



Angus S. King, Jr., Governor Kevin W. Concannon, Commissioner

ADVISORY COMMISSION ON RADIOACTIVE WASTE AND DECOMMISSIONING

Department of Human Services Bureau of Health

February, 2002

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

2001 ANNUAL REPORT

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



ANGUS S. KING, JR.

STATE OF MAINE DEPARTMENT OF HUMAN SERVICES Division of Health Engineering 11 State House Station Augusta, Maine 04333-0010

KEVIN W. CONCANNON COMMISSIONER

June 30, 2002

Senator John Martin, Chair Representative Scott W. Cowger, Chair Committee on Natural Resources 115 State House Station Augusta, Maine 04333-0115

Subject: Advisory Commission on Radioactive Waste and Decommissioning Annual Report

Senator Martin and Representative Cowger,

I am submitting this Annual Report for the Advisory Commission on Radioactive Waste and Decommissioning pursuant to Title 38 Waters and Navigation, Chapter 14-A, Subchapter I: General Provisions, § 1453-A. Advisory Commission on Radioactive Waste and Decommissioning. This is being submitted on behalf of the Advisory Commission on Radioactive Waste and Decommissioning by the Department of Human Services' Radiation Control Program. This report includes events of 2001, total fees received from each generator, line item detail on expenditures including in-state and out-of-state travel, printing, mailings and hearings, personnel, general operating expenses, supplies and overhead for the department and transfer of funds.

I have attempted to include all information that is pertinent to the operation of the commission, but if you have any questions please contact me at 287-8401.

Respectfully yours,

Thomas C. Hillman Staff, ACORWD Low Level Waste Coordinator Radiation Control Program



TTY: (207) 287-2070

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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.

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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.

2001 Advisory Commission on Radioactive Waste and Decommissioning

Senator Sharon Treat (Chair) Senator W. Tom Sawyer Senator Norman Ferguson Clough Toppan, P.E., DHS Mike Meisner, MYAPC Joseph Blinick, PhD, Maine Medical Center Ron Ouellette, public member Richard Carey, public member Representative Robert Daigle, (vice-chair) Representative William R. Savage Representative Peter L. Rines Bob Demkowicz, DEP Robert Marvinney, PhD, DOC Don Hudson, PhD, public member James Mitchell, public member Stephen Jarrett, public 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

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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 the reactor vessel segmentation projects under way at Maine Yankee as well as 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 has stalled the effort until the year 2003 when their session reconvenes. Monitoring the Maine Yankee Decommissioning is currently the number one

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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 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 was sent out to 300+ addresses in the spring, summer and fall. During the winter the newsletter was also sent out to the entire mailing list for the Radiation Control Program. This new list included the ACORWD, radiation materials and radon mailing lists and went out to 800+ readers.

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 continuously updated on Maine Yankee's decommissioning and the planned disposal of low and high level waste by the state's on-site inspectors, Pat Dostie and Dale Randall, and by Maine Yankee's Mike Meisner. These updates keep the commission informed on the status of work and projects like the automated truck radiation monitor installed to scan truckloads of non-radioactive demolition waste leaving the site for radioactive contamination and the status of Greater Than Class C waste.

Some Commission members also regularly attend Maine Yankee's Community Advisory Panel to hear presentations by Maine Yankee, the Nuclear Regulatory Agency, Environmental Protection Agency and the public. Two members are also members of that panel.

The commission monitors the methods, criteria and federal timetables for siting and constructing of a highlevel 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 five meetings during the year 2001. These meetings were held on the following dates: 12 February, 2 April, 28 June, 25 September, and 13 November. All meetings were held in the Cross-Burton State Office and are open to the public.

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SUMMARY OF MEETINGS

Meeting of 12 February. Dale Randall, DHS, updated the commission on activities on the Maine Yankee Decommissioning. He stated that the License Termination Plan (LTP) should be presented to the commission members for comment. The commission decided that the next meeting will have a representative from Maine Yankee present the LTP. Mike Meisner, commission member representing Maine Yankee, briefed the commission on the decommissioning to date. He stated that the LTP was still a hurdle, decommissioning was at 40% complete, truck monitors were running well, and four canisters of GTCC are to be stored in the ISFSI. The barge shipments depend on the water levels on the approach to Barnwell, S.C. The Corps of Engineers is working with Maine Yankee to forecast the levels.

Risk studies have been done on potential fuel pool accidents. Pools can heat up due to major problems, however, these kinds of concerns take several weeks to develop. The chances are extremely low and can be foreseen and corrected. The study was published in a report that got the media's attention and raised issues. These issues are general and are very different when studied on a case-by-case basis.

Ray Shadis, representing Friends of the Coast (FOTC), briefed the commission on the FOTC position as an intervener and stated their concern for the security of the spent fuel casks. He also stated his concern that casks will attract more casks. FOTC is concerned with the new cask design and feels there should be a 6-8 month delay in order to better review the design. The site is expected to store the fuel for some time and the expected removal date is 2038 (a best guess for the opening of a federal site). FOTC also has no confidence in the state's experts, terrorism is a major threat and NRC does not require the same security of the site as a reactor. The state must ensure no more waste comes to the site and what if the fuel is not removed after 2038? FOTC would like to see the commission hold a public forum to inform the public. The commission decided to review the issue to determine if further action is needed.

Paula Craighead, State of Maine, presented to the commission the duties of the Office of Nuclear Safety (ONS). The ONS feels the state is fortunate to have good technical experts on the staff and that the public should have confidence in these people. The study of pool fires has little relevance on the Maine Yankee's situation; dry cask storage is different from pool storage. The state urges Maine Yankee to continue with dry storage and federal assets are in place to handle terrorist situations.

Meeting of 2 April. Mike Meisner, commission member representing Maine Yankee, presented to the commission about the Maine Yankee termination Plan, purpose of the LTP, background and its contents. Paula Craighead, ONS, addressed the commission in regards to the LTP. She stated the state has received good advice from in-state and out-of-state technical people. The state is an intervener and has a goal to see that the LTP is a product free of confrontation.

Steve Ward, the State Public Advocate, addressed the commission. He stated that the Public Utility Commission was also interested in the LTP. There are now new issues with the Texas Compact due to Maine Yankee's decommissioning before Texas gets a site up and running. He questions whether the Texas Compact is now worth it for Maine. Should Maine be paying for space it will not use? There is \$12.5 million due when a site in Texas opens plus a later \$12.5 million. Will Maine have other access? Envirocare, located in Utah, has recently applied for a class B and C license for open market acceptance of low-level waste.

Meeting/Tour of 28 June. This meeting/tour was held at Maine Yankee Atomic Power Company by Maine Yankee. The purpose was to tour the Independent Spent Fuel Storage Installation (ISFSI) prior to the loading of Greater Than Class C (GTCC) waste and spent fuel.

Meeting of 25 September. This meeting was held a couple of weeks after the September 11 terrorist incidents. Paula Craighead, State of Maine, addressed the commission on actions the state has taken in

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coordinating the Emergency Operation Center on radiological issues. Foremost is the concern for security at Maine Yankee and that fuel transfer to the ISFSI security issues are reconsidered.

Paula Craighead and Jay Hyland of the Radiation Control Program briefed the commission on revision 2 of the Maine Yankee's License Termination Plan submittal of August 14.

Mike Meisner of Maine Yankee stated to the commission that the decommissioning plant has increased security and is in communication with the state Emergency Operation Center. Many comforting things can be said about Maine Yankee security, but many details cannot to be discussed in public.

The commission stated it was not satisfied with general statements concerning security at Maine Yankee. The commission wants to know, or hear from others that know, that the state is safe. The next meeting will address the issue of radioactive security from individuals in state government and Maine Yankee with first hand knowledge of the situation.

The commission then received a brief from Shawn Seeley of the Maine Radiation Control Program on Naturally Occurring Radioactive Materials turning up at metal recycling yards. This is a problem that is on the rise since more yards begin to radiological monitoring incoming loads. The commission would like to look into this further at a later meeting to determine if legislative action is needed.

Meeting of 13 November. The Advisory Commission on Radioactive Waste and Decommissioning (ACORWD) held a meeting on 13 November 2001 to hear issues concerning security and fuel storage at Maine Yankee. Terrorist activities in the Unites States have prompted many state government and citizen groups to question security at the decommissioning power plant. The issues of concern were the long term or short-term storage of fuel, emergency procedures and evacuation, state jurisdiction and public concerns. Currently the plant is over 50% decommissioned and spent fuel will be transferred to the onsite storage facility soon.

The commission heard from the State's Nuclear Safety Advisory – Paula Craighead, Maine National Guard Adjutant General – Major General Tinkham and the Public Utilities Commission Engineer – Joe Sukaskas. They were followed by Maine Yankee's Mike Meisner, Dennis Harnish from the AG's Office, and representatives of various citizens groups.

Paula Craighead began by defining the role of the safety advisor and the current situation of the decommissioning. She made it clear that the plant has no operating reactor and is well on its way to decommissioning and that security was at a level allowed by the NRC for a plant of its status. The federal government needs to find a central home for all spent fuel for the King administration has never been satisfied with the storage of spent fuel in Maine.

General Tinkham outlined the state's involvement with Maine Yankee and its confidence in Maine Yankee's security. The general and the governor have met many times with Maine Yankee to receive briefings on their security. They came from those meetings finding the plant very secure and that it did not need a National Guard presences. Response plans between Maine Yankee, National Guard and State Police will make it more secure. The plant is secure from ground and sea threats, however the air is beyond control. General Tinkham also felt air is also a very unlikely scenario at the site.

Joe Sukaskas stated the Public Utilities Commission no longer regulates the former plant. It is involved when the utilities wants to recover costs of decommissioning and with the DOE's Nuclear Waste Fund. It has urged the federal government to speed up the removal of spent fuel.

Dennis Harnish stated that the state has no role to play in determining dry vs. wet storage and cask design, nor does the state have authority in the movement of spent fuel.

Mike Meisner reiterated that certain items of information on security cannot be discussed in public.

A number of members of the citizen group, David Lochbaum and Peter Christine, presented their concerns for "Force on Force" tests and the need for the National Guard at the decommissioning plant

The commission has not made a determination on the safety issues of wet vs. dry storage. It believes the spent fuel will be on site for some time in the storage facility and will further pursue the issues of force on force tests and spent fuel removal from the site.

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 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.

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, <u>not</u> long-term storage, is 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.

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

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Events in 2001

Several bills were introduced in Texas during the 2001 legislative session which pertained to the management and disposal of low-level radioactive waste The following is a brief summary of major points of the legislation, as introduced. Persons interested in more detail are directed to the bills themselves. Copies of the bills, as well as status reports, can be found at www.capitol.state.tx.us.

House Bill No. 8

This bill, among other things, provides for the possibility of construction of an assured isolation facility in the State of Texas. In addition, it provides for the issuance of a license for a disposal or assured isolation facility to a private entity. However, the bill contains the following language limiting waste disposal by the U.S. Department of Energy in a private facility:

"The total radioactivity of United States Department of Energy wastes licensed for disposal at a site owned by a private entity shall be twenty percent less than the radioactivity of wastes projected to be received pursuant to the Texas Low-level Radioactive Waste Disposal Compact, unless the radioactivity is otherwise exempt or existing in nature."

H.B. 8 also contains language that limits the state's liability for waste that is accepted or stored at a site owned or operated by a private entity and that requires reporting of the disposal of low-level radioactive waste. In addition, the bill contains siting criteria, including the prohibition of a site within 62 miles of the Mexican border or in which the average annual rainfall is greater than 26 inches.

House Bill No. 85

This bill amends various sections of the Texas Health and Safety Code to remove the designation of Hudspeth County as the host county for the proposed Texas Compact low-level radioactive waste disposal facility. H.B. 85 is scheduled for a second reading in the Texas House of Representatives on April 10, 2001.

House Bill No. 1099

H.B. 1099 requires that radioactive material licensees demonstrate that they are financially qualified to conduct the licensed activity, including the performance of decontamination, decommissioning, reclamation and disposal activities. The bill also provides for the collection of an additional five percent of the appropriate annual fee to be deposited in the radiation and perpetual care fund.

House Bill No. 2370

H.B. 2370 prohibits the disposal of low-level radioactive waste in a landfill "below the natural level of a disposal site."

House Bill 2371

This piece of legislation contains a requirement that a host state commissioner and an alternate must sign and present to the governor prior to his appointment a written pledge not to allow for the disposal of waste from states outside of the Texas Compact in a facility licensed by the state.

House Bill 2904

H.B. 2904 removes the designation of Hudspeth County as the host for a regional low-level radioactive waste disposal facility. In addition, the bill requires that a disposal site "include above-ground isolation facilities for managing low-level radioactive waste pending disposal."

House Bill 2905

This bill establishes a Low-level Radioactive Waste Disposal Authority as a state agency charged with statewide jurisdiction over low-level radioactive waste management and disposal and creates a citizens advisory committee to perform oversight functions. It contains detailed requirements about the selection of Authority members, their powers and duties, and management site selection and acquisition. The bill also

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establishes a preference for above-ground, monitored storage of low-level radioactive waste. It also requires approval of the host county prior to siting of a facility.

The bill states that the Authority shall apply to the Texas Natural Resource Conservation Commission for a site license, but specifically states that the Commission may not license the management of mixed waste. Also, a license may not be issued for below-ground disposal or shallow land burial of low-level radioactive waste. The Texas Department of Health has jurisdiction, according to the bill, over low-level radioactive waste storage activities other than assured isolation and over waste transportation to or from a management site.

House Bill No. 3086

H.B. 3086 removes the designation of Hudspeth County as the host for a regional low-level radioactive waste disposal facility. It also lays out the process for selecting a site, including a county election on whether the Texas Natural Resource Conservation Commission should be authorized to choose the site for further analysis.

House Bill No. 3283

H.B. 3283 provides for the siting of either a low- level radioactive waste assured isolation facility or disposal facility. However, if the state chooses to develop an assured isolation facility, it must conduct certain studies and meet certain specified requirements listed in the bill. In addition, the legislation prohibits the siting of a facility in a county that is adjacent to an international boundary, within 62 miles of an international boundary, and in a location that receives greater than 26 inches of rain. The bill provides for a county referendum on the siting of a facility and requires an affirmative response from a majority of those voting. In regard to below-ground burial, the bill states as follows:

"Underground disposal may be considered for the management of low-level radioactive waste received from the compact states only if assured isolation is found not to be feasible."

The bill requires the state to acquire ownership of the planned site prior to commencing facility construction. It also contains several limitations on the acceptance of waste from out of region generators. In addition, it includes language limiting the state's liability for the management and disposal of waste at a site operated by a private entity and outlining the creation and operation of a perpetual care fund.

House Bill No. 3420/ Senate Bill No. 1541

H.B. 3420 and S.B. 1541 are companion bills that provide for the siting of either a low-level, radioactive waste assured isolation facility or disposal facility for Texas Compact waste. They contain stringent licensing requirements, license application procedures, and license conditions. They provide for the holding of a county-wide referendum. They also list siting criteria and financial assurance requirements. Once issued, the legislation allows for a 10-year license renewal.

In conclusion, on Monday, May 28, the Texas Legislature adjourned without passing any of the bills introduced and relating to the management and disposal of low-level radioactive waste. Absent special circumstances, a new legislature will not be reconvened until January 2003.

The legislature did, however, pass H.B. 2912- legislation relating to the continuation and functions of the Texas Natural Resources Conservation Commission (INRCC). This bill, commonly referred to as "sunset legislation," was a vehicle a few years back for abolishment of the Texas Low- Level Radioactive Waste Disposal Authority. It was signed by both the House and Senate and sent to the Governor on May 28, but did not contain any language relating to the development or siting of a low-level radioactive waste disposal facility.

SOUTH CAROLINA

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months Envirocare felt that the major differences between their proposal to dispose of Class B & C lowlevel radioactive waste and the Goshute Tribe's proposal for Private Fuel Storage (PFS) to accept highlevel spent fuel rods from nuclear power plants had created a public perception problem that made pursuit of their proposal extremely difficult.

Envirocare believed their opponents assisted by some members of the news media had deliberately confused the people of Utah about the huge differences between the two proposals. Although the differences between the two proposals are extreme, the firestorm of controversy that surrounds the PFS/Goshute proposal has spilled over onto Envirocare's project. Envirocare felt this had made it difficult to obtain a properly documented, well-considered decision concerning Envirocare's proposal. Envirocare understood that the State of Utah was determined to stop the PFS plan to import high-level waste. Envirocare felt that pursuing the project while the PFS proposal was pending, would only lead to more confusion and continued misrepresentation of the facts surrounding their efforts.

In January 2002 Judd resigned as president and CEO of Envirocare.

CALIFORNIA

Senate Bill 243, legislation relating to the management and disposal of low-level radioactive waste in the State of California, did not meet the "house of origin" deadline and will become a "two- year bill." As such, it cannot be taken up again until January 2002. Nonetheless, Senate rules require that, as a "two-year bill," SB 243 must pass the Senate to the Assembly no later than January 31, 2002 if it is to remain a viable legislative option. In order to bypass these restrictions, supporters of the bill would need to find another legislative vehicle on which to attach it or seek rule waivers for a hearing later this year.

The bill, which was introduced on February 14 by California State Senator Sheila Kuehl (D)-states the legislature's intent to, among other things

- prohibit shallow land burial of low-level radioactive waste;
- establish a temporary facility for the storage of waste generated by medicine, academia, and biotechnology; and
- restrict zoning of contaminated sites.

It was heard on May 7 by the Senate Environmental Quality Committee, at which time testimony was introduced by both opponents and proponents of the bill.

Dana Mount, Chair of the Southwestern Low-Level Radioactive Waste Commission, sent a letter to State Senator Kuehl on March 1 expressing his opposition to the legislation. The letter stated as follows:

"This is to express my opposition to your bill, SB 243. It does not address the obligation of the State of California to the States of Arizona, North Dakota, and South Dakota, the other members of the Southwestern Low-Level Radioactive Waste Disposal Compact. As such, it fails to meet the requirements of Public Law 100-712, the Southwestern Low-Level Radioactive Waste Disposal Compact Consent Act. I object to technical aspects of the bill as well."

At an April 6 meeting of the Southwestern Low- Level Radioactive Waste Commission in Sacramento, California, the Commissioner from Arizona made the following motion, which was amended and approved unanimously:

"I move that the Southwestern Low-level Radioactive Waste Commission, by letter to the Governor and Legislative Leaders, request the State of California meet its contractual obligation to provide for the disposal of low-level radioactive waste for 30 years, and until such time, that California provide for the storage of the low-level radioactive wastes of the Party States of the Southwestern Low-Level Radioactive Waste Compact. The State of California may elect to pay the various affected licensees the costs of storage or to indemnify the affected licensees."

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Letters transmitting the resolution were sent to the Governor and legislative leaders dated May 1, 2001.

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 be closed 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.

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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. Although these sites accept LLW, their disposal charges differ considerably, from \$85 per cubic foot at Hanford to \$385 per cubic foot at Barnwell. NRC estimates of DECON cost for a reference reactor with LLW disposal at Hanford range from \$133 to \$158 million versus a range of \$224 to \$303 million for safe storage option. With continued delay in the Federal government's high-level waste repository, utilities must also consider the costs and benefits of continued pool storage versus those of placing all their spent fuel in an independent spent fuel storage installation (ISFSI). Annual spent fuel storage costs are estimated at about \$6 million for pool storage and \$2 million for dry storage in an ISFSI.

BAND OF GOSHUTE INDIAN SKULL VALLEY SPENT FUEL STORAGE FACILITY

The proposed \$125 million dollar storage facility is a larger version of the Surry Virginia Independent Spent Fuel Storage Facility. The proposed temporary spent fuel storage capacity is 40,000 metric tons, which is sufficient to accommodate all of the nation's spent fuel currently stored at the various power plants.

The fuel rod assemblies will be stored in very heavy casks, which are licensed by the Nuclear Regulatory Commission. These spent fuel assemblies have been stored in fuel pools at 72 reactor sites in the 34 states that currently have nuclear power plants. These assemblies will be over ten years old and their thermal heat output will be negligible. Approximately 99.9% of the gamma and beta radiation of the fission products has dissipated within ten years of cooling. After 1,000 years, the activity of the remaining waste is comparable to the natural uranium ore from which the fuel was taken. There has been extensive study on spent fuel assemblies and their radiation properties.

YUCCA MOUNTAIN

Background

The purpose of the Yucca Mountain Site Characterization Project is to determine if Yucca Mountain, Nevada, is a suitable site for a spent nuclear fuel and high-level radioactive waste repository. These materials are a result of nuclear power generation and national defense programs and will remain highly radioactive for thousands of years.

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 involves extensive scientific study on Yucca Mountain's geology, hydrology, biology, and climate. If found suitable, Yucca Mountain could be part of the nation's first long-term solution to a compelling environmental problem.

Operation

If the Department of Energy finds Yucca Mountain a suitable site for a repository, it must obtain a <u>license</u> 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. 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.

- If the president and Congress approve a <u>site recommendation</u> from the secretary of Energy, the department will 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.

Site Recommendation

In the last days of 2001 Energy Secretary Spencer Abraham announced his intention to recommend to President George Bush that Yucca Mountain, Nevada, be used as a repository for spent fuel from civil reactors, high-level radioactive waste and Plutonium disposition. Reactions to the announcement were predictable. Industry was in approval while Nevada and the environmentalists were not.

RUSSIA

Russian President Vladimir Putin in 2001 approved changes to the country's environmental laws, which will allow the importation of large quantities of spent nuclear fuel from foreign countries for reprocessing and storage. In so doing, Putin named a special commission to review all proposed waste imports.

Legislation allowing the import was passed by the Russian Parliament in June. The controversial legislation changed Russian laws, which previously barred the importation of radioactive waste into Russia. In so doing, the legislation allows the Russian Ministry of Atomic Energy to pursue billions of dollars worth of contracts for the disposal of spent fuel from a variety of countries including, among others, Japan, Taiwan, Switzerland, Germany, Spain, Korea and China. The U.S. government has remained officially neutral on the issue.

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Under the plan, Russia will import approximately 1,000 tons of spent nuclear fuel per year. The imported fuel will be stored until 2021, during which time Russia will upgrade its reprocessing facilities with money earned from the program.

APPENDIX B: FINANCIAL REPORTS

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Radioactive Waste Fund and ACORWD Financial Report for Calendar Year (CY) 2001

014-10A-0143-03-2439		
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Note: bills assessed annually by 1 Sept. Payments may	FY2002 is from July	CY2001 is from January
be made quarterly during the state's Fiscal Year	01 to June 02	to December
Bills sent out based on 1999 generated waste will all be		
received by 1 April 2001		
Bills are based on the Radioactive Waste fund set		
At \$135,000 minus budget remaining at end of FY		
Generators	Billed FY2002	Received CY2001
Idexx Labs	\$100.00	\$100.00
Maine Yankee Atomic Power Co.	\$96,829.00	\$76,185.51
Total		\$76,285.51
	Beginning Balance	\$73,129.34
Expenses personnel	Amount	
3000 Personal services	\$47,720.25	
3890 ACORWD perdiem	\$1,045.00	
	Total	\$(48,765.25)
Expenses Overhead		
4000 Contractual services-professional	\$1,980.68	
services not by state, Catering	#21 020 01	
4100 In-State services, Admin. overhead	\$31,239.21	
4200 Travel expenses in-state	\$1,135.61	
4300 Travel expenses out-of-state	\$1,458.22	
4600 Rents	\$2,734.17	
4700 Repairs-computer maint. Agreement	\$1,095.00	
4800 Insurance-on equipment	\$162.00	
4900 Printing, postage, shipping	\$7,687.62	
4970 ACORWD mileage	\$85.80	
4980 ACORWD travel expense	\$11.95	
5000 Employee training expenditures	\$675.00	
5300 Technology expenditures, Telephone	\$1,588.27	
5600 Other supplies	\$949.17	
8500 Transfers to general fund-STACAP	<u>\$1,294.53</u>	,
	Total	(\$52,097.23)
Ending Balance		\$48,552.37
	FY 2002	FY 2003
Account carryover	\$73,129.34	\$68,756.34
Income	\$96,929.00	\$66,243.66
Salary/benefits	(\$45,860.88)	(\$47,924.62)
Admin overhead	(\$31,239.21)	(\$27,600.00)
ACORW&D per diem	(\$1,045.00)	(\$1,000.00)
Rent/power, telephone	(\$3,300.00)	(\$3,500.00)
Professional services	(\$3,500.00)	(\$3,500.00)
Computer hardware and service	(\$1,828.00)	(\$2,000.00)
Supplies, shipping, advertising	(\$4,228.91)	(\$4,500.00)
Sta. Cap	(\$1,300.00)	(\$1,300.00)
Training/travel	(\$5,000.00)	(\$5,500.00)
LLW Forum	(\$4,000.00)	(\$4,000.00)
Ending balance	\$68,756.34	\$34,175.38

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APPENDIX C: LOW-LEVEL WASTE GENERATORS IN MAINE

NAME	LICENSE#	Activity Disposed (curies)	Principle Isotopes	VOL.(Cu. Ft.) Disposed	VOL. (Cu Ft.) In Storage
IDEXX LABORATORIES, INC. (Class A)	05453	0.011	I-125, S-35	36.00	66.00
MYAPC (total)	11601	3155.29	Co-60, Ni-63, Fe-55, Cs-137	78643.00	24,640.00
(Class A)		22.20		78,005.00	24,640.00
(Class B)		8.09		18.80	
(Class C)		3,125.00		619.20	

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APPENDIX D: ACORWD LIST OF APPOINTMENTS

Status/Name	Termination Date	Representing
Bob Demkowicz	Seat 1	Department of Environmental Protection
Dept. of Environmental Protection		Commissioner or Designee
State House Station # 17		
Augusta, ME 04333		
bob.a.demkowicz@state.me.us		
Clough Toppan, P.E., Director	Seat 2	Department of Human Services
Division of Health Engineering		Commissioner or Designee
10 State House Station		
Augusta, ME 04333-010		
e-mail: clough.toppan@state.me.us		
Dr. Robert Marvinney	Seat 3	Maine State Geologist or Designee
State Geologist		
22 State House Station		
Augusta, ME 04333-0022		
e-mail: robert.marvinney@state.me.us		
Mike Meisner	December 31, 2002	Representing a Maine Nuclear Power
Maine Yankee Atomic Power Plant	Term expires Dec 31st of even	Plant
321 Old Ferry Road	numbered years.	
Wiscasset, ME 04578		
email: meisnerm@myapc.com	Seat 4	Appt. by Governor
open	December 31, 1999	Radioactive Material Licensee
-	Term expires Dec 31 st of even	Representative
	numbered years.	
	Seat 5	Appt. by Senate President
Joseph Blinick, PhD	December 31, 2001	Radioactive Material Licensee
Maine Medical Center	Term expires Dec 31 st of odd	Representative.
22 Bramhall Street	numbered years.	Representing Maine Medical Center
Portland, ME 04102		
e-mail: blinij@mail.mmc.org	Seat 6	Appt. by Speaker of the House
Senator Sharon Treat (Chair)	December 4, 2002	State of Maine
Senator, State of Maine	Term expires the first Wednesday in	
28 Kingsbury Street	December of even numbered years	Appt. by President of the Senate.
Gardiner, ME 04345		Belonging to Political Party holding the
	Seat 7	largest number of seats in the Senate
e-mail: <u>sensharon.treat@state.me.us</u>		
Senator W. Tom Sawyer, Jr.	December 4, 2002	State of Maine.
544 Valley Ave	Term expires the first Wednesday in	
Bangor, 04401	December of even numbered years	A week has Denset to set a Cather C
H: (207) 942-1771		Appt. by President of the Senate.
email: senatorsawyer@aol.com	Seat 8	Belonging to Political Party holding the largest number of seats in the Senate
	2	
Senator Norman Ferguson Senator, State of Maine	December 4, 2002	State of Maine
Box 36, Howard Pond Road	Term expires the first Wednesday in December of even numbered years	
Hanover, ME · 04237	December of even numbered years	Appt. by President of the Senate.
THE VIL VIL		Belonging to Political Party holding the
email: sennorman.Ferguson@state.me.us	Seat 9	2^{nd} largest number of seats in the Senate
Rep. Robert Daigle (V. Chair)	December 4, 2002	State of Maine
Representative, State of Maine	Term expires the first Wednesday in	State of Manie
197 Mountain Road	December of even numbered years	
Arundel, Maine 04046	December of even numbered years	
H: (207) 282-0761		Appt. by Speaker of the House.
State House Message Ph: (800) 423-2900		Belonging to Political Party holding the
email: rdaigle@gwi.net	Seat 10	2^{nd} largest number of seats in the House.
Rep. Peter L. Rines	December 4, 2002	State of Maine
Representative, State of Maine	Term expires the first Wednesday in	
334 Bradford Road,	December of even numbered years	
		Appl. by Speaker of the House.
Wiscasset, ME 04578 H: (207) 882-9794		Appt. by Speaker of the House. Belonging to Political Party holding the

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APPENDIX C: ACORWD LIST OF APPOINTMENTS (cont.)

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Status/Name	Termination Date	Representing
Rep. William R. Savage	December 4, 2002	State of Maine
Representative, State of Maine	Term expires the first Wednesday in	Appt. by Speaker of the House.
P. O. Box 417	December of even numbered years	Belonging to Political Party holding the
Buxton, ME 04093		largest number of seats in the House.
H: (207) 727-4516 B: (207) 774-3949		2
Email: RepBill.Savage@state.me.us	Seat 12	
Ron Ouellette	December 31, 2001 (reappointing)	Public Member with knowledge of and
Physics Consultants INC	Term expires Dec 31 st of odd	interest in the management of radioactive
P.O. Box 6749	numbered years.	materials and waste.
158 Woodford St.	-	
Portland, ME 04103		
Tel: (207) 773-1313 v-mail: 872-1453		
email: ron.roulette@mainegeneral.org	Seat 13	Appt. by Governor
Richard Carey	December 31, 2002	Public Member with knowledge of and
PO Box 474	Term expires Dec 31 st of even	interest in the management of radioactive
Belgrade, ME 04917	numbered years.	materials and waste.
H: (207) 495-3333		
	Seat 14	Appt. by Governor
Stephen Jarrett	December 31, 2001	Public member with Knowledge of and
P.O. Box 383	Term expires December 31 st of	interest in the management of radioactive
Wiscasset, Maine 04578	odd numbered years	materials and waste.
email: smj@ceimaine.org	Seat 15	Appt. by Senate President
James Mitchell	December 31, 2002 (reappointing)	Public Member with Knowledge of and
52 Birch Point Road	Term expires December 31 st of even	interest in the management of radioactive
Freeport, Maine 04332	numbered years	materials and waste
email: jmitch8564@aol.com	Seat 16	Appt. by Speaker of the House
Don Hudson, Ph.D.	December 31, 2002	Representing Environmental Advocacy
Chewonki Foundation	Term expires December 31 st of even	Organization
485 Chewonki Neck Road	numbered years	-
Wiscasset, ME 04579		
e-mail: dhudson@chewonki.org	Seat 17	Appt. by Speaker of the House