Department of Health and Human Services
Maine People Living Safe, Healthy and Productive Lives
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February 2, 2017

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 November and December 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 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

November 2016 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.

Local:

- Marge Kilkelly, Senior Policy Advisor to Senator Angus King, presented to the Wiscasset Board of Selectman a proposal to form an alliance with 13 other communities across the country storing spent nuclear fuel as an information-sharing network. The proposal would also include a transportation infrastructure analysis surrounding each storage facility to decide how to move the spent fuel to a permanent site. The Board did not immediately vote on the proposal.

National:

- AREVA Federal Services reported that they had completed Phase I of their three phase, Department of Energy project to design and fabricate a prototype railcar for the transportation of high-level radioactive material to the Association of American Railroads' standards. The Phase I work included the mobilization and conceptual design of the railcar and its associated buffer railcars, the design of the cradles for securing the high-level waste, the general loading procedures, and the cask railcar's operational and maintenance requirements.
- The Nuclear Regulatory Commission (NRC) announced that they were seeking comments from the public as to the extent and scope of what their environmental review should encompass on the Waste Control Specialists' (WCS) license application to construct and operate a spent nuclear fuel storage facility in Andrews County, Texas. Even though the NRC has not yet accepted the WCS application for technical review, they do have the requisite information to begin the environmental scoping process.
- The Finnish Radiation and Nuclear Safety Authority confirmed that the waste management company of Posiva was ready to begin construction of the world's first geologic repository for spent nuclear fuel on Olkiluoto Island, in the western part of the country. With the approval of the last government agency, Posiva said that it would start the underground excavations in December and expected the repository to begin operations in 2023.

State Nuclear Safety Inspector Office
Maine CDC – DHHS

December 2016 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 paid in full $186.4 million from its Decommissioning Trust Fund to the federal government the money it owed for its pre-1983 spent fuel obligation as mandated by the Nuclear Waste Policy Act of 1982. Under the Act the Nuclear Waste Fund was established to construct and operate a geologic repository for the disposal of spent nuclear fuel and high level radioactive waste by assessing a fee of 0.1cents per kilowatt-hour generated by nuclear utilities starting in 1983. Prior to 1983, the Act allowed utilities to either pay their pre-1983 nuclear generation obligation or defer paying until sufficient funds were available.
- The Department of Energy's (DOE) National Transportation Stakeholders Forum featured in its newsletter an article on Maine Yankee's cask lid lift project and a demonstration of a first of its kind robotic camera system to inspect dry storage canisters. Maine Yankee undertook the cask lid lift as part of its aging management program and in preparation for its upcoming license renewal application submittal in 2018 to the Nuclear Regulatory Commission (NRC). Both the lid lift and the robotic demonstration were successful. There was very little moisture and surface salt underneath the lid and in the vents, and the robot was able to move up and down the entire 14 foot length of the canister from three of its four top vents.

National:

- DOE's Office of Inspector General released its annual audit report of DOE's Nuclear Waste Fund for Fiscal Year 2016. According to the report the Fund grew $1.4 billion from interest received to a $38.8 billion balance at the end of September 30, 2016. Since the federal government has failed to take the spent nuclear fuel from the shutdown and operating nuclear plants, $6.1 billion has been paid from the U.S. Treasury's Judgment Fund as of September 30. Since lawsuits were expected to continue until the federal government takes possession of the stored spent nuclear fuel, the remaining federal liability was estimated at $24.7 billion.
- DOE announced it has selected four companies to study the feasibility of deep boreholes to dispose of certain types of defense-related, high level radioactive waste. The engineering challenge will be to drill an 8-inch, vertical borehole to a depth of three miles below the earth's surface to collect information on the rock type, water chemistry, rock temperatures, and other geologic data. The four companies selected were AECOM, which is investigating a site in Texas, ENERCON and TerranearPMC, which are both exploring sites in New Mexico, and RE/SPEC, which is surveying a site in South Dakota.
- DOE released a draft plan for a defense-only waste repository for the permanent disposal of all or some of its defense wastes and is seeking public input on its proposal. The plan is independent of location and disposal medium, and stressed a consent-based siting process. The plan's principle elements focus on the technical aspects of the siting process, preliminary schedules and cost estimates, the types and

quantities of spent nuclear fuel and high-level radioactive waste, transportation, and the repository's characteristics for permanent disposal.

- The Western Governors Association adopted a policy resolution that 1) required the specific consent of a Governor for any private or federal storage facility located within their borders, 2) transportation must be a crucial part of an integrated waste management program, 3) the Governors support federal alternative waste acceptance options such as DOE taking title to the spent nuclear fuel at individual reactor and shutdown sites, 4) the NRC and DOE comply with any and all agreements negotiated by a state's Governor, 5) the federal government reimburse the states' costs associated with shipments to any interim storage facility, and 6) spent nuclear fuel remain at reactor sites until the DOE and nuclear utilities implement a mutually agreeable transportation plan with states along the transportation corridor and fund state and local emergency and medical responder training and resources in the event of an accident or terrorist attack.
- The Navy and DOE announced that they will build a $1.6 billion storage facility at the Idaho National Laboratory to house the Navy's spent nuclear fuel. The new facility will help the Navy keep its nuclear-powered aircraft carriers and submarines actively deployed for the next 40 years.
- DOE submitted a brief to the President-Elect's Transition Team reaffirming and defending the Obama Administration's rejection of the Yucca Mountain Repository Project in Nevada. Bolstered by Congress' inaction since 2011 to not approve any new funding for the Project, the DOE brief urged President-Elect Trump to ditch the repository.
- The Nuclear Waste Strategy Coalition, an ad hoc organization representing state utility regulators, state consumer advocates, state energy and radiation officials, tribal governments, local governments, electric utilities with operating and shutdown reactors which includes the State of Maine, sent a letter to President-Elect Trump advocating the completion of the Yucca Mountain license application for disposing of spent nuclear fuel, initiating a pilot project for consolidated interim storage for spent nuclear fuel stranded at shutdown sites, like Maine Yankee, and providing assistance to state and tribal governments for emergency preparedness in preparation for a national shipping campaign.
- The Energy Communities Alliance (ECA), a national association of local governments hosting DOE and National Nuclear Security Administration facilities, provided President-Elect Trump with a roadmap for successful local government and community engagement. The roadmap outlined the ECA's crucial priorities involving local governments in DOE decision making, improving DOE policies and practices, and investing in host communities and the DOE complex.

International:

- The Finnish Radiation and Nuclear Safety Authority confirmed that the waste management company of Posiva began underground excavations of the world's first geologic repository for spent nuclear fuel on Olkiluoto Island, in the western part of the country and expected the repository to begin operations in 2023.