Department of Health and Human Services
Maine People Living Safe, Healthy and Productive Lives
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MEMORANDUM

TO: Senator Michael Thibodeau, President of the Senate, and Representative Sara Gideon, Speaker of the House

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

SUBJECT: State Nuclear Safety Inspector's January 2017 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 emphasizes local and national highlights on the storing and disposing the used nuclear fuel.

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
Monica Ford, U.S. Nuclear Regulatory Commission, Region I
J Stanley Brown, Independent Spent Fuel Storage Installation Manager, Maine Yankee
David Sorenson, Senior Health Policy Advisor
Sheryl Peavey, COO, Maine Center for Disease Control and Prevention
Paul Mercer, Commissioner, Department of Environmental Protection
Timothy Schneider, Maine Public Advocate
Lieutenant Scott Ireland, Special Services Unit, Maine State Police
Nancy Beardsley, Director, Division of Environmental Health
Jay Hyland, PE, Manager, Radiation Control Program

State Nuclear Safety Inspector Office
Maine CDC – DHHS

January 2017 Monthly Report to the Legislature

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 highlights the significant activities that took place locally and nationally during the month and at times internationally.

Local:

- Maine Yankee provided advance notification to the Nuclear Regulatory Commission (NRC) of significant changes to its ISFSI decommissioning schedule that included a new decommissioning cost estimate for the management of the spent nuclear fuel and Greater Than Class C waste from 2016 through 2036. The updated ISFSI decommissioning cost estimate now stands at $28.1 million, based on 2016 dollars, with $22.1 million for radiological removal and $6 million for non-radioactive removal. The previous cost estimate covered the time period 2016 through 2033. The changes will be incorporated into its Post-Shutdown Decommissioning Activities Report.

National:

- The Department of Energy's (DOE) Waste Isolation Pilot Plant (WIPP), commissioned in 1999 to dispose of the legacy wastes from the Cold War era, resumed emplacement of transuramic wastes (elements heavier than uranium) after nearly a three year hiatus that was caused by two incidents in February 2014. The first was due to a fire in an underground vehicle and the second involved a waste drum rupture that contaminated portions of the underground disposal area. The WIPP facility is still the only operating geologic repository in the world.
- California Representative Darrell Issa and Texas Representative Mike Conaway introduced H.R. 474, the "Interim Consolidated Storage Act of 2017" to resolve the nation's growing spent nuclear fuel storage problem. The Act would authorize the Secretary of Energy to enter into contracts with private organizations that hold NRC consolidated storage licenses, modify existing contracts to take title to currently stored spent nuclear fuel, and give priority to stranded fuel at shutdown reactor sites. The bill is timely in light of Waste Control Specialists' license application before the NRC. The legislation has sixteen sponsors that include Representatives Chellie Pingree of Maine, Richard Neal of Massachusetts, Joe Courtney of Connecticut, and Peter Welch of Vermont.
- Representative Joe Wilson of South Carolina introduced legislation that would prohibit the Secretary of Energy from moving forward on a government repository for defense-related nuclear waste until such time the NRC renders a final decision on the Yucca Mountain license application. The bill was entitled the "Sensible Nuclear Waste Disposition Act."
- Nevada's congressional delegation introduced in both Houses of Congress the "Nuclear Waste Informed Consent Act" that would require a written consent from any affected tribe, local government, contiguous local government, and Governor before a repository can be hosted within a state's borders. The consent would be binding on all parties including the federal government.
- The Energy Department released its report, "Draft Consent-Based Siting Process for Consolidated Storage and Disposal Facilities for Spent Nuclear Fuel and High-Level Radioactive Waste." The report listed the eleven general design principles from its initial public engagement meetings that would guide the siting process. They included prioritization of safety, environmental responsibility, regulatory

requirements, trust relationships with Indian tribes, environmental justice, informed participation, equal treatment and full consideration of impacts, community well-being, voluntariness and right to withdraw, transparency, and stepwise and collaborative decision-making that is objective and science-based. The report went on to specify the five phases that would encompass the seventeen steps in the siting process from the invitation to host to the post closure monitoring. The report also provided schedule estimates as to how long it would take for each phase of the process for either an interim storage facility or a repository.

- The NRC notified Waste Control Specialists (WCS) that their license application to construct and operate an interim consolidated storage facility for high-level radioactive waste and spent nuclear fuel at its existing low-level radioactive waste site in Andrews, Texas was accepted and docketed for review. The NRC informed WCS that they anticipated completing the safety and environmental reviews by the spring of 2019 provided they receive timely and comprehensive responses to their request for additional information. The license application specifically identified the spent fuel casks that are now stored at Maine Yankee, Connecticut Yankee, and Yankee Atomic in Massachusetts as part of the facility's design.
- The Nevada Commission on Nuclear Projects issued a report for the Governor and Legislature that described current Yucca Mountain developments from DOE and NRC activities, developments in Congress from pending legislation, lessons learned from past Yucca Mountain experience that support Nevada's contentions, and its four recommendations. The recommendations primarily focused on preparations for the possible resumption of the Yucca Mountain licensing proceedings, how to oppose those efforts and to effectively communicate Nevada's objections, and how to legally defend its 218 contentions before the NRC's Atomic Safety and Licensing Board.
- The Government Accountability Office (GAO) released a report, entitled, "Nuclear Waste – Benefits and Costs Should Be Better Understood Before DOE Commits to a Separate Repository for Defense Waste." The GAO report was critical of the information DOE provided to the President in 2015, which resulted in the President reversing a 1985 presidential finding that both commercial and defense-related nuclear waste should be commingle and determined that a separate geologic repository for defense waste was warranted. The report stated that DOE's information "did not quantify cited benefits, when possible, show how these benefits could be achieved, or show the risks if certain benefits could not be realized as planned," especially given its past repository siting experience.

International:

- An old Swedish fort built between 375and 550 AD may provide a solution on how best to immobilize 56 million gallons of liquid radioactive waste from the Hanford facility in Washington. The old fort was built during Sweden's Iron Age, long before the age of the Vikings, by using glass to fuse rocks together. Despite harsh winters and frost heaving, the glass rocks remained intact for the last 1,500 years. Studying the ancient glass might help scientists understand what it has been through and why it has lasted so long. DOE is currently constructing a vitrification plant in Hanford to turn radioactive waste into glass.

Addendum to December 2016 Monthly Report:

- After the December monthly report was distributed, it was brought to the State's attention that there were some factual discrepancies within the report relative to the information reported on Maine Yankee. The questionable issues were within the first two bullets under the "Local" section at the beginning of the report. The first issue was with the wording 'Decommission Trust Fund.' The correct citation should have been "Spent Fuel Disposal Trust Fund." Although the last sentence in that paragraph is technically not incorrect, the wording "or defer paying until sufficient funds were available" could be expanded on to better reflect the legal conditions imposed on Maine Yankee by DOE's Standard Contract repayment terms of "or wait until the DOE fulfilled its obligation to begin removing the spent nuclear fuel or at some time prior to that of the utilities choosing." Finally, in the second bullet the date cited for the license renewal application submittal, 2018, was incorrect. The actual date should be 2020.