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**ADVISORY COMMISSION
ON RADIOACTIVE WASTE**

1994 ANNUAL REPORT

Advisory Commission on Radioactive Waste
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ANNUAL REPORT
of the
ADVISORY COMMISSION ON RADIOACTIVE WASTE
for the calendar year 1994

Introduction

The Advisory Commission on Radioactive Waste is the only state commission charged by the legislature to collect, analyze, and disseminate information on all aspects of radioactive waste management. The Commission works with the Departments of Environmental Protection and Human Services, the Nuclear Safety Advisor, and other agencies and individuals to whom the legislature has given radioactive waste management responsibilities.

The legislature created the Advisory Commission in 1985, as a successor to the Low-Level Waste Siting Commission. In the ensuing 10 years, Maine residents and policy-makers have reacted -- often vehemently -- to two radioactive waste management programs: the federal government's effort to site and build a national repository for high-level radioactive waste, and the state government's effort to find a site, in-state or, preferably, out-of-state, for Maine's low-level radioactive waste. The federal high-level repository program is currently focused on Nevada. Maine's low-level waste is currently slated to go to a facility in Texas. However, there is no guarantee that either facility will open. Meanwhile, almost all Maine generators are storing radioactive waste on-site.

As part of the restructuring of Maine state government's radioactive waste management program that followed state approval of the agreement to send low-level waste to Texas, the 116th legislature reconstituted the Advisory Commission. Under the new law, the Commission's purpose is to "advise the Governor, the Legislature and other pertinent state agencies and entities on matters relating to radioactive waste management and provide information to the public and create opportunities for public input in order to facilitate public understanding of radioactive waste issues." The Commission's duties, as listed in the law, are to:

- A. Provide opportunities for public input and disseminate information to the general public and promote public understanding concerning the management of radioactive waste;
- B. 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;
- C. Monitor methods, criteria and federal timetables for siting and constructing high-level radioactive waste repositories or storage facilities;
- D. Monitor the Texas siting effort and Texas Low-Level Radioactive Waste Disposal Compact Commission activities and, if events require, propose legislation to reinstitute an in-state siting effort for the storage or disposal of low-level radioactive waste in the State;
- E. Advise the Governor, the Legislature, the department [of Environmental Protection] and the Department of Human Services 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;

F. 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 Maine [Advisory] Commission on Radioactive Waste, whichever comes first; and

G. Prepare a newsletter recording developments relevant to radioactive waste issues.

The Advisory Commission has 16 members: six state legislators, three state administrators, four public members, and three licensee members, including one representing Maine Yankee. The Commission's three staff members (one full-time, two half-time) work in an office in the Casco Bank Building on Memorial Circle. The Commission is funded by an annual assessment on Maine low-level radioactive waste generators, with the money administered by DEP.

The following pages summarize major developments in 1994 in the federal high-level waste program (Section A) and Maine's low-level waste program (Section B). Sections C and D describe Advisory Commission activities.

A. High-level Waste

The federal government, specifically the U. S. Department of Energy (DOE), is responsible for managing high-level radioactive waste, which includes spent fuel from commercial nuclear power plants (including Maine Yankee in Wiscasset) as well as waste generated by the Department of Defense (as in submarine refueling operations at Portsmouth Naval Shipyard) and DOE. During 1994, as during 1993, neither DOE nor anyone else made significant progress toward providing a disposal facility for high-level waste. Prospects for a storage facility may have improved slightly.

Under current federal law (the 1982 Nuclear Waste Policy Act as amended in 1987 and 1992), DOE's high-level waste disposal program consists of studying Yucca Mountain, Nevada, to see whether it is a suitable site for an underground repository. Because DOE has so far spent millions of dollars (collected from nuclear power plant operators) without much progress, Congress may consider additional amendments to the law in 1995.

The law directs DOE to enter into contracts with owners of nuclear power plants under which they finance the high-level waste repository project. In return, the law says DOE "will dispose" of high-level waste "beginning not later than January 31, 1998"; and "shall take title to" such waste "following commencement of operation of a repository." DOE no longer hopes to open a repository by 1998; the official opening date remains 2010, but observers expect another postponement. DOE officials have strongly suggested they see no obligation to do anything about utilities' spent fuel until the repository opens. A group of utilities and state utility regulators (not including any from Maine) has filed suit seeking a court order to clarify that it is DOE's responsibility to take spent fuel beginning in 1998.

If DOE's study of Yucca Mountain concludes that the mountain is not a suitable site for the high-level waste repository, federal law directs DOE to report to Congress for new direction. The suitability finding may be made in 1998. Before the 1987 federal law limited studies to Yucca Mountain, DOE had carried out a nation-wide geological survey which led to nomination of two areas in Maine as possible repository sites.

The search for a high-level waste storage facility site has two components, governmental and private. The 1987 amendments to the Nuclear Waste Policy Act created the position of Nuclear Waste Negotiator. The negotiator's job is to find a volunteered site for a high-level waste storage or disposal facility. DOE provided funds to help interested parties -- which could be Indian tribes, states, counties, or other entities -- explore possibilities. However, in the fall of 1993 Congress eliminated the funding.

As a result, the Mescalero Apache Tribe of New Mexico formed a consortium with 34 utilities and related industries (none from Maine) to develop a private storage facility on the Mescalero reservation. Late in 1994, the tribe and its partners agreed on the outline of an organizational structure. However, in early February 1995 tribal members voted not to proceed with the project; the vote almost certainly kills it.

On the governmental track, Nuclear Waste Negotiator Richard Stallings recently announced a preliminary agreement with the Skull Valley Band of Goshute Indians, outlining terms for negotiating to build a storage facility on their western Utah reservation. Mr. Stallings said late in 1993 that he intended to look for potential volunteers from areas which have economic problems caused by a military base closing.

With no high-level waste disposal or storage facilities, owners of nuclear power plants continue to store spent fuel rods on-site. The normal storage method is the spent-fuel pool, where the radioactive rods are kept under water inside the reactor building. Most plants were designed with the expectation that long-term storage of spent fuel would not be required. To provide more storage space, some utilities are moving spent fuel into dry cask storage facilities, usually built on pads near the nuclear plant. Others, including Maine Yankee, are making more room in the spent-fuel pool.

There are two ways to increase pool capacity, re-racking and pin consolidation. A 1992 Maine Yankee study explained that re-racking involves putting spent fuel assemblies closer together, while pin consolidation involves taking spent fuel rods out of fuel assemblies and putting the rods closer together. Maine Yankee officials chose to re-rack the spent fuel assemblies, a technique they have used twice before.

The Nuclear Regulatory Commission approved Maine Yankee's application for a third re-racking of the spent fuel pool in 1994. Maine Yankee officials plan to start the work in May 1995, hoping to finish by October. They expect that the 1995 re-racking will provide room to store all the spent fuel Maine Yankee will generate up to 2008, the year its license expires.

Portsmouth Naval Shipyard used to get rid of spent fuel from submarines by sending it to the Idaho National Engineering Laboratory. A 1993 court ruling halted the shipments and led to DOE writing an Environmental Impact Statement (EIS) on management of naval spent fuel. The 10-volume draft EIS, dated June 1994, outlined options and analyzed potential impacts of each. No proposed option called for Portsmouth to accept spent fuel from any source other than submarines refueled at Portsmouth; most proposed options allowed Portsmouth to resume shipping out spent fuel, rather than continue the present on-site storage. DOE is supposed to issue the final EIS in the spring of 1995.

During 1994, the Maine Advisory Commission on Radioactive Waste continued to monitor and report on the federal high-level waste program and related DOE and Congressional activities. The Commission's January 1995 workshop for new Commission members and legislators included presentations on spent fuel management at Maine Yankee and Portsmouth Naval Shipyard.

B. Low-level Waste

Maine has more than 120 nuclear materials licensees. In a typical year, 40 to 50 of the licensees generate low-level radioactive waste. Much of the waste can be stored on-site until its radioactivity decays to the point where the waste can be disposed of as ordinary trash. However, some licensees -- recently, from six to 14 a year -- generate waste which they need to send to a licensed low-level waste disposal facility. Since 1993, they have stored waste on-site, because no facility has been open to them.

Until 1980, Maine generators shipped low-level waste essentially without restriction to any of three commercial disposal facilities, located in South Carolina, Nevada, and Washington. The 1980 Low-Level Radioactive Waste Policy Act and its 1985 amendments established a national program to phase out the commercial reposi-

ries and distribute the burden of low-level waste disposal more equitably among the states. The two important principles in the federal low-level waste law are:

- ❖ Low-level radioactive waste disposal is a state responsibility.
- ❖ States can best carry out this responsibility by forming interstate compacts to develop regional disposal facilities.

The 1980 law led to negotiation of several interstate low-level waste disposal compacts, but no compact or state developed a new facility. The 1985 law extended the legal closing date for the South Carolina, Nevada, and Washington facilities from Jan. 1, 1986, to Jan. 1, 1993, and provided a system of incentives and penalties to encourage states and compacts to plan, site, and build replacement facilities. On Jan. 1, 1993, the Nevada facility closed; the South Carolina and Washington facilities restricted access to states in the compacts they serve or have contracts with.

Pursuant to the federal law, Maine tried to negotiate an interstate compact and to develop an in-state facility in case out-of-state disposal could not be arranged. Public Advocate Stephen Ward, representing the governor, conducted negotiations with other states. The legislature created the Maine Low-Level Radioactive Waste Authority to plan, site, build, and run an in-state disposal facility if one were needed. In 1993, the legislature, the governor, and voters at referendum approved membership in the tri-state (Maine, Texas, and Vermont) Texas Compact.

In June 1994 the Maine Low-Level Radioactive Waste Authority formally went out of existence.

The Texas Compact does not become effective until Congress approves it. Maine's Congressional delegation sponsored approval legislation in the House and Senate in 1994. Congress adjourned without acting on either bill, partly because at least two members of the Texas delegation oppose the compact and partly because of the press of other business. Compact legislation was re-introduced early in 1995.

In Texas, the Texas Low-Level Radioactive Waste Disposal Authority (TLLRWDA) has applied to the Texas Natural Resource Conservation Commission (TNRCC) for a license for a disposal facility in Hudspeth County in west Texas. The TNRCC reviewed the license application during 1994, and will continue the review and hold public hearings on facility plans in 1995. In the last 12 months, the projected opening date for the Texas disposal facility has slipped from late 1996 to mid-1997.

Maine plays no role in licensing or building the Texas facility, except to forward the payments collected from Maine Yankee to Texas officials as required in the compact. Maine and Vermont have one seat each on the eight-member Texas Compact Commission; Governor John McKernan appointed Donald Hoxie, formerly of the Maine Department of Human Services, as Maine's representative, and Nuclear Safety Advisor Uldis Vanags as Mr. Hoxie's alternate. As of September 1994, the Compact Commission members from Texas had not been appointed.

The compact guarantees Maine and Vermont disposal capacity in the Texas facility, to the amount of 20% of the volume of waste Texas is projected to dispose of between 1995 and 2045. One of the Compact Commission's first responsibilities is to determine by rule how much waste Texas will dispose of in the 50-year period, as a basis for calculating Maine's and Vermont's allotment. When the compact was negotiated, Mr. Ward and others involved were confident that Maine's allotment would cover routine annual shipments plus the waste generated when the Maine Yankee nuclear plant is decommissioned early in the next century. A recent report from Texas says that Texas generators -- like generators everywhere -- are reducing their low-level waste volumes as disposal costs rise. Since Maine's capacity in the Texas facility depends on projected Texas waste volume, Maine officials and generators need to track Texas generators' plans and the Compact Commission's deliberations. A related issue that remains unresolved is how Maine and Vermont will divide the 20% allotment.

Under Maine law, low-level waste generators file annual reports on waste generated and shipped for disposal. Through 1993, the reports were filed with the Department of Environmental Protection, which also asked about waste in storage and the availability of storage space. According to reports on 1992 waste generation, some generators expected to run out of storage space before the then-scheduled Texas facility opening in 1996.

The 1994 revision of the state low-level waste program assigned the duty of collecting information on waste generated to the Department of Human Services. Because of the transition, the report on 1993 waste generation was not ready during calendar year 1994; it is expected early in 1995. For the 1994 survey, to be distributed in the spring of 1995, DHS personnel developed a new reporting form that conforms to expected Texas information requirements.

Although Texas was the principal focus of the Advisory Commission's attention and reporting during 1994, Commission and Department of Environmental Protection staff also followed federal plans for the management of mixed low-level waste (that is, waste which is both hazardous -- toxic, flammable, explosive, or corrosive - - and radioactive) at Portsmouth Naval Shipyard. According to documents from the Department of Energy and the Department of the Navy, Portsmouth already has or will generate less than a cubic meter of three different kinds of mixed waste. In a 1994 draft plan, DOE and the Navy propose off-site treatment for two of the three waste streams and an on-site facility for the third. A final plan is due out in the spring of 1995, as required by the 1992 Federal Facility Compliance Act.

C. Advisory Commission Activities

During the spring of 1994, the Advisory Commission focused on the proposed restructuring of the Maine state government's radioactive waste management program. In Commission and subcommittee meetings, Commission members and private citizens long involved in radioactive waste issues reviewed and made recommendations on draft plans and draft legislation.

Legislative approval of the restructuring plan, which included changes in the Commission's mandate and membership, led to a suspension of meetings during the summer. Under the direction of Commission Chairman Rep. James Mitchell and other continuing members, Commission staff continued to publish the Commission's Update '94 newsletter, respond to public inquiries, and otherwise carry out the Commission's responsibilities.

By the fall of 1994, legislative leadership and the governor had completed appointment of new Commission members. Old and new members planned a workshop to provide new members, legislators, and others interested with basic information on radioactive waste management issues facing Maine. The workshop was held in January 1995.

Topics covered in Update '94 newsletters included, in the low-level waste area, state legislation; the fate of the Texas Compact in Congress; developments related to the proposed Texas low-level waste disposal facility; Portsmouth Naval Shipyard and mixed waste; the national low-level waste program's effects on Maine generators; and other states' and compacts' low-level waste management programs. Coverage of high-level waste issues focused on the U. S. Department of Energy's Yucca Mountain repository project, the lawsuits filed to try to hasten spent-fuel acceptance, and high-level waste storage-facility plans.

As in past years, Advisory Commission staff represented Maine at national radioactive waste conferences, including Waste Management '94 (the latest in a series of international gatherings held each spring) and most of the Low-Level Waste Forum meetings. The Commission's library, which is open to other state agency personnel and the public, continued to collect state, national, and international materials on radioactive waste management. With its office lease in the Maine State Retirement Building expiring, the Commission moved early in 1994 to the

third floor of the Casco Bank Building on Memorial Circle. To cut costs, the new office is about one-quarter the size of the previous one, and the Commission discontinued its in-state toll-free telephone line. Staff continued to receive and respond to requests for information.

D. Commission Members/Meetings/Publications/Staff

Advisory Commission members at the end of 1994 were:

Former Representative James Mitchell, Chair
Walter Anderson, State Geologist (*ex officio*)
Dr. Joseph Blinick, licensee member (Maine Medical Center)
Edward S. Boulos, public member
Senator Richard Carey
John T. Chen, M. D., public member
Former Representative Reed Coles
Deborah Garrett, acting DEP Commissioner (*ex officio*)
Senator Stephen Hall
Steven Keegan, licensee member (Southern Maine Medical Center)
Dr. Donaldson Koons, public member
Senator Mark Lawrence
Former Representative (now Senator) Willis Lord
Matthew Scott, public member
Clough Toppan, Department of Human Services representative
G. Douglas Whittier, Maine Yankee representative

The 1994 reorganization eliminated the Governor's representative on the Commission, a position that had been filled by Public Advocate Stephen Ward. The number of public members increased from two to four, and the number of licensee members from two to three, with one slot designated for a Maine Yankee representative. The President of the Senate and the Speaker of the House appoint the Commission members from their respective branches of the legislature. Each also appoints one public and one licensee member. The governor appoints the Maine Yankee member and two public members.

The Advisory Commission met Feb. 9, Feb. 24, and Oct. 18, 1994. Two subcommittees reviewed draft 1994 legislation in the spring; a third subcommittee planned the January 1995 workshop in the fall. All 1994 meetings were held in Augusta.

The Commission published Update '94 monthly. Copies of the newsletter are mailed to almost 1,400 people (mostly in Maine), distributed to other state agencies, and delivered to House and Senate members when the legislature is in session. The Commission's set of eight low-level waste Fact Sheets was updated repeatedly during the year.

Commission staff during 1994 consisted of Robert Demkowicz, Environmental Specialist IV (full-time); Mary Grow, Public Information Specialist (half-time); and, until August, Barbara Finch, secretary (half-time). The secretary's position remained unfilled at the end of the year.

The operating cost of the Commission for fiscal year 1994 (July 1, 1993, through June 30, 1994) was \$135,552, according to Department of Environmental Protection figures. During the first half of FY 1995 (July 1, 1994, through Dec. 31, 1994), the same source says expenditures totaled \$53,968.

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