Department of Health and Human Services
Maine People Living Safe, Healthy and Productive Lives
Paul R. LePage, Governor
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September 26, 2016

MEMORANDUM

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

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

SUBJECT: State Nuclear Safety Inspector's July 2016 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 local and national events are captured in the executive summary 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

Enclosure

cc: Mark Lombard, U.S. Nuclear Regulatory Commission
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Timothy Schneider, Maine Public Advocate
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Nancy Beardsley, Director, Division of Environmental Health
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State Nuclear Safety Inspector Office
Maine CDC – DHHS

July 2016 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

Maine Yankee removed a cask lid on one of its vertical concrete casks to determine the extent of any residual chlorides that may contribute to stress corrosion cracking of the stainless steel canisters that contain the spent nuclear fuel. Maine Yankee also tested a robotic camera to demonstrate whether or not the technique could be used as an inspection technique for future canister inspections. The camera was inserted the full length of the canister (approximately 14 feet) in three of the top four vents. With the camera footage recorded, radiation surveys were performed with the robot the full length of the canister. The robotic demonstration continued with additional camera footage taken at two of the four bottom inlet vents. Additional chloride testing was performed on two spent fuel vertical concrete casks.

National:

- Representative Dold from Illinois introduced legislation to reimburse communities with shutdown reactor sites that stored spent nuclear fuel. The local communities would be paid $15 per kilogram of spent nuclear fuel. Currently, thirteen communities, including Wiscasset, would qualify for the payment. Maine Yankee has approximately 540 metric tons of spent nuclear fuel in storage, which could amount to an annual payment of $8.1 million to the Town of Wiscasset for the next seven years.
- The Associated Press reported that Waste Control Specialists of Texas sent a letter to the Nuclear Regulatory Commission (NRC) expressing interest in siting a spent fuel storage facility at the company's facility, five miles east of Eunice, New Mexico. The proposal comes on the heels of Waste Control Specialists recent license application submittal to the NRC for their interim storage facility in Texas and the Eddy/Lea/Holtec partnership, which will be submitting their license application to the NRC this fall to construct and operate a consolidated interim storage facility of its own west of Hobbs, New Mexico.

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 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.

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 were no fire-or security-related impairments for the month. However, there were six security incident reports logged for the month. One of the incidents involved a momentary loss of a video signal while three others were due to video system maintenance. Another was for a security system degradation. The last one involved the cask lid lift project. All six incidents required compensatory measures.

There were sixteen condition reports[1] (CR) for the month and they are described below.

1st CR: Documented a maintenance vehicle with a hydraulic leak to pavement. The leak was cleaned-up immediately and the vehicle repaired. The minor leak was not reportable to outside agencies.
2nd CR: Documented the loss of a video signal to a camera. Video signal losses have been documented on various condition reports in the past and are being tracked. A corrective action plan is in progress which includes component replacement and troubleshooting.
3rd CR: Documented a security system degradation. Compensatory measures were put into place until the system was repaired and tested.
4th CR: Documented a minor oil leak on a contractor crane truck. The small leak was cleaned up immediately and the leak area repaired. The minor leak was not reportable to outside agencies.
5th CR: Documented another minor leak from the same contractor crane truck. The leak was very small with just a few drops and determined to be residual from the previous leak and sitting overnight. The leak area was cleaned up immediately and inspected. The minor leak was not reportable to outside agencies.
6th CR: Documented a potential for loose screws on weapons holsters. All similar model holsters were scheduled for inspection and correction.
7th CR: Documented that three exempt radioactive sources were stored at the site. The three Technetium sources were used for instrument calibration and operational checks. The sources were properly stored and controlled. An evaluation will be performed to determine the disposition of the sources.
8th CR: Documented that a building ventilation unit was not working properly. The unit was repaired.
9th CR: Documented the inspection findings for the vertical concrete cask lid lift and camera inspection project. The findings included several areas with carbon steel coating failures and three small rust spots on the inner canister. These findings were considered minor and do not impact the function of the canister. The Condition Report remained open pending the development of a Technical evaluation which will evaluate the inspection results and determine any future trending or actions.
10th CR: Documented the degraded access ramp to the Construction Pad. The ramp was in the process of being refurbished.
11th CR: Documented that an industrial camera was not working properly. The camera was replaced.
12th CR: Documented that the fence line radiation monitoring system was not responding properly. A software program was removed. The system will be monitored for recurrence.
13th CR: Documented that an operational procedure contained some minor errors. The errors will be corrected at the next procedure revision.

[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 Control Program's website.

14th CR: Documented the damage of small trees during a clearing operation for a property driving path. The tractor used to move downed trees was dragging sapling trees and small trees. The trees and brush were cleared and the area cleaned up. Currently, evaluating the process for lessons learned.

15th CR: Documented that a rifle's rear sight was out of specification. The rifle was removed from service.

16th CR: Documented a few drops of an unknown substance on the access road. The drops were determined to be epoxy coating used by Central Maine Power when working the 345 kV towers. The drops of epoxy cured on the pavement. The incident was documented as a spill but was not reportable to outside agencies.

Other ISFSI Related Activities

1. On July 11, Maine Yankee removed a cask lid on one of the vertical concrete casks that contained the cut up internals of the reactor pressure vessel to perform some field testing of chlorides to determine the extent of any residual chlorides that may contribute to stress corrosion cracking of the stainless steel canisters that contain the spent nuclear fuel. Additional chloride testing was performed with swipes. All samples taken were sent to a laboratory for further analysis.

2. On July 12, Maine Yankee used a robotic camera to demonstrate whether or not the technique could be used as an inspection technique for future canister inspections. The camera was inserted in all four top outlet vents and in three of those the camera was inserted the full length (approximately 14 feet) of the canister. The camera footage was recorded. Radiation surveys were also performed with the robot the full length of the canister from three of the four top vents. The highest reading obtained was 89.54 R/hr[2].

3. On July 13, the robotic demonstration continued with additional camera footage taken at two of the four bottom inlet vents. Chloride testing was performed inside the inlet vents. Additional chloride testing was performed on two spent fuel vertical concrete casks. Two nearby casks were selected with chloride testing performed on one inlet and one outlet vent for both spent fuel casks. Again, all samples taken would be sent to an offsite laboratory for further testing.

4. On July 19, the legislatively mandated Oversight Panel, 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's report highlighted the submission of his annual and monthly reports to the Legislature and noted that there were no outstanding reports due. The Inspector mentioned that the April report was not distributed yet due to problems with the embedded links and that the State's Office of Information Technology has been notified and were working on the problem. The Inspector informed the Panel of his ongoing participation in a national interregional team that is developing recommendations from states to DOE on funding emergency preparedness for local communities on spent fuel shipments traversing their jurisdictions, preparations for determining the radiation dose from the State's storage facility, and participation in two other national Ad Hoc Working Groups on communications and rail/routing of spent fuel shipments. Maine Yankee informed the Panel of its cask relicensing efforts this summer that included removing a cask lid the previous week and inspecting for possible chloride deposits. Maine Yankee noted that there was considerable interest in its first of a kind robotic camera demonstration as representatives from the canister manufacturer, NAC, NRC Headquarters' staff, nuclear utility representatives from Duke Energy and San Onofre Nuclear Generating Station, and Structural Integrities were there to observe the chloride testing and robotic demonstration. The chloride testing was

[2] A Roentgen per hour (R/hr) is a measurement of a high radiation exposure rate in the air. Typical environmental levels are on the order of one million times lower than this value. For a further explanation, refer to the glossary on the Radiation Program's website.

performed by Ransom Environmental of Portland and the robotic demonstration was conducted by General Electric Inspection/Remote Technologies of New Jersey with the Electric Power Research Institute as project lead. The preliminary results from the field testing of chlorides indicated very low levels of chlorides. However, all the samples taken would be sent to an off-site laboratory for further analysis. Maine Yankee also apprised the Panel of their ongoing lawsuit against the federal government and the recent Federal Claims Court ruling awarding Maine Yankee $24.6 million in damages. In addition, Maine Yankee reported on the status of some congressional initiatives both in the House and Senate. They reported that Congress was still at an impasse as the House continued favoring the resumption of the licensing of the Yucca Mountain repository in Nevada whereas the Senate preferred the construction of a pilot interim storage facility for spent nuclear fuel. The Public Advocate's representative related his preparations for the receipt of the federal funds that were awarded to Maine Yankee and would report how those funds would be distributed to the ratepayers. The State Police stated that there were no intelligence issues to report that would impact Maine Yankee and that they were looking forward to Maine Yankee's emergency plan exercise this fall to train some of their tactical team members.

Environmental:

The next anticipated reporting of the State's environmental results will be in the August monthly report.

Other Newsworthy Items:

1. On July 5, a German Commission submitted its final report to the German government on how best to dispose of high level waste in a geologic repository. The Commission was formed in 2014 after the German government stopped all of its activities and announced a new site selection process. The report stated that the best site would be determined by a three phase approach that would include "extensive public participation" at the "regional, inter-regional, and national level." The Commission reported that the repository could be located in salt, clay or crystalline formations and that it would not exclude the controversial Gorleben rock salt formation. Even though the report outlined an "extremely ambitious involvement process," concerns were expressed that some issues were not science-based. The web link for the news release can be accessed by positioning the cursor over the underlined text and following the directions.

2. On July 6, Representative Dold from Illinois introduced legislation to reimburse communities with shutdown reactor sites that stored spent nuclear fuel. The local communities would be paid $15 per kilogram of spent nuclear fuel. Currently, thirteen communities would qualify for the payment with Wiscasset being one of them. It is estimated that Maine Yankee has 540 metric tons of spent nuclear fuel in storage. That would amount to an annual payment of $8.1 million to the Town of Wiscasset for the next seven years. The Town would be required to apply every year to obtain the funds. The legislation was co-sponsored by Representatives Courtney of Connecticut, Ribble of Wisconsin, and Welch of Vermont. The web link for the legislation can be accessed by positioning the cursor over the underlined text and following the directions.

3. On July 7, Senator Heller from Nevada sent a letter to the Chair of the Energy and Commerce Subcommittee on Environment and Economy echoing his opposition to a hearing focused on Yucca Mountain. While acknowledging their disagreement on Yucca Mountain, the Senator believed they were in agreement on the urgency for implementing a program to store and dispose of the nation's spent nuclear fuel and high level waste. The Senator highlighted the Department of Energy's (DOE) recent initiative on consent-based siting and requested the Chair's support for DOE's initiative as a means of developing long term solutions for the nation's nuclear stockpile. The web link for the letter can be accessed by positioning the cursor over the underlined text and following the directions.

4. On July 7, the House Subcommittee on Environment and the Economy held a hearing, entitled "Federal, State, and Local Agreements and Associated Benefits for Spent Nuclear Fuel Disposal." The Subcommittee hoped to address at the hearing a) "historical issues associated with benefits and administrative costs; b) "legislative and administrative options for Federal, State, Local, and Tribal partnerships to site, operate, and oversee a nuclear waste repository; and c) options for State and Local oversight in safety and regulatory issues." The Subcommittee invited eight witnesses to testify with three members of Nevada's congressional representatives and one congressional representative from Illinois as part of the first panel. One of the four panelists was not necessarily for Yucca Mountain, but was willing to discuss its potential benefits. A second panelist was willing to listen provided such a facility was safe and endorsed by the people. A third panelist was unequivocally opposed to any discussion while the fourth panelist elaborated on the impact to local communities with stranded spent nuclear fuel at shutdown sites and why he introduced legislation to compensate those municipalities who were burdened. The second panel had one State Senator, a Nye County Commissioner, a business owner, and a potential union representative. The State Senator was decidedly against Yucca Mountain while the union representative and the business owner were more supportive of the Yucca Mountain project. The Nye County Commissioner was supportive but proposed a more collaborative process. Nevada Governor Sandoval was invited and declined but did forward a letter to the Subcommittee expressing his opposition for the record. The individual testimonies, documents on record, and transcript can be accessed at the following link: https://energycommerce.house.gov/hearings-and-votes/hearings/federal-state-and-local-agreements-and-associated-benefits-spent-nuclear.

5. On July 8, the Transatomic Power Corporation of Massachusetts released technical information on its molten salt reactor that would increase the fuel efficiency over current conventional nuclear fuel cycles. The use of liquid fuel instead of solid pellets results in much less volumetric swelling and avoids the build-up of fission products over time that would limit conventional fuel by continuously removing the fission product inventory. That means more of the nuclear fuel is used up and that results in less spent nuclear fuel. At current enrichments of 5% for conventional fuel the molten salt reactor would end up with 53% less spent nuclear fuel after a given fuel cycle. At enrichments nearing 20% the amount of spent fuel would be 83% less than that of a conventional reactor. To access the news article click on the following web link: http://www.neimagazine.com/news/newstransatomic-issues-paper-on-molten-salt-reactor-4950188.

6. On July 12, the Nevada Board of Examiners approved an additional $2.5 million in addition to the $5 million already approved to maintain its vigilance to fight and prevent the proposal geologic repository at Yucca Mountain.

7. On July 13, the Acting Assistant Secretary for Nuclear Energy responded to the Nuclear Waste Technical Review Board's May 23 letter by providing responses to the Board's three recommendations. On this recommendation DOE chose a more comprehensive systems engineering approach to cladding behavior and failure in storage or during transportation as opposed to a risk approach by performing a gap analysis of the information needed to identify and better understand the mechanisms of cladding failure and to prioritize these gaps. On the Board's second recommendation on the behavior of unirradiated versus irradiated cladding, DOE acknowledged that the subject matter had merit. However, DOE noted that leading scientists and the NRC questioned the benefit of pursuing this issue. In light of funding restraints, DOE related that they believed that stress corrosion cracking of stainless steel canisters and on-going research on irradiated cladding were the more top priority issues. As for the Board's final recommendation on integrating various research ventures with universities and international agencies, DOE agreed that more clarity was necessary. However, DOE also noted that they have established in some instances a successful communication link between DOE and the universities, but this attribute was not communicated well to the Board. The web link for the letter can be accessed by positioning the cursor over the underlined text and following the directions.

8. On July 14, DOE held its seventh national Consent-Based Siting meeting in Boise, Idaho. The purpose of the meeting was to hear from the public and interested stakeholders on what concepts matter as the Department develops a national consent-based process to site storage and disposal facilities for spent nuclear fuel and high-level radioactive waste. The meeting began with a keynote address and then followed by DOE's opening remarks on how they were moving forward on the consent-based siting process. Then four panel members shared their perspectives on a consent-based process, which was followed by a public discussion with the DOE and the panelists. Next, the public was assembled into small groups that focused on their thoughts as to what was important to them for a consent-based process. Each group's main ideas were captured and then summarized for the entire assembly. After the summaries those who wished to speak further were allowed to do so during the public comment period. The agenda, video of the meeting, and summaries of the panel members remarks and discussions can be accessed at the following link: http://energy.gov/ne/downloads/consent-based-siting-public-meeting-boise-july-14-2016.

9. On July 15, the Nuclear Waste Technical Review Board issued a press release alerting the public of their upcoming August 24 meeting. The discussion topics will include the different types of storage canisters, DOE's efforts to manage and dispose of spent fuel canisters, and the nuclear industry's viewpoints on standardizing canisters. The web link for the press release can be accessed by positioning the cursor over the underlined text and following the directions.

10. On July 20, the quarterly brief of the Federal Energy Regulatory Commission (FERC) Rate Case Settlement took place. The three Yankee Companies held their quarterly conference call to brief interested stakeholders from the states of Maine, Massachusetts, and Connecticut on the status of FERC's rate case settlement on spent nuclear fuel storage issues. A spokesperson for the General Counsel informed the attendees that the three Yankee Companies' had won the Phase III litigation damage claims for the period 2009 through 2012 and were awarded $76 million by the Federal Claims Court Judge with Maine Yankee receiving $24.6 million. The General Counsel noted that the federal government did not appeal the Judge's decision, so the decision was final. He also indicated that there will be a meeting in Boston on August 18 to discuss how the proceeds will be distributed with the expectations that the funds will be received by late September. For Phase IV another lawsuit was being considered for the time period of 2013 through 2016. An update was provided on the national scene. In Congress the House continued to be fixated on Yucca Mountain while the Senate continued to ignore the Yucca Mountain issue and instead concentrated their efforts to create a pilot storage program with priority given to shutdown reactor sites. The group was informed that Representative Dold from Illinois introduced legislation to reimburse communities with shutdown reactor sites that stored spent fuel. However, no action was expected this year due to the fall elections. It was noted that the NRC had requested additional information on Waste Control Specialists' license application for a consolidated interim storage facility in Texas. It was also mentioned that the Eddy-Lea Alliance of New Mexico was expected to submit their license application for the construction of a consolidated storage facility for spent nuclear fuel in late November. Finally, it was reported that the U.S. Court of Appeals ruled in June rejecting the challenge of the states of Connecticut, Vermont, Massachusetts, and New York, and other environmental groups and stated that the NRC did not violate the National Environmental Policy Act and their Environmental Impact Statement process in adopting their Continued Storage of Spent Nuclear Fuel Rule.

11. On July 21, DOE held its eighth and final national Consent-Based Siting meeting in Minneapolis, Minnesota. The purpose of the meeting was to hear from the public and interested stakeholders on what concepts matter as the Department develops a national consent-based process to site storage and disposal facilities for spent nuclear fuel and high-level radioactive waste. The DOE maintained its format from previous meetings by opening the meeting with a keynote address and then followed by DOE's remarks on how they were moving forward on the consent-based siting process. Then four panel members

shared their perspectives on a consent-based process, which was followed by a public discussion with the DOE and the panelists. Next, the public was assembled into small groups that focused on their thoughts as to what was important to them for a consent-based process. Each group's main ideas were captured and then summarized for the entire assembly. After the summaries those who wished to speak further were allowed to do so during the public comment period. The agenda, video of the meeting, and summaries of the panel members remarks and discussions can be accessed at the following link: http://energy.gov/ne/downloads/consent-based-siting-public-meeting-minneapolis-july-21-2016.

12. On July 22, the NRC Chairman forwarded to the House Chair on of the Energy and Commerce Committee his monthly status report of the agency's activities and use of carryover funds on the Yucca Mountain Project. The report summarized what had been accomplished to-date and indicated that the staff was developing a lessons learned report from the licensing process. The report also noted the staff's continued work to upload the licensing document collection to the NRC's publicly accessible library. Of the $76,257 expended in June, loading the documents cost $42,578 while $24,310 was spent completing the final EIS supplement on the responses to public comments on the NRC's EIS groundwater supplement. The remaining expenditures totaled $9,369 for other support costs. The web links for the cover letter and status report can be accessed by positioning the cursor over the underlined texts and following the directions.

13. On July 25, the Associated Press reported that Waste Control Specialists of Texas sent a letter to NRC expressing interest in siting a spent fuel storage facility at the company's facility, five miles east of Eunice, New Mexico. The company has requested the NRC to start an environmental review of the site so that it could begin stakeholder meetings with the public. The environmental review could take as long as 18 months. The proposal comes on the heels of Waste Control Specialists recent license application submittal to the NRC for their interim storage facility in Texas and the Eddy/Lea/Holtec partnership, which will be submitting their license application to the NRC this fall to construct and operate a consolidated interim storage facility of its own west of Hobbs, New Mexico.

14. On July 26, Duke Energy Corporation submitted a letter to DOE outlining its comments to DOE's consent-based siting initiative. The Corporation urged DOE to fulfill its legal and contractual obligation to remove the spent fuel from their eleven reactor sites. The Company further noted that DOE's consent effort was not effective and illustrated their point by citing past examples without stakeholder input such as terminating the Yucca Mountain project, publishing DOE's Strategy Document, and the Administration's decision to seek a separate repository for defense wastes. Duke Energy encouraged DOE to regain the public's trust by restarting the Yucca Mountain licensing process. The web link for the letter can be accessed by positioning the cursor over the underlined text and following the directions.

15. On July 26, the Council of State Governments put on a webinar, entitled "Nuclear Waste Policy – Searching for Solutions." The featured speakers were from DOE, Waste Control Specialists (WCS) of Texas, and the Eddy-Lea Alliance (ELEA) of New Mexico. DOE outlined their engagement with the public through their consent-based siting meetings, their proposed funding, and what they have learned so far. What they learned so far could be lumped into four categories:

    - Mistrust of the federal government in general and DOE specifically
    - Anxiety over transportation risks
    - The importance of environmental justice
    - Unwanted burden imposed on shutdown reactor sites while waiting for a solution

    WCS informed the attendees that their license application for a storage facility would cover 80% of the spent nuclear fuel at shutdown sites. They also mentioned NRC's recent Request for Supplemental Information on their license application and noted their July response to the NRC with the remaining responses by October. WCS also revealed that their rail lines were upgraded to handle heavy loads and stressed that a storage facility would benefit the U.S. Repository Program by "resolving public concerns,

technical issues, and licensing contentions in the near-term." ELEA listed consolidated interim storage, geologic repository, reprocessing, and new reactor technology as nuclear waste solutions. They expounded on the inherent enhanced security associated with their underground storage facility and the benefits of their site such as a remote location, geologic stability, dry area, rail infrastructure, nuclear workforce, and strong public consent. The web link for the slides can be accessed by positioning the cursor over the underlined text and following the directions.

16. On July 29, the Nuclear Energy Institute (NEI) submitted their letter and comments to DOE's consent-based siting process. NEI advised DOE that it was still obligated to follow the mandates of the Nuclear Waste Policy Act (NWPA) and that pursuing a consent-based siting process did not rescind their obligation to comply with the NWPA. NEI also stated that DOE's siting process should not be levied against pre-existing projects such as the proposed storage projects in Texas and New Mexico, but only apply to a new facility. NEI further commented that DOE should not expend assets from the Nuclear Waste Fund on programs not authorized by the NWPA. NEI also provided responses to DOE's five questions in a twenty-two page brief. The brief itemized six common elements for a fair siting process:

    - "Opportunity for interested parties to express their views
    - Availability of sufficient resources to evaluate differing views
    - Flexibility in the terms of the siting framework and the form of consent
    - Transparency and a rational decision-making process
    - A defined and expeditious schedule for milestones and decision-making
    - Compliance with the obligations of the decision made."

    The brief went on to list six lessons learned from successful siting efforts. They were the Olkiluoto Island geologic repository in Finland, the Waste Control Specialists consolidated interim storage facility in Texas, the Holtec storage facility in New Mexico, the Nye County Nevada early warning drilling program for the Yucca Mountain project, the Cigeo deep geologic disposal facility in France, and the Canadian Nuclear Waste Management Organization's siting approach. The brief also pointed to two examples of unsuccessful siting efforts, the Nuclear Waste Negotiator process under the NWPA and the recent DOE borehole drilling project in North Dakota. The web link for the letter and brief can be accessed by positioning the cursor over the underlined text and following the directions.

25. On July 29, the Asian Scientist Magazine reported that scientists at the Riken research facility in Japan have found a new way to convert radioactive elements in nuclear waste into stable, non-radioactive elements, or radioactive elements with much shorter half-lives. The scientists used the Superconducting Ring Cyclotron at Riken to accelerate radioactive elements of Cesium -137 and Strontium-90 and forced them to collide with proton and deuteron (hydrogen nucleus with one proton and one neutron) targets. The reverse technique of accelerating heavier elements into lighter targets proved to be more effective in transforming the radioactive elements. The Japanese scientists found that 89% of the Cesium-137 atoms and 96% of the Strontium-90 atoms "were transmuted to either stable nuclei or short-lived species with half-lives under one year."

17. On July 29, the Nevada Agency for Nuclear Projects submitted their comments on consent-based siting supporting DOE's initiative "to find workable alternatives to Yucca Mountain." The letter reiterated the State's opposition to Yucca Mountain. The Agency's Executive Director noted that implementing a national consent-based siting process would require amending the Nuclear Waste Policy Act and suggested that it incorporate three critical recommendations from the Blue Ribbon Commission's 2012 report. The first involved consent from the host state and county. The second would be the establishment of "generic" repository safety standards and, finally, the adoption of the 2006 National Academy of Sciences' "transportation safety and security measures." The web link for the letter can be accessed by positioning the cursor over the underlined text and following the directions.

18. On July 29, Holtec International announced that it had completed its safety analysis that would allow the storage of a horizontal canister into its HI-STORM UMAX subterranean up-right system. The HI-STORM UMAX subterranean system is the system planned for the Eddy-Lea Alliance consolidated interim storage site in New Mexico. Holtec was planning to submit a license submittal package to the NRC in late August. Holtec met its goal "to provide a state-of-the-art universal storage system" that could "store all of the used fuel and high level waste bearing canisters scattered at sites around the country." The web link for the press release can be accessed by positioning the cursor over the underlined text and following the directions.

19. On July 31, the Nuclear Waste Strategy Coalition submitted to DOE their comments on DOE's consent-based siting process. The Coalition called upon the federal government to meet its obligations under the Nuclear Waste policy Act to remove the spent nuclear fuel from nuclear generating facilities. The Coalition listed five key points for DOE to focus on such as transportation and other key elements, the completion of the Yucca Mountain license application, implementing a pilot consolidated interim storage facility with priority for shutdown reactor sites, funding and governance reforms. The Coalition provided 28 comments under such topics as DOE's consent-based siting efforts and process, trust and accountability, the concepts of consent and fairness, and the potential use of the Nuclear Waste Fund in the consent-based siting process. The Coalition concluded by reaffirming nine of those 28 comments. The web link for the comments can be accessed by positioning the cursor over the underlined text and following the directions. (The Nuclear Waste Strategy Coalition is an ad hoc organization representing the collective interests of member state utility regulators, state consumer advocates, state energy and radiation control officials, tribal governments, local governments, electric utilities with operating and shutdown nuclear reactors, and other public and private sector experts on nuclear waste policy matters. Its primary focus is to support the removal and ultimate disposal of spent nuclear fuel and high-level radioactive waste currently stranded at numerous sites across the country and to protect electric consumer payments into the Nuclear Waste Fund.)

Newsworthy Items Not Previously Reported

1. On June 22, the NRC staff sent a letter to Waste Controls Specialists (WCS) on their acceptance review of WCS's April submission of a license application to construct and operate a consolidated interim storage facility for spent nuclear fuel in Andrews County, Texas. The NRC staff notified WCS that their application lacked sufficient technical information to complete NRC's detailed technical review. The staff identified three general areas that required additional information:

   - The licensing basis for the storage system was not clearly defined,
   - The license application was not limited to previously approved storage casks, and
   - The level of detail for descriptions of required facility programs was inadequate.

   In order to continue their acceptance review the NRC staff requested that WCS respond to their thirty page Non-Proprietary Request for Supplemental Information and Observations (RSIO) by July 20. There were two other RSIOs, but these were not available for public review as they contained proprietary and security sensitive information. The web link for the letter and enclosure can be accessed by positioning the cursor over the underlined text and following the directions.