these operations did not conform to NRC requirements, and dispatched individuals to conduct radiographic operations at multiple temporary job sites, with the

knowledge that the dispatched individuals were not in compliance with NRC training requirements.

Ramón Baquero (IA-03-001)

On January 15, 2003, a Notice of Violation was issued for a Severity Level III violation based on the individual's deliberate activities while employed at the Rio Construction Corporation. As a Project Manager, the individual deliberately permitted the use of a moisture density gauge (NRC-licensed materials) by an individual who had not been provided required radiation safety training.

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

SELECTED FEDERAL REGISTER NOTICES

(December 1, 2002 – February 28, 2003)

NOTE: U.S. Nuclear Regulatory Commission (NRC) contacts may be reached by mail at the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

FINAL RULES

“Material Control and Accounting Amendments,” 67 FR 78130, December 23, 2002.

(Contact: Merri Horn, 301-415-8126;
e-mail: mlh1@nrc.gov)

“Decommissioning Trust Provisions,” 67 FR 78332, December 24, 2003.

(Contact: Brian J. Richter, 301-415-1978;
e-mail: bjr@nrc.gov)

“List of Approved Spent Fuel Storage Casks: Standardized Advanced NUHOMS-24PT1; Addition,” 68 FR 463, January 6, 2003.

(Contact: Jayne McCausland, 301-415-6219;
e-mail: jmm2@nrc.gov)

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e-mail: cwp@nrc.gov)

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(Contact: Dr. Andrew J. Murphy, 301-415-6011;
e-mail: ajm1@nrc.gov)

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1-800-368-5642; e-mail: cwp@nrc.gov)

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(Contact: Frank Cardile, 301-415-6185;
e-mail: fpc@nrc.gov
Specific comments on the public meeting process
should be directed to Chip Cameron; 301-415-1642;
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