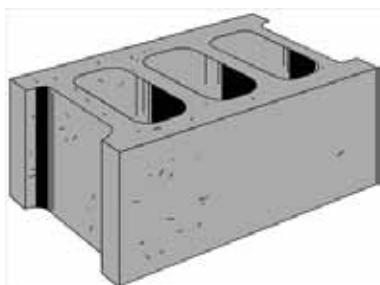


ENGINEERED BARRIER PERFORMANCE PUBLIC WORKSHOP

On August 3, 2010, the Offices of Nuclear Regulatory Research (RES) and Federal and State Materials and Environmental Management Programs (FSME) hosted a 3-day workshop on Engineered Barrier Performance Related to Low-Level Radioactive Waste, Decommissioning, and Uranium Mill Tailings Facilities. The public workshop was held at the NRC headquarters in Rockville, MD. The workshop was organized and coordinated with the States (Texas, South Carolina, Utah, Colorado, Washington, and New York) and Federal agencies (U.S. Department of Energy (DOE), Environmental Protection Agency, U.S. Geological Survey, U.S. Department of Agriculture, and DOE National Laboratories).

The workshop facilitated communication among Federal and State regulators, contractors, and selected technical experts on current engineered barrier issues and technical and regulatory

experiences, lessons learned, and new approaches to monitoring and modeling. The goal of the collaborative effort was to understand the performance of engineered barriers, which has increased substantially due to recent research studies involving exhumations of engineered cover systems and detailed analyses of experiences in cover design, modeling, model support, construction, monitoring, and maintenance. These studies and experiences have highlighted the need to formulate integrated monitoring and modeling programs along with additional research concerning the importance of a community of practice. The workshop participants had the opportunity to comment on the presentations during the specially-convened panel discussions and at the end of each day. The insights and recommendations from the workshop addressed: (1) degradation processes affecting barrier components (e.g., geomembranes, compacted low-permeability soils, surface layer including biotope); (2) direct and indirect monitoring of both short- and long-term performance processes; (3) numerical modeling



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of engineered barrier systems and evaluation of performance monitoring; (4) model support activities to provide confidence in model predictions for short- and long-term performance; (5) potential improvements to guidance; and (6) knowledge gaps and future research needs. A summary of presentations, significant insights, and recommendations are currently posted on the NRC Public Website: <http://www.nrc.gov/about-nrc/regulatory/decommissioning/public-meetings/materials2010.html>. The conference proceedings will be provided as a NUREG/CP in April 2011.

(Contact: Hans Arlt, FSME, 301-415-5845 or email: Hans.Arlt@nrc.gov)

WELCOME



Mr. Robert B. Webber

The FSME staff would like to welcome Mr. Robert B. Webber as the new Director of the Program Planning, Budgeting and Program Analysis Staff, which was effective in February 2011.

Mr. Webber began his Federal career in 1985 as a Contract Management Intern with the National Institutes of Health. He joined the NRC in 1991 as a Contractor Negotiator in the Office of Administration (ADM). Since that time, he has held a number of progressively more responsible positions in ADM, including the Director of the Division of Facilities and Security, and Senior Contract Specialist. Mr. Webber received a bachelor's degree in business administration from the University of Maryland.

The FSME staff is looking forward to working with Mr. Webber.



Ms. Adelaide S. Giantelli

The FSME staff would like also to welcome Ms. Adelaide S. Giantelli as Chief of the Source Management and Protection Branch in the Division of Material Safety and State Agreements, which was effective on January 3, 2011. Her new branch provides programmatic and technical leadership and support for the safety, security, and control of radioactive material.

Prior to this appointment, Ms. Giantelli served as the Team Leader of Transportation Security in the Division of Security Policy in the Office of Nuclear Security and Incident Response (NSIR). Ms. Giantelli joined the NRC in December 1999 as a Project Engineer in the Spent Fuel Project Office in the Office of Nuclear Material Safety and Safeguards (NMSS), and she has held several positions of increasing responsibility in NMSS and NSIR. Ms. Giantelli earned bachelor's and master's degrees in mechanical engineering from Manhattan College in New York City.

The FSME staff is looking forward to working with Ms. Giantelli, as well.

FAREWELL



Ms. Jennifer M. Golder

The FSME staff would like to congratulate Ms. Jennifer M. Golder, the former Director of the Program Planning, Budgeting and Program Analysis Staff, for her recent appointment as the new Director of the Division of Planning and Budget in the Office of the Chief Financial Officer.

Since joining the NRC in 1999, Ms. Golder has held positions of increasing responsibility. Ms. Golder is a 2008 graduate of the SES Candidate Development Program. Ms. Golder received a bachelor of science degree in speech communication from Old Dominion University and a master of public administration degree from George Mason University.



The FSME staff wishes Ms. Golder all the best and knows that she will succeed in her new position.



FROM THE DESK OF THE FSME DIRECTOR

In November 2010, I participated in NRC's Fall Senior Leadership Meeting. This meeting centered on the themes and concepts of the management book titled **"Good to Great: Why Some Companies Make the Leap... and Others Don't"** by James Collins. The book described how some companies were able to make the jump to greatness by looking for common characteristics of successful and unsuccessful companies. While the focus of the Collins book was primarily on profit-making corporations, the NRC leadership looked for applications within the regulatory setting.

After the Senior Leadership Meeting, I met with the FSME leadership team (division level managers and the regions) to examine the similar issues from a nuclear materials and waste management perspective. I would like to take the remainder of this space to describe a few things we discussed:

- While it is important to be aware of issues that can impact us that may be outside our sphere of control, it is especially important to focus energy on those that we **can** influence or control.
- We need to acknowledge that there will always be some degree of managerial attrition. We need to work smarter in order to cultivate the next generation of leaders.
- As we identify potential regulatory gaps, we need to acknowledge that not all gaps need to be filled by new regulations. Sometimes, we just need to do a better job implementing the regulations that we already have in place.
- It is always important to communicate with licensees. It is especially important to do so whenever there are changes in the regulatory requirements, or changes in key licensee personnel and contacts. It is imperative that we help licensees understand what is expected of them, especially with respect to new regulations.
- We need to continue to emphasize the importance of a strong safety culture among all licensees, not just reactor licensees.
- Budget constraints are a given. It is our job to deal with them by leveraging our staff talents and looking to eliminate functional redundancies or low-yielding activities. We must maintain a focus to shed work that is least important to our regulatory mission.
- We need to supplement our Lessons Learned analyses, which tend to focus on areas we could have done better with reviews that also identify what we did particularly well.
- We need to get more of our headquarters staff and management into the field, and we need to invite regional managers to interact more with our headquarters staff.

From your licensee perspective, some of these bullets may just be informational. Others may be directly applicable to you. Either way, I hope you will join us as we strive to move along the path from good to great. It is clearly a journey worth travelling.

As always, thank you for your efforts to ensure safety, security, and the protection of the environment in your daily activities.

Charles L. Miller

Charles L. Miller, Director



SIGNIFICANT ENFORCEMENT ACTIONS

The NRC issued significant actions for failure to comply with regulations.

Basin Electric Power Cooperative (EA-09-258)

On August 26, 2010, the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$24,700 to Basin Electric Power Cooperative. The violations involved: (1) Severity Level (SL) II violation of 10 CFR 20.1301(a)(1) for failure to limit radiation exposure to members of the public to less than 100 millirem in a year, resulting in six members of the public receiving doses in excess of 100 millirem; (2) SL III violation of 10 CFR 20.1902(e) for failure to conspicuously post caution signs with the words "CAUTION, RADIOACTIVE MATERIAL(S)" or "DANGER RADIOACTIVE MATERIAL(S)" in areas where nuclear gauges were used; (3) SL III violation of 10 CFR 30.50(b)(4) for failure to notify the NRC within 24 hours after the discovery of an unplanned fire on March 8, 2007, that damaged the integrity of a licensed device; and (4) SL III violation of License Condition 21 of Amendment 10 to NRC Materials License 331822401 for failure to close and lock the nuclear gauge shutters after plant operations had stopped and prior to allowing welders to begin work, resulting in welders exposed to the direct radiation beam from these nuclear gauges.

Earth Engineering, Inc. (EA-10-062)

On June 28, 2010, the NRC issued a Notice of Violation to Earth Engineering Inc. (EEI) for two Severity Level III violations. The first violation involved a failure to comply with the conditions of the NRC Order Revoking License issued on June 4, 2009. Specifically, the licensee did not pay fees within 30 days or transfer the licensed material to an authorized recipient within 60 days from the date of the Order. The second violation involved a failure to afford the NRC an opportunity to inspect the EEI facility, as required by 10 CFR 19.14(a). Specifically, on October 7, 2009, the licensee did not provide the NRC access to the nuclear portable gauge to inspect the condition of the gauge. Between November 2, 2009, and January 27, 2010, the NRC made several attempts to contact the licensee, but the licensee did not provide access to the EEI facility.

Laboratory Testing Services, LLC (EA-10-069)

On July 6, 2010, the NRC issued a Notice of Violation to Laboratory Testing Services, LLC (LTS) for three Severity Level III violations. The first violation involved a failure



to confine possession and use of byproduct material to the location authorized by the license, as required by 10 CFR 30.34(c). Specifically, the licensee possessed and used portable gauges at a location not authorized by the license. The second violation involved a failure to have an individual named on the license as a Radiation Safety Officer (RSO), as required by the license. Specially, the RSO named in the license left the company in June 2008, and the licensee failed to have an RSO approved by the NRC. The third violation involved a failure to obtain written consent from the NRC before transferring ownership of LTS to HAKS Material Testing Company (HAKS), as required by 10 CFR 30.34(b). Specifically, on January 14, 2010, LTS transferred ownership control of the license to HAKS without the Commission's written consent.

Mattingly Testing Services, Inc. (EA-10-100)

On September 2, 2010, the NRC issued an Order Revoking License (Immediately Effective) to Mattingly Testing Services, Inc. for multiple violations of NRC requirements. Specifically, (1) on various dates beginning on May 3, 2009, the licensee, in part deliberately failed to implement specified actions required by Confirmatory Order (EA-08-271) involving: (i) conducting an assessment of the radiation safety program, (ii) providing initial safety training to the licensee staff,

(iii) ensuring that an independent consultant's recommended program improvements were provided within 30 days of completing the required reviews, (iv) providing the independent consultant's 2009 annual audit results to the NRC, (v) conducting the initial field audit of radiography operations by the independent consultant by May 3, 2009, and (vi) submitting a required license amendment request by May 3, 2009; (2) from May 13, 2006 through September 9, 2009, the licensee deliberately failed to establish and maintain a prearranged response plan with the local law enforcement agency (LLEA) in accordance with Increased Controls Order (EA-05-090), Attachment B, Section IC-2(b); (3) on March 6, 2007, the licensee's president deliberately failed to provide complete and accurate information to an NRC inspector in accordance to 10 CFR 30.9 regarding the licensee's effort to establish a prearranged response plan with the LLEA; (4) on October 22, 2009, while under oath, the licensee's president deliberately failed to provide complete and accurate information to an NRC investigator in accordance with 10 CFR 30.9 regarding the licensee's effort to establish a prearranged response plan with the LLEA; (5) on July 4, 16, and August 29-30, 2009, the licensee failed to maintain a dependable means to detect, assess, and respond to unauthorized access to radioactive materials in accordance with Increased

Controls Order (EA-05-090) Appendix B, Section IC-2(c); (6) on June 22, 2009, the licensee failed to properly secure a radiographic exposure device for transport with proper blocking and bracing to prevent loss during transit in accordance with 10 CFR 20.1802, 10 CFR 34.35(d), and 10 CFR 71.5 that led to the device being lost in the public domain; and (7) on June 22, 2009, the licensee willfully failed to immediately notify the NRC about the lost radiographic exposure device in accordance with 10 CFR 20.2201.

St. Louis Testing Laboratories, Inc. (EA-10-085)

On August 31, 2010, the NRC issued a Notice of Violation to St. Louis Testing Laboratories, Inc., for a Severity Level III violation involving the failure to ensure each individual who acts as a radiographer or a radiographer's assistant wears a direct reading dosimeter, an operating alarm rate meter, and a personal dosimeter at all times during radiographic operations as required by 10 CFR 34.47(a). Specifically, on October 22, 2009, a radiographer inadvertently left his personal dosimeter in a tool bag inside a permanent radiographic cell while performing radiographic shots.

Southern Earth Sciences, Inc. (EA-10-110)

On July 19, 2010, the NRC issued a Notice of Violation to Southern Earth Sciences, Inc (SES), for a Severity Level III violation

involving the failure to file NRC Form 241, "Report of Proposed Activities in Non-Agreement States,"



at least 3 days prior to engaging in licensed activities within NRC jurisdiction, as required by 10 CFR 150.20. Specifically, between January 2008, and April 2009, SES, a holder of a Florida license, stored or used portable gauges in an area of exclusive federal jurisdiction without a specific license issued by the NRC nor had SES filed a Form 241 with the NRC.

Superior Well Services, Ltd. (EA-10-077)

On October 21, 2010, the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$34,000 to the Superior Well Services, Ltd. (SWS), for two Severity Level III violations. The violations involved the licensee's failure to: (1) secure a shipment of radioactive materials on a public highway to prevent shifting during normal transportation conditions in accordance with 10 CFR 71.5(a); control and maintain constant surveillance of the licensed material in an unrestricted area as required by 10 CFR 20.1802; and notify the NRC of the missing licensed

material in accordance with 10 CFR 20.2201(a); (2) conduct required radiological surveys of vehicles before transporting licensed material in accordance with 10 CFR 39.67, and the deliberate falsification of survey records for the vehicles. Specifically, on September 20, 2008, while transporting licensed material on a public highway, SWS did not secure a shipment of radioactive materials, failed to control and maintain constant surveillance of the licensed material for at least 90 minutes until SWS located and retrieved the sources, and also failed to notify the NRC of the missing licensed material until July 23, 2009, which was 10 months after the actual event. In addition, on an unspecified number of occasions prior to July 22, 2010, before transporting licensed materials, SWS did not make radiation surveys of the position occupied by each individual in the vehicle and of the exterior of the vehicle used to transport the licensed materials and recorded survey results that were obtained by copying from previous survey records.

Universal Engineering Sciences, Inc.
(EA-10-138)

On August 27, 2010, the NRC issued a Notice of Violation to Universal Engineering Sciences, Inc. (UES), for a Severity Level III violation involving the failure to file NRC Form 241, "Report of Proposed Activities in Non-Agreement States," at least 3 days prior to engaging

in licensed activities within NRC jurisdiction, as required by 10 CFR 150.20. Specifically, UES used portable gauges containing sealed sources at numerous areas of exclusive federal jurisdiction within the States of Florida and Georgia without obtaining a specific license issued by the NRC or filing NRC Form-241 with the NRC, as required.



Bryan LGH Medical Center
(EA-10-066)

On August 18, 2010, the NRC issued a Notice of Violation to Bryan LGH Medical Center dba Bryan LGH Heart Institute (Bryan Heart) for a Severity Level III violation involving the failure to file NRC Form 24, "Report of Proposed Activities in Non-Agreement States," at least 3 days prior to engaging in licensed activities within NRC jurisdiction, as required by 10 CFR 150.20. Specifically, as of December 16, 2009, Bryan Heart, a holder of a Nebraska State license, provided mobile nuclear medicine services at a temporary job site in the State of Missouri, a non-Agreement State, without filing a reciprocity submittal for calendar year 2009 with the NRC.

Christiana Care Health Services
(EA-10-141)

On August 24, 2010, the NRC issued a Notice of Violation to the

Christiana Care Health Services (CCHS) for a Severity Level III violation involving the failure to develop and maintain written procedures to provide high confidence that each administration requiring a written directive was performed in accordance with the written directive as required by 10 CFR 35.41. Specifically, CCHS's written procedures for high dose rate remote (HDR) afterloader treatments did not: (1) include a quality assurance process to test and evaluate proper functioning of all measurement tools used to determine treatment parameters; and, (2) specify how personnel should respond when unknown and questionable treatment distances were encountered during HDR simulation measurements. As a result of these procedural inadequacies, a medical event occurred when a patient received a dose to an unintended tissue and did not receive the prescribed dose to the intended tissue during an HDR treatment conducted between January 18 and 22, 2010.

Department of Veteran Affairs
(EA-10-081)

On August 23, 2010, the NRC issued a Notice of Violation (NOV) and Proposed Imposition of Civil Penalty



in the amount of \$39,000 to the Department of Veteran Affairs (VA) for two Severity Level (SL)

III violations involving: (1) the failure to implement 10 CFR 35.41(a)(2) and

10 CFR 35.41(b)(2) requirements for verifying medical treatments, and (2) the failure to implement 10 CFR 35.3045(c) requirements to report a medical event. Additionally, the NOV identifies three examples of 10 CFR 35.41(a)(2) and 35.41(b)(2) violations involving five patients at the VA Boston Healthcare System during 2005, which is also beyond the statute of limitations time period such that a civil penalty was not assessed. Specifically, for the first set of violations assessed a civil penalty, several facilities are identified and involved in multiple examples of the licensee's failure to verify that the administration of permanent prostate brachytherapy implants was in accordance with the written directives: (i) the VA Sierra Nevada Health Care System in Reno, Nevada, between September 29, 2005, and October 12, 2008; (ii) the G.V. (Sonny) Montgomery VA Medical Center in Jackson, Mississippi, between May 2007 and February 2008; and, (iii) the VA Boston Healthcare System in Boston, Massachusetts, on September 27, 2005. Further, the NOV identifies that the second violation assessed a civil penalty occurred on October 10, 2008, at the VA New York Harbor Healthcare System in Brooklyn, New York, where the licensee failed to make a timely medical event report regarding a permanent prostate brachytherapy implant when the data available at the time indicated otherwise, with

the actual treatment dose less than 69 percent of the prescribed dose.

St. Francis Hospital and Medical Center

(EA-10-171)

On November 10, 2010, the NRC issued a Notice of Violation to St. Francis Hospital and Medical Center (St. Francis) for a Severity Level III violation involving the failure to meet the physical presence requirements of 10 CFR 35.615(f)(2) during high dose radiation (HDR) treatments. Specifically, on July 1, 2010, and other occasions prior to that date, a St. Francis authorized medical physicist was not physically present during initiation and continuation of patient treatments involving the HDR unit.

Walter Reed Army Medical Center

(EA-10-140)

On October 25, 2010, the NRC issued a Notice of Violation to the Walter Reed Army Medical Center (WRAMC) for two Severity Level III violations. The violations involved the licensee's failure to control and maintain constant surveillance of the licensed material in an unrestricted area as required by 10 CFR 20.1802 and failure to conduct operations so that the dose in any unrestricted area from external sources did not exceed 0.002 rem (0.02 millisievert) in any 1 hour. Specifically, between May 1 and 3, 2010, WRAMC did not control and maintain constant

surveillance of packages containing licensed radioactive materials, which were improperly stored by WRAMC personnel in an unrestricted area under a counter in the concierge workstation, resulting in a dose greater than 0.002 rem in any one hour within the first floor lobby of the WRAMC.

The NRC's enforcement program can be accessed at <http://www.nrc.gov/about-nrc/regulatory/enforcement/current.html> under Recently Issued Significant Enforcement Actions. Documents related to cases can be accessed through the NRC's Agencywide Document Access and Management System (ADAMS) at <http://www.nrc.gov/reading-rm/adams.html>. Help in using ADAMS is available by contacting the NRC Public Document Room staff at 301-415-4737 or 1-800-397-4209 or by sending an e-mail to PDR.Resource@nrc.gov.

(Contact: Michele Burgess, FSME, 301-415-5868 or e-mail: Michele.Burgess@nrc.gov)





SUGGESTED FEDERAL REGISTER NOTICES

CITATION	SUBJECT	CONTACT	PUBLISHED
75 FR 62330	Physical Protection of Byproduct Material; Extension of Comment Period (Proposed rule)	Merri Horn, FSME, 301- 415-8126 or e-mail: Merri.Horn@nrc.gov	October 8, 2010
75 FR 62694	Implementation Guidance for Physical Protection of Byproduct Material Category 1 and Category 2 Quantities of Radioactive Material; Draft Guidance Document for Comment; Extension of Comment Period	Merri Horn, FSME, 301- 415-8126 or e-mail: Merri.Horn@nrc.gov	October 13, 2010
75 FR 67636	Physical Protection of Shipments of Irradiated Reactor Fuel (Notice of availability of draft guidance for public comment)	R. Clyde Ragland, NSIR 301-415-7008 or e-mail: Clyde.Ragland@nrc.gov	November 3, 2010
75 FR 70618	Distribution of Source Material to Exempt Persons and to General Licensees and Revision of General License and Exemptions; Extension of Comment Period (Proposed rule)	Gary Comfort, FSME, 301-415-8106 or e-mail: Gary.Comfort@nrc.gov	November 18, 2010
75 FR 75641	Advance Notification to Native American Tribes of Transportation of Certain Types of Nuclear Waste (Proposed rule)	Merri Horn, FSME, 301- 415-8126 or e-mail: Merri.Horn@nrc.gov	December 6, 2010

TO OUR READERS



In our attempt to keep the FSME Licensee Newsletter relevant, we welcome useful and informative feedback on the contents of the newsletter. If you would like to suggest topics, please contact Vanessa Cox or Gwendolyn Davis, from FSME Rulemaking Branch A. Ms. Cox may be contacted at 301-415-8342 or Vanessa.Cox@nrc.gov. Ms. Davis may be contacted at 301-415-8165 or Gwendolyn.Davis@nrc.gov. In addition, to ensure proper delivery of the FSME Licensee Newsletter, please report any address changes to Ms. Cox to prevent any interruption of service at FSME_Newsletter@nrc.gov.



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