Department of Health and Human Services
Maine People Living Safe, Healthy and Productive Lives
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July 6, 2015

MEMORANDUM

TO: Senator Michael Thibodeau, President of the Senate, and Representative Mark Eves, Speaker of the House

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

SUBJECT: State Nuclear Safety Inspector's January through May 2014 Monthly Reports 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 reports focus on activities at the site and include highlights of the national debate on storing and disposing of the used nuclear fuel. For your convenience, highlights of local and national events are captured in the executive summary of the reports.

The enclosed reports provide 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

Enclosure

cc: Mark Lombard, U.S. Nuclear Regulatory Commission
Monica Ford, U.S. Nuclear Regulatory Commission, Region I
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State Nuclear Safety Inspector Office
Maine CDC – DHHS

April 2014 Monthly Report to the Legislature

Executive Summary

The report covers activities at the Maine Yankee Independent Spent Fuel Storage Installation (ISFSI) facility, including the State's ongoing environmental radiation surveillance and provides updates on the national effort to license and construct a consolidated interim storage facility and/or a permanent geologic repository for the disposal of spent nuclear fuel. Maine's goal is to move the ISFSI waste stored at Maine Yankee to one of these facilities. The report's highlights assist readers to focus on the significant activities that took place both locally and nationally during the month.

Local

- The Maine Yankee storage facility was inspected by two Nuclear Regulatory Commission (NRC) inspectors from Region I. After reviewing all the programs the NRC inspectors' concluded that there were no findings of significance.
- Maine Yankee submitted its annual reports for radioactive effluent releases, radiological environmental monitoring, and changes to their Off-Site Dose Calculation Manual. The reports mentioned that there were two small radioactive sources that were shipped off-site for disposal at a low-level radioactive waste facility and that the estimated annual dose from the ISFSI was 1.31 mrem[1].

National:

- The NRC held a public meeting with the Department of Energy (DOE) over their proposed revision of their 2009 technical report on post closure groundwater impacts for the Yucca Mountain geologic repository. Although there were some changes to the models, the DOE's 2014 report conclusions were the same as their 2009 report.
- The NRC Chairman sent a letter to the House Chair of the Committee on Energy and Commerce transmitting their March monthly status report on the staff's Yucca Mountain licensing application process and outlined the staff's activities to complete the remaining four volumes of the Safety Evaluation Report.
- DOE released a draft National Transportation Plan for the shipment of spent nuclear fuel and high level wastes to consolidated interim storage and/or disposal facilities. The Plan, which was based upon the President's Blue Ribbon Commission's 2012 recommendations and the Administration's 2013 Strategy, concluded that close integration with carriers, vendors and other industries will be required to align DOE and stakeholders preferences to operational practices, and creating an integrated and orderly technical program into an overall transportation system design.

Introduction

As part of the Department of Health and Human Services' long standing oversight of Maine Yankee's nuclear activities under Title 22, Maine Revised Statutes (MRS) §666 (2), legislation was enacted in the second regular

[1] A mrem or millirem is a conventional unit that is based on how much of the radiation energy is absorbed by the human body multiplied by a quality factor that is a measure of its relative hazard. For a further explanation, refer to the glossary on the Radiation Program's website.

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 ISFSI facility located in Wiscasset, Maine.

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. In October 2011, the format of the report was changed to include an executive summary which replaced the official memorandum to the legislative leadership transmitting the report. To further streamline efforts, beginning in August of 2012, the report featured hyperlinks to documents that would normally be attached as copies to the report. The hyperlinks should facilitate the reports review with some readers focusing on the report while others who wish to explore the cited documentation can do so. In January 2014, the report's executive summary was shortened to improve its readability.

Independent Spent Fuel Storage Installation (ISFSI)

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

There were one fire-related impairment for the month and it involved a fire door that would not latch properly. Periodic fire rounds were implemented until the door closer was adjusted. However, there were no security-related impairments, but three security events were logged for the month. Two were related to transient environmental conditions. The other involved an issue with a security-related system which was corrected by enhancing the vendor's procedure.

There were eighteen condition reports[2] (CR) for the month and they are described below.

- 1st CR: Documented an issue while performing a fire extinguisher inspection. The individual was coached on the proper method and the procedure revised to improve clarity.
- 2nd CR: Was written to document the front gate not closing properly. A switch was replaced and a spring adjusted.
- 3rd CR: Was written to document the security-related system event logged above.
- 4th CR: Was written to document a firearm found stored improperly. The individual was retrained on storage requirements and the procedure changes were made to enhance firearm safety.
- 5th CR: Was written as to document that a key to an industrial gate was missing from a key set. Upon further investigation it was determined that the key was not missing and no further corrective actions were taken.
- 6th CR: Documented a potential compliance issue with NRC regulations regarding key management personnel obtaining a Facility Security Clearance. Apparently, the process was started to obtain the clearance but never completed. Corrective action was taken to complete the process.
- 7th CR: Documented that a lock was not operating properly. The lock was replaced.
- 8th CR: Documented that routine activity items were not created to track Nuclear Safety Culture reviews as required by procedure. The activity items were developed and issued.

[2] 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 Control Program's website.

9th CR: Was written to document that an incorrect form and revision was used for a Condition Report. The form directory was corrected.

10th CR: Was written to document an incorrect procedure reference. The procedure was revised to correct the reference.

11th CR: Documented an issue with logging into a computer. The vendor was contacted and reset the login identification to allow access.

12th CR: Documented that a training individual qualification record was not developed in accordance with the procedure. The qualification record was revised to meet procedural requirements.

13th CR: Issued a tracking CR to document observations from the April 2014 NRC inspection. This CR was expected to be resolved in November 2014.

14th CR: Was written to document that visitors were not properly logged into the Radiation Work Permit based on conflicts between two radiation procedures. One procedure was clarified to ensure visitors logged into the appropriate Radiation Work Permit as required by the other procedure.

15th CR: Documented that a sink hole was discovered in the area of the former Circulating Water Pumphouse. The area was roped off and ground penetrating radar was performed to ensure no safety issue existed due to underground voids.

16th CR: Was written as to document a cracked hand grip on a firearm. The grip was replaced.

17th CR: Documented that a telephone was not working. It had been unplugged during maintenance and not re-plugged in. The wire was re-routed to prevent this issue from happening again.

18th CR: Documented the security events described above due to transient conditions.

Other ISFSI Related Activities

1. On April 4, Maine Yankee submitted to the NRC its biennial report on any changes, tests, or experiments at the ISFSI. According to Maine Yankee no changes were made to the storage facility, the spent fuel cask design, or procedures that required an evaluation in accordance with NRC regulations.

2. On April 4, Maine Yankee submitted to the NRC its fourth revision to its Emergency Plan. The changes were mostly editorial and involved changing 'Owner Controlled Area' to "Controlled Area" to be consistent with the ISFSI regulations, clarified the location of the radiation controls checkpoint within the Security and Operations Building (SOB), changed training wording from 'during the calendar year' to "annually", removed a reference to a records vault from the SOB, and added a new appendix listing the implementing procedures to the Emergency Plan.

3. On April 4, Maine Yankee also submitted its revisions to its Emergency Plan implementing procedures to the NRC within the 30 day timeframe allotted by NRC regulations. Current revisions to three procedures were presented. Maine Yankee also identified and reported to the NRC that, since 2008, they had not submitted to the NRC previous revisions to their emergency plan procedures within the 30 day requirement. Consequently, Maine Yankee also included the other three remaining implementing procedures. To ensure the Commission was aware of what changes transpired over the years, Maine Yankee provided a detailed table outlining all the changes for each procedure from their initial inception up to an including their current revisions. Most of the changes were editorial and of minor significance along with some format changes.

4. On April 16, the Maine Yankee storage facility was inspected by two NRC inspectors from Region I. One inspector concentrated on the security program at the facility while the other inspector focused on the remaining programs such as radiation protection, emergency preparedness, maintenance, fire protection, training, environmental monitoring, quality assurance, surveillances and corrective action programs. Because of his familiarity with the remaining programs, the State Inspector spent the majority of the inspection time with the NRC security inspector observing interviews and activities. There were no security findings. As for the remaining programs the self-identified issues with the

Emergency Implementing Procedures not being submitted to the NRC in a timely fashion and the omission of the 2013 independent assessment of the Emergency Preparedness Program were discussed with the NRC inspector, who verified that appropriate corrective actions were taken to address the issues. Both failures represented violations of such minor significance that they did not require any formal enforcement action. The NRC Inspector's conclusion after reviewing all the programs was there were no findings of significance.

5. On April 22, Maine Yankee submitted its annual reports for radioactive effluent releases and radiological environmental monitoring along with its changes to their Off-Site Dose Calculation Manual (ODCM). There were no planned or unplanned gaseous or liquid releases from the storage casks. Therefore, no assessment of the radiation dose to the most likely exposed person was required. However, there were two small radioactive sources that were shipped off-site for disposal at a low-level radioactive waste facility. One was a glass vial of Krypton-85 and the other was a Cesium-137 disk source. The total radioactivity shipped was 18 micro-curies. Since there were no effluent releases from the casks, Maine Yankee was only required to monitor the direct radiation exposure from the facility, which it does with passive devices, called thermoluminescent dosimeters (TLDs). The environmental monitoring report explains the TLD findings. There are nine TLD stations in the vicinity of the ISFSI and one control station at the Wiscasset Fire Station. All nine stations were comparable to or in some cases slightly higher than the control station. However, there was one station that was noticeably higher than the other eight ISFSI stations. This location has been consistently high since March of 2005. Due to its distance from the bermed area of the ISFSI, the higher values are assumed to be due to its line of sight and proximity to the ISFSI. Maine Yankee calculated an annual dose of 1.15 mrem for the first three quarters at its highest TLD location. Since the fourth quarter TLD was damaged by water and ice, the dose for the fourth quarter was inferred by calculating the four year average of the fourth quarter doses at this location, which turned out to be 0.16 mrem. Consequently, the estimated annual dose was 1.31 mrem. from the storing of the casks at the Wiscasset facility. The key changes to the ODCM were the addition of the storage and maintenance building to one of the figures in the manual and the title change from 'Site Boundary' to "Licensed Area Boundary" to one of the Appendices.

6. On April 23, 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 Independent Spent Fuel Storage Installation (ISFSI). The State Inspector briefed the Group on the status of his monthly reports to the Legislature, his participation in a national interregional team that is developing recommendations from states to the Department of Energy on emergency preparedness for local communities on spent fuel shipments traversing their jurisdictions, and the recent decision to catalog and dispose of the State's 1,000+ decommissioning samples as part of its verification and oversight of the Maine Yankee decommissioning. Maine Yankee discussed the chemical sampling of the 21 wells on-site as part of its agreement with DEP. (The 30 year agreement between Maine Yankee and DEP required Maine Yankee to sample 21 wells at periodic intervals to ascertain the extent, if any, of any residual chemical contaminants.) Maine Yankee also informed the Group of the NRC's recent inspection findings at their storage facility. Maine Yankee also alerted the Group on its upcoming fire and medical drills in May and its annual Emergency Plan exercise in October. The State Police advised the Group that they would participate with their tactical team. In addition, Maine Yankee updated the Group on what's happening at the national level with Congress, the Courts, and other stakeholder interests.

Environmental

The State received the 2014 first quarter results in April from the field replacement of its thermoluminescent dosimeters (TLDs) 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 number of high stations decreased from the expected two, stations G and K, to just station G. The elevated station averaged 24.5 milliRoentgens[3] (mR). There appeared to be no rational basis for the decreased number of stations, except that occasionally, stations trade places.

There were seven stations in the slightly elevated group (E, F, J, K, L, O, and Q) with an average of 21.3 mR. Some stations continue to trade places due to background variations. Three remained and four others traded places from the previous quarter. For example, stations A, D, and M that were in the slightly elevated group last quarter were in the normal group this quarter, whereas F, K, L, and Q that were in the elevated group last quarter were in the slightly elevated group this quarter. All the deviations will be tracked over the next several quarters to see if a pattern develops. There were nine stations (A, B, C, D, H, I, M, N, and P) in the normal group as opposed to the previous quarter's six and they averaged 19.1 mR.

The Maine Yankee industrial site TLDs averaged 18.7 mR, which is comparable to the normally expected background radiation levels of 15 to 30 mR for the coast of Maine. The industrial site TLD results exhibited the expected seasonal variations with the first quarter results being lower than the previous quarter. Some of the stations have background levels that are highly dependent upon tidal effects, and local geology. However, virtually all the stations display seasonal fluctuations that are affected by the out gassing of the naturally occurring radioactive gas, Radon.

The four control TLDs that were stored at the State's Health and Environmental Testing Laboratory (HETL) in Augusta averaged about 10.8 mR. Although the storing of the control TLDs at HETL's pre-World War II steel vault lowers the natural background values, the 10.8 mR value for this quarter was lower than last quarter's control results of 14.9 mR. The State has noted that after two years a pattern was developing indicating that the fourth quarter TLD controls have higher measurable values contrary to expectations. Even though seasonal fluctuations were anticipated, the lower background from one quarter to the next in a shielded environment was very unusual. Although we have not pinpointed the cause of the fluctuations yet, there was no doubt that something was impacting the TLDs. The controls were initially part of a program to better quantify the individual impacts of storage and transit exposures on the TLDs. However, as indicated above, they also have been instrumental in pointing out changes that would normally have not been captured if it were not for the program.

As a further application of this TLD control assessment, on March 14th three of the seven control TLDs received for the second quarter of 2014 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 7.1 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 7.1 mR was comparable to the previous quarter's reported 7.7 mR transit badges. After two years the State was starting to see signs of a pattern developing for the different quarters. Nevertheless, it was too early to tell if the pattern was real. More time is needed to verify if the pattern continues. Besides seasonal and daily fluctuations in the background, modest increases or decreases could be attributed to an extra few days or a few days less transit.

The field control TLDs at Ferry Landing on Westport Island, the Edgecomb Fire Station and the roof of the State's Laboratory read 21.0, 21.2, and 18.8 mR, respectively. Traditionally, the Edgecomb Fire Station value is higher than the Westport Island location.

As noted in earlier reports the State's maintains an environmental air sampler on the roof of HETL for local or national events. The air sampler was extremely instrumental during the Fukushima event in Japan over three years ago in quantifying the levels of radioactivity that was coming from the cripple reactors. This year's first

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

quarter results did not identify any unusual radioactive elements and were within historical ranges for both gross beta[4] 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 31.3 to 52.1 femto-curies per cubic meter (fCi/m^3)[5]. A composite of the six bi-weekly air filter samples was used to measure the Beryllium-7's concentration of 77.7 fCi/m^3.

For informational purposes Figure 1 on page 7 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 highest location for this quarter as G as opposed to the historically high stations G and K.

Other Newsworthy Items

1. On April 2, nine members of the House of Representatives forwarded a letter to their Chair and Ranking Member of the Appropriations' Subcommittee on Energy and Water Development requesting that the House's Fiscal Year 2015 Appropriations Bill include appropriate funds for the DOE to enter into discussions with potential host communities for the storage and disposal of spent nuclear fuel and directing the DOE to establish a pilot interim storage facility with priority to decommissioned reactor sites. The signatories to the letter included Maine's two representatives, Chellie Pingree and Michael Michaud, three from California, two from Wisconsin and one each from Connecticut and Massachusetts. All nine congressmen represented states that have shutdown reactor sites. The web link for the letter can be accessed by positioning the cursor over the underlined text and following the directions.

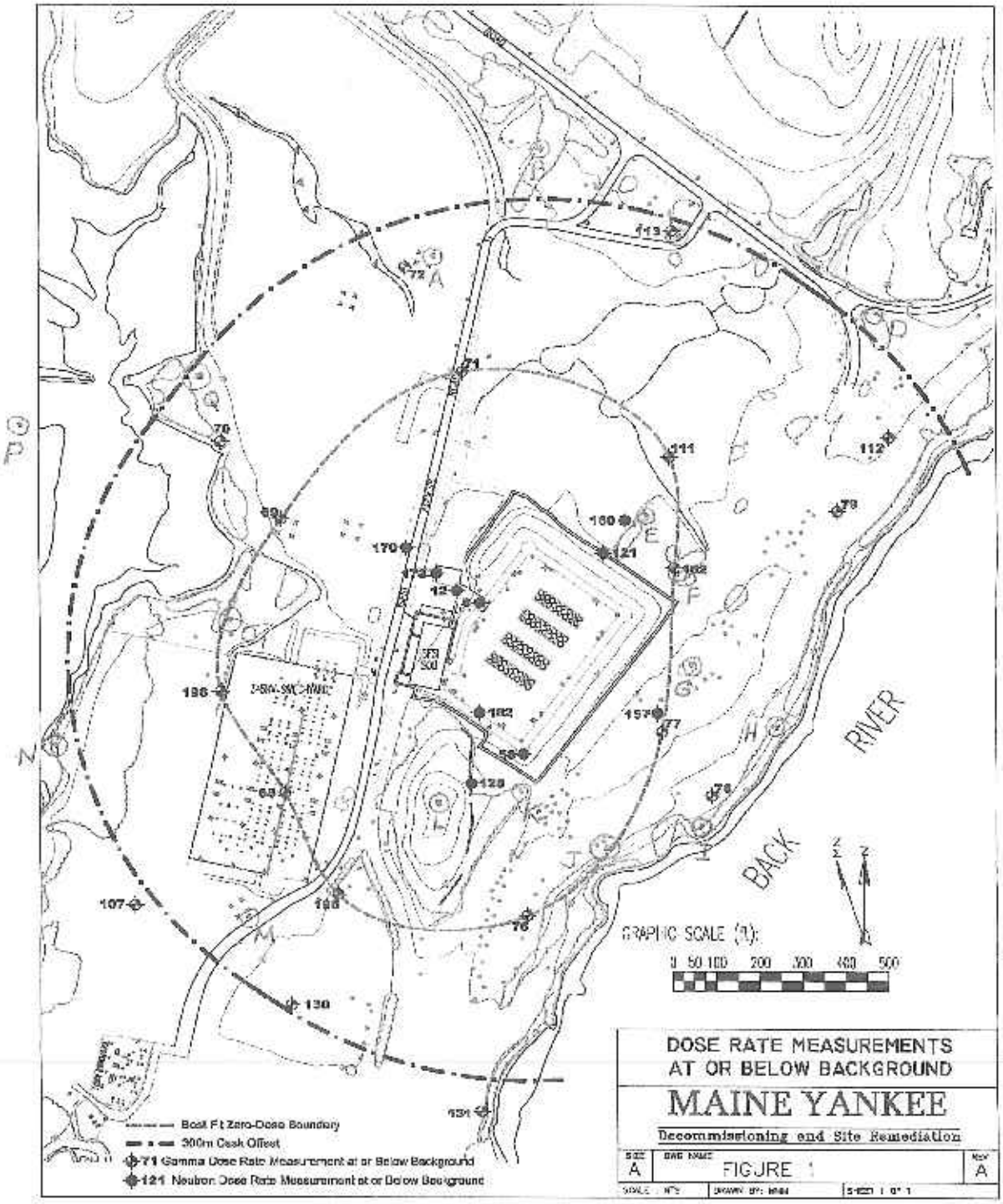
2. On April 3, two professors from Arizona State University and the Executive Director of the Nevada Agency for Nuclear Projects made a presentation at the Western Social Science Association's annual conference panel on federal environmental policies, entitled "Restructuring the U.S. Nuclear Waste Management Program: An Environmental Opportunity for Change? The paper presented a previously developed conceptual model on policy formation and how policy obtains a place on the formal government agenda. The model predicts that problems become agenda items when three process streams merge, namely problem, policy, and political, especially with impacts from certain focusing events, whether national or international. The authors utilized the model to show how the characteristics played a role in the congressional legislation that created the Nuclear Waste Policy Act of 1982, which was later amended in 1987. The authors stated that they believe certain forces were presently in place that indicated the three process streams appear to be merging again with the recent focusing event of the Fukushima reactor accidents. They contend that the federal government should seize the opportunity to plot a new direction for nuclear waste management for our nation in light of the proposed senate legislation: The Nuclear Waste Administration Act of 2013. The web link for the presentation can be accessed by positioning the cursor over the underlined text and following the directions.

3. On April 7, the DOE and Russian organizations have developed the first Type C cask to ship by air spent nuclear fuel from a research reactor. The impetus to develop such a package was driven by the need to ship plutonium from military programs or as mixed uranium and plutonium fuel for civilian reactors. Since the outcome of an air accident would be far more severe, the casks had to undergo several tests such as a hard target impact at 288 miles per hour (mph), a 60 minute fire submersion with temperatures ranging from 1400 to 2400 degrees, withstand eight hours submerged under water, a puncture drop test from a height of 10 feet onto a probe, a slash test from a structural steel angle piece dropped from a height of at least 150 feet onto the center of the cask, and then rotated 90 degrees and the

[4] Gross Beta is a simple screening technique that measures the total number of beta particles emanating from a potentially radioactive sample. 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).

Figure 1


RIVER
BACK
GRAPHIC SCALE (ft):
0 50 100 200 300 400 500
DOSE RATE MEASUREMENTS
AT OR BELOW BACKGROUND
MAINE YANKEE
Decommissioning and Site Remediation
FIGJRE 1
Boat Ft Zero-Dose Boundary
300m Cask Offset
71 Gamma Dose Rate Measurement at or Below Background
121 Neutron Dose Rate Measurement at or Below Background

test repeated, and finally a compressive test with an applied force of 70,000 lbs. In addition, deformation analyses were performed on the axial, side and corner of the cask at speeds of 288 mph into three different soil densities ranging from soft to hard. The cask passed all the tests due to the energy absorbing container made up of 2,000 titanium alloy spheres. The web link for the article can be accessed by positioning the cursor over the underlined text and following the directions.

4. On April 7, the NRC held a public meeting with the Department of Energy (DOE) over their proposed revision of their 2009 technical report on post closure groundwater impacts for the Yucca Mountain geologic repository. When NRC reviewed DOE's original Environmental Impact Statement (EIS), they concluded that the EIS was inadequate and requested DOE to prepare a supplement to address all the potential groundwater impacts. In 2009, instead of issuing the supplement, DOE responded by publishing a technical report analyzing the groundwater impacts prior to the Administration's suspension of the Yucca Mountain licensing proceedings. In 2013 the federal Appeals Court ordered the NRC to resume the licensing process. When it did, the NRC requested again the groundwater supplement to DOE's EIS. DOE responded by stating they would instead update their 2009 technical report. Although there were some minor changes to the biosphere model, modifications to the irrigation recycle model, updated international research on sorption of non-radiological contaminants and oral reference doses for those contaminants, the DOE's 2014 report conclusions were the same as their 2009 report. The web link for the agenda and the DOE presentation can be accessed by positioning the cursor over the underlined text and following the directions.

5. On April 15, the Energy Department released a report prepared by Sandia National Laboratories that evaluated geologic disposal options for spent nuclear fuel (SNF) and high-level wastes (HLW). Four disposal concepts were studied. Three were mined repositories in salt, clay/shale, and crystalline (granite-like) rocks with the fourth being deep borehole disposal in granitic formations. The study also evaluated existing and reasonable foreseeable SNF and HLW inventories. The report listed the advantages and disadvantages of each disposal concept. For example, salt beds have a high thermal conductivity and a higher temperature limit that provide more flexibility with larger containers and closer spacing for disposal of heat generating wastes such as SNF than other geologic media. However there is more world wide experience with crystalline rock and it would be easier to retrieve waste packages from this medium than other disposal concepts. The study concluded that all the disposal concepts evaluated could potentially provide "robust long term isolation" while protecting workers, the public, and the environment with the feasibility of deep borehole disposal relegated to smaller packages. The web link for the report can be accessed by positioning the cursor over the underlined text and following the directions.

6. On April 17, the United Kingdom's Nuclear Decommissioning Directorate published a review on enhanced bentonite buffer materials for the disposal of high heat generating wastes such as used nuclear fuel in geologic repositories. Bentonite is an absorbent clay that was so named after the Benton Shale near Rock River, Wyoming. The use of bentonite as a buffer is to protect the disposal container and to limit the migration of any radioactive elements should the containers fail. The engineered barrier bentonite material should have three important characteristics: a high thermal conductivity (ability to conduct heat), a low hydraulic conductivity (the ease through which water moves through), and a high enough, swelling pressure (pressure generated due to the presence of water). The report stressed the importance of maintaining the buffer temperature below 180 degrees so as not to alter the thermal characteristics of the buffer. The report also drew on the advanced bentonite research performed by the Swedish government from deposits in America, Greece, Korea, Japan, and China. The Korean and Swedish disposal concepts aim at improving the thermal properties of bentonite by employing a double layer buffer concept. The web link for the report can be accessed by positioning the cursor over the underlined text and following the directions.

7. On April 24, the Ukraine government approved a decree allocating land in the Chernobyl exclusion zone for a central storage facility for spent nuclear fuel from the country's Russian-built reactors. The web link for the article can be accessed by positioning the cursor over the underlined text and following the directions.

8. On April 29, the NRC Chairman sent a letter to the House Chair of the Committee on Energy and Commerce transmitting their March monthly status report on the staff's Yucca Mountain licensing application process. The report outlined the staff's activities to complete the remaining four volumes of the Safety Evaluation Report (SER), the support received from their agency attorneys, the completion of the loading and indexing of over 3.5 million documents, and informed the House Chair of DOE's recent decision to update a revision to their 2009 technical report on groundwater impacts as opposed to a supplement to their final Environmental Impact Statement (EIS) on Yucca Mountain. The report also contained a schedule and cost estimate for the remaining activities. The March expenditures totaled about $1 million with about $2.2 million expended to date leaving a balance of $11.3 million to complete the SER, the loading of the documents into their non-public data base management system, and issuing their own groundwater supplement to DOE's EIS based on their review and analysis of DOE's revised technical groundwater impacts report. The web link for the letter can be accessed by positioning the cursor over the underlined text and following the directions.

9. On April 29, the Nuclear Waste Strategy Coalition (NWSC) sent a letter to Congressional Offices emphasizing the need for the federal government to act expeditiously to remove used nuclear fuel from existing and decommissioned reactor sites. The letter listed four topics that deserved the government's immediate attention. They were funding and governance reform, consolidated storage with priority for shutdown reactor sites, Fiscal Year 2015 appropriations, and completion of the Yucca Mountain license application. The NWSC is an ad hoc organization of state utility regulators, consumer advocates, tribal governments, local governments, electric utilities, and associate members. The web link for the letter can be accessed by positioning the cursor over the underlined text and following the directions.

10. In April, the DOE released a draft National Transportation Plan for the shipment of used nuclear fuel and high level wastes to consolidated interim storage and/or disposal facilities. The Plan was based upon the President's Blue Ribbon Commission's 2012 recommendations and the Administration's 2013 Strategy. The draft Plan was divided into eight sections. The first two sections discussed the BRC and Strategy documents, the lessons learned from previous shipping campaigns, and what transportation issues have been resolved and those that remain open. The third section related the organizational roles and responsibilities for federal, state, and local governments, industry, and national laboratories. The fourth section outlined the transportation system planning which included discussions of technical studies, institutional planning and transportation system design. The next three sections focused on such shipment practices as operations, emergency preparedness, and security. The last section concluded that long lead time planning was required, funding will have to be resolved early in the planning process, carriers, vendors and other industries will require close integration to align DOE and stakeholders preferences to operational practices, and creating an integrated and orderly technical program into an overall transportation system design. The web link to the Draft Transportation Plan can be accessed by positioning the cursor over the underlined text and following the directions.

11. In April, the Nuclear Waste Management Organization of Canada will be conducting airborne geophysical surveys in the vicinity of three Ontario communities and one Saskatchewan community as part of its preliminary assessments to find a location for a deep repository for the permanent isolation of used nuclear fuel. The flyovers will be performed at a height of approximately 300 feet along a number of straight lines that are spaced roughly 300 feet apart. The surveys will collect data on the geological structure below the surface including the shape and size of different rock types in the area. The web link for Canada's Plan can be accessed by positioning the cursor over the underlined text and following the directions.

Other News Related Items

1. On March 31, the South African Minister of Energy formally launched the National Radioactive Waste Disposal Institute to be responsible for the country's management, interim storage and disposal of all high level nuclear wastes. The Institute will also be required to plan, design, construct, operate, manage, and monitor any new, low-level radioactive waste disposal facilities.