John E. Baldacci, Governor
John R. Nicholas, Acting Commissioner

ADVISORY COMMISSION ON RADIOACTIVE WASTE AND DECOMMISSIONING

Department of Human Services
Bureau of Health

March, 2004

Senator Sharon A. Treat, Chair
Rep. Robert Daigle, Vice-Chair

2003 ANNUAL REPORT

Prepared in accordance with 38 MSRA Chapter 14A § 1453A (4)

STATE OF MAINE
DEPARTMENT OF HUMAN SERVICES
DIVISION OF HEALTH ENGINEERING
11 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0011

JOHN ELIAS BALDACCI
GOVERNOR

JOHN R. NICHOLAS
ACTING COMMISSIONER

Senator Christopher G.L. Hall and Representative Lawrence Bliss,

In accordance with TITLE 38: WATERS AND NAVIGATION, CHAPTER 14-A: NUCLEAR WASTE ACTIVITY, SUBCHAPTER I: GENERAL PROVISIONS, § 1453-A. Advisory Commission on Radioactive Waste and Decommissioning, Item 4: Meetings and Reports, the commission presents to you a copy of its Annual Report 2003.

Please, if you have any questions and comments, make them to Tom Hillman, 287-8401. Email: tom.hillman@maine.gov

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Non-Discrimination Notice

In accordance with Title VI of the Civil Rights Act of 1964 (42 U.S.C. §1981, 2000d et seq.) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), the Age Discrimination Act of 1975, as amended (42 U.S.C. §6101 et seq.), Title II of the Americans with Disabilities Act of 1990 (42 U.S.C. §12131 et seq.), and Title IX of the Education Amendments of 1972, (34 C.F.R. Parts 100, 104, 106 and 110), the Maine Department of Human Services does not discriminate on the basis of sex, race, color, national origin, disability or age in admission or access to or treatment or employment in its programs and activities.

Kim Pierce, Civil Rights Compliance Coordinator, has been designated to coordinate our efforts to comply with the U.S. Department of Health and Human Services regulations (45 C.F.R. Parts 80, 84, and 91), the Department of Justice regulations (28 C.F.R. part 35), and the U.S. Department of Education regulations (34 C.F.R. Part 106) implementing these Federal laws. Inquiries concerning the application of these regulations and our grievance procedures for resolution of complaints alleging discrimination may be referred to Kim Pierce at 221 State Street, Augusta, ME 04333, telephone number: (207) 287-3488 (Voice) or (207) 287-4479 (TDD), or the Assistant Secretary of the Office of Civil Rights of the applicable department (e.g. the Department of Education), Washington, D.C.

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2003 Advisory Commission on Radioactive Waste and Decommissioning

Senator Sharon Treat (Chair)
Senator W. Tom Sawyer
Senator Christopher Hall
Clough Toppan, P.E., DHS
Mike Meisner, MYAPC
Don Hudson, PhD, public member
Ron Ouellette, public member
Stephen Jarrett, public member

Representative Robert Daigle, (vice-chair)
Representative Lawrence Bliss
Representative Peter L. Rines
Bob Demkowicz, DEP
Robert Marvinney, PhD, DOC
Richard Carey, public member
James Mitchell, public member
Shirley Jucius, licensee member

ESTABLISHING LAW

The Establishing Law is:

TITLE 38: WATERS AND NAVIGATION
•CHAPTER 14-A: NUCLEAR WASTE ACTIVITY
•SUBCHAPTER I: GENERAL PROVISIONS
•§ 1453-A. Advisory Commission on Radioactive Waste and Decommissioning.

And can be seen in its entirety on the state website:

http://janus.state.me.us/legis/statutes/38/title38sec1453-a.html

The requirement for this report is in section 4. Meetings and Reports.

"The commission shall meet at least 4 times a year. The commission shall submit an annual report of activities to the Governor, the President of the Senate, the Speaker of the House of Representatives, the joint standing committee of the Legislature having jurisdiction over natural resource matters and the joint standing committee of the Legislature having jurisdiction over utility and energy matters by February 15th of each year."
[1997, c. 700, §7 (amd).]

INTRODUCTION

The purpose of the Advisory Commission on Radioactive Waste and Decommissioning, referred to as the "Commission", is to advise the Governor, the Legislature and other pertinent state agencies and entities on matters relating to radioactive waste management and decommissioning of nuclear power plants and provide information to the public and provide opportunities for public input.
The Advisory Commission on Radioactive Waste and Decommissioning (ACORWD) remains the only State entity charged by the legislature to collect, analyze and disseminate information on all aspects of radioactive waste management. The Legislature created the Advisory Commission in 1985 as a successor to the Low-Level Waste Siting Commission. The Advisory Commission's purpose is "to advise the Governor and the Legislature on matters relating to radioactive waste management..."

Historically the Advisory Commission has taken leading roles in issues involving high and low level radioactive waste in Maine. Notably, the Commission took a leading role in fighting the siting of a high level radioactive waste repository in Maine. Later, the Commission was instrumental in establishing policy for dealing with low-level waste, leading to the creation of the

Low-Level Waste Authority. Ultimately, with Commission endorsement, Maine negotiated a compact with the State of Texas for disposal of low-level waste and the Authority was dissolved. Currently the Commission is involved with issues dealing with the decommissioning of Maine's nuclear power plant, Maine Yankee. It has been closely involved in the decommissioning standards set by the Maine Legislature in 2000. The Commission is updated on the Independent Spent Fuel Storage Installation (ISFSI) and security concerns for the site since "September 11".

DUTIES AND PRIORITIES OF THE ADVISORY COMMISSION ON RADIOACTIVE WASTE AND DECOMMISSIONING

Duties of the ACORWD

1. Provide opportunities for public input and disseminate information to the general public and promote public understanding concerning the management of radioactive waste.
2. Study the management, transportation, treatment, storage and disposal of radioactive waste, including high-level and low-level radioactive waste and mixed waste, generated in this state.
3. Monitor the methods, criteria and federal timetables for siting and constructing high-level radioactive waste repositories or storage facilities.
4. Monitor the Texas siting effort and Texas low-level Radioactive Waste Disposal Compact Commission activities and, if events require, propose legislation to reinstate an in-state siting effort for the storage or disposal of low-level radioactive waste in the state.
5. Advise the Governor, the Legislature and the Department of Environmental Protection or their successors, the state's member of the Texas low-level Radioactive Waste Disposal Compact Commission and other pertinent state agencies and entities, as appropriate, on relevant findings and recommendations of the commission.
6. Receive a written report from the State's member of the Texas low-level Radioactive Waste Disposal Compact Commission within 60 days after a meeting of that Commission or an oral report from that member at the next scheduled meeting of the Advisory Commission on Radioactive Waste, whichever comes first.
7. Prepare a newsletter for the public recording developments relevant to radioactive waste issues.

The priorities of the ACORWD

1. The decommissioning of the Maine Yankee Atomic Power Plant.
2. Study the management, transportation, treatment, storage and disposal of radioactive waste.
3. Provide opportunities for public input and disseminate information to the general public.
4. Monitoring the Texas siting effort of the Texas Compact (Texas, Maine and Vermont).
5. All remaining duties are set as equal after the first four.

The siting effort was of high priority in the past, but has since diminished due to the negative results in Texas' effort to locate a site. Current legislation in Texas had stalled the effort until their session reconvened this year. Monitoring the Maine Yankee Decommissioning is currently the number one priority of the Commission. The events of September 11, 2001 have also created a focus on the security of radioactive waste in the state.

ACTIVITIES OF THE ACORWD TO SUPPORT ITS DUTIES

The Commission provides opportunities for public input at all its public meetings. Concerned citizens and organizations like Friends Of The Coast and the Citizen's Monitoring Network regularly voice their concerns on the issues concerning radioactive waste.
The Commission disseminates information to the general public by means of a newsletter and website.
The Commission currently has a website located on the Department of Human Services, Bureau of Health, Division of Health Engineering, Radiation Control Program's website. The website address is:

http://www.maineradiationcontrol.org

The website has a new domain name to get you to the same site as in the past. However, the new name allows individuals searching the net to locate the commission and Maine radiation topics.

The website posts reports, meeting times and topics of concern. The website also serves to promote public understanding concerning the management of radioactive waste through links to the other government agencies and industry.

The Commission has also set up booths at Open House events in the state. The Commission staff sets up at the annual Bureau of Health Day held at the Augusta Civic Center during the winter. A quarterly newsletter providing informational updates on Radioactive Waste in Maine is sent out to 800 plus readers and posted on the website. During the winter the newsletter was also sent out to the entire mailing list for the Radiation Control Program

The Commission studies the management, transportation, treatment, storage and disposal of radioactive waste, including high-level and low-level radioactive waste and mixed waste, generated in this state by means of presentations at its meeting, site visits and attending information meetings.

The commission was updated on Maine Yankee's decommissioning and the planned disposal of low and high level waste by state on-site inspectors, Pat Dostie, and by Maine Yankee's Eric Howes and Mike Meisner. These updates keep the commission informed on the status of work.

Some Commission members also regularly attend or are on Maine Yankee's Community Advisory Panel (CAP) to hear presentations by Maine Yankee, the Nuclear Regulatory Agency, Environmental Protection Agency and the public.

The commission monitors the methods, criteria and federal timetables for siting and constructing of a high-level radioactive waste repository and/or storage facilities by means of a report from the ACORWD staff, the State Public Advocate and State Nuclear Safety Office. This information is compiled in the appendix. The appendix describes the status and events in the Texas Compact, Barnwell Radioactive Waste Landfill in South Carolina, Yucca Mountain, Goshute Indians, etc.

The commission held one meeting during the year 2003, which was held on 3 November. Other meetings were planned, but conflicted with Legislative meeting dates and an emergency session. The meeting was held in the Cross-Burton State Office and was open to the public.

Meeting agendas follow a standard format with presentations giving updates on Low-Level Waste, High-Level Waste (HLW), Maine Yankee decommissioning activities, special issues and public comments.

SUMMARY OF MEETING

Meeting of 3November

Speakers: William Snedeker, Lieutenant, State Police, on the topic of Security.
Pat Dostie, Maine DHE, decommissioning update
Joan Jones, Maine DEP, on decommissioning
Jim Glasgow, DEP, Solid Waste
Mike Meisner, Maine Yankee, update
Stephen Ward, Public Advocate, on the Texas Compact.
Public Comments

Audiotapes of the meeting were made and can be reviewed for specific details. These tapes are held by the Radiation Control Program, DHS.

The Chairperson Senator Sharon Treat called the meeting to order. Lieutenant Snedeker, commander of Special Services, presented the security status of Maine Yankee's decommissioning activities and the Independent Site Fuel Storage Installation. Lt. Snedeker was directed by the State Nuclear Safety Advisor in June 2001 to examine security at the site and report back to the advisor and Governor King. The State sent a letter to Maine Yankee with security recommendations, almost all of which have since been implemented by Maine Yankee. He participated in two formal drills in 2003, which were lengthy and involved many local, state and federal authorities. Both drills were of great benefit with lessons learned. The Lieutenant was asked by the chair about the security of the airspace of the plant and stated there is no restriction on flying, instead the containment dome is structured to withstand aviation accidents. The air space is also monitored by radar sites that look for strange traffic and take appropriate actions.

Patrick Dostie updated the commission on the status of decommissioning at Maine Yankee. He briefed the shipment of the reactor vessel, spent fuel loading, transport to the ISFSI, reactor cavity water discharges into the "Backbay", sampling of the reactor cavity discharge, demolition activities, final site surveys and Forebay remediation. Questions were raised on concrete disposal on site and emissions during fuel transfer. Concrete originally planned for disposal may remain on site. It is 40-60 feet below grade and should still be within the limits of Maine law and it being reviewed for compliance. Air emissions, that occur during loading, are significantly less than when the plant was operating..

Joan Jones briefed the DEP's study areas of the RCRA plan. Phase 1a of the study started in fall 2001. One site of concern is Dump-2 which has high level of contaminates (metals, VOCs and petroleum) in the soil and groundwater that was inherited by Maine Yankee when the property was acquired. A second area is the Rubble Piles off Ash Road with pesticide issues. The ISFSI was studied earlier and remediated. Other contaminates even date back to the days of the plant's construction in the manner of construction equipment spills. The Forebay was reviewed under the National Resources Protection Act with the concern to remediating the area. Artist sketches were shown of the area returned to an upland saltwater marsh. Two pending issue exist. One is the State's 10 mR standard and the NRC's 25 mR in respect to the ISFSI. There is no boundary around the ISFSI delineating the standards. The second is the final groundwater monitoring plan.

Jim Glasgow briefed the commission on solid waste in the form of concrete rubble. Two areas were constructed to hold rubble pending transportation and disposal. These two areas were not licensed with DEP, but work is going on to document these areas and correct the issue.

Mike Meisner briefed the status of decommission from the plant's view. The project is 82% complete with a finish date scheduled in the spring of 2005. Fuel transfer is 2/3 done with the 43rd canister ready to transfer, leaving 18 more to be moved. Waste removal of radioactive and non-radioactive is at 60% shipped. Six hundred acres of the 800 has been released from the NRC license. He briefed the demolition and removal plan for the containment dome. The Forebay was well briefed previously and therefore skipped. Final Status Surveys are ongoing to verify that dose limits of 10/4 are met.

Steve Ward updated the commission on the Texas Compact. The Texas AG sent a letter to Maine and Vermont requesting payment on September 10 of the 25 million dollars. Maine's AG Rowe responded that Maine would not be paying (see Texas Compact). He also briefed the details of the current FERC rate case and the new State Nuclear Safety Officer.

During the public comment portion of the meeting the commission heard from Ray Shadis from FOTC. He asked the question if the State had received a decision from the Atomic Safety and Licensing Board on its case concerning intervention on spent fuel storage. Dennis Harnish answered the question – "no it had not".

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APPENDIX A

LOW-LEVEL WASTE

Low-level Radioactive Waste (LLRW) is an inevitable by-product of beneficial uses of radioactive materials in the United States in the areas of medical research, diagnosis and treatment of diseases, industrial processes, and electric power generation. All these areas are deemed important to the interests of the nation. Today far less radioactive waste is produced than ten years ago. This is because of improved waste management practices and a large reduction in military defense related activity. Unfortunately, these practices will not reduce the amount to zero and waste will be with us for as long as we enjoy the benefits resulting in the creation of the waste. The number of disposal sites needed to manage the quantity of waste now being generated is far less than formerly expected. Safe and effective methods and standards for transport and disposal of LLRW are well established.

Definition of Low-Level Radioactive Waste

As mentioned above, low-level radioactive waste is defined as any radioactive waste that does not belong in one of the other three categories. Those three categories are (1) high-level waste (spent nuclear fuel or the highly radioactive waste produced if spent fuel is reprocessed), (2) uranium milling residues, and (3) waste with greater than specified quantities of elements heavier than uranium.

Spent nuclear fuel is used fuel from nuclear power plants. Spent fuel contains some reusable material that may be recovered. That recovery process is called reprocessing, and everything left over after the reusable material has been recovered is classified as high-level radioactive waste. The United States is not presently reprocessing spent nuclear fuel.

Uranium milling residues are the rock and soil that remains after uranium has been removed from the ore that was mined from the earth. These milling residues are also known as mill tailings.

Radioactive waste that contains more than a specified concentration of elements heavier than uranium, known as transuranics, is not classified as low-level radioactive waste.

All other radioactive waste is low-level radioactive waste.

Classes of Commercial Low-Level Radioactive Waste

Three classes of commercial low-level radioactive waste are defined in the Code of Federal Regulations, Title 10, Part 61 (10 CFR 61) . Those classes are Class A, Class B, and Class C. CFR 10 Part 61.55 lists the limits on concentrations of specific radioactive materials allowed in each low-level waste class. Radioactive waste not meeting the criteria for these classes falls into a fourth class, known as Greater Than Class C.

Class A low-level radioactive waste contains the lowest concentration of radioactive materials, and most of those materials have half-lives of less than five years. Class B contains the next lowest concentration of radioactive materials, and it contains a higher proportion of materials with longer half-lives. Class C low-level waste has the highest concentration of radioactive material allowed to be buried in a low-level waste disposal facility. The concentration of radioactive materials in Greater Than Class C exceeds the limits for Class C waste specified in 10 CFR 61.55. All Greater Than Class C waste is the responsibility of the federal government and must be disposed of in a geologic repository such as the high-level waste repository planned for Nevada.

The 1980 LLRW Policy Act, as amended in 1985, established a framework for the states to provide for safe disposal of LLRW, and encouraged the creation of regional compacts to develop an appropriate network of disposal sites. The deadlines established for the development of new sites have passed with no new sites being opened. Political, judicial, and administrative obstacles have blocked sites that were identified in California and Texas. Complex regulatory obstacles

have thwarted other sites in North Carolina, Pennsylvania, Illinois, and Nebraska. Some states have simply stopped developing siting programs because there is no need for additional disposal capacity in the foreseeable future. Consequently, LLRW is now stored at or near the source of generation at thousands of sites nationwide. The effect of these obstacles and restrictions is to interfere with optimal beneficial uses of radioactive materials in medicine, research, and technology.

The goal of managing LLRW is to ensure the safety of workers and the public and to protect the environment. To achieve this goal, disposal, not long-term storage, is believed to be the safest approach. Present knowledge and technology are sufficient to allow such disposal safely. However, Monitored Retrievable Storage is becoming widely accepted nationwide.

TEXAS COMPACT

Background

The governing body for the Texas compact is the Texas Low-Level Radioactive Waste Disposal Compact Commission. Member states are Texas, Maine and Vermont. The compact was established in June of 1993 when the Governor of Texas signed into law legislation establishing a low-level radioactive waste compact with Maine and Vermont. Maine completed its approval process with the passage of a referendum on November 2, 1993 and Vermont in 1994. President Clinton signed the compact consent legislation into law on September 20, 1998. Under the terms of the contract Texas will host the site, while Maine and Vermont will each pay Texas 25 million dollars. Under a 1998 letter of agreement between the three state Governors, payments were suspended indefinitely

Regulatory Responsibility:	Texas Natural Resource Conservation Commission (TNRCC)
Program Responsibility: (abolished)	Texas Low-Level Radioactive Waste Disposal Authority (Authority)
Siting Responsibility: (abolished)	Texas low-level Radioactive Waste Disposal Authority (Authority)
Other Involvement:	Texas Department of Health
Disposal Technology:	Below-ground concrete canisters, previously, and now working toward Above ground long-term storage.

Events in 2003

The Texas Legislature met in 2003 and does not meet again until 2005. They amended legislation on the "compact" by adding Section 401.250 to read:

> Sec. 401.250. PAYMENTS BY PARTY STATES. (a): Notwithstanding any other provision of law, Act of the legislature or executive branch, or any other agreement, the initial payment of 12.5 million due from each non-host party state under Section 5.01 of the compact established under Section 403.006 is due not later than November 1, 2003

Both Maine and Vermont have express concern that such payment is inconsistent with the compact agreement. The main concern is that the Texas amendment attempts to amend an act of Congress and the legislatures of two other sovereign states.

This payment was originally due to Texas 60 days after the compact was ratified by Congress. However, due to the premature closing of Maine Yankee and the failure of the Texas Low-level Radioactive Waste Disposal Authority to successfully license its disposal facility the parties agreed to forbearance in the collection of that payment.

The Texas Legislature on 26 May 2003 enacted legislation allowing private parties to apply for a license to build and operate the Compact waste disposal facility (78th Texas Leg., R.S., H.B. 1567 (to be codified as amendments to Tex. Health & Safety Code Ann. Chs. 401 & 402). Applications will be received by July 2004 with license potentially issued in December 2007.

A letter from Maine's attorney general G. Steven Rowe stated the state decline to make any such payment based on 5 points: 1. Texas' failure to perform the duties imposed by the Compact bars its claims against Maine, 2. Texas has waived any right it might have to seek payment under Section 5.01. 3. Maine's reasonable reliance on Texas' representations bars Texas' claims, 4. Texas' claim is timed barred, 5. Texas has breached Section 4.06 of the Compact by failing to act in good faith.

On April 5, 2002 Governor Angus King signed into law a bill titled "An Act to Repeal Provisions Imposing Financial Obligations on Electric Consumers Resulting from the Texas Low-Level Radioactive Waste Disposal Compact". The law withdraws Maine from the Texas Compact. Under the provisions of the compact the two non-host states, Maine and Vermont, may enact legislation withdrawing itself from the compact provided that the withdrawal does not take effect for two years. During that two-year period, the withdrawing state remains liable for costs of the Texas Compact Commission and for any payments that are due and payable to the host county. Currently, no compact commission has been formed and a host county has not been designated.

SOUTH CAROLINA

Schedule for Phasing Out Access

Total volumes of non-compact (Atlantic Compact) waste accepted at the Barnwell facility will be reduced each year. As the years progress volume will slowly diminish until the site accepts Atlantic Compact waste only.

Year (ending in June)	*Maximum allowable volume (cubic feet) of waste from all sources*
2003	70,000
2004	60,000
2005	50,000
2006	45,000
2007	40,000
2008	35,000

The South Carolina budget and Control Board sent out letters in late 2002 informing users of the Barnwell facility that stating in July 2004 it may be hard to schedule disposal. The Board suggested to users that a multi-year commitment would be needed to guarantee disposal space. At present, the Board has set up commitments with utilities representing 24 nuclear power plant units and several large generators. The letter stated that Barnwell believed it was on track for 2003 to receive 70,000 cubic feet of waste, which was the statutory limit for 2003. The Board felt that demand in 2003 for disposal will approximate supply and that Barnwell will be able to continue accepting waste on a first-come, first–serve basis until 2004.

Given the volume caps in state law, and communication already in place and in the latter stages of discussion, Barnwell estimated having the volumes of uncommitted capacity below.

FY03/04	5,800 cf
FY04/05	29,500 cf
FY05/06	26,800 cf
FY06/07	23,800 cf
FY07/08	17,800 cf

Toward the latter half of 2003 low-level radioactive waste brokers contracting with generators in Maine were finding it difficult to obtain space at Barnwell. As a result some shipments were not shipped in 2003 and have been postponed until 2004. Based on the table above more space will become available at the start of FY03/04 for first-come/first-serve clients.

Disposal rates for the Barnwell facility are set by the State of South Carolina, as is the methodology for allocating the declining annual volumes among potential customers. Chem-Nuclear is compensated for operating the site based on audited operating costs, with any excess disposal revenues going to the state for educational purposes. State policy is to provide equal pricing and access for waste from all generators - no waste broker or processor is given special access privileges or pricing discounts. South Carolina discourages agreements between waste brokers, processors and decontamination service and their waste generator customers that do not separate out and itemize disposal prices for generators. Chem-Nuclear has been asked to separate out disposal contracts from other waste management contracts in the future.

Source: SCDHEC and LLWF

MAINE YANKEE ATOMIC POWER COMPANY

Mid-Year and End-of-Year Project Summaries

In an August report the project was 79% complete with a workforce of 398. Project worker dose was about 43.5% of the NRC limit of 1115 person-REM. Thirty-one spent fuel canisters had been moved to the ISFSI. Rail shipment had increased to help ship 126,000,000 pounds of waste to date, about 53% of the total.

In late December decommissioning was at 83% with 398 workers on site. Project worker dose was a 45% of the NRC limit. Forty-nine canisters of fuel had been transferred to the ISFSI with the fiftieth nearly ready to move. The Forebay project completed its Final Phase and Final Status Survey with backfilling started in December. Waste shipments in 2003 were over 33,000,000 pounds with a total to date in excess of 160 million pounds.

CAP

In January the Community Action Panel (CAP) was briefed on the NAC transition and the negotiations with the Chewonki Foundation on the Eaton Farm property. As part of the 1998 FERC rate case settlement, Maine Yankee agreed to donate the 200 acre Eaton Farm to a non-profit organization for three purposes: to create a nature preserve, to provide public access, and to create a center for dialogue on environmental policy issues. Proposals were received from the town of Wiscasset, the Atlantic Center for Environmental Policy Dialogue, and the Chewonki foundation. After careful review of the three proposals, the Maine Yankee Board of Directors agreed to begin negotiations with the Chewonki Foundation.

The cap met again on 23 April to discuss the RPV shipment to Barnwell, South Carolina, Forebay remediation and received briefings from the State inspector and Maine Yankee on activities on site.

Forebay Remediation Plan

In February the Maine Department of Environmental Protection acknowledged their approval of Maine Yankee's Forebay Remediation Plan. Maine Yankee's Natural Resources Protection Act permit was approved conditional to MDEP approval. The plan outlined the process to convert the Forebay into a high wetlands habitat, which involves activities such as silt remediation, partial west dike removal, backfill, and final grading. Activities began in April with silt dredging. The silt was dried, and shipped to Envirocare in Utah. An estimated 1500 tons of waste was removed. Final status surveys were conducted in the fall with backfilling in December.

License Termination Plan

In February the NRC announced its approval of the License Termination Plan (LTP) in an amendment to their operating license. The LTP describes Maine Yankee's process to terminate its operating license and release the site for other uses, based on the NRC unrestricted release criteria and State radiological standards. It includes characterization, dismantlement, remediation, modeling, survey, and financial and environmental aspects with specifics on below grade demolition, waste disposal methods, RCRA remediation, and final site surveys.
The termination will be in two stages. The first is the initial release of the plant area after major demolition activities and final sites surveys are completed. The second stage is the final site release when the Department of Energy moves the fuel and the Independent Spent Fuel Storage Installation is removed.

Reactor Pressure Vessel Shipment

The vessel was shipped out on 6 May by a barge escorted by two tugs. The trip down the east coast of the United States toward South Carolina was estimated to take 12-14 days. Final burial, after being off loaded from the barge and hauled to the site, took place in early June.

Emergency Drills

In March a drill of its Severe Incident Tactical Response Plan was conducted. The drill was designed to evaluate various aspects of the plan including command and control as well as any needed changes. Governor Baldacci and his staff expressed that they were very pleased that Maine Yankee was organizing this type of preparedness activity. Drill participants included: Wiscasset Police Department, Lincoln County Sheriff's Office, U.S. Coast Guard, Brunswick Naval Air Station, Maine Maritime Patrol, Maine State Police, Maine National Guard, Office of Homeland Security, NRC and State of Maine.
The drill began at 8:30 AM with briefings and review and concluded at 12:30 PM.

Source: Maine Yankee's weekly newsletter "The Look INSIDE"

UTAH

Envirocare of Utah currently disposes of Class **A** Low-Level Waste. Envirocare has been working on a Class **B** and **C** License Request. On July 9, 2001, the Executive Secretary of the Utah Radiation Control Board issued a final decision to approve, subject to specified limitations and conditions, an application by Envirocare of Utah to receive and dispose of containerized Class A, B, and C low-level radioactive waste at its facility in Tooele County, Utah. Shortly thereafter, Envirocare President Charles Judd determined that the company would not seek legislative or gubernatorial approval for its class B and C low-level radioactive waste proposal.

At least 10 bills addressing issues involving radioactive waste management and disposal were filed for consideration by the Utah legislature. Legislation included:

- Ban the disposal of Class B & C low-level radioactive waste within the state
- Increase taxes on the disposal of hazardous and radioactive waste
- Create a task force to study the hazardous materials industry in Utah, including safety, oversight and regulation

In addition, several lawmakers have proposed either a bill or a resolution to conduct a feasibility study on putting a spent fuel storage facility on state school trust lands (a measure seen widely to derail the planned Goshute Indian Private Fuel Storage site. Legislation has also been introduced to change the state's ballot initiative process in response to last year's decision by the state supreme court, which found the process to be unconstitutional.

In February the Utah House voted against the original version of H.B. 237 legislation seeking to ban the disposal of Class B and C waste. The land trust for high-level waste storage failed to gain support and the bill to impose fees and taxes on waste management and disposal failed to pass.

ALARMS AT MAINE AND OUT OF STATE DISPOSAL FACILITIES

The number of alarms at disposal facilities was up from 2002. Currently only the Maine Energy Recovery Corp. (MERC) has a radiation monitor installed to scan incoming loads of waste as a precaution against radioactive material. Many facilities in New Hampshire and Massachusetts have monitors to guard against radioactive material in waste and scrap metal, which they do not want to become responsible for. Such truck or railcar loads when identified are returned to the state of origin with Department of Transportation Exemption paperwork. State officials or private contractors then investigate the cause of the alarm.

In 2002 Maine had filed 14 alarms: 3 loads returned from Massachusetts, 3 from New Hampshire and 8 in Maine. The number increased to 25 in 2003 with 5, 5 and 15 respectively.

The results of most investigations indicate the source as domestic waste improperly disposed of by outpatients receiving nuclear medicine care. In a few cases it is instruments and articles of radioactive material improperly disposed of.

At present the Department of Human Service, Bureau of Health's Radiation Control Program responds to these alarms, but does not budget for such activities. As more facilities install monitors to guard against unwanted radioactive material the number will continue to increase. Some states, Pennsylvania for instance, require all waste and scrap metal facilities to have monitors to warrant proper disposal of radioactive waste.

HIGH LEVEL RADIOACTIVE WASTE

The Nuclear Waste Policy Act of 1982

An Act to provide for the development of repositories for the disposal of high-level radioactive waste and spent nuclear fuel, to establish a program of research, development, and demonstration regarding the disposal of high-level radioactive waste and spent nuclear fuel, and for other purposes. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled.

Background

High-level radioactive waste (HLW) consists primarily of nuclear fuel rods from commercial nuclear power plants and is called "spent nuclear fuel." Radioactive waste that results from the commercial reprocessing of spent nuclear fuel also falls under the NRC definition of HLW. Reprocessing extract isotopes from spent fuel that can be used again as reactor fuel. Commercial reprocessing is currently not practiced in the US although it has been allowed in the past. There are significant quantities of HLW from the defense reprocessing and commercial nuclear programs at Department of Energy (DOE) facilities. These facilities include sites at Hanford, Washington; Savannah River, South Carolina; and West Valley, New York and must also be included in any Federal HLW disposal plans.

Legislative Requirements

US policies governing the permanent disposal of HLW are defined by the Nuclear Waste Policy Act of 1982 (NWPA), the Nuclear Waste Policy Amendments Act (NWPAA) of 1987, and the Energy Policy Act of 1992. These acts specify that HLW will be disposed of underground, in a deep geologic repository.

The NRC is one of three Federal agencies under the acts with a role in the disposal of spent fuel and other HLW. DOE is responsible for determining the suitability of the proposed disposal site as well as developing, building, and operating the geologic repository. The U.S. Environmental Protection Agency (EPA) will develop environmental standards to evaluate the safety of the geologic repository proposed by DOE. NRC will license the repository after determining whether DOE's proposed repository site and design comply with EPA's standards and with NRC's implementing regulations found in 10 CFR Part 60.

HLW Storage Problem

The American utility companies and their 65 million consumers have a spent fuel storage and disposal problem. The power plants were built with only limited spent fuel storage. Without a storage or disposal facility, the viability of many of these plants is seriously in question.

The management and disposal of increasing amounts of commercial spent nuclear fuel is being exercised in different ways worldwide including interim storage and reprocessing. Between 1996 and 2015, nuclear reactors worldwide are projected to discharge about 200 thousand metric tons of uranium (MTU). By 2015, cumulative discharges of spent fuel from U.S. nuclear reactors are expected to increase to about 75 thousand MTU, compared to a total of 32 thousand MTU discharged through the end of 1995.

1996 data showed that in the next 19 years, 46 of the 107 commercial nuclear power plants currently operating in the United States are scheduled to close after reaching the end of their operating license. However, several commercial reactors have been successfully decommissioned, demonstrating that decommissioning is well within the bounds of current technology. The greatest uncertainty, however, is the availability of spent fuel storage disposal sites.

Many factors enter into a nuclear utility's decision to choose one of the decommissioning options, depending primarily on the expected escalation in low-level waste (LLW) costs. Factors favoring the option of dismantlement and decontamination (DECON) include the availability of a highly skilled staff with experience at the plant, and the elimination of potential future cost uncertainties. Factors favoring an option where a facility is maintained until some decay of radioactivity, followed by dismantlement include the desire to reduce the radioactivity and quantity of LLW and the possibility that new, more efficient disposal technologies may emerge.

Currently, only three sites accept LLW: Envirocare in Clive, Utah (on aboriginal Goshute territory immediately next to the Reservation); Barnwell in South Carolina; and Hanford in Washington.

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YUCCA MOUNTAIN

Background

Experts throughout the world agree that the most feasible and safe method for disposing of highly radioactive materials is to store them deep underground. Based on this consensus, the United States Congress passed the Nuclear Waste Policy Act of 1982 that directs the Department of Energy to find a site and characterize it. If the site is found suitable and a license application is approved by the Nuclear Regulatory Commission, the Department of Energy is to build and operate an underground disposal facility.

The project involved extensive scientific study on Yucca Mountain's geology, hydrology, biology, and climate. Found suitable, Yucca Mountain is in the final stage to be part of the nation's first long-term solution to a compelling environmental problem.

In 2002 the president's recommendation cleared both sides of Congress.

Operation

Now that the Department of Energy has found Yucca Mountain a suitable site for a repository, it must obtain a license from the Nuclear Regulatory Commission before building and operating the repository. According to current project schedules, the earliest the department could start operating a repository at Yucca Mountain is 2010.

Repository operations will include all activities associated with:

- transporting and receiving highly radioactive materials
- preparing the materials for placement in the repository
- placing the materials in the repository
- monitoring the repository over the long term

The department estimates that it will take 25 years to receive and place the materials in the repository. This long period of time reflects a long list of sites storing fuel. Experts will continually monitor the repository until the secretary of energy makes a decision to close it.

Licensing

The Nuclear Waste Policy Act, as amended, requires the Department of Energy to obtain a license from the Nuclear Regulatory Commission before it can build and operate a geologic repository for highly radioactive materials. The commission will base the license award on regulations designed to protect public health and safety for thousands of years. The following summarizes the repository licensing process.

- The department, having the Presidential and Congressional approval of the site recommendation from the secretary of Energy, planned to submit a license application to the commission in 2002.
- The commission will conduct extensive scientific reviews and hearings. If it concludes that the proposed repository meets requirements specified in the Code of Federal Regulations, the commission will grant authorization to begin construction in 2005. The department will then begin to build the repository.
- When the repository is near completion in 2008, the department will request authorization from the commission to begin operations.
- If the commission determines that the repository complies with all federal regulations, it will grant a repository operations license in 2010. The department will begin operations upon receipt of this license.

Events in 2003

A recent report by Bechtel SAIC, a contractor for the U.S. Department of energy's planned Yucca Mountain repository, recommends additional analysis of the threat posed by aircraft flying within 30 miles of the site. DOE officials, however, are downplaying the threat, asserting that the department does not believe potential plane crashes (either from Nellis Air Force base or commercial airlines) are a realistic obstacle to obtaining a facility license from the NRC.

The danger posed by military flights was recently cited by the Atomic Safety Licensing Board as a reason for recommending denial of a proposal to build a spent fuel storage facility on the Goshute Indian reservation in Utah (see below). Department officials point out that the Utah proposal calls for an aboveground storage facility, whereas the proposed Yucca Mountain facility would be underground. Also above ground surface work at the Nevada test site has co-existed with military training for years. DOE plans to apply to the NRC for a facility license for the Yucca site by late 2004.

The DOE in September 2003 disputed an independent panel's expressions of concern regarding the potential for corrosion of metal containers. The Nuclear Waste Technical Review Board wrote to the department to outline its concerns, which the department has not completely reviewed.

In response, Margaret Chu, Director of DOE's Office of Civilian Radioactive Waste Management, stated the board did not acknowledge the dependence of those results on the existence of extreme and unlikely environmental conditions. The board also did not state where the conditions are likely to occur. Chu expressed concern that the board's statements were taken out of context.

Source: Low-level Waste Forum

GOSHUTE INDIANS

Because of the risks military aircraft operations conducted near the Skull Valley site might pose, the Atomic Safety and Licensing Board has blocked for now the issuance of a license. The board is an independent judicial arm of the Nuclear Regulatory Commission and gave its decision on 10 March 2003. The license would allow a Private Fuel Storage consortium (PFS) to build a spent nuclear fuel storage facility in Utah.

The proposed above ground facility is intended to house temporarily the waste fuel from the nation's nuclear power plants that is eventually destined for a permanent storage facility (currently envisioned at Yucca Mountain in Nevada). The PFS facility would be located on the Reservation of the Skull Valley Band of Goshute Indians, about 50 miles southwest of Salt Lake City.

A formal hearing was held in mid-2002 in which the Licensing Board received evidence on a number of issues challenging the PFS proposal, including the likelihood of an F-16 (a single-engine military jet) crashing into the facility. The State of Utah, the proposal's principal opponent, said the site was unsuitable because it would sit under the airway that pilots use to fly thousands of F-16s a year from Hill Air Force Base down Skull Valley to the military's Utah Test and Training Range.

At the hearing, PFS claimed that the chances of an F-16 accidentally crashing into the facility were so minimal that taking precautions against that potential event was unnecessary. PFS relied heavily on a "pilot avoidance" theory, which predicts that Air Force pilots would almost always, before ejecting during an in-flight emergency, take steps to guide their crashing jets away from the facility. The State's evidence led the Board to reject that theory and to rule that the PFS facility could not be licensed until the safety concern over the F-16 crash scenario is addressed.

The Licensing Board's ruling leaves room for the facility to receive later NRC licensing approval if either: (1) PFS can convince the Air Force to reduce the number, and/or to alter the pattern, of F-16 flights over Skull Valley; or (2) PFS can show that the design of the facility's storage structures is so robust that an F-16 crash would not have appreciable health and safety consequences. PFS will also have the opportunity to convince the five Commissioners who head the NRC to overturn the Licensing Board's ruling on appeal. A copy of the 220-page decision will be available from the NRC's web site at

http://www.nrc.gov/what-we-do/regulatory/adjudicatory/pfs-decision.pdf.

The Parks Subcommittee of the U.S. House of Representatives is considering a bill that would subvert the proposed PFS spent fuel storage facility by creating a federal wilderness area and restricting access to the Goshutes reservation. The legislation, H.R. 2909, would set aside 500,000 acres of Utah's Air Force Test and Training Range for wilderness protection. The bill, known as the Cedar Mountain Wilderness Protection act, is being sponsored by Utah's congressional delegation.

Late in 2003 the tribe received more setbacks in their effort to site a spent fuel storage facility. A federal indictment alleges corruption within Utah tribe. Federal authorities alleged in December that the chairman, Leon Bear, of the Skull Valley Goshute Tribe of Utah stole more than $190,000 in tribal and federal funds while pushing a controversial plan to bring nuclear waste to his reservation. On behalf of the tribe, he signed a deal with eight private utility companies to store up to 44,000 tons of nuclear waste on the tribe's 18,000-acre reservation, about 45 miles southwest of Salt Lake City.

Leon Bear was not the only one who was charged by a federal grand jury on December 17th. Three of his political opponents: Sammy Blackbear, Marlinda Moon and Miranda Wash, were indicted on charges of bank fraud for allegedly stealing $45,800 in tribal funds. Duncan Steadman, an attorney who worked with the trio, was also indicted for allegedly receiving $11,000 in tribal funds.

Source: article at indianz.com and Low-level Waste Forum

APPENDIX B: FINANCIAL REPORT

Line items 3890, 4970 and 4980 are actually ACORWD expenses. Presented below is the Low-level Waste Section's budget as part of the Radiation Control Program, Division of Health Engineering, Department of Human Services. Providing staff support for the ACORWD is an addition duty for the section and program. Therefore, the budget below reflects the yearly operation of the Low-level Waste Section in managing radioactive waste for the State of Maine.

Radioactive Waste Fund and ACORWD Financial Report for Calendar Year (CY) 2003

014-10A-0143-03-2439

Income			
Note: bills assessed annually by 1 Sept. Payments may be made quarterly during the state's Fiscal Year Bills sent out based on 2002 generated waste will all be received by 1 April 2004 Bills are based on the Radioactive Waste fund set At $135,000 minus budget remaining at end of FY. Note: Total FY2003 + FY Beginning Balance = $135,000		FY2002 is from July 02 to June 03	CY2003 is from January to December 03
Generators		Billed FY2003	Received CY2003
MDI		$100.00	$100.00
University of Maine		$100.00	$100.00
Idexx Labs		$100.00	$100.00
Maine Yankee Atomic Power Co.		$103,267.00	$122,778.25
	Total	$103,567.00	$123,078.25
Expenditures in CY2003		Beginning Balance	$30,231.61
Expenses personnel		Amount	**$153,309.86**
3000 Personal services		$60,163.72	
3890 ACORWD perdiem		$385.00	
		Total	**$(60,548.72)**
Expenses Overhead			
4100 In-State Admin Overhead		$44,954.49	
4200 Travel expenses in-state		$364.40	
4300 Travel expenses out-of-state		$2695.36	
4600 Rents		$2376.22	
4900 Printing, postage, shipping		$1078.47	
4970 ACORWD mileage		$196.96	
4980 ACORWD travel expense		$25.00	
4983 Dues and membership		$4,811.00	
5000 Employee training expenditures		$280.00	
5300 Telephone and communications		$2416.28	
5500 Servers		$2069.00	
5600 Other supplies		$576.19	
8500 Transfers to general fund-STACAP		$2280.56	
		Total	**($64,123.93)**
	Ending Balance		**$28,637.21**

Budget projections	**FY 2004**	**FY 2005**
Account carryover and Income	**$135,000.00**	**$135,000.00**
Salary/benefits	($56,598.00)	($59,428.00)
Admin overhead	($41,000.00)	($42,000.00)
ACORW&D per diem	($1,000.00)	($1,000.00)
Rent/power, telephone	($3,500.00)	($3,500.00)
Professional services	($3,500.00)	($3,500.00)
Computer hardware and service	($2,000.00)	($2,000.00)
Supplies, shipping, advertising	($4,500.00)	($4,500.00)
Sta. Cap	($1,300.00)	($1,300.00)
Training/travel	($3,500.00)	($3,700.00)
LLW Forum and dues	($5,000.00)	($5,000.00)
Ending balance	**$13,102.00**	**$9,072.00**

APPENDIX C: LOW-LEVEL WASTE GENERATORS IN MAINE FOR 2002

NAME (Class A unless noted)	LICENSE#	Activity Disposed (curies)	Principle Isotopes	VOL.(Cu. Ft.) Disposed	VOL. (Cu Ft.) In Storage
IDEXX LABORATORIES, INC.	05453	0.0200	I-125, S-35	29.000	73.0
MDI	9623	0.0062	H-3, C-14, Cl-36	33.313	<1.0
Univ. of Maine	19827	.0065	H-3, C-14, U-nat.	16.100	2.0
MYAPC (total)	DPR-36	(1168.40)	Co-60, Ni-63, Fe-55, Cs-137	(329,803.2)	0.0
(Class A)		679.0	"	329,355.0	0.0
(Class B)		477.7	"	322.2	0.0
(Class C)		11.7	"	126.0	0.0
Portsmouth Naval Shipyard[1]	n/a	12.6180	-	1325.6	-

Note: information is a year behind the date of the annual report due to the survey results being return to the State after the publication date. Class A waste unless otherwise noted.

[1] Portsmouth Naval Shipyard is a Federal Facilities and not billed by the Radioactive Waste Fund. It does not have or is required to have a Maine license.

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APPENDIX D: ACORWD LIST OF APPOINTMENTS

Status/Name	Termination Date	Representing
Bob Demkowicz Dept. of Environmental Protection State House Station # 17 Augusta, ME 04333 bob.a.demkowicz@maine.gov	Seat 1	Department of Environmental Protection Commissioner or Designee
Clough Toppan, P.E., Director Division of Health Engineering 10 State House Station Augusta, ME 04333-010 e-mail: clough.toppan@maine.gov	Seat 2	Department of Human Services Commissioner or Designee
Dr. Robert Marvinney State Geologist 22 State House Station Augusta, ME 04333-0022 e-mail: robert.marvinney@maine.gov	Seat 3	Maine State Geologist or Designee
Mike Meisner Maine Yankee Atomic Power Plant 321 Old Ferry Road Wiscasset, ME 04578 email: meisnerm@myapc.com	December 31, 2002 Term expires Dec 31st of even numbered years. Seat 4	Representing a Maine Nuclear Power Plant Appt. by Governor
Open	Term expires Dec 31st of even numbered years. Seat 5	Radioactive Material Licensee Representative Appt. by Senate President
Shirley Jucius 36 Griffin Ave. Hampden, Maine 04444	December 31, 2005 Term expires Dec 31st of odd numbered years. Seat 6	Radioactive Material Licensee Representative. Representing Maine Medical Center Appt. by Speaker of the House
Senator Sharon Treat (Chair) Senator, State of Maine 7 Bowman Street Farmingdale, ME 04344 e-mail: SenSharon.Treat@legislature.maine.gov	December 1, 2004 Term expires the first Wednesday in December of even numbered years Seat 7	State of Maine Appt. by President of the Senate. Belonging to Political Party holding the largest number of seats in the Senate
Senator Christopher Hall Senator, State of Maine POB 218 Bristol, ME 04539 email: Christopher.Hall@legislature.maine.gov	December 1, 2004 Term expires the first Wednesday in December of even numbered years Seat 8	State of Maine. Appt. by President of the Senate. Belonging to Political Party holding the largest number of seats in the Senate
Senator W. Tom Sawyer, Jr. 544 Valley Ave Bangor, 04401 H: (207) 942-1771 email: senatorsawyer@aol.com SenTom.Sawyer@legislature.maine.gov	December 1, 2004 Term expires the first Wednesday in December of even numbered years Seat 9	State of Maine Appt. by President of the Senate. Belonging to Political Party holding the 2nd largest number of seats in the Senate
Rep. Robert Daigle (V. Chair) Representative, State of Maine 197 Mountain Road Arundel, Maine 04046 H: (207) 282-0761 State House Message Ph: (800) 423-2900 email: rdaigle@gwi.net RepRobert.Daigle@legislature.maine.gov	December 1, 2004 Term expires the first Wednesday in December of even numbered years Seat 10	State of Maine Appt. by Speaker of the House. Belonging to Political Party holding the 2nd largest number of seats in the House.
Rep. Peter L. Rines Representative, State of Maine 334 Bradford Road, Wiscasset, ME 04578 H: (207) 882-9794 Email: prines@wiscasset.net RepPeter.Rines@legislature.maine.gov	December 1, 2004 Term expires the first Wednesday in December of even numbered years Seat 11	State of Maine Appt. by Speaker of the House. Belonging to Political Party holding the largest number of seats in the House

APPENDIX D: ACORWD LIST OF APPOINTMENTS (cont.)

Status/Name	Termination Date	Representing
Rep. Lawerence Bliss Representative, State of Maine 504 Cottage Road South Portland, ME 0410 email: Lawerence.Bliss@legislature.maine.gov	December 1, 2004 Term expires the first Wednesday in December of even numbered years Seat 12	State of Maine Appt. by Speaker of the House. Belonging to Political Party holding the largest number of seats in the House.
Ron Ouellette Physics Consultants INC P.O. Box 6749 158 Woodford St. Portland, ME 04103 Tel: (207) 773-1313 v-mail: 872-1453 email: rono@suscom-maine.net	December 31, 2003 Term expires Dec 31st of odd numbered years. Seat 13	Public Member with knowledge of and interest in the management of radioactive materials and waste. Appt. by Governor
Richard Carey PO Box 77 Belgrade, ME 04917 H: (207) 495-3333	December 31, 2002 Term expires Dec 31st of even numbered years. Seat 14	Public Member with knowledge of and interest in the management of radioactive materials and waste. Appt. by Governor
Stephen Jarrett P.O. Box 383 Wiscasset, Maine 04578 email: smj@ceimaine.org	December 31, 2003 Term expires December 31st of odd numbered years Seat 15	Public member with Knowledge of and interest in the management of radioactive materials and waste. Appt. by Senate President
James Mitchell 52 Birch Point Road Freeport, Maine 04332 email: jmitch8564@aol.com	December 31, 2002 Term expires December 31st of even numbered years Seat 16	Public Member with Knowledge of and interest in the management of radioactive materials and waste Appt. by Speaker of the House
Don Hudson, Ph.D. Chewonki Foundation 485 Chewonki Neck Road Wiscasset, ME 04579 e-mail: dhudson@chewonki.org	December 31, 2002 Term expires December 31st of even numbered years Seat 17	Representing Environmental Advocacy Organization Appt. by Speaker of the House