



Department of Health
and Human Services
Maine People Living
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Paul R. LePage, Governor

Mary C. Mayhew, Commissioner

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November 16, 2012

MEMORANDUM

TO: Senator Kevin Raye, President of the Senate, and Representative Robert Nutting, Speaker of the House

FROM: Mary Mayhew, Commissioner
Department of Health and Human Services

SUBJECT: State Nuclear Safety Inspector's July 2012 Monthly Report to the Legislature on the Interim Spent Fuel Storage Facility in Wiscasset, Maine

Legislation enacted in the spring of 2008 requires the State Nuclear Safety Inspector to provide monthly reports to the President of the Senate, Speaker of the House, the U.S. Nuclear Regulatory Commission, and Maine Yankee. The report focuses on activities at the site and includes highlights of the national debate on storing and disposing the used nuclear fuel. For your convenience highlights of national events are included as a preface to the report.

The enclosed report provides the information required under Title 22 of the Maine Revised Statutes Annotated §666, as enacted under Public Law, Chapter 539, in the second regular session of the 123rd Legislature.

Should you have questions about its content, please feel free to contact Mr. Patrick J. Dostie, State Nuclear Safety Inspector, at 287-6721.

MCM/klv

Enclosures

cc: Mark Lombard, U.S. Nuclear Regulatory Commission
Monica Orendi, U.S. Nuclear Regulatory Commission, Region I
James Connell, Site Vice President, Maine Yankee
Katrin Teel, Senior Policy Advisor, Governor's Office
Sheila Pinette, DO, Director, Maine Center for Disease Control and Prevention
Patricia W. Aho, Commissioner, Department of Environmental Protection
Richard Davies, Maine Public Advocate
Lieutenant Anna Love, Special Services Unit, Maine State Police
Nancy Beardsley, Director, Division of Environmental Health
Jay Hyland, PE, Manager, Radiation Control Program

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State Nuclear Safety Inspector Office
Maine CDC – DHHS

July 2012 Monthly Report to the Legislature

Executive Summary

As part of the State's long standing oversight of Maine Yankee's nuclear activities, legislation was enacted in the second regular session of the 123rd and signed by Governor John Baldacci requiring that the State Nuclear Safety Inspector prepare a monthly report on the oversight activities performed at the Maine Yankee Independent Spent Fuel Storage Installation facility located in Wiscasset, Maine.

The report covers activities at the storage facility, including the State's on-going environmental radiation surveillance and the national debate over the licensing and construction of a geologic repository for the disposal of spent nuclear fuel at Yucca Mountain in Nevada. The report's highlights assist readers to focus on the significant activities that took place during the month, both locally and nationally.

LOCAL:

- The Nuclear Regulatory Commission issued its security report from its June 6th inspection of Maine Yankee's ISFSI. Based on the inspection results, there were no findings identified. Since the report contained security-related information, none of the information was available for public disclosure.
- The State Police presented its amortized formula for annual funding for its tactical equipment needs to maintain their terrorist readiness response capabilities. The proposal was well received by Maine Yankee and members of the State's Interim Spent Fuel Storage Facility Oversight Group.
- The second quarter results of the State's environmental radiation surveillance program continued to illustrate three distinct groupings with the same two stations that have been historically high. The highest stations recorded an average exposure of 23.9 as compared to normal background levels of 15 to 30 on the coast of Maine. The second quarter results were comparable to the first quarter results.

The national highlights primarily focused on storage research and transportation activities as noted below:

National:

- The Center for Advanced Energy Studies, a collaborative effort between Idaho National Laboratory and Idaho's three research universities, announced that researchers were building a used nuclear fuel sensor that would have the capability to remotely monitor dry storage casks for temperature, corrosion, radiation, gas evolution, and other conditions. The sensors would detect changes or anomalies which could indicate a problem within the cask or with the spent fuel thus alerting utilities and regulators on potential problems and giving them time to act. The goal is to understand how fuel and materials break down over time.
- The Department of Energy was moving forward on one of the key Blue Ribbon Commission recommendations on transportation readiness by planning railroad surveys this fall to evaluate the short rail spurs at some shutdown sites, most notably Connecticut Yankee and Yankee Atomic in Rowe, Massachusetts.

Introduction

As part of the Department of Health and Human Services' responsibility under Title 22, Maine Revised Statutes Annotated (MRSA) §666 (2), as enacted under Public Law, Chapter 539 in the second regular session of the 123rd Legislature, the foregoing is the monthly report from the State Nuclear Safety Inspector.

The State Inspector's individual activities for the past month are highlighted under certain broad categories, as illustrated below. Since some activities are periodic and on-going, there may be some months when very little will be reported under that category. It is recommended for reviewers to examine previous reports to ensure connectivity with the information presented as it would be cumbersome to continuously repeat prior information in every report. Past reports are available from the Radiation Control Program's web site at the following link: www.maineradiationcontrol.org and by clicking on the nuclear safety link in the left hand margin.

Commencing with the January 2010 report the glossary and the historical perspective addendum are no longer included in the report. Instead, this information is available at the Radiation Control Program's website noted above. In some situations the footnotes may include some basic information and may redirect the reviewer to the website.

Independent Spent Fuel Storage Installation (ISFSI)

During July the general status of the ISFSI was normal, with no instances of spurious alarms due to environmental conditions.

There was one fire-related impairment for the month and it occurred on July 10th. One of the fire doors was not latching reliably and an additional closure mechanism was added to it two days later.

There was one security-related impairment for the month and it occurred on July 2nd. It involved one of the cameras. All thirteen security events logged were related to transitory and environmentally related camera issues.

There were thirteen condition reports¹ (CR) for the month of July and they are described below.

1st CR: Documented a fire at a consultant's office in Texas. The office housed some Maine Yankee documents which were unaffected by the fire.

2nd CR: Involved safeguards information and therefore not available for public disclosure.

3rd - 4th CRs: Were written to document some personnel TLDs not being picked up for processing. They were retrieved the following day.

5th CR: Addressed the fire door impairment noted above.

6th CR: Addressed documentation issues with an access authorization folder being misfiled. The folder was found and was properly secured at all times.

7th CR: Was written as a tracking condition report for a self assessment.

8th CR: Addressed documentation that was not readily available. The policy document was located later that day.

9th CR: Was written to document the inconsistency between the security company's drug and alcohol policy and what was in effect at the facility. The facility's protocols were changed to be consistent with the security company's policy.

10th CR: Documented an instance of when personnel dosimetry was inadvertently left in the restricted

¹ A condition report is a report that promptly alerts management to potential conditions that may be adverse to quality or safety. For more information, refer to the glossary on the Radiation Program's website.

(radiation) area. The dosimetry was retrieved upon discovery.

11th CR: Documented a missing verification initial on a procedure attachment.

12th CR: Was written to document some minor conduit damage from the man-lift bumping into the conduit.

13th CR: Documented a new hire being on shift prior to his qualification package being signed off.

Other ISFSI Related Activities

1. On July 6th the Nuclear Regulatory Commission issued its security report from its June 6th inspection of Maine Yankee's ISFSI. Based on the inspection results, there were no findings identified. Since the report contained security-related information, none of the enclosure was available for public disclosure.
2. On July 10th the legislatively mandated group, representing the Department of Environmental Protection (DEP), the State Police, the Public Advocate, the Department of Health and Human Services' Radiation Control Program and Maine Yankee, met for its quarterly meeting to discuss the State's and Maine Yankee's activities pertinent to the oversight of the ISFSI. The State Inspector briefed the group on his past and near term activities for the quarter. The DEP spoke of their discussions with the State Inspector on the excavation of soils under the Soil Management Plan that Maine Yankee has with the State. In addition, the DEP representative also briefly mentioned the upcoming chemical groundwater sampling program on Bailey Point slated for 2013 into 2014. As part of the Resource Conservation and Recovery Act Maine Yankee must maintain a chemical sampling effort every five years, except that the sampling frequency will be quarterly for the last three years of the 30 year program. Maine Yankee then briefed the group on the Nuclear Regulatory Commission's Confirmatory Orders to incorporate a plan into their license to negate the effects of foreign ownership of its company. Maine Yankee had already implemented its Negation Action Plan back in January of this year. The group was also apprised of Maine Yankee's efforts to upgrade its security capabilities over the next couple of years. Maine Yankee also mentioned its security focus for the upcoming emergency plan exercise and invited the State Police to integrate its tactical response capabilities as part of the State's response to the emergency exercise. Maine Yankee also noted that the Department of Energy is moving forward on transportation readiness as railroad surveys are being planned this fall to evaluate the short rail spurs at some shutdown sites, most notably Connecticut Yankee and Yankee Atomic in Rowe, Massachusetts. The State Police presented its amortized formula for annual funding for its tactical equipment needs to maintain their terrorist readiness response capabilities. The proposal was well received by Maine Yankee and the group. The Public Advocate briefly mentioned that the Maine Yankee Trust Fund is meeting expectations with no Federal Energy Regulatory Commission or Nuclear Regulatory Commission involvement anticipated.

Environmental

The State received the second quarter results from the field replacement of its thermoluminescent dosimeters² around the ISFSI and the Maine Yankee industrial site. The results from the quarterly TLD change out continued to illustrate three distinct exposure groups: elevated, slightly elevated, and normal. The high stations identified were G and K and averaged 23.9 milliRoentgens³ (mR).

The moderately elevated stations were E, F, J, L, and Q, and averaged 21.9 mR. This quarter the subset of the moderately high group did not materialize as it in the three previous quarters. The stations continue to trade

² Thermoluminescent Dosimeters (TLD) are very small, passive radiation monitors requiring laboratory analysis. For a further explanation, refer to the glossary on the Radiation Program's website.

³ A milliRoentgen (mR) is a measurement of radiation exposure. For a further explanation, refer to the glossary on the Radiation Program's website.

places. For example, stations M and O were in the subset of the moderately high group last quarter, but dropped to the normal group this quarter. Station J, which was in the subset of the moderately high group last quarter, was now in the moderately elevated group this quarter. These deviations will be tracked over the next several quarters to see if a pattern develops. The remaining stations A, B, C, D, H, I, M, N, O and P averaged 19.4 mR.

The Maine Yankee industrial site TLDs averaged 19 mR, which is comparable to the normally expected background radiation levels of 15 to 30 mR on the coast of Maine. Some of the background levels are highly dependent upon tidal effects, and local geology. However, virtually all the stations exhibit seasonal fluctuations that are affected by the out gassing of the naturally radioactive gas, Radon. All the second quarter TLD results averaged nearly the same exposure as the first quarter result. This was unexpected as the second quarter results should have exceeded the first quarter's frozen ground and snow cover conditions which generally restrict the out-gassing of Radon from the soils. Further research may be warranted to explain this unexpected outcome.

The control TLDs that are stored at the State's Radiation Control Program in Augusta averaged about 10.3 mR. The storing of the control TLDs at the Health and Environmental Testing Laboratory's (HETL) pre-World War II steel vault had an affect on the TLD values. The 10.3 mR is slightly higher than last quarter's control results of 10.1 mR. The impact of the lower Radon gas also affected HETL's background radiation levels. The controls are part of a program to better quantify the individual impacts of storage and transit exposures on the thermoluminescent dosimeters (TLDs).

As a further application of this TLD assessment, on March 15th three of the seven control TLDs received for the second quarter of 2012 were returned to the State's TLD vendor, Global Dosimetry in California, for an analysis of the transportation exposures. The initial set of results from the control TLD badges returned indicated an average of 5.9 mR for the total exposure picked up between leaving the vendor, arriving at the State and then immediately being shipped back and received by the vendor. The 5.9 mR represented a decrease of 1.2 mR when compared to last quarter's 7.1 transit badges. The decrease is either attributed to a shorter roundtrip time between California and Maine this quarter or a longer transit time last quarter. The on-going assessment, which is expected to last about two years, will allow for more accurate comparisons between control TLDs and field results in addition to quantifying the actual radiological impact from the stored nuclear fuel.

The field control TLDs at Ferry Landing on Westport Island, Edgecomb Fire Station, and the roof of the State's Health and Environmental Testing Laboratory read 20.2, 21.5, and 17.7 mR, respectively. The current values were comparable to the previous quarter's results.

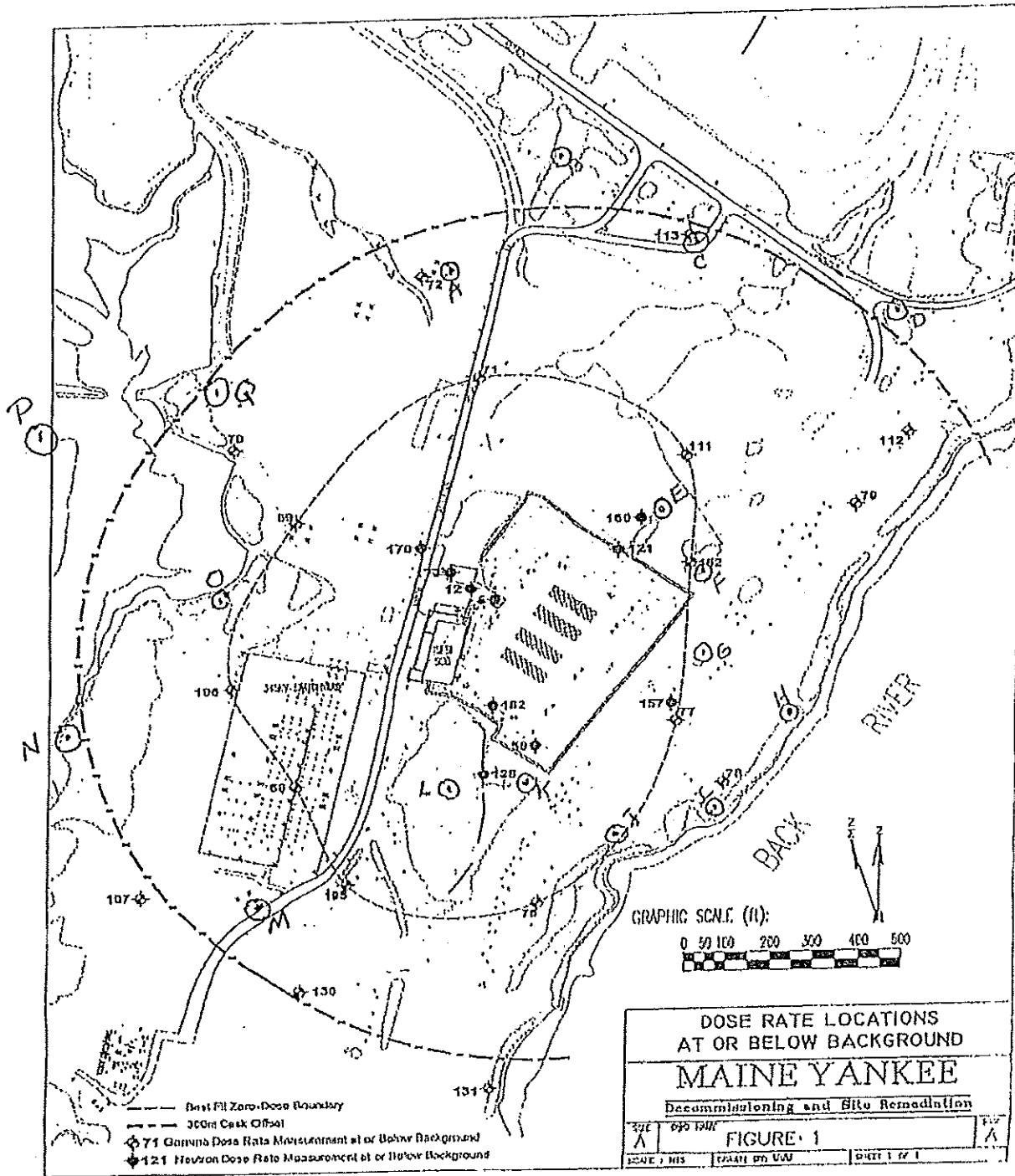
As noted in earlier reports the State's maintains an environmental air sampler on the roof of the Health and Environmental Testing Laboratory (HETL) for local or national events. The air sampler was extremely helpful during last year's Fukushima event in Japan as it was instrumental in quantifying the levels of radioactivity that was coming from the cripple reactors. This year's first quarter results did not identify any unusual radioactive elements and were within historical ranges for both gross beta⁴ and Beryllium-7, a naturally radioactive cosmogenic element that is produced from cosmic rays interacting with the nitrogen and oxygen atoms in the atmosphere. The gross beta results ranged from 13.3 to 26.4 femto-curies per cubic meter (fCi/m³)⁵. A composite of the five bi-weekly air filter samples was used to measure the Beryllium-7's concentration of 78.1 fCi/m³.

⁴ Gross Beta is a simple screening technique that measures the total number of beta particles emanating from a potentially radioactive sample. High values would prompt further analyses to identify the radioactive species. Refer to the glossary on the website for further information.

⁵ A fCi/m³ is an acronym for a femto-curie per cubic meter, which is a concentration unit that defines how much radioactivity is present in a particular air volume, such as a cubic meter. A "femto" is a scientific prefix for an exponential term that is equivalent to one quadrillionth (1/1,000,000,000,000,000).

For informational purposes Figure 1 on page 5 illustrates the locations of the State's 17 TLD locations in the vicinity of the ISFSI. The State's locations are identified by letters with the two highest locations being stations G and K.

Figure 1



Other Newsworthy Items

1. On July 2nd The Energy Council sent a letter to House Speaker Boehner touting the Senate's efforts to establish a pilot program to consolidate spent nuclear fuel at one or more storage sites. The letter

further urged the President and Congress to ratify the Blue Ribbon Commission's recommendations. A copy of the letter is attached.

2. On July 6th the states of South Carolina and Washington, Aiken County in South Carolina, Nye County in Nevada, the tri-city business leaders from the Hanford area in the state of Washington, and the National Association of Regulatory Utility Commissioners filed with the U.S. Court of Appeals for the District of Columbia their response to the briefs submitted by the Nuclear Regulatory Commission (NRC) and the Department of Justice on the petitioner's lawsuit that the NRC unreasonably delayed their decision to rule on their Atomic and Safety Licensing Board decision to deny the Department of Energy's motion to withdraw their license application for the Yucca Mountain repository. The petitioners requested the Court to order the NRC to resume their licensing proceedings on the Yucca Mountain construction application.
3. On July 9th Dr. Allison Macfarlane was sworn as the new Chairman of the Nuclear Regulatory Commission. Dr. Macfarlane replaced former Chairman Dr. Gregory Jaczko who had resigned in May. Dr. Macfarlane, a geologist, served on the President's Blue Ribbon Commission on America's Nuclear Future. A copy of the news release is attached.
4. On July 11th the Nuclear Waste Strategy Coalition held a conference to brief its members on the status of the DC Circuit lawsuits over the Nuclear Waste Fund fees, the Nuclear Regulatory Commission's (NRC) Waste Confidence Ruling and the NRC's shutting down of the Yucca Mountain licensing proceedings. The fee case was remanded back to the Department of Energy to perform a valid fee assessment within six months. In the waste confidence lawsuit the Court noted that the NRC failed its obligations under the National Environmental Policy Act by not performing a more thorough analysis than what its Waste Confidence Decision Update provided. Finally, on the NRC licensing proceedings the Court's ruling had not been issued yet. The Congressional update focused on the House's \$35 million appropriation to complete the licensing proceedings on Yucca Mountain and the Senate's draft legislation, the Nuclear Waste Administration Act, in response to the Blue Ribbon Commission's (BRC) recommendations for managing the nation's used nuclear fuel. The briefing also mentioned recent state involvement with Pennsylvania's and Arizona's legislative resolutions requesting Congress and the President to implement the BRC's recommendations. Also highlighted was Governor LePage's letter to Maine's Congressional delegation requesting their support for expedited implementation of the BRC's priority recommendations on funding and consolidated interim storage. The briefing also discussed the changes at the Commissioner level at the NRC and upcoming meeting events.
5. On July 12th the Center for Advanced Energy Studies, a collaborative effort between Idaho National Laboratory and Idaho's three research universities, announced that researchers were building a used nuclear fuel sensor that would have the capability to remotely monitor dry storage casks for temperature, corrosion, radiation, gas evolution, and other conditions. The sensors would detect changes or anomalies which could indicate a problem within the cask or with the spent fuel thus alerting utilities and regulators on potential problems and giving them time to act. The goal is to understand how fuel and materials break down over time.
6. On July 16th-17th Electric Utility Consultants Inc. held a nuclear used fuel conference. The used fuel topics included government policies, safety, security, transportation, management of dry cask storage, and community issues. Additional presentations were made on the Nuclear Waste Fund and reform, recycling, and future policy actions based on the Blue Ribbon Commission's recommendations. A copy of the agenda is attached.

7. On July 24th, as part of the House Energy and Commerce's Subcommittees on Environment and the Economy and Energy and Power held a hearing on Nuclear Regulatory Commission's Policy and Governance Oversight. Four of the five NRC Commissioner's testified, including the newly sworn in Chairman of the Commission, Dr. Allison MacFarlane, who replaced Chairman Gregory Jaczko, who had resigned. During the hearing the NRC's Inspector General investigative report was released detailing its findings on six allegations against the previous Chairman Jaczko. The allegations ranged from Chairman Jaczko's purported usurping of his powers during the Fukushima accident, his creation of a chilled workplace environment with his fellow Commissioners and NRC staff, and his testimony during a House Committee hearing. Of the six allegations against Chairman Jaczko, only the allegation on a chilled environment was credible, while another seemed to suggest that Chairman Jaczko's testimony before Congress was inconsistent with the information available. A copy of the press release is attached.



The Energy Council

Arkansas Senator
Randy Laverty
Chairman

July 2, 2012

Alaska Senator
Bert Stedman
Vice Chairman

The Honorable John Boehner
House Speaker
H-232, The Capitol
Washington, DC 20515

Lori Cameron
Executive Director

Dear Speaker Boehner:

5400 LBJ Frwy.
Suite 985
Dallas, Texas 75240

The Energy Council is a policy organization comprised of leadership-level and energy and environmental-related committee chairs and members from the legislatures of 11 energy-producing states, ranging from the Gulf of Mexico to the Arctic Ocean. The Council's member states produce the bulk of our Nation's oil and gas, as well as coal, uranium and renewable energy.

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Over the past half-dozen years, throughout the drawn-out deliberations on the proposed Yucca Mountain project, several successive Energy Council policy resolutions have consistently recognized the need for a permanent repository for used nuclear fuel. In recent years, The Council's policy has evolved to embrace, concurrently, the development of interim used fuel storage facilities and continuing research to close the fuel cycle to reduce the volume of used fuel to reduce by-products requiring final disposal (see attachment).

The Blue Ribbon Commission on America's Nuclear Future, appointed by the President, has come forward with several solid recommendations that align closely with The Energy Council's broader used fuel management priorities. In particular, we support the commission's recommendation for the development of one or more Nuclear Regulatory Commission-licensed interim used fuel storage facilities in volunteer host communities and states. These voluntary host communities do exist, and they have expressed an interest in serving this national need.

The Energy Council applauds the recent approval by the U.S. Senate Appropriations Committee of an FY 2013 Energy & Water Appropriations bill that recommends a consent-based pilot program to consolidate used nuclear fuel at one or more storage sites with approval from state, local and tribal governments.

For a program that has collected nearly \$30 billion from nuclear utilities to meet the federal government's contractual used fuel obligations with little to show for it to date, the Blue Ribbon Commission's interim storage recommendations and the Senate Appropriations bill provide a promising path forward. The Energy Council urges the President and the Congress to adopt the BRC's recommendations, though whatever legislation or administrative action is needed to break this long impasse.

Sincerely,

COPY
Randy Lavery

Randy Lavery
Arkansas Senate and
Chairman, The Energy Council

cc: Hon. Daniel Inouye, Chairman, Senate Appropriations Committee
Hon. Thad Cochran, Ranking Member, Senate Appropriations Committee
Hon. Dianne Feinstein, Chairwoman, Senate Appropriations Subcommittee
on Energy and Water Development
Hon. Lamar Alexander, Ranking Member, Senate Appropriations
Subcommittee on Energy and Water Development
Hon. Jeff Bingaman, Chairman, Senate Energy & Natural Resources Committee
Hon. Lisa Murkowski, Ranking Member, Sen. Energy & Natural Resources
Committee
Hon. Maria Cantwell, Chairwoman, Sen. Energy & Natural Res. Energy
Subcommittee
Hon. Jim Risch, Ranking Member, Sen. Energy & Natural Res. Energy
Subcommittee
Hon. Harold Rogers, Chair, House Appropriations Committee
Hon. Norm Dicks, Ranking Member, House Appropriations Committee
Hon. Rodney Frelinghuysen, Chair, House Appropriations Subcommittee
on Energy & Water Development, and Related Agencies
Hon. Peter Visclosky, Ranking Member, House Appropriations Subcommittee
on Energy & Water Development, and Related Agencies
Hon. Fred Upton, Chair, House Energy & Commerce Committee
Hon. Henry Waxman, Ranking Member, House Energy & Commerce
Committee
Hon. Edward Whitfield, Chair, House Energy & Commerce Subcommittee
on Energy & Power
Hon. Bobby Rush, Ranking Member, House Energy & Commerce
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NRC NEWS

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No. 12-081

July 9, 2012

ALLISON M. MACFARLANE BECOMES 15th NRC CHAIRMAN

Dr. Allison M. Macfarlane, designated by President Obama as chairman of the Nuclear Regulatory Commission, was sworn in today as the 15th person chosen to lead the agency charged with regulating the civilian use of nuclear materials.

She will serve a term ending June 30, 2013.

"This is a singular honor. I am grateful to the President for nominating me and to the Senate for confirming my selection," said Macfarlane after a small private ceremony attended by the agency's other commissioners and several senior NRC staff.

"The agency faces multiple challenges. I look forward to working collegially with my fellow commissioners and the excellent, dedicated staff at the NRC to address these issues," added Macfarlane, an expert in nuclear waste issues.

Macfarlane, 48, holds a doctorate in geology from the Massachusetts Institute of Technology. Most recently she was an associate professor of environmental science and policy at George Mason University in Fairfax, Va. She has held fellowships at Radcliffe College, MIT, and Stanford and Harvard Universities. From 1998-2000 she was a Social Science Research Fellow-MacArthur Foundation Fellow in International Peace and Security. She has served on National Academy of Sciences panels on nuclear energy and nuclear weapons issues.

From 2010 to 2012 she served on the Blue Ribbon Commission on America's Nuclear Future, created by the Obama Administration to make recommendations about a national strategy for dealing with the nation's high level nuclear waste. Her research has focused on environmental policy and international security issues associated with nuclear energy, especially the back-end of the nuclear fuel cycle. In 2006 MIT Press published a book she co-edited, *Uncertainty Underground: Yucca Mountain and the Nation's High-Level Nuclear Waste*, which explored technical issues at the proposed waste disposal facility at Yucca Mountain, Nev.

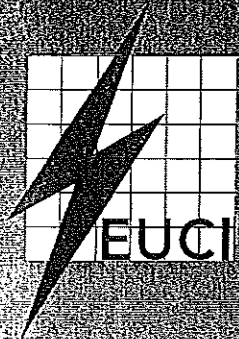
Macfarlane is the third woman to serve as chair of the commission, the 33rd member to serve on the panel, and the only individual with a background in geology to serve on the commission.

Formed in 1975 when the Atomic Energy Commission was dissolved and its responsibilities divided between the independent NRC for nuclear regulation and the Energy Department for energy research and promotion, the agency is widely regarded as a world leader in nuclear regulation and one of the top places to work in the federal government. The NRC has about 4,000 employees in Rockville, Md., and four regional offices.

Macfarlane and her husband, a George Mason University professor of cultural studies and anthropology, live in Bethesda, Md. They have two children.

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News releases are available through a free *Listserv* subscription or by clicking on the EMAIL UPDATES link on the NRC homepage (www.nrc.gov). E-mail notifications are sent to subscribers when news releases are posted to NRC's website. For the latest news, follow the NRC on www.twitter.com/NRCgov.



EUCI presents a conference on:

NUCLEAR USED FUEL

July 16-17, 2012 • Chase Park Plaza • St. Louis, MO



Supporting Organization

NWSC
Nuclear Waste Strategy Coalition



EUCI is authorized by ACET to offer 1:1 CEUs for this program.

NUCLEAR USED FUEL

WIN 16-17, 2012

OVERVIEW

Issues involving used fuel remain major challenges to the nuclear power industry. Since the passage of the Nuclear Waste Policy Act in 1982, the country has been unable to secure a national nuclear waste repository. The nuclear industry and utilities have been forced to compensate by creating storage sites throughout the nation. There are currently 55 independent spent fuel storage installations (ISFSI) throughout the country with general or specific site licenses to store used fuel issued by the Nuclear Regulatory Commission (NRC). Issues associated with the current situation include storage requirements, cask selection, transportation, the possibility of recycling, regulatory compliance, and many others. This conference will allow participants to interact with professionals involved in the complex nuclear used fuel field, learning operations, technical details, and regulatory controls. Participants will take back to their organizations a full understanding of the current nuclear used fuel situation, as well as outlooks and projections.

LEARNING OUTCOMES

- Define the legal and regulatory requirements for nuclear used fuel
- Describe nuclear used fuel pool operations
- Indicate the critical considerations for efficient dry cast storage
- Recognize community issues concerning nuclear used fuel storage
- Identify the key requirements of effective and compliant transportation of nuclear used fuel
- Indicate the essential elements for effective security at nuclear used fuel storage sites
- Discuss the primary provisions of the Nuclear Waste Policy Act
- Describe the requirements and current status of the Nuclear Waste Fund
- Differentiate between enrichment of nuclear fuel and recycling of used nuclear fuel
- Discuss developments and trends in nuclear used fuel management
- Examine the current recommendations of the Blue Ribbon Commission on America's Nuclear Future

WHO SHOULD ATTEND

- Nuclear utility personnel responsible for used fuel operations and storage
- Non-utility personnel involved with used fuel transportation and storage
- Nuclear suppliers and contractors involved with nuclear fuel transportation, dry cask storage, and other nuclear used fuel operations
- Other nuclear personnel interested in ensuring used fuel programs meet regulatory and legal requirements
- Managers and leaders in nuclear facilities and utilities whose responsibilities include security program planning for used fuel
- Public affairs and communications specialists responsible for conveying nuclear information to the public
- Nuclear industry regulators and government representatives with responsibilities in nuclear used fuel equipment, supplies, or services
- Attorneys and consultants representing nuclear industry clients
- Others with an interest in nuclear used fuel issues and strategies

IACET



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Requirements for Successful Completion of Program

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

Instructional Methods

PowerPoint presentations, classroom discussions, and question-and-answer sessions will be used in this course.

Register today! Call 303-770-8800 or visit www.euci.com

NUCLEAR USED FUEL

July 16-17, 2012

PROGRAM AGENDA

MONDAY, JULY 16, 2012

- 7:30 – 8:00 a.m.** **Registration and Continental Breakfast**
- 8:00 – 8:30 a.m.** **Keynote Address**
Introductory comments on the status and strategies for nuclear used fuel in the United States.
– *David Wright, Chair - Executive Committee, Nuclear Waste Strategy Coalition / Vice Chair, South Carolina Public Service Commission / President, NARUC*
- 8:30 – 9:30 a.m.** **Government Policies, Procedures, and Actions Concerning Nuclear Used Fuel**
Various departments and agencies in the government have oversight responsibilities for nuclear used fuel. This presentation will explain the various laws, regulations, rules, and decisions that have developed around nuclear used fuel. This very complex system is often difficult to understand, and the speaker will attempt to provide participants with a clearer understanding of the requirements of managing nuclear used fuel operations.
– *Alex Polonsky, Partner, Morgan, Lewis, and Bockius, LLP*
- 9:30 – 10:00 a.m.** **Networking Break**
- 10:00 – 11:00 a.m.** **Composition of Used Fuel – Safety Considerations and On-Site Storage in Used Fuel Pools**
This session will discuss the technical aspects of nuclear used fuel, how it comes to be, where it is initially stored, and safety considerations in moving and storing the used fuel in generation facilities.
 - What are the pools for?
 - Is there enough space for the nuclear industry's needs?
 - How safe are nuclear used fuel pools?
 - Design considerations
 - Technical specification requirements for a used fuel pool
 - Why is dry cask storage then necessary?– *Burt Grabo, Principal, Nuclear Industry Consultant*
- 11:00 a.m. – 12:00 p.m.** **Processing, Disposal, and Management of Nuclear Used Fuel – Dry Cask Storage**
After nuclear used fuel has been sufficiently cooled, they are then transported and stored in casks. This presentation will discuss the technical aspects of the movement and storage of nuclear used fuel. Topics include:
 - Issues associated with dry cask storage
 - Site selection criteria
 - Transportable storage technology
 - Transportable storage cask systems for commercial used nuclear fuel
 - Nuclear material safeguards management– *Craig Seaman, Vice President, NAC International*
- 12:00 – 1:00 p.m.** **Group Luncheon**
- 1:00 – 1:45 p.m.** **Transportation of Nuclear Used Fuel**
Comprehensive nuclear material packaging and transportation services are essential components of handling nuclear used fuel. Compliant transportation involves strict regulation on national and international levels. Supported by used fuel transport casks, cask operators, and field engineers, agencies constantly provide the expertise necessary to relocate and manage nuclear used fuel and materials domestically and internationally. The presentation will address the required components of used fuel transportation systems and the federal regulatory compliance structure overseeing the transportation of nuclear used fuel and other nuclear materials.
– *Michael Wangler, Transport Safety and Security Specialist, U.S. Department of Energy (invited)*

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- Tabletop exhibit
- Breakfast host

Custom sponsorship opportunities are also available. Please contact David Hickey at 720-988-1239 or dhickey@eucl.com for more information.

Register today! Call 303-770-8800 or visit www.eucl.com

PROGRAM AGENDA

MONDAY, JULY 16, 2012 (CONTINUED)

1:45 – 2:30 p.m.

Security Operations and Requirements Involving Used Nuclear Fuel

Security of nuclear used fuel sites is of primary concern to all nuclear industry stakeholders. Questions consistently arise in the media concerning the safety of storage facilities and the vulnerability of sites to damage from external events. Effective security at used nuclear fuel sites is imperative.

- Physical security requirements at sites
- What types of information are classified or protected?
- Compliance with federal security and safety regulations
- Maintaining security records
- Developing emergency reaction and disaster plans
- Protecting intellectual property

– Dan Rimmer, CEO and COO, G4S Nuclear Security Services Corporation (NSSC)

2:30 – 2:45 p.m.

Afternoon Break

2:45 – 3:30 p.m.

Community Issues and Used Nuclear Fuel

Many communities are concerned about the effects of nuclear used fuel sites at their locales. Some have openly questioned the rationale of having so many storage sites in communities nationwide and have urged the federal government to pursue national, or at least regional, repositories as a logical alternative. One such community, the Prairie Island Indian Community in Minnesota, has stated in Senate testimony that "developing a safe, permanent storage facility for spent nuclear fuel is critical to the health and welfare of the millions of Americans who currently live near temporary nuclear waste storage sites." This case study will offer concerns and issues of communities associated with nuclear used fuel storage and will discuss possible environmental impacts.

– Heather Westra, Community Environmental Advisor, Prairie Island Indian Community

3:30 – 4:15 p.m.

The Question of a National Repository – Nuclear Waste Policy Act

Thirty years ago, Congress passed legislation supporting the use of deep geologic repositories for the safe storage and/or disposal of used nuclear fuel. The Nuclear Waste Policy Act (NWPA) was created to establish procedures to evaluate and select sites for used nuclear fuel storage. Additionally, the Act was intended to assign responsibilities to federal agencies for managing used fuel storage: assigning the Department of Energy with responsibility for siting, building, and operating a facility for used nuclear fuel and assigning the Nuclear Regulatory Commission to license DOE to operate a repository when all standards were met. The provisions of the Act have not been fulfilled. This presentation will review the provisions of the law, discuss the reasons the requirements have not been completed, and address the current situation involving the question of a national repository and its relationship to other options currently being considered.

– Katrina McMurrian, Executive Director, Nuclear Waste Strategy Coalition

4:15 – 5:00 p.m.

Nuclear Waste Fund and the Need to Reform

Congress passed legislation in 1982 allowing ratepayers who are provided electricity by nuclear power generators to be charged a fee to cover costs of nuclear used fuel disposal and the creation of a national repository. This presentation will address the details of the Nuclear Waste Fund.

- Original concepts
- Setting and adjusting the fee
- Balance can be invested and earn returns
- History of revenue, returns, appropriations, and the corpus
- Present status
- Mandatory and discretionary budgets
- Fee suspension litigation
- Outlook

– Brian O'Connell, Director - Nuclear Waste Program Office,
National Association of Regulatory Utility Commissioners (NARUC)

5:00 – 6:00 p.m.

Networking Reception

JULY 16-17, 2012

PROGRAM AGENDA

TUESDAY, JULY 17, 2012

8:00 – 8:30 a.m. **Continental Breakfast**

8:30 – 9:20 a.m.

Recycling and Enrichment Processes – Technology and Development

Recycling programs in the United States for nuclear used fuel were abandoned in the 1970s. The fear was an increased possibility of nuclear weapons proliferation. Other nations have utilized U.S. technology in developing both enrichment and recycling programs. As the need for – and eventual abandonment of – a national repository facility for the storage of used nuclear fuel has been debated over the last several years, new attention has been directed toward the newly developing enrichment programs in the U.S. and the possibility of revitalizing the recycling of used nuclear fuel in this country. The presentation will focus on the technology of enrichment of nuclear fuel and the possibilities of the future.

– Kevin Riley, Chief Operating Officer - Energy Services, URENCO USA

9:20 – 10:00 a.m.

Blue Ribbon Commission on America's Nuclear Future – Upcoming Policy Actions

The BRC was established on January 29, 2010, as directed by the President's Memorandum for the Secretary of Energy. The Commission convened under the authority of the U.S. Department of Energy. On January 26, 2012, the Commission submitted its final report to the Secretary. The purpose of the Commission was to "conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle, including all alternatives for the storage, processing, and disposal of civilian and defense used nuclear fuel, high-level waste, and materials derived from nuclear activities." This presentation will discuss the findings of the Commission, recommendations made concerning research and technology programs, options for storing used nuclear fuel (temporarily or permanently), and anticipated policy changes resulting from the findings. Implications affecting nuclear industry stakeholders will be addressed.

– Francis "Chip" Cameron, Nuclear Safety Consultant, Zero Gravity Group

10:00 – 10:30 a.m.

Networking Break

10:30 a.m. – 12:00 p.m. **Roundtable Discussion on the Future of Nuclear Used Fuel**

Conference participants will join policy experts to discuss and ask questions concerning the future issues surrounding the management of nuclear used fuel.

– Moderator: Howard Sobel, Nuclear Industry Consultant, HLSobelPE

– Katrina McMurrian, Executive Director, Nuclear Waste Strategy Coalition

– Brian O'Connell, Director - Nuclear Waste Program Office, NARUC

– Francis "Chip" Cameron, Nuclear Safety Consultant, Zero Gravity Group

12:00 p.m.

Conference Adjourns

PROCEEDINGS

A copy of the conference proceedings will be distributed to attendees at the event. If you are unable to attend or would like to purchase additional copies, flash drives are available two weeks after the conference is complete. The cost per flash drive is US \$295 (add US \$50 for international shipments). Flash drives include visual presentations only. Upon receipt of order and payment, the flash drive will be shipped to you via regular USPS mail.

NOTE: All presentation flash drive sales are final and are nonrefundable.

EVENT LOCATION

A room block has been reserved at Chase Park Plaza, 212 N. Kingshighway Blvd., St. Louis, MO 63108, for the nights of July 15-19. Room rates are \$169, plus applicable tax. Call 888-420-0768 for reservations, and mention the EUCI conference to get the group rate. The cutoff date to receive the group rate is June 22, 2012, but as there are a limited number of rooms available at this rate, sometimes the room block will close sooner. **Please make your reservations early.**

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Any organization wishing to send multiple attendees to this course may send one FREE for every three delegates registered. Please note that all registrations must be made at the same time to qualify.

All cancellations received on or before June 15, 2012, will be subject to a \$195 processing fee. Written cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event or publication. This credit will be good for six months. In case of event cancellation, Electric Utility Consultants' liability is limited to refund of the event registration fee only. For more information regarding administrative policies such as complaints and refunds, please contact our offices at 303-770-8800.

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- Discounted registration fee for attending two events: US \$2195
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FEATURED STORY

VIDEO: Meet the E&C Committee Majority Members
 VIDEO: Comparing Obama's "Heady Idealism" to Secret Deals & Advertising Agreements Behind Obamacare
 Watch Live: Environment and the Economy Markup at 9:00 AM ET

PRESS RELEASE

NRC Commissioners Pledge Commitment to Collegiality and Safety

Members Question New NRC Chairman Allison Macfarlane About Governance, Post-Fukushima Reforms, and Commitment to Yucca Mountain

July 24, 2012

WASHINGTON, DC – Nuclear Regulatory Commission Chairman Allison Macfarlane appeared before Congress today alongside NRC Commissioners Kristine Svinicki, William Magwood, and William Ostendorff at a joint hearing hosted by the House Energy and Commerce Subcommittees on Environment and the Economy, and Energy and Power.

This was the first congressional hearing with Chairman Macfarlane, who was appointed to the position by the president shortly after previous NRC Chairman Gregory Jaczko's resignation. Under Jaczko, the commission suffered a tumultuous tenure fraught with political infighting and a loss of the collegial working environment that is so essential to the NRC's safety mission. At today's hearing, members welcomed Macfarlane to her new position and expressed optimism that she would restore the commission's deteriorated operational relationships. "My hope is that Chairman Macfarlane recognizes that the NRC is no place for politics and that she will work collegially with her colleagues to mend the agency's credibility," said Energy and Commerce Committee Chairman Fred Upton (R-MI).

Environment and the Economy Subcommittee Chairman John Shimkus (R-IL) expressed a desire to move on from the Jaczko era. He said, "This is an opportunity, not to dwell on the past, but to look to the future through some of the important lessons of recent Commission events and actions. It is critical for our oversight that we examine weaknesses in the NRC's governance identified during the past Chairman's tenure and to assess the many policy challenges facing the agency."

Chairman Macfarlane pledged her commitment to working openly and collegially with her fellow commissioners, stating, "I will devote all my energies to serving on the NRC with the attributes that I consider important to good governance – openness, efficiency and transparency. I will make a strong commitment to collegiality at all levels. An agency endowed with the public trust such as the NRC requires a respectful working environment to assure its integrity."

Today's hearing included a broad discussion of post-Fukushima changes at the commission and the impact of new regulations and the Fukushima Task Force recommendations on safety and our nation's nuclear plants.

Energy and Power Subcommittee Chairman Ed Whitfield (R-KY) advised the commissioners to consider both the costs and benefits of any future regulatory actions, stating, "I urge the Commission to remember that the costs of these changes are ultimately borne by consumers. For those struggling to fill their gas tanks and pay their bills, we need to ensure that any additional costs are justified by real safety benefits."

Commissioner Svinicki explained that after the highest priority reforms, potential risk reductions diminish. She stated, "It is my personal view we need to begin to return to the discipline of a cost-benefit analysis because subsequent and follow-on actions will likely not have the potential to achieve as significant of a risk reduction."

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U.S. Representative Fred Upton



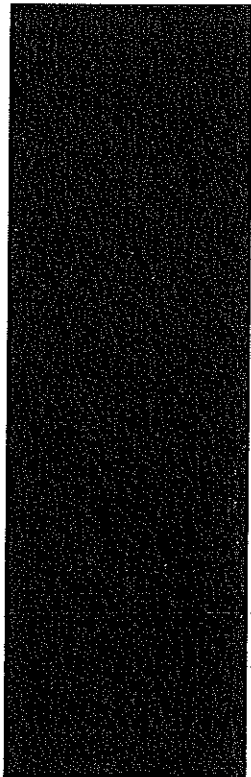
Congressman Fred Upton has represented the commonsense values of southwest Michigan since 1987. In 2010, Fred was selected by his House colleagues to serve as Chairman of the Committee on Energy and Commerce. [Read More](#);

Commissioner Ostendorff also stressed the need for careful and thorough review of any regulatory changes, noting, "The Task Force recommendations themselves were not accompanied by a regulatory technical analysis. Before we go out as a regulator and issue orders or require things to be changed, it is incumbent upon us to have a regulatory technical analysis."

Members also expressed concern over the commission's tardiness in completing recent license application reviews and issuing license renewals. In response to questioning over the commission's delay, Macfarlane committed to completing license reviews "as efficiently as possible."

Despite her previous criticisms of Yucca Mountain, Macfarlane also committed to keeping an "open mind" in her consideration of the waste repository and pledged to honor the forthcoming DC circuit court's decision over whether the NRC is bound to finish its review of the Yucca Mountain license application.

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