

# *Summary Report*

Volume 15, Number 1 September 2009

**Low-Level**

**Radioactive Waste**

**Management**

**Activities**

**in the**

**States**

**and**

**Compacts**

# Low-Level Radioactive Waste Forum, Inc.

## **Summary Report: Low-Level Radioactive Waste Management Activities in the States and Compacts A supplement to LLW Notes**

**Volume 16, Number 1 September 2009**

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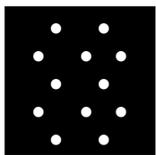
*Summary Report: Low-Level Radioactive Waste Management Activities in the States and Compacts* is a supplement to *LLW Notes* and is distributed periodically by the Low-Level Radioactive Waste Forum, Inc. to members of its Board of Directors and to select subscribers of LLW Forum materials and publications.

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### **Key to Abbreviations**

U.S. Department of Energy	DOE
U.S. Department of Transportation	DOT
U.S. Environmental Protection Agency	EPA
U.S. General Accounting Office	GAO
U.S. Nuclear Regulatory Commission	NRC
Naturally-occurring and accelerator-produced Radioactive material	NARM
Naturally-occurring radioactive material	NORM
Code of Federal Regulations	CFR

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# Compacts and Their Host States

## Appalachian Compact

**Governing Body** Appalachian States Low-Level Radioactive Waste Commission



**Member States** Delaware, Maryland, Pennsylvania, West Virginia

**Compact Established** The compact was established February 19, 1986, and ratified by Congress on May 19, 1988. The commission's first organizational meeting was held April 30, 1990.

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Other Information** On December 2, 1998, the commission amended its bylaws to allow the Chair to assume the duties of the Executive Director. The Commissioners then approved a resolution to close the commission's office, terminate all employment agreements, and transfer all records to the office of the Chair. The commission continues to exist as a legal entity. The commission holds its annual meetings in Harrisburg, Pennsylvania.

In mid-2006, the Commission conducted a survey of low-level radioactive waste generators in the Appalachian Compact to assess the potential impact of the pending closure of the Barnwell disposal facility in South Carolina to out-of-region generators. The results of this survey indicated that there would be no immediate adverse impact on the low-level radioactive waste generators in the compact once Barnwell closed to generators outside the Atlantic Compact. Almost all generators surveyed indicated that they have some type of low-level radioactive waste storage option, once needed.

**Contact** Robert Summers, Deputy Secretary, Maryland Department of the Environment, 1800 Washington Boulevard, Suite 745, Baltimore, MD 21230-1720 (phone – 410/537-4187; fax –410/537-3888; [bsummers@mde.state.md.us](mailto:bsummers@mde.state.md.us); [www.mde.state.md.us](http://www.mde.state.md.us))

# Compacts and Their Host States (continued)

## Host State: Pennsylvania

**Regulatory and Program Responsibility** Bureau of Radiation Protection, Department of Environmental Protection (DEP)

**Siting Responsibility** Pennsylvania Department of Environmental Protection (DEP)

**Other Involvement** DEP Low-Level Waste Advisory Committee  
Appalachian States Low-Level Radioactive Waste Commission  
Environmental Quality Board

**Siting** The low-level radioactive waste disposal facility siting project in Pennsylvania has been officially suspended as of December 31, 1998. The reasons for suspending the siting process include the dramatic reduction in the volume of the low-level radioactive waste that would have been disposed of at a regional facility in the Appalachian Compact and the availability of out-of-state disposal capacity.

DEP suspended the siting process after discussing the issue with its Low-Level Waste Advisory Committee and the Appalachian Compact Commission and receiving their support for the suspension decision. DEP will monitor national low-level radioactive waste disposal developments to insure disposal capacity will continue to be available to generators of low-level radioactive waste in the Appalachian Compact during the suspension. DEP has issued a Waste Minimization Guidance Document and will continue to promote best available practices regarding the low-level radioactive waste minimization.

Effective March 31, 2008, the Commonwealth of Pennsylvania became the 35<sup>th</sup> state to enter into an agreement with the U.S. Nuclear Regulatory Commission to assume part of the agency's regulatory authority over certain radioactive materials in the state. Under the terms of the agreement, NRC has transferred to Pennsylvania responsibility for licensing, rulemaking, inspection and enforcement activities for:

- 1) radioactive materials produced as a result of processes related to the production or utilization of special nuclear material (SNM);
- 2) uranium and thorium source materials;
- 3) SNM in quantities not sufficient to form a critical mass; and,
- 4) Accelerator-produced or other radioactive materials under NRC jurisdiction provided by the Energy Policy Act of 2005.

Approximately 700 licenses, most of which are for medical and industrial uses, have been transferred from NRC to Pennsylvania. NRC will retain jurisdiction over the regulation of commercial nuclear power plants and other facilities, as well as over federal agencies using certain nuclear material in the state. NRC will also retain authority for the review, evaluation and approval of sealed sources and devices containing certain nuclear materials manufactured in Pennsylvania and distributed throughout the country.

**Licensing** A projected date for submittal of a license application is not available.

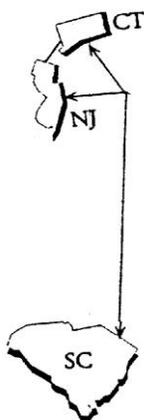
**Development Costs** To date: Approximately \$37 million.

**Disposal Facility Operational** A projected date is not available.

**Contact** Richard Janati, Chief of Nuclear Safety, Bureau of Radiation Protection, Department of Environmental Protection, Commonwealth of Pennsylvania, PO Box 8468, Harrisburg, PA 17105-8469 (phone – 717/787-2163; fax – 717/783-8965; [rjanati@state.pa.us](mailto:rjanati@state.pa.us))

# Compacts and Their Host States (continued)

## Atlantic Compact



**Governing Body** Atlantic Interstate Low-Level Radioactive Waste Commission

**Member States** South Carolina, New Jersey and Connecticut

**Compact Established** Congress ratified the original compact (which was then called the Northeast Interstate Low-Level Radioactive Waste Compact and which then consisted of the states of Connecticut, Delaware, Maryland and New Jersey) in 1985 and the President signed it into law in 1986. Shortly thereafter, two of the four original member states—Delaware and Maryland—joined the Appalachian Compact. In 1987, the remaining member states of Connecticut and New Jersey were designated as dual host states. Then, in June 2000, South Carolina Governor Jim Hodges signed a law enabling the State of South Carolina to join the compact—with South Carolina being designated as the host state. The compact was, at that time, renamed the Atlantic Interstate Low-Level Radioactive Waste Compact.

**Current Waste Management** Regional waste may currently be shipped to the disposal facility in Barnwell, South Carolina. (New Jersey and Connecticut cannot ship more than a total of 800,000 cubic feet of waste to the Barnwell facility.) Pursuant to South Carolina law, non-compact waste may no longer be accepted for disposal at Barnwell after June 30, 2008. The compact continues to allow generators to ship waste to disposal facilities outside of the compact region. Accordingly, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA.

**Other Information** In an effort to support continued access to Barnwell, several major regional waste generators have recently notified the South Carolina Budget and Control Board ("the Board") of plans to enter into agreements with Chem-Nuclear. The agreements are intended to ensure the economic viability of Barnwell despite the small volume of waste being received from a limited customer base and to eliminate any need to request public subsidies from the extended care fund to cover essential operating costs and statutory obligations.

In this regard, in June 2009, Chem-Nuclear and the Board entered into a Memorandum of Understanding regarding operational issues and 2010 fiscal year disposal rates for Barnwell. The MOU provides that annual disposal rates and/or access fees will be established at a break-even level that will yield revenues sufficient to safely and economically operate the facility and meet all statutory and regulatory obligations. Such action is consistent with the Atlantic Compact statute and South Carolina regulations that provide that the regional fee schedule shall be reasonable and sufficient to cover all costs related to the development, operation, closure, post-closure observation and maintenance, and institutional control of the Barnwell facility.

Also in June 2009, the Board approved an Alternative Rate Schedule for fiscal year 2010, which provides for two pricing options. Option B, which applies upon election by the generator, provides for a quarterly access fee in lieu of disposal charges for individual shipments. Option A, which applies to those generators who do not elect Option B access fee pricing, applies the Maximum Uniform Rate Schedule to individual shipments.

Officials continue to monitor facility operations carefully to ensure that revenues will meet operating costs as tax dollars may not be used to subsidize operating costs in the event of a shortfall.

*The MOU and FY 2010 Alternative Rate Schedule are available at [www.energy.sc.gov](http://www.energy.sc.gov).*

**Contact** Max Batavia, Executive Director, 1201 Main Street, Suite 1830, Columbia, South Carolina 29201 (phone – 803/737-1879; fax – 803/737-5023; [mbatavia@microbyte.net](mailto:mbatavia@microbyte.net); [www.atlanticcompact.org](http://www.atlanticcompact.org))

# Compacts and Their Host States (continued)

## Host State: South Carolina

**Regulatory Responsibility** Division of Waste Management, Bureau of Land and Waste Management, South Carolina Department of Health and Environmental Control

**Program Responsibility** South Carolina Budget and Control Board (“the Board”), Radioactive Waste Disposal Program – owns site property, plans for post-closure custodial care, and sets prices

**Other Involvement** EnergySolutions, Inc./Chem-Nuclear Systems, L.L.C. (“Chem-Nuclear”)—facility operation

**Current Waste Management** Under current Atlantic Compact policy, waste generators (at their discretion) may ship waste for disposal to the Barnwell regional disposal facility in South Carolina or to disposal facilities located outside the compact region. (For additional information, see page 3.)

**Disposal Technology and Licensing** Below-grade vaults are used at the Barnwell facility. A license authorizing possession and storage of waste at the Barnwell facility was first issued on November 6, 1969. On April 13, 1971, the license was amended to authorize disposal. Chem-Nuclear has applied for a license renewal and is currently operating under timely renewal status.

**Disposal Facility Operational** The Barnwell facility has been in operation since 1969. (See above.)

**Facility Access** By letter dated May 12, 2008, the Board provided public notice that, effective July 1, 2008, it no longer authorizes importation for the purposes of disposal at the Barnwell site. The letter states that “importation” includes disposal at Barnwell “of any waste that was generated in any foreign country or any state or territory of the United States other than Connecticut, New Jersey and South Carolina” and includes the following clarifications:

- *Waste Sent for Treatment or Processing:* “Waste generated within the Atlantic Compact region that is shipped to facilities outside the Atlantic Compact region for purposes of treatment or processing en route to disposal at Barnwell is considered waste generated within the Atlantic Compact region, as long as the treatment residue is not commingled in the same package with residue generated by organizations outside the Atlantic Compact region.”
- *Decontamination Residue:* “Decontamination residue generated from radioactive materials owned by Atlantic Compact organizations may be considered Atlantic Compact waste, whether or not the decontamination process takes place within the Atlantic Compact region.”
- *Packaging or Consolidation:* “Sealed sources or other radioactive materials shipped from outside the Atlantic Compact region to waste brokering facilities within the Atlantic Compact region for purposes of packaging or consolidation are not considered wastes generated within the Atlantic Compact region. The Barnwell site may not accept radioactive material or waste that has been transported into the Atlantic Compact region and re-manifested as radioactive waste solely for purposes of establishing eligibility for disposal at the Barnwell site as Atlantic Compact waste.”

**Closure** Barnwell’s Phase I Closure Project began in July 2008. Over 90% of the site is now essentially closed. Future disposal will take place in a seven-acre area in the southeast corner of the site. Board staff projects as much as 11,000 cubic feet of waste per year if Atlantic Compact generators send all of their containerized waste to Barnwell, and less than half of this if they choose to ship Class A waste to the Clive facility in Utah.

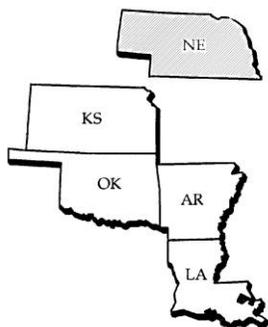
**Legal** On November 10, 2008, Studsvik filed a lawsuit against the Board and Chem-Nuclear for damages in excess of \$13 million alleging, among other things, that the defendants breached an agreement between the parties by providing a lower disposal rate at Barnwell to Studsvik’s competitors. The Board denies that it breached the agreement and filed a counterclaim seeking payment for outstanding invoices totaling approximately \$2.8 million. The action remains pending.

**State Contact** Bill Newberry, Manager, Radioactive Waste Disposal Program, South Carolina Budget and Control Board, Energy Office, 1201 Main Street, Suite 430, Columbia, SC 29201 (phone – 803/737-8037; fax – 803/737-1452; [bnewberry@energy.sc.gov](mailto:bnewberry@energy.sc.gov); [www.barnwelldisposal.com](http://www.barnwelldisposal.com))

**Operator Contact** Deborah Ogilvie, Public Information Director, or Bill House, Vice President of Regulatory Affairs, Chem-Nuclear Systems, LLC/EnergySolutions, 140 Stoneridge Drive, Columbia, SC 29210 (phone – 803/256-0450; fax – 803/256-0968; [dogilvie@energysolutions.com](mailto:dogilvie@energysolutions.com) or [wbhouse@energysolutions.com](mailto:wbhouse@energysolutions.com); [www.barnwelldisposal.com](http://www.barnwelldisposal.com)).

# Compacts and Their Host States (continued)

## Central Compact



**Member States** Arkansas, Kansas, Louisiana, Oklahoma

**Compact Established** The compact was established May 12, 1983. The commission's organizational meeting was held June 29, 1983.

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Development Costs** As of January 1999: \$95.6 million. Projected total cost including construction: \$154.3 million.

**Disposal Facility Operational** US Ecology's license application for the property near Butte in Boyd County was denied by state regulators on December 18, 1998.

**Legal Matters** On December 30, 1998, five utilities filed suit in the U.S. District Court for the District of Nebraska challenging actions taken by the State of Nebraska and its officials in reviewing US Ecology's license application. The lawsuit sought, among other things, removal of the state from any further involvement in the licensing process and an award of financial damages. The Central Commission, which was originally named as a defendant to the action, realigned itself as a plaintiff. On September 30, 2002, the district court issued an opinion finding that Nebraska had breached its duty of good faith under the compact. The court entered judgment against Nebraska in the amount of \$151,408,240.37, but declined to award the commission's requested equitable relief in the form of a new, court-supervised licensing process. On August 9, 2004, the Central Compact voted 3 to 1 to accept a settlement under which the state would pay the compact commission \$140.5 million plus interest—which monies were paid on August 1, 2005, thereby amicably ending all suits and claims between the parties. The commission subsequently distributed proceeds from the settlement funds to the member states for their contributions to community improvement funds; the major generators; and US Ecology.

On March 23, 2006, the compact commission notified the major generators that its decision to retain \$5 million of the settlement funds was a "final decision" with respect to their claims "though not a final decision regarding the ultimate disposition of the settlement funds retained." Shortly thereafter, on April 25, 2006, six generators filed a lawsuit in the U.S. District Court for the District of Nebraska against the compact commission seeking, among other things, to preserve their interest in the retained funds. In January 2007, the district court dismissed the suit with prejudice after finding that "there is nothing inequitable about the Commission keeping \$5 million out of more than \$145 million" because the plaintiffs have recovered all of their principal plus interest, the Commission has an arguable need for money since it is still in existence & will continue to be for the foreseeable future, and the Commission itself suffered damages.

**Other Information** In July 2005, the Central Commission held a two-day meeting in Little Rock, Arkansas during which it passed various resolutions including, among other things, resolutions:

- to defer further pursuit of a regional disposal facility for the time being;
- to continue monitoring national and regional developments concerning LLRW generation and disposal needs; and,
- to direct a consultant to carry out a review of disposal needs & practices of small generators in member states.

In May 2006, the compact transferred land previously designated for a regional facility to the Village of Butte.

**Contact** Rita Houskie, Office Administrator, Central Commission, P.O. Box 4770, Lincoln, NE 68504 (phone – 402/476-8247; fax – 402/476-8205; [rita@cillrwcc.org](mailto:rita@cillrwcc.org); [www.cillrwcc.org](http://www.cillrwcc.org))

# Compacts and Their Host States (continued)

## Central Midwest Compact

**Governing Body** Central Midwest Interstate Low-Level Radioactive Waste Commission



**Member States** Illinois, Kentucky

**Compact Established** The compact was established in September 1984, ratified by Congress effective January 1986, and most recently amended and ratified in October 1994.

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Other Information** The compact and its host state, Illinois, have determined to place siting efforts on hold due to continued access to disposal facilities outside the compact region and a decline in waste volumes which impacts the economies of disposal facility development. The compact projects that it will not open a regional disposal facility until 2032 or later, when some regional nuclear power plants will begin decommissioning. In the meantime, the compact and state have looked at interim storage as a possible solution until a permanent disposal facility is developed.

In 2004, the Central Midwest Commission requested that the State of Illinois evaluate the potential impacts on the region's generators from the pending loss of access to currently available disposal facilities. In order to make an assessment, the Illinois Emergency Management Agency (IEMA) initially hosted a conference for the region's waste generators in October 2004. The conference was then followed up with the distribution of a questionnaire designed to assess the potential impacts on the generators and their plans and preferences for managing their waste following disposal facility closure. In 2005, IEMA issued a report titled, "An Evaluation of the Potential Effects from the Closure of Available Disposal Capacity on the Central Midwest Compact Region's Low-Level Radioactive Waste Generators." The report concluded that regional generators would not suffer an immediate Class B and C low-level radioactive waste management crisis upon the scheduled loss of access to the Barnwell, South Carolina's disposal facility on July 1, 2008. In explanation, the report finds that the primary generators of Class B and C waste are the nuclear utilities and that they have indicated that they can safely store their Class B and C wastes for the remaining life of their plants (including any plant life extension). There is very little non-reactor generated Class B and C waste produced in the Central Midwest region. Three non-reactor generators combined anticipate generating less than 100 cubic feet of Class B and C waste in the 24-year period following the closure of the Chem-Nuclear Barnwell facility. In October 2006, the Central Midwest Compact and the State of Illinois sponsored a generators' conference to discuss this report. Another conference was held in October of 2008 that essentially resulted in the same findings as the 2005 report.

*For additional information or to obtain a copy of the report, please contact Marcia Marr of IEMA at (217) 785-9982.*

**Contact** Marcia Marr, Executive Director, Central Midwest Interstate Low-Level Radioactive Waste Commission, Illinois Emergency Management Agency (IEMA), State of Illinois, 1035 Outer Park Drive, Springfield, Illinois, 62704 (phone – 217/785-9982; fax – 217/785-9977; [Marcia.Marr@Illinois.gov](mailto:Marcia.Marr@Illinois.gov); [www.state.il.us/IEMA/dns.asp](http://www.state.il.us/IEMA/dns.asp))

# Compacts and Their Host States (continued)

## Host State: Illinois

**Regulatory Responsibility** Illinois Emergency Management Agency (IEMA)

**Program and Siting Responsibility** Low-Level Radioactive Waste Task Group (Task Group)—develop siting criteria

Illinois State Geological Survey and State Water Survey—statewide screening including evaluation of volunteer locations and identification of locations likely to meet the criteria

Illinois Emergency Management Agency—adopt rules establishing a site selection process for the regional disposal facility which considers land jointly volunteered by the landowner and applicable municipal or county government

Facility developer—conduct evaluation of the sites and locations identified under the site selection process

Illinois Emergency Management Agency—licensing agency

**Disposal Technology** above-grade, earthen-covered concrete vault

**Siting** In December 1996, the Task Group published siting criteria. As directed by amendments to the state siting law enacted in June 1997, the Illinois State Geological and Water Surveys screened the state and produced maps showing the application of the siting criteria and submitted their findings to the Task Group and to IDNS by September 30, 1997. IEMA will now develop a volunteer site selection process that will use the Surveys' information. The contractor will conduct a site selection process including the evaluation of volunteered lines. Once the contractor has selected a site and the Task Group approves the site, the contractor will proceed with characterization and licensure of the proposed site.

In 1997, Illinois determined to place further siting efforts on hold due to continued access to disposal facilities outside the compact region and a decline in waste volumes which impacts the economies of disposal facility development. It is projected that a regional disposal facility will not be opened until 2032 or later, when the nuclear power plants will begin decommissioning. In the meantime, Illinois has looked at interim storage as a possible solution until a permanent disposal facility is developed.

**Licensing** A license application is expected to be submitted by 2029.

**Development Costs** To date: not available. Estimated total cost including construction: not available.

**Disposal Facility Operational** Projected by 2032, when the availability of decommissioning waste from the region's nuclear power plants is projected to render the new facility cost effective.

**Contact** Michael Klebe, Illinois Emergency Management Agency, 1035 Outer Park Drive, Springfield, IL 62704 (phone – 217/785-9986; fax – 217/785-9977; [Michael.Klebe@Illinois.gov](mailto:Michael.Klebe@Illinois.gov); [www.state.il.us/IEMA/dns.asp](http://www.state.il.us/IEMA/dns.asp))

# Compacts and Their Host States (continued)

## Midwest Compact



**Governing Body** Midwest Interstate Low-Level Radioactive Waste Compact Commission

**Member States** Indiana, Iowa, Minnesota, Missouri, Ohio, Wisconsin

**Compact Established** The compact was established in October 1983 and was given the consent of Congress in December 1985. Compact amendments were enacted by Ohio and Wisconsin in 1995 and by Indiana, Iowa, Minnesota, and Missouri in 1996; however, these amendments have not been submitted to Congress for consent.

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Other Information** On June 26, 1997, the Midwest Compact Commission halted development of a regional disposal facility in Ohio. Citing significant declines in Midwest Compact waste volumes, the potentially high cost of developing new disposal capacity, and continued access to the Barnwell and Envirocare of Utah (now operating as the EnergySolutions' Clive) disposal facilities, the Commission also relieved Ohio of its host state designation and its obligation to site and operate a regional facility. After a year-long review, the Commission closed its St. Paul office and assigned the executive duties to Stanley York—the Commission's Chair. In July 2007, Stanley York stepped down from the position of Commission Chair. The Commission reelected Roger Suppes as Vice-Chair and authorized him to complete the duties of the Chair. In 2008, the Commission reelected Stanley York to the Chair and as the delegate to meetings of the LLW Forum. He continues as the Executive Director of the Compact Commission. The Commission continues to work with generators to assure long-term access to disposal facilities.

**Host State:** None

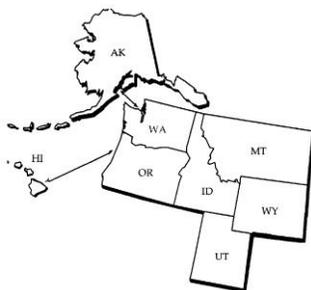
**Contacts** Stanley York, Executive Director, Midwest Interstate Low-Level Radioactive Waste Compact Commission, 2851-1 Century Harbor, Middleton, WI 53562-1824 (phone – 608/831-5434; [stan.york@tds.net](mailto:stan.york@tds.net); [www.midwestcompact.org](http://www.midwestcompact.org))

# Compacts and Their Host States (continued)

## Northwest Compact

**Governing Body** Northwest Interstate Compact Committee

**Member States** Alaska, Hawaii, Idaho, Montana, Oregon, Utah, Washington, Wyoming



**Compact Established** The compact was established in 1981 and ratified by Congress in December 1985.

**Current Waste Management** In-region low-level radioactive waste is disposed of at the regional commercial disposal facility in Richland, Washington. NARM and exempt wastes meeting the Washington Department of Health's license conditions are also being shipped to the Richland facility.

**Richland Facility** The designated host state for the Northwest Compact is the State of Washington, which hosts a regional facility operated by US Ecology located on the U.S. DOE Hanford reservation in Richland, Washington. The Richland facility has separate disposal areas and accepts for disposal both federal waste and in-region commercial low-level radioactive waste (as well as commercial low-level radioactive waste from the Rocky Mountain Compact). Out-of-region commercial low-level radioactive waste (other than that coming from the Rocky Mountain Compact) is prohibited from being disposed of at the Richland facility. NARM waste may be received at the Richland facility from all states.

In 2005, the State of Washington and US Ecology agreed to incorporate a clause in the new sublease for the disposal facility in Richland, Washington, allowing the state to terminate the sublease if the Northwest Compact loses exclusionary authority on out-of-region low-level radioactive waste provided by federal law.

**Clive Facility** EnergySolutions operates a disposal facility in Clive, Utah which accepts both federal and out-of-region Class A commercial low-level radioactive waste, NARM and exempt waste. On April 20, 2006, the Northwest Compact approved a Third Amended Resolution and Order regarding access to the Clive facility. On May 8, 2008, the compact adopted a resolution clarifying that foreign low-level radioactive waste has not been addressed and that an arrangement would need to be adopted prior to such waste—including foreign generated waste characterized as domestic generated waste by another compact or unaffiliated state—being provided access to the region for disposal at Clive.

On May 5, 2008, EnergySolutions filed a lawsuit against the Northwest Compact and its Executive Director arguing, among other things, that: (1) Clive is not a “regional disposal facility” under the Policy Act and, as such, the compact lacks authority over the facility, (2) NRC's authority to regulate the import and export of nuclear materials preempts any authority that the compact may have over the Clive facility; and (3) the dormant Commerce Clause prevents the compact from discriminating against foreign waste. The Northwest Compact, on the other hand, contends that (1) the Northwest Compact itself provides the legal basis to restrict disposal at Clive; (2) the Northwest Compact Committee derives its exclusionary authority from the Compact itself, not from the Low-Level Radioactive Waste Policy Amendments Act of 1985; (3) the Northwest Compact Committee is authorized under Articles IV and V of the Compact to limit the access for out-of-region waste to the Clive facility; and, (4) the Clive facility qualifies as a “regional disposal facility” under the 1985 act. The Rocky Mountain Compact and the State of Utah subsequently intervened as defendants to the action.

On May 15, 2009, the district court issued a finding that, with regard to the importation of low-level radioactive waste from outside of the compact region, the Northwest Compact does not have the authority to restrict access to Clive. The court based this ruling on its holding that Clive is a private facility operating in interstate commerce that is not covered by the compact system—i.e., it is not a “regional disposal facility” as defined under federal law. The court further ruled, however, that the Northwest Compact has authority to regulate the disposal of low-level radioactive waste that is generated within the compact's regional boundaries—including restricting disposal access for such waste to the Clive facility. Finally, the court's ruling maintains the authority of the Northwest Compact to regulate the Richland facility—regardless of the origin of waste that is sent thereto. The defendants are appealing the court's ruling.

**Contact** Michael Garner, Executive Director, Northwest Interstate Compact, Policy Analyst, Nuclear Waste Program, Department of Ecology, State of Washington, PO Box 47600, Olympia, WA 98504-7600 (phone – 360/407-7102; fax – 360/407-6715; [jamg461@ecy.wa.gov](mailto:jamg461@ecy.wa.gov))

# Compacts and Their Host States (continued)

## Host State: Washington

**Regulatory Responsibility** Department of Health

**Program Responsibility** Department of Ecology

**Disposal Technology** 10 CFR Part 61 near surface disposal

**Siting** The regional low-level radioactive waste disposal facility is located on the U.S. DOE Hanford reservation on 100 acres of land subleased by US Ecology from the State of Washington. The sublease was renewed for ten years in 2005, with four ten-year renewal options.

**Licensing** The site operator's current materials license was issued by the Washington State Department of Health on October 20, 2005. The license expires January 31, 2011. Relicensing was one of three significant actions considered in the May 2004 environmental impact statement.

**Development Costs** Not applicable.

**Disposal Facility Operational** The compact's regional disposal facility has been in operation since July 1965.

**Other Information** The compact's low-level radioactive waste disposal site is not permitted for mixed waste. In 2005, the State of Washington and US Ecology agreed to incorporate a clause in the new sublease for the disposal facility in Richland, Washington, allowing the state to terminate the sublease if the Northwest Compact loses exclusionary authority on out-of-region low-level radioactive waste provided by federal law.

**Voter Initiative/Related Litigation** On November 2, 2004, by a margin of roughly 2 to 1, voters in the State of Washington overwhelmingly approved an initiative to require the U.S. Department of Energy to clean up the Hanford nuclear reservation before it sends any additional waste to the facility. In addition, initiative 297 also seeks to prevent the disposal of waste in unlined trenches. The initiative—which is known as the “Cleanup Priority Act”—was sponsored by Heart of America Northwest and received endorsements from environmental groups, the state Democratic Party and the League of Women Voters.

After passage of the initiative, DOE filed a lawsuit in the United States District Court for the Eastern District of Washington challenging its constitutionality and sought a restraining order on its enforcement. In so doing, the department argued that there are too many uncertainties about how the state will implement the measure. In addition, Department of Justice attorneys contended that some cleanup efforts at the site have already been halted as a result of the initiative. On December 2, 2004, the judge for the U.S. District Court of the Eastern District of Washington ruled for the federal government and issued the requested restraining order—although waste shipments to the site had already been halted under another lawsuit. In so ruling, the judge found that there is a possibility that the initiative may be invalid and that DOE will suffer irreparable injury with regard to onsite cleanup at Hanford if it were to immediately become law.

On June 12, 2006, the United States District Court for the Eastern District of Washington struck down the Cleanup Priority Act as preempted by the Atomic Energy Act (AEA) and in violation of sovereign immunity. The State of Washington filed an appeal with the U.S. Court of Appeals for the Ninth Circuit in San Francisco on July 12, 2006. On May 21, 2008, the appellate court upheld the lower court's decision, finding that federal law preempts the Act. The state subsequently decided not to appeal the Ninth Circuit decision.

**State Contact** Lawrence Goldstein, Chair, Northwest Interstate Compact, Section Manager, Nuclear Waste Program, Department of Ecology, State of Washington, PO Box 47600, Olympia, WA 98504-7600 (phone – 360/407-6573; fax – 360/407-6715; [lgol461@ecy.wa.gov](mailto:lgol461@ecy.wa.gov))

**Operator Contact** Chad Hyslop, Sales Director, American Ecology, Lakepointe Centre, 300 E. Mallard Drive, Suite 300, Boise, ID 83706 (phone – 208/331-8400; fax – 208/331-7900; [chyslop@americanecology.com](mailto:chyslop@americanecology.com))

# Compacts and Their Host States (continued)

## Host State: Utah

**Regulatory Responsibility** Division of Radiation Control of the Utah Department of Environmental Quality

**Program Responsibility** Division of Radiation Control of the Utah Department of Environmental Quality (DEQ)

**Disposal Technology & Operation** embankment/modified shallow-land burial (facility operation began in 1988)

**Siting** The EnergySolutions' Clive, Utah low-level radioactive waste disposal facility is located on 540 acres of land in Tooele County, Utah—80 miles west of Salt Lake City. EnergySolutions has also purchased additional land in Section 29 (to the North) for future expansion.

**Licensing** Out-of-region low-level radioactive wastes meeting the Clive facility's license conditions are provided access to the region for disposal at the Clive facility. The site operator's current low-level/NORM license was issued on January 25, 2008 for a five-year term that expires in 2013. The uranium mill tailings license is currently under timely renewal and is subject to conditions yet to be determined on the status of the uranium mill tailings cell. The Division of Solid and Hazardous Waste issued a mixed waste permit for a ten-year term that expires on April 4, 2013. The facility is licensed to accept mixed and low-level radioactive waste up to Class A limits, containerized Class A waste, NORM, and uranium and thorium mill tailings. EnergySolutions cannot accept Class B and C radioactive waste, uranium mill tailings above a certain radionuclide concentration and sealed sources. Heal-Utah has petitioned the Radiation Control Board for a moratorium on the disposal of depleted uranium. Utah is an Agreement State for regulation of low-level radioactive waste and uranium and thorium mill tailings and is delegated authority for the mixed waste program from the EPA.

On March 15, 2007, then-Utah Governor Jon Huntsman and EnergySolutions entered into an agreement that, among other things, required the company to immediately withdraw a pending license amendment that would have provided added disposal capacity in Section 29 in return for the state agreeing to refrain from seeking to limit disposal volumes.

Low-level radioactive waste is currently being disposed of in the Class A North and Class A cells. A license amendment was submitted on January 4, 2008 to convert some of the remaining capacity of the uranium mill tailings cell for the disposal of low-level radioactive waste as allowed under the March 15<sup>th</sup> agreement cited above. With the current design, the question of perpetual care of the cell by the Department of Energy remains unresolved.

**Foreign Waste and Associated Litigation** On September 14, 2007, EnergySolutions applied to NRC for licenses to import up to 20,000 tons of potentially radioactively contaminated material from Italy and to export for return to generators in Italy any of the imported waste that can not be recycled or does not meet the Clive facility's waste acceptance criteria for disposal. Under the proposal, the contaminated material would be processed at the Bear Creek facility in Tennessee for recycling and beneficial reuse with any resultant waste being disposed at the Clive facility. EnergySolutions estimates that approximately 1,600 tons of the imported material would be disposed at the Clive facility. The Northwest Compact opposes the proposal and contends that importation of the waste is not permitted under its Third Amended Resolution and Order. On May 5, 2008, EnergySolutions filed a lawsuit challenging the Northwest Compact's authority over the Clive facility and, in particular, its authority to restrict the importation of foreign-generated low-level radioactive waste. On May 15, 2009, the court held that the Northwest Compact does not have the authority to restrict access for out-of-region waste to Clive, although it can restrict access to the facility for in-region waste. The defendants are appealing the ruling. (For additional information, see page 9.) NRC has put its review of EnergySolution's application and associated hearing requests on hold pending outcome of the action.

**Other Information** Clive is subject to certain fees and taxes on the disposal of waste at the facility. DEQ is currently evaluating fee increases for all commercial solid, hazardous, & radioactive waste facilities. On July 1, 2009, fee increases went into effect for the uranium mill tailings portion of the Clive facility. Any changes to low-level radioactive waste fees must occur on a statutory basis and it is anticipated that legislation to make fee changes for all waste categories will occur during the 2010 legislative session. Generators are required to obtain site access permits on an annual basis. On July 1, 2009, fees on annual generator site access permits and on brokers (collectors or processors) were increased.

**State Contact** Dane Finerfrock, Director, Div. of Radiation Control, DEQ, 168 North 1950 West, PO Box 144850, Salt Lake City, UT 84114-4850 (phone – 801/536-4257; fax – 801/533-4097; [dfinerfrock@utah.gov](mailto:dfinerfrock@utah.gov); [www.deq.utah.gov](http://www.deq.utah.gov))

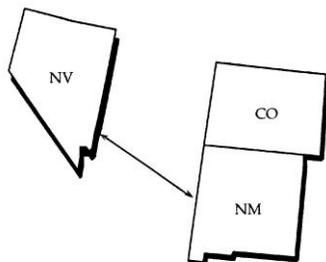
**Operator Contact** Dan Shrum, Senior Vice President for Regulatory Compliance, EnergySolutions, 423 West 300 South, Suite 200, Salt Lake City, UT 84101 (phone – 801/649-2000; fax – 801/413-5646; [dshrum@energysolutions.com](mailto:dshrum@energysolutions.com))

# Compacts and Their Host States (continued)

## Rocky Mountain Compact

**Governing Body** Rocky Mountain Low-Level Radioactive Waste Board

**Member States** Colorado, Nevada, New Mexico



**Compact Established** The compact was established in 1983 and ratified by Congress in December 1985.

**Current Waste Management** The Rocky Mountain Board has a contract with the Northwest Compact and the State of Washington for the disposal of commercial Class A, B and C low-level radioactive waste at the facility in Richland, Washington. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. Certain NORM and TENORM wastes meeting the State of Colorado's conditions are being shipped to the Clean Harbors Deer Trail facility. Certain NARM wastes meeting the State of Washington's conditions are being shipped to the Richland facility.

**Facility Designation** In May 2005, the Rocky Mountain Low-Level Radioactive Waste Board received an application from the State of Colorado for the designation of Clean Harbors Deer Trail facility (CHDTF) as a limited regional low-level radioactive waste disposal facility. Colorado filed the application after receiving in January 2005 a radioactive materials license application from CHDTF that proposes the disposal of Naturally Occurring Radioactive Materials (NORM) and Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM) at the facility. In September 2006, the Rocky Mountain Board designated CHDTF as a regional facility for the disposal of NORM and TENORM up to 400 pCi/g of radium and 2,000 pCi/g total NORM and TENORM. In-region generated NORM and TENORM may be disposed of in the region at such facilities allowed by the policies and regulations of the state in which such disposal will occur.

**Other Information** Export authorization is required for all waste generated within the compact region that is sent outside of the region. Import authorization is required to bring out-of-compact waste into the region for management. The compact has jurisdiction (including import/export authority) over NORM/NARM.

**Compact Contact** Leonard Slosky, Executive Director, Rocky Mountain Board, 1675 Broadway, Suite 1400, Denver, CO 80202 (phone – 303/825-1912; fax – 303/892-3882; [board@rmlwb.us](mailto:board@rmlwb.us); [www.rmlwb.us](http://www.rmlwb.us))

**Operator Contact** Phillip Retallick, Senior Vice President, Compliance and Regulatory Affairs, Clean Harbors Environmental Corp., 200 Arbor Lake Drive, Suite 300, Columbia, SC 29223 (phone – 803/691-3427; fax – 803/691-3493; [Retallick.Phillip@cleanharbors.com](mailto:Retallick.Phillip@cleanharbors.com))

# Compacts and Their Host States (continued)

## Host State: Colorado

**Regulatory Responsibility** Colorado Department of Public Health and Environment (CDPHE)

**Program Responsibility** Colorado Department of Public Health and Environment (CDPHE)

**Siting** Clean Harbors Deer Trail facility (CHDTF) is located in Adams County, Colorado

**Licensing** In January 2005, the State of Colorado received a radioactive materials license application from CHDTF that proposes the disposal of Naturally Occurring Radioactive Materials (NORM) and Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM) at the facility. The application is on the board's web page at [www.rmlwb.us](http://www.rmlwb.us). (For additional information, see the "Facility Designation" section of the compact on page 12.)

On December 21, 2005, CDPHE issued a hazardous waste permit renewal and radioactive materials license to CHDTF. The radioactive materials license allows the facility to accept limited types of NORM and TENORM or such waste that has been modified in industrial processes. It prohibits the acceptance of artificial or artificially altered radioactive material from research, medicine, weapons, nuclear power plants or other operations. Pursuant to the license, CHDTF has been accepting NORM and TENORM since December of 2006.

**Litigation Against CDPHE** On January 20, 2006, the Adams County Board of Commissioners ("Adams County") filed two lawsuits against CDPHE. One suit—which was filed in the District Court of Adams County—challenges the hazardous waste permit for CHDTF. The other suit—which was filed in the District Court for the City and County of Denver—challenges the issuance of the radioactive materials license for the facility. In the lawsuits, Adams County contends CDPHE's issuance of a radioactive materials license to the Deer Trail facility "was in excess of its statutory jurisdiction, authority, purposes and limitations, was arbitrary and capricious, was an abuse of discretion, was unsupported by substantial evidence, was a denial of a statutory right, was contrary to the Radiation Control Act and its regulations, and otherwise contrary to law" for a variety of reasons.

On May 17, 2006, the Denver District Court issued an order dismissing the lawsuit challenging the issuance of a limited radioactive materials disposal license to CHDTF. In dismissing the suit, the court held that the plaintiff lacks constitutional and prudential standing and that the court thus lacks subject matter jurisdiction over the action. On July 5, 2006, the District Court of Adams County ruled that the plaintiff does not have judicial standing to sue the State of Colorado. The court vacated the judicial stay of the CHDTF radioactive materials license via bench verdict.

Adams County filed an appeal of the district court orders in both lawsuits. On October 2, 2007, a three-judge panel of the Colorado Court of Appeals issued two orders affirming the lower court decisions.

**Litigation Against CHDTF** On April 25, 2007, Adams County filed suit against CHDTF in the District Court of Adams County, Colorado seeking civil penalties, injunctive and declaratory relief. The suit alleges, among other things, that CHDTF has violated applicable laws by operating a regional low-level radioactive waste disposal facility without applying for and obtaining the necessary permit from Adams County. The plaintiff asserts that CHDTF's conduct violates various statutes, rules and regulations including the Local Government Land Use Control Enabling Act, the Colorado Hazardous Waste Siting Act, the Solid Wastes Act, the Adams County Development Standards & Regulations, and the Low-Level Radioactive Waste Act. In October 2007, the court dismissed two counterclaims filed by CHDTF after finding that it lacks jurisdiction due to Clean Harbors' failure to timely exercise its right of judicial review pursuant to Colorado statute. Shortly thereafter, in November 2007, CDPHE filed a motion seeking to intervene as co-defendant in the suit. On November 14, 2008, the court issued a ruling that held that CHDTF did not violate the law and granted the defendant's motion for summary judgment. CHDTF continues to accept NORM and TENORM.

**State Contact** Joe Vranka of the Colorado Department of Public Health and the Environment at (303) 692-3402.

**Operator Contact** Phillip Retallick, Senior Vice President, Compliance and Regulatory Affairs, Clean Harbors Environmental Corp., 200 Arbor Lake Drive, Suite 300, Columbia, SC 29223 (phone – 803/691-3427; fax – 803/691-3493; [Retallick.Phillip@cleanharbors.com](mailto:Retallick.Phillip@cleanharbors.com))

# Compacts and Their Host States (continued)



## Southeast Compact

**Governing Body** Southeast Compact Commission for Low-Level Radioactive Waste Management

**Member States** Alabama, Florida, Georgia, Mississippi, Tennessee, and Virginia

**Compact Established** The Southeast Compact was established in 1983 and ratified by Congress in 1985. The compact law was amended in 1989.

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Facility Designation** In 1986, the Southeast Compact Commission designated North Carolina as the next host state. The North Carolina General Assembly accepted that designation. North Carolina began development of a disposal facility and accepted nearly \$80 million from the Southeast Compact Commission for site development activities.

**Withdrawal** On July 26, 1999, the State of North Carolina enacted legislation to withdraw from the Southeast Compact. Although North Carolina is no longer a member state, the compact maintains that the state remains subject to the sanctions resolution of December 9, 1999 until its terms are satisfied or the case against North Carolina is otherwise resolved as determined by the Commission in its sole discretion.

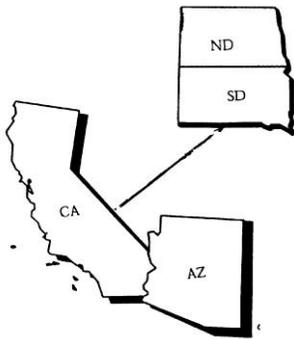
**Sanctions/Litigation** In June 1999, Commissioners from Florida & Tennessee filed a formal administrative complaint against North Carolina seeking sanctions for failure to fulfill its host state obligations. After conducting a formal hearing process, on December 9, 1999, the Southeast Compact Commission voted to impose sanctions on North Carolina, including the repayment of almost \$80 million in funds given to the state by the compact for development of a regional facility, \$10 million in lost future revenues, and an unspecified amount for attorney's fees. The Commission resolved that the required amounts "shall be paid in full by July 10, 2000." On June 23, 2002, the Southeast Compact—along with the party states of Alabama, Florida, Tennessee, and Virginia—filed a lawsuit in the U.S. Supreme Court to enforce the sanctions against North Carolina. The Court assigned the case to a Special Master who found that the Compact did not authorize the Commission to impose monetary sanctions against member states; the Commission could not impose sanctions because North Carolina withdrew from the Compact prior to the sanctions determination; North Carolina did not breach the Compact; and, North Carolina's withdrawal did not violate its implied covenant of good faith and fair dealing. In July 2009, an Amicus Brief in support of the plaintiffs was filed jointly by the Central, Midwest, Northwest and Rocky Mountain compacts. The U.S. Solicitor General also filed an Amicus Brief. The Supreme Court will review the pleadings and the Special Master's findings, to which exceptions have been filed, and can either accept or reject them. The Court is expected to hear the case in the fall of 2009 and issue a decision no later than June 2010.

**LLRW Policy Statement** On June 17, 2009, the Southeast Compact Commission revised its policy statement on the management of commercial low-level radioactive waste. The statement identifies a preferred course of action, reviews the impact of the loss of access for Class B & C waste in 2008, and provides a cautionary note regarding future decisions and alternative proposals.

**Radiation Control in US Policy Statement** On June 27, 2008, the Southeast Compact Commission adopted a policy statement concerning controls over ionizing radiation, including the management of radioactive waste. The statement argues that the current system of controls over ionizing radiation is "inconsistent" and that a "unified vision" is needed. It recommends that the U.S. Congress promulgate legislation "establishing a national policy in regard to ionizing radiation, including the management of radioactive waste."

**Contact** Kathryn Haynes, Executive Director, Southeast Compact Commission, 21 Glenwood Avenue, Suite 207, Raleigh, NC 27603 (phone – 919/821-0500; fax – 919/821-1090; [khaynes@secompact.org](mailto:khaynes@secompact.org); [www.secompact.org](http://www.secompact.org))

# Compacts and Their Host States (continued)



## Southwestern Compact

**Governing Body** Southwestern Low-Level Radioactive Waste Commission

**Member States** Arizona, California, North Dakota, South Dakota

**Compact Established** The compact was established in July 1988 and ratified by Congress in November 1988. North Dakota and South Dakota joined the compact in 1989.

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Other Information** Generators who want to export low-level radioactive waste for disposal at the EnergySolutions' Clive, Utah facility must petition the Southwestern Compact Commission for approval. A fee must accompany the petition. A petition is not required for disposal of NARM waste at the Richland, Washington disposal facility nor is a petition required for exportation of low-level radioactive waste for treatment outside of the Southwestern Compact region unless the treated waste is ultimately destined for land disposal. Any party planning to import low-level radioactive waste into the Southwestern Compact region for disposal is required to obtain written approval from (1) the compact or unaffiliated state in which the waste originated; (2) the Southwestern Compact Commission; and (3) the radiation control and waste management agencies of the state into which the waste would be imported for disposal.

**Contact** Kathy Davis, Executive Director, Southwestern Compact Commission, 1731 Howe Avenue, Suite 611, Sacramento, CA 95825 (phone – 916/448-2390; fax – 916/720-0144; [swllrwcc@swllrwcc.org](mailto:swllrwcc@swllrwcc.org); [www.swllrwcc.org](http://www.swllrwcc.org))

# Compacts and Their Host States (continued)

## Host State: California

**Regulatory and Program Responsibility** California Department of Health Services (DHS)

**Siting Responsibility** None

**Other Involvement** None

**Disposal Technology** enhanced shallow land burial

**Siting** The state previously chose land in Ward Valley as its preferred site. However, the land is owned by the federal government, which subsequently declined to transfer it to the state. A new preferred site has not been chosen.

**Licensing** A license for a disposal facility at Ward Valley was issued by DHS on September 16, 1993, conditioned on DHS ownership of the land. The license did not include mixed waste disposal. Due to the federal government's refusal to transfer the land, the license became moot.

**Development Costs** Through November 1, 1998, approximately \$92 million including interest had been spent on the unsuccessful attempt to develop a facility at Ward Valley.

**Disposal Facility Operational** Unknown.

**Other Information** Although the State of California issued a license to build a low-level radioactive waste disposal facility at Ward Valley in 1993, the license became moot when the federal government refused to transfer the site to the state for its intended use. The state subsequently enacted a statute precluding site development in Ward Valley.

US Ecology, the selected developer for the Ward Valley site, unsuccessfully attempted to recover monetary damages from the failed land transfer process through litigation in state court.

On June 2, 1999, then-California Governor Gray Davis established an advisory group charged with proposing ways to find "workable alternatives for California's low-level radioactive waste disposal." The state's original preferred site—Ward Valley, California—was not among the issues to be studied by the group. In mid-2000, the advisory group delivered a report to the Governor which presents four options: (1) continue current practices—storage for decay and disposal at out-of-state facilities—for management of low-level radioactive waste produced within the state, (2) divide the waste stream into categories according to various criteria and apply different management techniques, (3) operate an assured isolation facility, and (4) operate a disposal facility. The report did not recommend any one option over the others and no further action has been taken by the state since its release.

On June 16, 1999, the California legislature adopted a budget that effectively eliminated the state's low-level radioactive waste program.

To date, the Southwestern Low-Level Radioactive Waste Commission has sent several letters to California Governor Arnold Schwarzenegger inquiring as to the "administration's plans regarding meeting California's legal obligation to provide a low-level radioactive waste (LLRW) disposal facility." The Governor has not responded to the letters, the most recent of which was sent in May 2005.

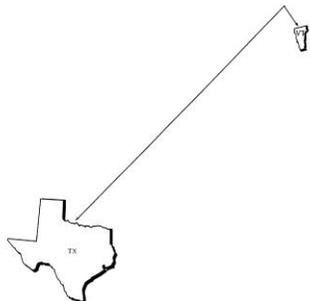
**Contact** Gary Butner, Chief, Radiologic Health Branch, Department of Public Health, State of California, 1500 Capitol Avenue, MS 7610, Sacramento, CA 95899 (phone – 916/440-7942; fax – 916/650-6722; [gary.butner@cdph.ca.gov](mailto:gary.butner@cdph.ca.gov))

# Compacts and Their Host States (continued)

## Texas Compact

**Governing Body** Texas LLRW Disposal Compact Commission

**Member States** Texas, Vermont



**Compact Established** In June 1993, the Governor of Texas signed into law legislation that became effective on August 30, 1993 that establishes 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. Vermont adopted the compact on April 25, 1994. President Clinton then signed the compact consent legislation into law on September 20, 1998. Maine's former-Governor, Angus King, signed legislation into law on April 5, 2002 removing Maine from the Texas Compact. Based on compact provisions, the withdrawal became effective in April 2004.

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Siting and Licensing** On August 4, 2004, Waste Control Specialists LLC (WCS) submitted a license application for both compact and federal waste disposal facilities at the company's site in Andrews County, Texas. On January 14, 2009, the Texas Commission on Environmental Quality (TCEQ) denied hearing requests and approved a licensing order. A final license will be issued upon the acquisition of associated mineral rights. (For more information, see page 18.)

**Commission** The Texas Low Level Radioactive Waste Disposal Compact Commission ("Texas Commission") is comprised of eight members—six from Texas and two from Vermont. On November 25, 2008, Texas Governor Rick Perry appointed Michael Ford of Amarillo as Chairman and John White of Plano as Vice Chairman. Both terms are set to expire on November 25, 2014. In addition, Governor Perry appointed four other members to the Texas Commission including the Honorable Richard Dolgener, Robert Gregory, Kenneth Peddicord, and Robert Wilson. Vermont Governor Jim Douglas subsequently appointed Uldis Vanags and Richard Smith as the state's two members on the Commission.

The Texas Commission held its first meeting on February 13, 2009 and has held several subsequent meetings. The Commission is currently reviewing various issues including a volumetric waste rule to set maximum disposal volumes through 2045, the disposal of out-of-region waste at the planned Texas Compact facility, and the continued disposal of in-region waste at out-of-compact facilities.

**Other Information** The WCS site, which is located in Andrews County, Texas, continues to operate facilities for the processing, treatment and storage of hazardous, toxic, low-level, and mixed radioactive wastes. Information on the WCS application and review can be found at [http://www.tceq.state.tx.us/permitting/waste\\_permits/rad\\_waste/WCS\\_license\\_app.html](http://www.tceq.state.tx.us/permitting/waste_permits/rad_waste/WCS_license_app.html).

**Compact Contact** Margaret Henderson, Interim Executive Director, Texas Low-Level Radioactive Waste Disposal Compact Commission, 3616 Far West Blvd, Suite 117, # 294, Austin, TX 78731 (phone – 970/519-1588; [margarethenderson@tllrwdcc.org](mailto:margarethenderson@tllrwdcc.org))

**Operator Contact** Rodney Baltzer, President, Waste Control Specialists LLC, 5430 LBJ Freeway, Suite 1700, Dallas, TX 75240 (phone – 972/450-4235; fax – 972/448-1435; [rbaltzer@valhi.net](mailto:rbaltzer@valhi.net); [www.wcstexas.com](http://www.wcstexas.com))

# Compacts and Their Host States (continued)

## Host State: Texas

**Regulatory and Program Responsibility** Texas Commission on Environmental Quality (TCEQ)

**Siting Responsibility** open to any private company

**Disposal Technology** stable bulk soil-like waste or concrete canisters in near-surface landfills

**Siting** In May 2003, legislation was passed that limits the potential siting area to the panhandle region of Texas—bordered by the states of New Mexico and Oklahoma. Any site must be within the region, meet technical requirements and be supported by resolution of the affected county's Commissioners' Court.

**Licensing** In 2003, the Texas legislature passed H.B. 1567, which amends Texas Health & Safety Code provisions dealing with the siting and operation of a commercial LLRW disposal facility for the Texas Compact. (For a copy of the bill, please go to [http://www.capitol.state.tx.us/tlo/legislation/bill\\_status.htm](http://www.capitol.state.tx.us/tlo/legislation/bill_status.htm).) The legislation allows for the creation of two privately run waste disposal facilities to be licensed as one site by the TCEQ. One facility may dispose of federal facility waste, as defined by the Low-Level Radioactive Waste Policy Act of 1980 and its 1985 amendments, subject to certain specified conditions. The other, adjacent facility, may dispose of commercial low-level radioactive waste.

On August 4, 2004, Waste Control Specialists LLC (WCS) filed an application with the Texas Commission on Environmental Quality (TCEQ). The application was deemed administratively complete on February 18, 2005 and was deemed most meritorious on March 31, 2005. Two technical notices of deficiency were then issued. On March 19, 2007, TCEQ formally accepted the response to noted technical deficiencies from WCS, as well as a revised application. Revised application materials were subsequently accepted on April 27, 2007 and on May 1, 2007. On December 10, 2007, TCEQ provided to WCS for review and comment an initial draft license including pre-construction, construction, operational, and maintenance requirements that may differ or expand upon information provided in the application, as well as a draft licensing Order that includes conditions that must be met before a final license can be issued. WCS then submitted comments and TCEQ reviewed them. On August 13, 2008, TCEQ mailed the notice of technical summary and preliminary decision with a draft license and environmental analysis for publication. TCEQ held a public meeting in Andrews County and the public comment period ended on September 16, 2008. On December 2, 2008, the TCEQ Executive Director filed a response to comments. On January 14, 2009, TCEQ Commissioners denied hearing requests and approved a licensing order by a vote of 2 to 0. A final license will be issued after condemnation proceedings are completed and WCS has acquired all mineral rights on the underlying land.

On May 31, 2007, the Texas legislature passed a bill (SB 1604) that, among other things, consolidates most waste management licensing authority within the TCEQ. Previously, the Department of State Health Services & the Executive Commissioner of the Health and Human Services Commission had jurisdiction over some of these authorities.

*For current license review information, go to [http://www.tceq.state.tx.us/permitting/waste\\_permits/rad\\_waste/WCS\\_license\\_app.html](http://www.tceq.state.tx.us/permitting/waste_permits/rad_waste/WCS_license_app.html). For information on Texas first siting/licensing attempt at Hudspeth County, please refer to previous issues of the "Summary Report."*

**Development Costs** To date: unknown. Estimated total cost including construction: unknown

**Disposal Facility Operational** Projected 2010/2011

**Other Information** On May 29, 2008, TCEQ issued a license to WCS to dispose of radioactive byproduct material including 3,700 canisters of cold-war era waste from cleanup of the Fernald site in Ohio that is presently being stored by WCS. In June 2008, the Lone Star Chapter of the Sierra Club filed a lawsuit challenging the license issuance and seeking a contested case hearing. A court date is scheduled before the 201<sup>st</sup> Judicial District Court of Texas on July 29, 2009. In January 2009, TCEQ issued to WCS a permit for the disposal of hazardous waste at the planned federal waste facility.

**Contact** Susan Jablonski, Director of Radioactive Materials Division, Texas Commission on Environmental Quality, State of Texas, PO Box 13087, Mail Code 233, Austin, TX 78711-3087 (phone – 512/239-6466; fax – 512/239-6464; [sjablons@tceq.state.tx.us](mailto:sjablons@tceq.state.tx.us); [www.tceq.state.tx.us/nav/permits/rw.html](http://www.tceq.state.tx.us/nav/permits/rw.html))

**Operator Contact** Rodney Baltzer, President and CFO, Waste Control Specialists LLC, 5430 LBJ Freeway, Suite 1700, Dallas, TX 75240 (phone – 972/450-4235; fax – 972/448-1435); [rbaltzer@valhi.net](mailto:rbaltzer@valhi.net); [www.wcstexas.com](http://www.wcstexas.com))

# Unaffiliated States

## Massachusetts



**Primary Regulatory Responsibility** Department of Public Health (DPH)

**Secondary Regulatory Responsibility** Department of Environmental Protection (DEP)

**Program and Siting Responsibility** Department of Public Health

**Disposal Technology** Shallow land burial is prohibited in Massachusetts; the chosen technology must allow monitoring and package retrieval. The sited community will select the disposal technology from methods approved by DPH.

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Siting** As a result of renewed access to the Barnwell site in July 1995 and the expanded availability of the Envirocare (now known as EnergySolutions) disposal facility in Clive, Utah, the Commonwealth of Massachusetts decided in March 1996 to cease its activities involving statewide mapping and screening—the first major stage of its in-state siting efforts—and to continue discussions with other states and compacts for future disposal arrangements, while monitoring changes in the national low-level radioactive waste management situation.

**Contact** *Through October 16, 2009:* Robert Walker, Director, Radiation Control Program, Department of Public Health, Commonwealth of Massachusetts, Schrafft Center, Suite 1M2A, 529 Main Street, Charleston, MA 02129 (phone – 617/242-3035 ext. 2001; fax – 617/242-3457; [bob.walker@state.ma.us](mailto:bob.walker@state.ma.us); [www.mass.gov/dph/rcp](http://www.mass.gov/dph/rcp)) *After October 16, 2009:* Robert Gallagher, Radiation Control Program, Department of Public Health, Commonwealth of Massachusetts, Schrafft Center, Suite 1M2A, 529 Main Street, Charleston, MA 02129 (phone – 617/242-3035 ext. 2001; fax – 617/242-3457; [robert.gallagher@state.ma.us](mailto:robert.gallagher@state.ma.us); [www.mass.gov/dph/rcp](http://www.mass.gov/dph/rcp))



## Maine

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Siting** Maine has no plans to site a disposal facility due to the small amount of low-level radioactive waste generated. In June 2006, the Advisory Commission on Radioactive Waste and Decommissioning (ACORWD) was terminated and in June 2008 the position of State Nuclear Safety Advisor was eliminated. Both changes were due to the decommissioning of the Maine Yankee nuclear power plant.

**Contact** Department of Health and Human Services, Maine Center for Disease Control and Prevention, Division of Environmental Health, Radiation Control Program, 286 Water Street, 4<sup>th</sup> Floor, Augusta, ME 04333 (phone – 207/287-5676; fax – 207/287-3059)

# Unaffiliated States (continued)

## Michigan



**Regulatory Responsibility** Michigan Department of Environmental Quality

U.S. Nuclear Regulatory Commission (Michigan is not an Agreement State.)

**Program and Siting Responsibility** Michigan Low-Level Radioactive Waste Authority (Authority)

**Disposal Technology** State law limits disposal technology to above- or below-ground vaults or above- or below-ground modular canisters. No final determination has been made on facility design.

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Siting** A policy advisory board issued a series of recommendations in September 1995. The board's report included specific recommendations regarding the conduct of a volunteer host community process, revisions to state siting criteria, and consideration of compact options. Amendments to state law must be enacted before these recommendations can be implemented and a new siting process pursued. No effort is currently under way to enact amendments.

**Development Costs** To date: \$12.6 million. Estimated total cost including construction: not available

**Contact** Thor Strong, Acting Commissioner, Low-Level Radioactive Waste Authority, Department of Environmental Quality, State of Michigan, 525 West Allegan, P.O. Box 30241, Lansing, MI 48909 (phone – 517/241-1252; fax – 517/241-1326; [strongt@michigan.gov](mailto:strongt@michigan.gov); [www.michigan.gov/deq](http://www.michigan.gov/deq))

## New Hampshire

NH



**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Siting** New Hampshire has no plans to site a disposal facility due to the small amounts of low-level radioactive waste generated. The Governor's Ad Hoc Committee, with the assistance of the State Radiation Advisory Committee, continues to welcome an opportunity to discuss contracts or compacts with any interested state.

**Contact** Department of Health and Human Services, State of New Hampshire, 129 Portland Street, Concord, NH 03301 (phone – 603/271-4688; fax – 603/271-4912)

# Unaffiliated States (continued)

## Nebraska



### Regulatory and Program Responsibility

Nebraska Department of Environmental Quality (NDEQ)

Nebraska Department of Health and Human Services Regulation and Licensure (HHSR&L)

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Licensing** On December 18, 1998, regulators in NDEQ and HHSR&L denied US Ecology's license application for construction and operation of a regional low-level radioactive waste disposal facility in Boyd County, Nebraska. The decision to deny the application was based on six objections—five of which relate to the site characteristics, and one that concerns US Ecology's financial qualifications. (The regulators had announced in August 1998 that the state intended to deny the application based on the six objections, plus concerns about the radiation safety program's ability to address accidents. The latter issue was subsequently resolved.) The decision to deny the license was made following a 90-day public comment period and public hearing in Boyd County on the proposed decision.

As part of a legal settlement agreement (see "Other Information" below and the Central Compact page of this document), the Central Interstate Low-Level Radioactive Waste Compact Commission subsequently agreed to cease all efforts to site a facility in the State of Nebraska. In addition, the state is not currently conducting any siting activities of its own.

**Other Information** In May 1999, the Nebraska legislature passed legislation (which became effective on August 12, 1999) withdrawing the state from the Central Compact. Under the terms of the Central Compact, however, withdrawal does not take effect until five years after the passage of such legislation and the provision of written notice to the Governors of each party state. On June 25, 2003, commissioners from the member states of Arkansas, Kansas, Louisiana and Oklahoma voted to revoke Nebraska's membership in the Central Compact (which revocation took effect one year after Nebraska received notice thereof) and to impose certain sanctions upon the state. On August 22, 2003, the the State of Nebraska filed a lawsuit in the U.S. District Court for the District of Nebraska challenging the June 25 attempt to revoke and sanction the state as invalid and unenforceable on the grounds that it violates state and federal law and the express terms of the Central Compact. The lawsuit was ended amicably by the parties upon the State of Nebraska's completion of payments made pursuant to a legal settlement agreement involving various lawsuits that was reached on August 9, 2004. (For additional information, see the Central Compact page of this document.) Pursuant to the terms of the settlement agreement, the State of Nebraska paid to the Central Compact \$145.8 million on August 1, 2005. The State of Nebraska is no longer a member of the Central Compact and all issues between the parties are now resolved.

**Contact** Carla Prange Felix, Manager, Low-Level Radioactive Waste Program, Department of Environmental Quality, State of Nebraska, 1200 N Street, Suite 400, Lincoln, NE 68509-8922 (phone - 402/471-2923; fax - 402/471-2909; [Carla.felix@nebraska.gov](mailto:Carla.felix@nebraska.gov); [www.deq.state.ne.us](http://www.deq.state.ne.us))

# Unaffiliated States (continued)

## New York



**Regulatory Responsibility** Department of Environmental Conservation (DEC)

**Program Responsibility** New York State Energy Research and Development Authority (NYSERDA)

**Siting Responsibility** Siting activities suspended in 1995.

**Other Involvement** Department of Health (DOH)

New York City Department of Health and Mental Hygiene

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Disposal Technology** State law bars shallow land burial. Above-grade vaults have been identified as the tentative preferred technology.

**Siting** The State Budget for FY 1995-96 phased-out the activities of the Low-Level Radioactive Waste Siting Commission, which was established in 1987 to select a site and disposal method. While subsequent legislative proposals have offered alternative siting processes, including solicitation of volunteer host communities, a revised siting process has not been determined. The DEC adopted low-level radioactive waste disposal facility siting and disposal method selection regulations in 1987. No siting activities are currently being conducted.

**Licensing** Once a site and a disposal method are selected, NYSERDA is responsible for obtaining both a DEC permit to construct and operate the facility and a DOH radioactive materials license.

**Development Costs** Through March 2008, \$92.3 million has been collected through annual assessments on operating nuclear power plants (does not include surcharge rebates); \$82.2 million has been spent on siting, regulation development, public participation and related activities. Estimated total cost including construction: not available at this time.

**Disposal Facility Operational** The DEC issued financial assurance regulations in September 1991 and regulations for design, construction, operation, closure, post-closure and institutional control in March 1993. NYSERDA is responsible for construction and operation.

**Contact** Alyse Peterson, Senior Project Manager, Radioactive Waste Policy and Nuclear Coordination, Energy Research and Development Authority, State of New York, Corporate Plaza West, 17 Columbia Circle, Albany, NY 12203-6399 (phone – 518/862-1090 ext. 3274; fax – 518/862-1091; [alp@nyserda.org](mailto:alp@nyserda.org))

# Unaffiliated States (continued)

## North Carolina

**Regulatory Responsibility** Radiation Protection Section (RPS), North Carolina Department of Environment and Natural Resources



**Program and Siting Responsibility** none at this time

**Disposal Technology** under prior plan - integrated vault

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Siting** In December 1993, the Authority selected a site in Wake County as its preferred site.

**Licensing** A license application was submitted by Chem-Nuclear to RPS in December 1993. Several problems were identified during the license review and a funding dispute broke out with the Southeast Compact Commission. Subsequently, the state terminated the license review and withdrew from the Southeast Compact. (For additional information, see the "Other Information" section below and the Southeast Compact page of this document.)

**Development Costs** To date: \$112 million.

**Disposal Facility Operational** No date set.

**Other Information** On July 26, 1999, the State of North Carolina enacted legislation which, among other things, (1) withdrew the state from the Southeast Compact, (2) limited the functions of the North Carolina LLRW Management Authority to closing and restoring the proposed disposal site in Wake County and finalizing closure and restoration by June 30, 2002, (3) directed the N.C. Radiation Protection Commission to develop a plan for complying with the state's responsibilities under federal low-level radioactive waste policy, and (4) prohibited the issuance or consideration of a facility license prior to action by the General Assembly.

On December 9, 1999, the Southeast Compact Commission voted to impose sanctions on North Carolina for violations of the compact agreement, including the repayment of almost \$80 million in funds given to the state for development of a regional facility, \$10 million in lost future revenues, and an unspecified amount for attorney's fees. The commission resolved that the required amounts "shall be paid in full by July 10, 2000." North Carolina did not comply with the resolution and the Southeast Compact Commission and several of its member states filed a lawsuit against North Carolina before the U.S. Supreme Court. That action remains pending. (For additional information, see page 14.)

On May 15, 2000, the North Carolina Radiation Protection Commission submitted a report to the General Assembly recommending a new plan for low-level radioactive waste management in the state. Among other things, the report (1) advocates a change in national low-level radioactive waste disposal policy, (2) endorses opening the disposal market to private industry, and (3) finds that a central disposal facility in the state is not needed as long as access to treatment facilities and the Envirocare of Utah (now known as EnergySolutions) disposal facility in Clive, Utah remains available, but notes that disposal capacity for Class B and C waste is needed. Subsequently, the North Carolina Low-Level Radioactive Waste Management Authority permanently shut down.

**Contact** Beverly Hall, Radiation Protection Section, Department of Environment and Natural Resources, State of North Carolina, 3825 Barrett Drive, Raleigh, NC 27609-7221 (phone – 919/571-4141; fax – 919/571-4148; [Beverly.hall@ncmail.net](mailto:Beverly.hall@ncmail.net); [www.ncradiation.net](http://www.ncradiation.net))

# Unaffiliated States (continued)

## District of Columbia



**Regulatory Responsibility** Department of Health (DOH)

**Program Responsibility** Bureau of Food, Drug and Radiation Protection, Department of Health

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Siting** Because of the dense population and geographic size of the District of Columbia, and because of the relatively low volume of low-level radioactive waste generated within its borders, DOH is not planning to site a facility. The District of Columbia is continuing efforts either to join a compact or to contract with one.

**Contact** Gregory B. Talley, Program Manager, Radiation Protection Division, Bureau of Food, Drug, and Radiation Protection, Environmental Health Administration, Department of Health, District of Columbia, 51 N Street, NE, Suite 6025, Washington, D.C. 20002 (phone – 202/535-2320; fax – 202/535-1359; [greg.talley@dc.gov](mailto:greg.talley@dc.gov); [www.dchealth.dc.gov](http://www.dchealth.dc.gov))

## Puerto Rico



Puerto Rico is not planning to site a disposal facility. Further information is unavailable at this time.

## Rhode Island

**Regulatory Responsibility** Rhode Island Department of Health



**Program Responsibility** Rhode Island Atomic Energy Commission

**Siting Responsibility** none

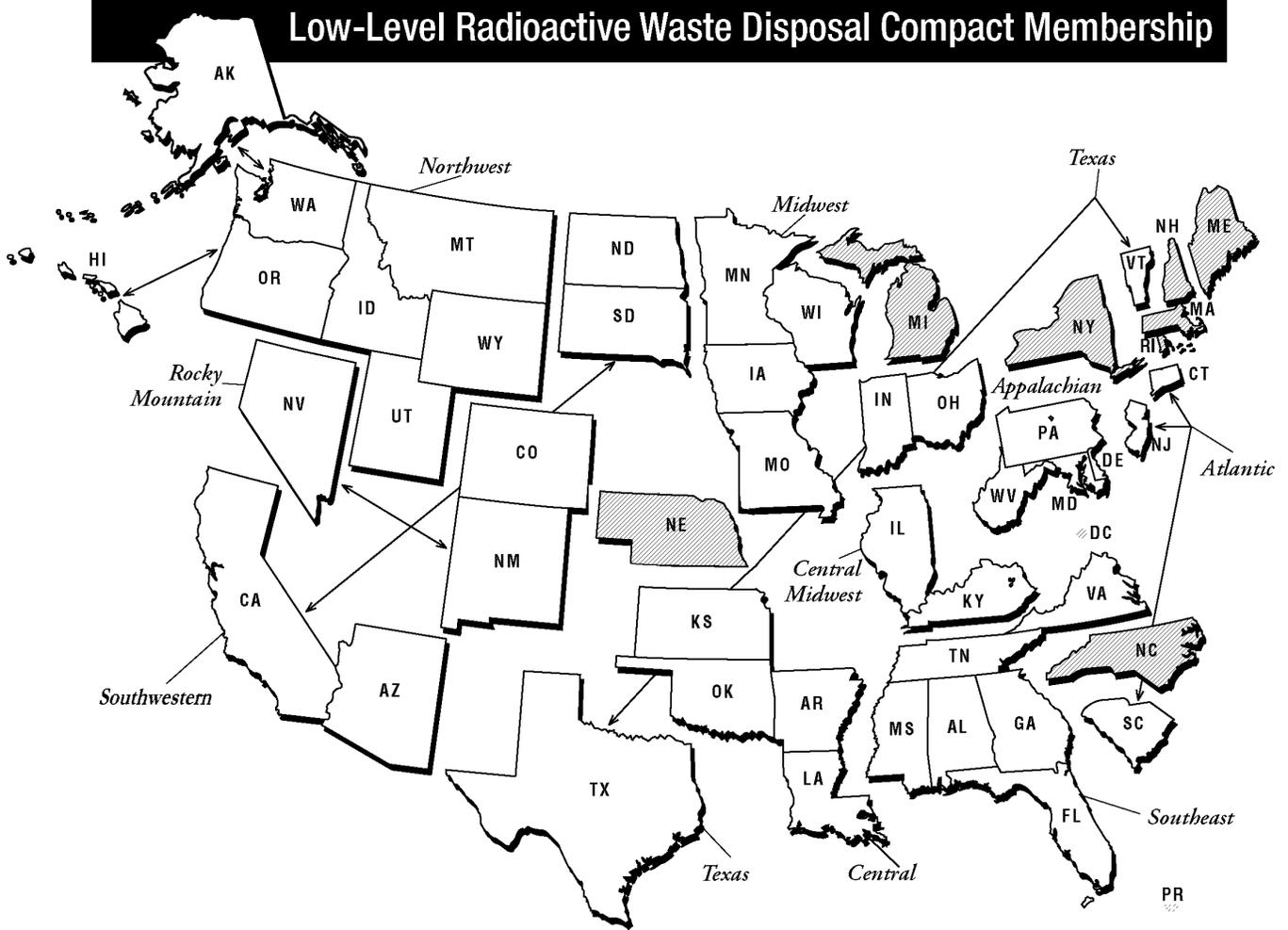
**Other Involvement** Rhode Island Radiation Advisory Commission

**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal at Clive, UT if it meets the license conditions for the EnergySolutions' facility. In addition, certain NARM wastes meeting the State of Washington's conditions can be shipped to US Ecology's commercial disposal facility in Richland, WA. Regional generators presently have no access for the disposal of Class B and C LLRW (and certain Class A waste streams), all of which must be stored at this time.

**Siting** The state is not planning at this time to site a facility. The Rhode Island Atomic Energy Commission has assumed responsibility for low-level radioactive waste management and compact participation from the Department of Environmental Management effective January 1996.

**Contact** Terrence Tehan, Director, Atomic Energy Commission, State of Rhode Island, 16 Reactor Road, Narragansett, RI 02882 (phone – 401/789-9391; fax – 401/782-4201; [ttehan@gso.uri.edu](mailto:ttehan@gso.uri.edu))

# Low-Level Radioactive Waste Disposal Compact Membership



## Appalachian Compact

Delaware  
Maryland  
Pennsylvania  
West Virginia

## Atlantic Compact

Connecticut  
New Jersey  
South Carolina

## Central Compact

Arkansas  
Kansas  
Louisiana  
Oklahoma

## Central Midwest Compact

Illinois  
Kentucky

## Northwest Compact

Alaska  
Hawaii  
Idaho  
Montana  
Oregon  
Utah  
Washington  
Wyoming

## Midwest Compact

Indiana  
Iowa  
Minnesota  
Missouri  
Ohio  
Wisconsin

## Rocky Mountain Compact

Colorado  
Nevada  
New Mexico

*Northwest accepts Rocky Mountain waste as agreed between compacts*

## Southeast Compact

Alabama  
Florida  
Georgia  
Mississippi  
Tennessee  
Virginia

## Southwestern Compact

Arizona  
California  
North Dakota  
South Dakota

## Texas Compact

Texas  
Vermont

## Unaffiliated States

District of Columbia  
Maine  
Massachusetts  
Michigan  
Nebraska  
New Hampshire  
New York  
North Carolina  
Puerto Rico  
Rhode Island