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

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August 17, 2011

MEMORANDUM

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

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

SUBJECT: State Nuclear Safety Inspector's June 2011 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.

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.

pjd

Enclosure

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

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July 20, 2011

To: Honorable Mr. Kevin L. Raye, President of the Senate
Honorable Mr. Robert W. Nutting, Speaker of the House

Subject: State Nuclear Safety Inspector Office's June 2011 Monthly Report to the Maine Legislature

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

Enclosed please find the Inspector's June 2011 monthly activities reports. The major highlight for the report locally is the winding down of the post decommissioning groundwater monitoring agreement activities. The national highlights for June include:

- The Nuclear Regulatory Commission's (NRC) Office of the Inspector General report stating that the Chairman of the NRC did not violate any laws in terminating the Yucca Mountain license proceedings but willfully withheld information and misled the other four Commissioners,
- The House Subcommittees investigations into the Nuclear Regulatory Commission's (NRC) Inspector General report on their findings of Chairman Jaczko's decision to close down the NRC license proceedings on Yucca Mountain and the NRC Staff's testimony on their criticism of the Chairman's actions,
- The House Committee on Science, Space, and Technology report detailing the complete absence of scientific information and analysis used to support the Administration's decision to shutdown the Yucca Mountain Project,
- The Blue Ribbon Commission on America's Nuclear Future Disposal Subcommittee draft recommendations for the disposal of the nation's civilian and defense-related spent nuclear fuel,
- The Nuclear Regulatory Commission research report indicating the potential for stress corrosion cracking in dry cask storage canisters in a marine environment.

Please note that the reports will not feature the glossary and the historical addendum as in previous years. However, both the glossary and the addendum are available on the Radiation Control Program's website at http://www.maineradiationcontrol.org under the nuclear safety link. Should you have questions about the reports' contents, please feel free to contact me at 207-287-6721, or e-mail me at pat.dostie@maine.gov.

Patrick J. Dostie
State Nuclear Safety Inspector

Enclosure

cc: Vonna Ordaz, U.S. Nuclear Regulatory Commission
Nancy McNamara, U.S. Nuclear Regulatory Commission, Region I
James Connell, Site Vice President, Maine Yankee
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State Nuclear Safety Inspector Office

June 2011 Monthly Report to the Legislature

Introduction

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

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

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

Independent Spent Fuel Storage Installation (ISFSI)

During June the general status of the ISFSI was normal. There were no instances of spurious alarms due to environmental conditions.

There were six fire related impairments written from June 8th to June 21st. Five were associated with ongoing fire detection system upgrades. The last impairment was written because of a lightening strike. The strike caused a loss of communications between the gatehouse and the security operations building. There was no fire.

There was no security related impairment in June. There were, however, eight security events logged for the month. Six were due to transient camera issues due to environmental conditions. One involved a transient computer problem that went away when the computer was rebooted. The remaining event was written for an intrusion detector problem which was repaired the same shift.

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

1st and 2nd CRs: Were written to document a man-lift bumping into equipment and causing some minor damage on two separate occasions on the same day. Workers were retrained on safe operations on the man-lift. The damage was so slight that any repairs are unlikely.

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

3rd CR: Documented a spotty spill trail from the parking lot to the dumpster. The spots were from an unknown source. Attempts were made to determine its composition but were unsuccessful as the material had dried up.

4th CR: Documented another instance of equipment being bumped by a man-lift during maintenance activities. There was no damage.

5th CR: Documented a normally locked security cabinet that was found unlocked for less than two minutes. The cabinet was locked upon discovery.

6th CR: Documented a file custodian label out of date. The label was corrected.

7th CR: Documented a door access control issue. The door control was not fully compliant with fire safety codes. A work order was issued and parts were ordered to fix the problem.

8th CR: Documented the communication relay damage from the lightning strike on the gatehouse. The damage was repaired the next day.

9th CR: Documented a vehicle not properly secured in the protected area. The key was removed, but the vehicle was not disabled. The vehicle was disabled upon discovery.

10th and 11th CRs: Were written to track open items from an internal, semi-annual quality assurance surveillance of the facility's program and activities.

12th CR: Documented a person entering the restricted area without wearing assigned radiation dosimetry. The individual was counseled and restricted from the radiation area until a dose investigation was completed. The dose was determined to be on the order of a few micro-rem[2].

Other ISFSI Related Activities

1. On June 4th a worm or clam digger was observed by security crossing Maine Yankee's property on Foxbird Island. The local law enforcement agency was notified. They responded but were unable to locate the individual.

Previous ISFSI Related Activity

1. On May 18th Maine Yankee conducted its annual fire and medical drill. The drill scenario involved a structural fire in the truck bay at the site's Security and Operations Building with one person overcome by smoke. The Wiscasset fire and ambulance crews responded along with the Westport Island Fire Department. The critique afterwards identified one improvement item that involved fire fighter accountability.

Environmental

On June 30th the State performed its quarterly field replacement of its radiation monitoring devices, thermoluminescent dosimeters[3] (TLDs), near the ISFSI. When the results are received from its California vendor, Global Dosimetry, the results will be provided in the August monthly report.

Maine Yankee Decommissioning

Except for the Confirmatory Summary Report still under review, there is nothing new to report for this month.

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[2] A micro-rem is a unit of dose equivalent that is based on how much of the radiation energy is absorbed by the body. Micro is a prefix that means one millionth of (1/1,000,000). For more information, refer to the glossary on the Radiation Program's website.

[3] Thermoluminescent Dosimeters (TLD) are very small, passive radiation monitors requiring laboratory analysis. For more information, refer to the glossary on the Radiation Program's website.

Groundwater Monitoring Program

Last month when the State completed its review of the final groundwater data there were two questionable results due to two quality control tests being below acceptable ranges. After consultation with the Health and Environmental Testing Laboratory (HETL), on June 15th the State Inspector requested Maine Yankee to respond to a list of questions to better comprehend and evaluate the analytical inadequacies. On June 21st the State received a response to its technical questions from the vendor laboratory that performed the analyses. The responses clarified most of the issues. On June 28th Maine Yankee notified the State that the vendor laboratory was able to retrieve a spare sample it had stored from the original sample taken last fall and re-analyzed the sample. The 50 page laboratory report indicated that the tracer recovery for one of the quality control tests was within the agreed upon acceptable ranges and therefore passed. However, the analysis was not performed for the second or other quality control test. The State reviewed the initial result along with its detection limit and noted that the initial tracer recovery test was at 48.6%, just below HETL's acceptable range of 50%. Since the acceptable range can differ from one laboratory to another and none of the radioactive element, Pu-241, was ever detected in the sample, then the State concluded that there were no further issues to resolve and informed Maine Yankee that it would follow-up with a justification letter to waive the 50% requirement and accept the original 48.6% value.

On June 30th the Department of Environmental Protection forwarded the State's comments on the fifth and final groundwater monitoring report to Maine Yankee and requested a response prior to closing out the project.

Other Newsworthy Items

1. On June 1st the House Appropriations Committee released its FY 2012 Energy and Water Appropriations Bill. The Bill funds various federal agencies including the Department of Energy, the Army Corps of Engineers and the Nuclear Regulatory Commission (NRC). The Bill provided $35 million to support Yucca Mountain activities, $10 million of which is for the NRC to continue their review of the license application.

2. On June 1st the Disposal Subcommittee of the Blue Ribbon Commission on America's Nuclear Future issued its draft report to the full Commission. The Subcommittee focused their efforts on a central question: "How can the United States go about establishing one or more disposal sites for high-level nuclear wastes in a manner and within a timeframe that is technically, socially, economically, and politically acceptable?" The report listed seven recommendations for the ultimate disposal of the nation's civilian and defense-related used nuclear fuel. They are in abbreviated form:

   - Develop one or more geologic disposal facilities.
   - Establish a new federally chartered corporation to administer the nation's high-level waste program.
   - Have access to the Nuclear Waste Fund (NWF) balance and revenues generated by the NWF fee assessed rate payers.
   - Develop a "consent-based, transparent, phased, adaptive, and standards- and science-based" geologic siting process.
   - Maintain the division of regulatory responsibilities between the Nuclear Regulatory Commission and the Environmental Protection Agency.
   - Integrate affected state, local and tribal governments into the decision process.
   - Retain the Nuclear Waste Technical Review Board for independent technical advice and review.

   A copy of the report's recommendations is attached.

3. On June 1st the quarterly conference call of the Federal Energy Regulatory Commission rate case settlement briefing took place with representatives from the states of Connecticut, Maine and Massachusetts. The briefing provided the status of the nuclear waste lawsuits against the federal government, national activities, such as the Blue Ribbon Commission, Congress, the Nuclear Regulatory Commission, the Decommissioning Plant Coalition, the Nuclear Waste Strategy Coalition efforts, the National Conference of State Legislatures, the Council of State Governments and the National Association of Regulatory Utility Commissioners, and regional activities, such as those of the New England Governor's Conference and the New England Council. The General Counsel for the three Yankee sites, Maine Yankee, Connecticut Yankee and Yankee Rowe, stated that the federal government appealed the Court's September 7, 2009, decision granting the three Yankee plants $143.2 million, of which Maine Yankee was awarded $81.7 million. The Counsel also mentioned that the Department of Justice will continue to appeal at every available opportunity to delay the awards decreed by the Court.

4. On June 1st the U.S. Government Accountability Office issued a report entitled "NUCLEAR WASTE – Disposal Challenges and Lessons Learned from Yucca Mountain". The report related the status of the Yucca Mountain repository and discussed the two storage options available, on-site storage and interim storage at a centralized facility. Each option offered benefits but also posed challenges including high costs. The report concluded with principal lessons learned that could facilitate future nuclear waste storage or disposal efforts. There were two broad lessons. The first "overcoming social and political opposition and gaining public acceptance is crucial." The second was "in developing storage or disposal options, it is important to have consistent policy, funding, and leadership, since any effort will take decades."

5. On June 2nd the Nuclear Waste Strategy Coalition (NWSC) held its bi-weekly conference call to update its membership on the June 1st House Energy and Commerce Subcommittee on Environment and the Economy hearing on the Department of Energy's role in managing civilian radioactive waste. Nye County, Nevada and the Department of Energy were invited as witnesses. Information was also provided on the House Appropriations Committee's FY 2012 Budget allotting $35 million for the Yucca Mountain Project. Other discussions featured the on-going activities of the Blue Ribbon Commission and the reconfirmation of NRC Commissioner Ostendorff whose term expired on June 30th. The NWSC is an ad hoc group of state utility regulators, state attorneys general, electric utilities and associate members representing 45 stakeholders in 32 states, committed to ensuring that the Department of Energy and Congress carry out the principles outlined in the Nuclear Waste Policy Act, as amended.

6. June 6th the Nuclear Regulatory Commission's (NRC) Inspector General released his findings on the seven month investigation of Chairman's Jaczko's unilateral decision and actions to terminate the Commission's Yucca Mountain license proceedings. The Report's two noteworthy findings were:

    - Chairman Jaczko did not violate any laws. However, Chairman Jaczko specifically withheld information from and misled the other Commissioners on his intent to shutter the Yucca Mountain license proceedings and stop the Staff from issuing Volume III of the Safety Evaluation Report (SER) on Yucca Mountain.
    - There were extenuating factors that predisposed the NRC from fulfilling its legal obligation such as the Administration's decision to terminate the Project, decreasing appropriations to the agency's high level waste program and Chairman Jaczko's directive to stop work on the SER.

Copies of the Report's cover page on the allegations and four findings are attached.

7. On June 8th the Chair of the House Committee on Energy and Commerce and the Chair of the Subcommittee on Environment and the Economy sent a letter to the Ranking Members of the Committee and Subcommittee expressing their willingness to continue including the Minority staff in briefings and interviews as well as their concerns on the Yucca Investigation and the imposition of a double standard by the Minority. A copy of the letter is attached.

8. On June 8th the House Committee on Science, Space, and Technology released its report entitled: "Yucca Mountain: The Administration's Impact on U.S. Nuclear Waste Management Policy". The report outlined the findings from numerous document requests and official correspondence between Committee members and Administration officials over the past two and half years and detailed the complete absence of scientific information and analysis used to support the shutdown decision. The report underscored the manipulation of the process and the suppression of science behind the Yucca Mountain decision.

9. On June 8th Nuclear Regulatory Commission (NRC) Chairman, Gregory Jaczko, issued a news release stating that the NRC's Inspector General's (IG) investigation reaffirmed that his actions did not violate the law and cleared him of any legal wrong doings. A copy of the news release is attached.

10. On June 9th the House Committee on Energy and Commerce issued an internal memorandum to the members of the Subcommittee on Environment and the Economy on the upcoming hearing scheduled for June 14th on "The NRC Inspector General Report on the 'NRC Chairman's Unilateral Decision to Terminate NRC's Review of the DOE Yucca Mountain Repository License Application'." The Inspector General and some of his staff are slated to testify. The issues that will be examined are Chairman's Jaczko legal duties and the integrity of the Commission process. A copy of the memorandum is attached.

11. On June 9th the State Inspector participated in a national webinar on Greater Than Class C (GTCC) wastes hosted by the Department of Energy (DOE). The purpose was to discuss the draft Environmental Impact Statement for the disposal of GTCC waste. The industry and State perspective has always been that these waste forms would eventually be disposed at a geologic repository, such as Yucca Mountain. The DOE considered GTCC a form of low level waste that could be disposed of at some near surface disposal facility, which is not currently allowed. Some of the discussion focused on the Waste Isolation Pilot Plant in New Mexico which buries the nation's Transuranic (elements heavier than uranium) wastes as a potential disposal site for the GTCC waste. Maine Yankee has four concrete casks at their ISFSI that house GTCC waste.

12. On June 9th the Nuclear Regulatory Commission's (NRC) Atomic Safety and Licensing Board issued an order granting in part and denying in part the NRC staff's request for reconsideration of the Board's April 11th order directing parties in the Yucca Mountain license proceedings to submit their document collections in 'PDF' format to the NRC Office of the Secretary (SECY) and for the SECY to install those documents into a separate library of the Agencywide Documents Access and Management System for public access.

13. On June 10th The Washington Examiner published an article indicating that the Nuclear Regulatory Commission (NRC) Inspector General's (IG) Report "found no instance in which he *(NRC Chairman Jaczko)* broke the law." The IG Report, however, also portrayed the Chairman in a less favorable light. The Report noted that he hid information from the other Commissioners and "badgered staff members who disagreed with his positions." A copy of the article is attached.

14. On June 13th Nuclear Regulatory Commission Chairman Jaczko sent a letter to Senator Blumenthal of Connecticut outlining his actions in light of the Fukushima incident in Japan and his response on the Connecticut Yankee dry cask storage facility at Haddam Neck. A copy of the letter is attached.

15. On June 14th members of the House Committee on Energy and Commerce's Subcommittee on Environment and the Economy held a hearing on the Nuclear Regulatory Commission's Inspector General Report on NRC Chairman Jaczko's actions in terminating the NRC review of the Department of Energy's Yucca Mountain license application. Attached are the opening remarks of the Energy and Commerce Chairman and the Subcommittee Chairman.

16. On June 15th the Nuclear Waste Strategy Coalition (NWSC) held its bi-weekly briefing to update its members on the June 1st House Energy and Commerce Subcommittee on Environment and the Economy hearing on the Department of Energy's role in managing civilian radioactive waste. Information was also provided on the House Science, Space and Technology Report on the Administration's impact on the nation's nuclear waste management policy. Further discussions highlighted the FY 2012 budget for the Department of Energy's and the Nuclear Regulatory Commission's (NRC) nuclear waste disposal programs, the Blue Ribbon Commission Subcommittees' interim reports, and the reconfirmation of NRC Commissioner Ostendorff whose term expired on June 30th.

17. On June 16th Regulatory Commission (NRC) Chairman Jaczko sent a letter to Senator Feinstein of California responding to her April 8th inquiry on dry cask storage of spent nuclear fuel and how quickly spent fuel can be moved from pools to dry casks. Her inquiry was prompted by the Fukushima events in Japan. The letter explained what measures the NRC have undertaken since September 11, 2001, to increase the safety and security of spent fuel pools across the nation. A copy of letter is attached.

18. On June 20th the Department of Energy (DOE) filed a motion with the Nuclear Regulatory Commission's (NRC) Atomic Safety and Licensing Board for leave to file a motion for reconsideration of the June 10th Board Order on the licensing network documents supporting the Yucca Mountain licensing proceedings before the NRC. The DOE stated that the Order was inconsistent with NRC's regulations and potentially imposed an undue and unnecessary expense.

19. On June 20th the Nuclear Regulatory Commission's (NRC) Staff filed with the NRC Atomic Safety and Licensing Board (ASLB) a stay in the effectiveness of both the April and June ASLB Orders. The Staff presented four arguments as to why the stay should be granted. The Staff believed it made a strong showing and was likely to prevail on the merits. They will be irreparably harmed if a stay is not granted and that granting it will not harm the other parties. Finally, the public's interest rested in granting the stay. On the same day the NRC Staff also petitioned the Commission to exercise its inherent supervisory authority to review the April 11th and June 9th Board Orders.

20. On June 22nd the House Committee on Energy and Commerce issued an internal memorandum to the members of the Subcommittee on Environment and the Economy on the upcoming hearing scheduled for June 24th on "NRC Repository Safety Division – Staff Perspective on Yucca License Review". The hearing featured the NRC Staff testifying on their role in the safety and technical reviews of the Yucca Mountain repository. A copy of the memorandum is attached.

21. On June 22nd the U.S. Nuclear Waste Technical Review Board (NWTRB) sent a letter to the House, the Senate and the Department of Energy stating that it submitted its report "Technical Advancements and Issues Associated with the Permanent Disposal of High-Activity Waste." The report provided insights and lessons learned from the Yucca Mountain Project. The Board's purpose

was "to extract knowledge while it is still available" on Yucca Mountain and other high level waste programs. The Nuclear Waste Policy Act established the NWTRB as an independent federal agency to evaluate the technical validity of the Department of Energy's activities and to provide objective expert advice to Congress and the Secretary of Energy. The Board is required by law to report its findings and recommendations at least twice yearly to Congress and the Secretary of Energy. A copy of the letter is attached.

22. On June 24th the House Committee on Energy and Commerce's Subcommittee on Environment and the Economy held a hearing on "NRC Repository Safety Division – Staff Perspective on Yucca License Review". The hearing featured the NRC Staff testifying on their role in the safety and technical reviews of the Yucca Mountain repository. The technical experts openly criticized the Chairman of the Nuclear Regulatory Commission and senior staff members for suppressing information about a controversial decision to stop the scientific review of the Nevada waste disposal site. This was highly unusual for multiple career employees of a federal agency to publicly criticize the leadership, especially before a congressional panel.

23. On June 29th the Nuclear Waste Strategy Coalition (NWSC) held its third bi-weekly conference call to update its members on the June 24th House Energy and Commerce Subcommittee on Environment and the Economy hearing on the Nuclear Regulatory Commission Staff's perspective on the Yucca Mountain License review, on the House Energy and Commerce letter to the Minority Ranking members requesting access to the minority's staff, on the FY 2012 budget for the Department of Energy's and the Nuclear Regulatory Commission's (NRC) nuclear waste disposal programs, and the reconfirmation of NRC Commissioner Ostendorff whose term expires on June 30th.

24. On June 29th the Chair of the Nuclear Issues Subcommittee of the National Association of Regulatory Utility Commissioners (NARUC) sent a letter to the Co-Chairs of the Blue Ribbon Commission commenting on the recommendations from the two draft Subcommittee reports issued. The letter added their support to the consolidated interim storage proposal, especially for used nuclear fuel from decommissioned reactor sites. It also indicated that NARUC was interested in the prospect of a new nuclear waste management organization. However, the letter did express that the Subcommittee recommendation on the funding source was insufficiently forceful and advocated more direct language to emphasize the seriousness of the issue.

Other Related Topics

1. On May 3rd-5th the Nuclear Energy Institute held a Used Fuel Management Conference with several sessions and panels devoted to regulating spent fuel dry storage and transportation, spent fuel management in the aftermath of the Fukushima events, extended spent fuel storage, and improving regulatory predictability. One of the presentations discussed stress corrosion cracking in dry cask storage canisters exposed to a marine atmosphere under laboratory conditions. The presentation by the Nuclear Regulatory Commission advocated developing screening criteria, performing screening evaluations and developing management techniques to determine when and where stress corrosion cracking could exist under actual environmental conditions. A copy of the agenda is attached.