

# *Summary Report*

Volume 17, Number 1 September 2011

**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 17, Number 1 September 2011**

**Editor and Writer: Todd D. Lovinger**

**Layout and Design: Rita Houskie, Central Interstate Low-Level Radioactive Waste Compact**

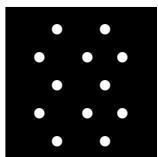
*Summary Report: Low-Level Radioactive Waste Management Activities in the States and Compacts* is a supplement to *LLW Notes* and is distributed periodically by the Low-Level Radioactive Waste Forum, Inc. to members of its Board of Directors and to select subscribers of LLW Forum materials and publications.

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LLW  
FORUM, INC

**Low Level Radioactive Waste Forum, Inc.**  
1619 12<sup>th</sup> Street N.W.  
Washington, DC 20009  
(202) 265-7990  
FAX (202) 265-7995  
E-MAIL [llwforuminc@aol.com](mailto:llwforuminc@aol.com)  
INTERNET [www.llwforum.org](http://www.llwforum.org)

### **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.

In early 2010, the Commonwealth of Pennsylvania's Department of Environmental Protection (DEP) submitted comments on the blending of low-level radioactive waste to the U.S. Nuclear Regulatory Commission (NRC) in response to the agency's request found at 74 *Federal Register* 228 (Docket ID NRC 2009-0520). In general, the comments noted potential adverse impacts from the lack of disposal options for Class B and C waste, as well as Class A sealed sources, and encouraged the identification of alternative options. Specifically, DEP wrote in part as follows:

“The department would not oppose intentional blending of LLRW if it results in a change of classification of waste to a lower classification and only for access to a LLRW disposal facility and not for release to the environment. However, it is recommended that the NRC consider the following technical and policy issues as it relates to intentional blending of LLRW.”

The full text of DEP's comments, as submitted, can be found at [http://www.dep.state.pa.us/brp/Nuclear\\_Safety\\_Division/CommentsOnBlendingOfWaste.pdf](http://www.dep.state.pa.us/brp/Nuclear_Safety_Division/CommentsOnBlendingOfWaste.pdf).

**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); [www.dep.state.pa.us](http://www.dep.state.pa.us))

# Compacts and Their Host States (continued)

## Host State: Pennsylvania

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

**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.

In late 2010, DEP announced that it would return approx.. \$1,008,235 to the Commission from the original \$2,000,000 that it received for a Community Partnering Program to site the regional waste disposal facility in Pennsylvania.

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

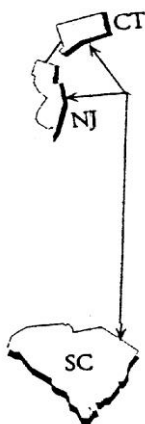
**Development Costs** To date: Approximately \$37 million.

**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); [www.dep.state.pa.us](http://www.dep.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 entered 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 an MOU providing 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 2010, the Board approved an Alternative Rate Schedule for fiscal year 2011, 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 2011 Alternative Rate Schedule are available at [www.energy.sc.gov](http://www.energy.sc.gov).*

On September 28, 2009, New Jersey became the 37<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.

By letter dated July 7, 2011, South Carolina Governor Nikki Haley appointed Elizabeth Partlow as the new Chairman of the Atlantic Compact Commission. Partlow succeeds Ben Johnson, who had served as South Carolina's Commissioner and the Commission's Chairman since its inception in 2000. Johnson resigned by letter dated February 7, 2011.

**Contact** Max Batavia, Executive Director, 1201 Main Street, Suite 1460, 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** Over 90% of the Barnwell site is now essentially closed. The primary activities of Phase I Decommissioning, which began in July 2008, were completed as of December 2009. Remaining activities include continuing performance objective evaluations and reviews. Routine operations waste volume is projected to be 7,000 cubic feet annually.

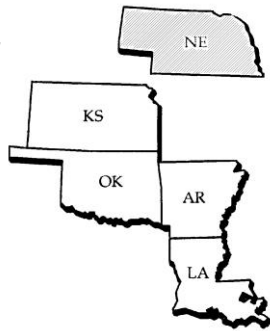
**Legal** On November 10, 2008, Studsvik filed a lawsuit against the Board and Chem-Nuclear for damages in excess of \$13 million alleging, among other things, that the defendants breached an agreement between the parties by providing a lower disposal rate at Barnwell to Studsvik’s competitors. The Board denies that it breached the agreement and filed a counterclaim seeking payment for outstanding invoices totaling approximately \$2.8 million. In March 2011, Studsvik and the Board agreed to dismiss Chem-Nuclear as a defendant in the suit. The action remains pending.

**State Contact** Ashlie Lancaster, Director, South Carolina Budget & Control Board, Energy Office, 1200 Senate Street, Suite 408 Wade Hampton Bldg, Columbia, SC 29201 (phone – 803/737-8304; fax – 803/737-9846; [alancaster@energy.sc.gov](mailto:alancaster@energy.sc.gov); [www.energy.sc.gov/index.aspx?m=8](http://www.energy.sc.gov/index.aspx?m=8))

**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.energysolutions.com](http://www.energysolutions.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 December 2010, the Central Midwest Compact and the State of Illinois sponsored a generators' conference. Another conference will be held in November of 2012.

*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.

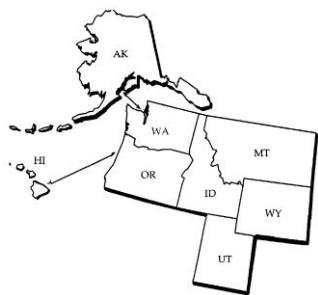
**Other Information** On June 26, 1997, the Midwest Compact Commission halted development of a regional disposal facility in Ohio. Citing significant declines in Midwest Compact waste volumes, the potentially high cost of developing new disposal capacity, and continued access to the Barnwell and Envirocare 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 LLRW is disposed of at the regional commercial disposal facility in Richland, WA. 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 limited federal waste and in-region commercial low-level radioactive waste (as well as commercial low-level 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 exclusory 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 responded that (1) the Compact itself provides the legal basis to restrict disposal at Clive; (2) the Compact Committee derives its exclusory authority from the Compact itself, not from the Policy Act; (3) the Compact Committee is authorized under Articles IV and V 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 & 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 held 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 Compact has authority to regulate the disposal of low-level 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 Compact to regulate the Richland facility—regardless of the origin of waste that is sent thereto.

On November 9, 2010, the U.S. Court of Appeals for the Tenth Circuit reversed the lower court’s ruling. In so doing, the Tenth Circuit Court ruled that “the Northwest Compact is statutorily and constitutionally permitted to exercise exclusory authority over the Clive Facility.” The appellate court further held that “The terms of the Compact control in this situation, and the member states were within the bounds of their authority when they denied permission regarding ... [importation of the Italian] waste.” The appellate court remanded the case to the district court. On June 2, 2011, the district court entered an Order dismissing Counts I and III with prejudice and dismissing Count II without prejudice.

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

**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, Washington voters approved an initiative to require DOE to clean up the Hanford nuclear reservation before it sends any additional waste to the facility. In addition, initiative 297 also sought 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 suit in the United States District Court for the Eastern District of Washington challenging its constitutionality and sought a restraining order on its enforcement. The department argued that there are too many uncertainties about how the state will implement the measure and contended that some cleanup efforts at the site have already been halted as a result of the initiative. On December 2, 2004, the court ruled for the federal government and issued the requested restraining order—although waste shipments to the site had already been halted under another lawsuit. Subsequently, on June 12, 2006, the court struck down the Cleanup Priority Act as preempted by the Atomic Energy Act and in violation of sovereign immunity. The State 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.

**Litigation re Closure Plan** On May 27, 2010, the Confederated Tribes and Bands of the Yakama Nation and Heart of America Northwest Research Center filed suit in the Superior Court of the State of Washington. The suit challenges a state decision to allow US Ecology to begin closure of the commercial waste disposal facility at the Hanford Nuclear Reservation alleging violations of the Atomic Energy Act, the Low-Level Radioactive Waste Policy Act, the Resource Conservation and Recovery Act, and the Administrative Procedures Act. Petitioners allege that non-eligible wastes have been disposed at the site, that tests indicate unacceptably high levels of contamination, and that state agencies did not follow proper procedural requirements. After the suit began, but for reasons independent of the lawsuit, the state Department of Ecology withdrew its interim action decision. In addition, the state Department of Health withdrew its approval to construct the cover because, among other things, the state Model Toxics Control Act (MCTA) work was not completed. Subsequently, the Petitioner filed numerous motions to amend the suit to add a challenge to the Ecology decision to approve the cover as an interim action under MCTA, as well as to add Ecology as a party to the existing allegations. In September 2011, the court granted the Petitioner's motions, encouraged settlement or mediation, and suggested simplifying the case with a motion for summary judgment. The court's decision is under review.

**State Contact** Lawrence Goldstein, Chair, Northwest Compact, Section Manager, Nuclear Waste Program, Dept. of Ecology, 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, US 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 (DRC) 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) and Section 5 (to the South) for operational support purposes.

**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 facility. The site operator's current low-level/NORM license was renewed 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 waste, uranium mill tailings above a certain radionuclide concentration & sealed sources. EnergySolutions has recently submitted a request for a variance to the license condition prohibiting the acceptance and disposal of Class A sealed sources for a one-year period in support of DOE's national program regarding the collection and management of disused sealed sources.

HEAL Utah petitioned Utah for a moratorium on the disposal of depleted uranium (DU). In place of acting on the petition, the State developed and promulgated a rule prohibiting the disposal of significant quantities of concentrated DU until the DRC approves a Performance Assessment (PA) that demonstrates that EnergySolutions will meet the performance standards specified in 10 CFR Part 61 and corresponding provisions of Utah rules. EnergySolutions submitted a PA in mid-2011, which is being reviewed by DEQ. The document is available at [http://www.deq.utah.gov/Issues/energysolutions/dupa\\_report.htm](http://www.deq.utah.gov/Issues/energysolutions/dupa_report.htm). DEQ plans to hold a stakeholder briefing about midway through the review process. Once the review is complete, a formal public comment period will be initiated.

Low-level radioactive waste is currently being disposed of in the Class A North and Class A cells. A license amendment was submitted on May 2, 2011 to create a new combined disposal cell that will encompass the footprints of the existing Class A and Class North embankments. Part of this request also retracts the Class A South/11e.(2) embankment design changes submitted in January 2008.

**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. The Northwest Compact opposed the proposal, contending that importation of the waste is not permitted under its Third Amended Resolution and Order and subsequent clarifying resolution. On May 5, 2008, EnergySolutions filed suit challenging the Northwest Compact's authority over the Clive facility and, in particular, its authority to restrict the importation of foreign-generated waste. On November 9, 2010, the U.S. Court of Appeals for the Tenth Circuit ruled that "the Northwest Compact is statutorily and constitutionally permitted to exercise exclusionary authority over the Clive Facility." (For additional information, see page 9.) On July 23, 2010, EnergySolutions sent a letter to NRC seeking to withdraw the Italian waste application. Instead, the company plans to focus on the long-term strategic interests of its international customers.

**Other Info** In early-2010, the Radiation Control Board issued Position Statements that, among other things, (1) oppose waste blending when the intent is to alter the waste classification for the purposes of disposal site access and (2) support maintaining the waste classification system. Effective June 2, 2010, the final Depleted Uranium Performance Assessment Rule (R313-25-8) incorporates language regarding site-specific performance assessment for facilities accepting depleted uranium for land disposal, prior to disposal of significant quantities of depleted uranium.

**State Contact** Rusty Lundberg, Director, Div. of Radiation Control, DEQ, 195 North 1950 West, PO Box 144850, Salt Lake City, UT 84114-4850 (phone – 801/536-4257; fax – 801/533-4097; [rlundberg@utah.gov](mailto:rlundberg@utah.gov); [www.deq.utah.gov](http://www.deq.utah.gov))

**Operator Contact** Dan Shrum, Senior Vice President for Regulatory Affairs, 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))

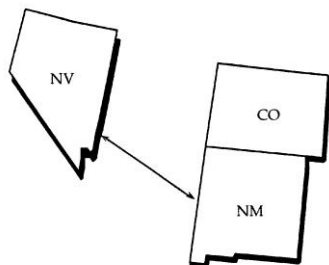
# Compacts and Their Host States (continued)

## 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 Energy Solutions' 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 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 proposed 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.

**Uranium Facilities** The URENCO USA Facility, formerly known as the Louisiana Energy Services (LES) and the National Enrichment Facility, is located in Lea County, New Mexico near the town of Eunice, New Mexico. The facility was granted a license from the NRC in June of 2006. The facility began operations on June 11, 2010. Pursuant to the license, URENCO—may enrich up to five percent of the isotope uranium-235 for use in the manufacture of nuclear fuel for commercial nuclear power plants. URENCO USA's goal is to provide approximately 25% of the current U.S. demand for uranium enrichment services.

On April 13, 2010, the NRC announced the availability of an application from International Isotopes for a license to construct & operate a fluorine extraction/depleted uranium deconversion facility in Lea County, New Mexico. The proposed facility would process depleted uranium hexafluoride (DUF6) into commercially resalable fluoride products and depleted uranium oxide for disposal. The plant would be capable of deconverting up to 7.5 million pounds per year of DUF6 provided by commercial enrichment facilities throughout the United States. International Isotopes license application & information on the NRC review process can be found at <http://www.nrc.gov/materials/fuel-cycle-fac/ininfacility.html>. International Isotopes hopes to receive its license in 2012.

**Compact Contact** Leonard Slosky, Executive Director, Rocky Mountain Board, 303 East 17<sup>th</sup> Avenue, Suite 1080, Denver, CO 80203-1264 (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 – 803/691-3491; [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. On October 13, 2009, the Supreme Court of Colorado reversed the dismissal of both actions, holding that Adams County has standing to challenge issuance of the license and permit. The court remanded the cases for proceedings consistent with its opinion.

**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** Steve Tarlton of the Colorado Department of Public Health and the Environment at (303) 692-3423.

**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 – 803/691-3491; [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 EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as that 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.

**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. A formal hearing was conducted, after which the Commission voted to impose sanctions on North Carolina, including the repayment of almost \$80 million in funds for development of a regional facility. In 2002, the Southeast Compact and four party states filed suit in the U.S. Supreme Court to enforce the sanctions. The Court assigned the case to a Special Master who subsequently issued findings in favor of North Carolina. On June 1, 2010, the Court ruled in favor of North Carolina. Among other things, the Court agreed with the Special Master's findings 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. However, the Court denied North Carolina's motion to dismiss the Commission's claims on the grounds of sovereign immunity and its motion for summary judgment on Counts III-V (equitable claims). In December 2011, all parties to the suit filed a request with the Supreme Court to dismiss the action, which officially ended the suit.

**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. It provides a cautionary note regarding future decisions and alternative proposals, recognizing that declining volumes and continued efforts in waste minimization will impact the economics of the disposal of Class B and C waste and the economic viability of facilities managing such waste.

**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."

**Resolutions re Mission and Duties** In December 2010, the Southeast Compact Commission unanimously adopted two resolutions concluding, in part, as follows: (1) that the mission and duties as stated in the Southeast Compact law continue to be appropriate, necessary and worthy of pursuit; and (2) that, with the exception of certain provisions related to facility site development, the Southeast Compact law is enforceable and provides the authority needed to fulfill the Commission's mission and duties, including developing an alternative approach to site development.

**Contact** Kathryn Haynes, Executive Director, Southeast Compact Commission, 1230 SE Maynard, Suite 103, Cary, NC 27511 (phone – 919/380-7780; fax – 919/380-7710; [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 Low-Level Radioactive Waste Compact Commission; and (3) the radiation control and waste management agencies of the state into which the waste would be imported for disposal.

**Meeting Information** On May 6, 2011, the Southwestern Commission hosted its 61<sup>st</sup> meeting in Santa Barbara, California. The following topics, among others, were on the meeting agenda:

- call to order, roll call and welcome and introductions
- statement regarding due notice of meeting
- reports: Commission Chair, Executive Director, licensing agency, and party states
- exportation: ratification of approved petitions
- report on status of incompatibility issues
- discussion re commenting on the DOE Draft GTCC EIS regarding B and C disposal pathway
- status of NRC blending initiative and revision of 10 CFR Part 61
- consideration of amending export policy re recycling
- consideration of amending requirements document re liability
- consideration of adopting policy re 2010 Radiation Source Protection & Security Task Force Report
- lessons learned from *EnergySolutions v. Northwest Compact*
- discussion of radioactive waste from Japan
- amendment of approved budget
- public comment and future agenda items.

Members of the public were invited to attend the meeting and comment on specific agenda items as the Commission considered them. The next meeting will be held on October 14, 2011 in Sacramento, California.

**Contact** Kathy Davis, Executive Director, Southwestern Low-Level Radioactive Waste 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 Public Health (CDPH)

**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.

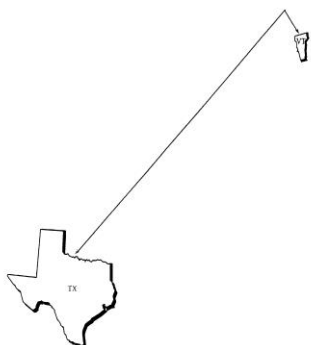
On June 16, 1999, the California legislature adopted a budget that effectively eliminated the state's low-level radioactive waste program.

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 January 2010.

**Contact** Stephen Woods, Chief, Division of Food, Drug and Radiation Safety, Department of Public Health, State of California, 1500 Capitol Avenue, MS 7600, PO Box 997377, Sacramento, CA 95899 (phone – 916/440-7883; fax – 916/650-6722; [steve.woods@cdph.ca.gov](mailto:steve.woods@cdph.ca.gov))

# Compacts and Their Host States (continued)

## Texas Compact



**Governing Body** Texas LLRW Disposal Compact Commission (the “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 it 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** WCS was issued a license in September 2009. In January 2011, TCEQ approved commencement of construction “subject to all applicable license conditions, rules, and statutes.” (For more information, see page 18.)

**Volume Rule** The Commission filed a "volume" rule with the Texas Secretary of State that became effective September 20, 2009—in advance of the statutory deadline. The rule was published in the *Texas Register* on September 11, 2009. The rule states that “[t]he Commission estimates that Texas will dispose of Five Million (5,000,000) Cubic Feet of Low Level Radioactive Waste at a Compact disposal site to be established in Texas during the period from 1995 – 2045.”

**Bond Election and Associated Litigation** A proposal for Andrews County to take out a \$75 million bond for the planned disposal facility was placed on the county’s May 2009 ballot, at the request of WCS. A suit challenging the bond, which passed by a vote of 642 to 639, was dismissed by the state district court on October 6, 2009. The plaintiff’s appealed that decision. On August 20, 2010, the Texas Supreme Court let stand the results of the May 2009 ballot decision.

**Import/Export Regulations** On January 4, 2011, the Commission approved revised Preliminary Rules on the Exportation and Importation of Waste by a vote of five to two. Various amendments were accepted, including those offered by Vermont that clarified issues regarding the reserving of disposal capacity for generators from that state.

**2011 Legislative Bills** In 2011, the Texas Legislature passed legislation (SB 1504 and SB 1605) that, among other things, limits the disposal of out-of-region waste to a maximum of 30 percent of the total facility volume and radioactivity as established in the license issued by TCEQ; requires out-of-region generators to pay a 20 percent surcharge for their imported waste; establishes criteria for the addition of new party states; requires WCS to get an amendment or modification to its license to include acceptance of out-of-region waste; authorizes WCS to set disposal fees for out-of-region waste; and, requires the Texas Governor to appoint new Commissioners with staggered six-year terms. On September 13, 2011, Governor Perry named the six Texas Commissioners, appointing Robert Wilson as Chairman.

**Other Information** The WCS site, which is located in Andrews County, continues to operate facilities for 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 – 512/820-2930; [margaret.henderson@tllrwdcc.org](mailto:margaret.henderson@tllrwdcc.org); [www.tllrwdcc.org](http://www.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 TCEQ. On December 10, 2007, following the completion of administrative and technical reviews, TCEQ provided to WCS for review and comments an initial draft license. On August 13, 2008, TCEQ mailed the notice of technical summary and preliminary decision with a draft license and environmental analysis for publication. The public comment period ended on September 16, 2008. On December 2, 2008, TCEQ 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. Following the completion of condemnation proceedings and the acquisition of underlying mineral rights, TCEQ's Executive Director signed the final Radioactive Materials License No. R04100 on September 10, 2009. On January 7, 2011, TCEQ approved commencement of construction "subject to all applicable license conditions, rules, and statutes." Earlier the same day, TCEQ and WCS executed a lease and indemnification agreement setting forth provisions relating to conveyance of the Compact Waste Disposal Facility to the State of Texas, including indemnification for any liability imposed on the state.

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."*

**Rate Application** TCEQ is charged with establishing waste disposal fees by rule for the Texas Compact. In November 2009, the agency published a Rate Application Package at <http://www.tceq.state.tx.us/goto/rates>. In June 2010, WCS filed an application to establish the maximum rates for commercial waste disposal. The filing included two alternative proposed rate schedules: one reflecting disposal for generators in Texas and Vermont, and a second based on disposal by Texas Compact generators and limited disposal by out-of-region generators. The application includes information for consideration regarding an appropriate inflation adjustment, volume adjustment, and extraordinary volume adjustment.

On August 25, 2011, pursuant to SB 1504, TCEQ's Executive Director established interim disposal rates for commercial low-level radioactive waste at the Compact Waste Disposal Facility that is under construction. The Executive Director interim disposal rate establishes a base rate by volume, per cubic foot; by radioactivity, per curie; and surcharges to the base rate related to relative hazard for each waste shipment. Additionally, all waste shipments are subject to state fees.

**Disposal Facility Operational** Projected 2010/2011

**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, 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** Robert Gallagher, Acting 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; [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** Thomas Hillman, Radioactive Waste Coordinator, Radiation Control Program, Department of Health and Human Services, State of Maine, 11 State House Station, Augusta, ME 04333-0011 (phone – 207/287-8401; fax – 207/287-3059; [Tom.Hillman@maine.gov](mailto:Tom.Hillman@maine.gov))

# 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** Robert Skowronek, Radiological Protection Section, Department Environmental Quality, State of Michigan, P.O. Box 30241, Lansing, MI 48909-7741 (phone – 517/241-1253; [skowronekr@michigan.gov](mailto:skowronekr@michigan.gov); [www.michigan.gov/deq](http://www.michigan.gov/deq)) (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** Twila Kenna, Radiological Materials Program, Radiological Health Section, Department of Health and Human Services, State of New Hampshire, 29 Hazen Drive, Concord, NH 03301 (phone – 603/271-4840; fax – 603/225-2325; [tkenna@dhhs.state.nh.us](mailto:tkenna@dhhs.state.nh.us), [www.dhhs.nh.gov](http://www.dhhs.nh.gov))

# 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.

In 2010, citing financial restrictions, the State of Nebraska terminated its membership in the Low-Level Radioactive Waste Forum, Inc.

**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 it 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 2010, \$98.8 million has been collected through annual assessments on operating nuclear power plants (doesn't include surcharge rebates); \$88.9 million has been spent on siting, regulation development, public participation and related activities.

**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.

**West Valley Decommissioning** DOE has initiated Phase 1 Decommissioning work at the West Valley Demonstration Project (WVDP). This work includes relocating the solidified High-Level Waste (HLW) from the Main Plant Process Building to a new on-site HLW Interim Storage Facility, and removing the Main Plant Process Building, the Vitrification facility, the source area of the North Plateau groundwater Plume, water treatment facility lagoons, ancillary buildings, foundations, slabs, and pads. Approx. 2 million cubic feet of contaminated soil will be removed from the site as part of the Phase I work activities. Phase 1 activities will also include additional characterization of site contamination and additional studies needed to support the Phase 2 decommissioning decisions.

The West Valley site is located on 3,300 acres of land known as the Western New York Nuclear Service Center (Center). The WVDP is being conducted on about 200 acres of the Center that contains a former commercial nuclear fuel reprocessing facility that operated from 1966 to 1972 and produced approximately 600,000 gallons of liquid high-level radioactive waste (HLW). The bulk of the HLW has been solidified into a glass waste form. The WVDP also contains contaminated structures, waste disposal areas, a waste tank farm, waste lagoons, and waste storage areas.

The Center also contains the State-Licensed Disposal Area (SDA), a 15-acre commercial disposal facility that operated between 1963 and 1975. The SDA contains about 2.5 million cubic feet of radioactive waste, and was shut-down in 1975 due to water accumulation issues. NYSERDA presently manages the SDA for New York State.

**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

# 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 it 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.

**Withdrawal from Compact** 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.

**Litigation** On December 9, 1999, the Southeast Compact Commission voted to impose sanctions on North Carolina for violations of the compact agreement. 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 Commission and several of its member states filed suit against North Carolina before the U.S. Supreme Court. On June 1, 2010, the Court ruled in favor of the defendant State of North Carolina. (For additional information, see page 14.)

**Other Information** On May 15, 2000, the North Carolina Radiation Protection Commission submitted a report to the General Assembly recommending a new plan for low-level waste management in the state. Among other things, the report (1) advocates a change in national low-level waste disposal policy, (2) endorses opening the disposal market to private industry, & (3) finds that a central disposal facility in the state isn't needed as long as access to treatment facilities and the 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.

**GE Hitachi Uranium Enrichment Application** In January 2009, GE-Hitachi Global Laser Enrichment submitted its environmental review for a license application to construct and operate a uranium enrichment plant using laser technology near Wilmington, North Carolina. If approved, the plant would enrich uranium in the fissionable isotope U-235, for use in manufacturing fuel for nuclear power plants. On June 30, 2009, the company submitted the remainder of the application. NRC formally docketed the application on August 6, 2009. In January 2010, NRC announced the opportunity for the public to intervene in the agency's review of the application. By Order dated January 7, 2010, the Commission set a 30-month schedule for the staff's license review and adjudicatory proceedings of the ASLB. Comments on the draft Environmental Impact Statement (EIS) for the proposed facility were accepted through August 9, 2010.

**Contact** Lee Cox, Chief of the Radiation Section, Department of Health and Human Services, 3825 Barrett Drive, Raleigh, NC 27609 (phone – 919/571-4141 ext. 201; fax – 919/571-4148; [Lee.Cox@nc.denr.gov](mailto:Lee.Cox@nc.denr.gov); [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

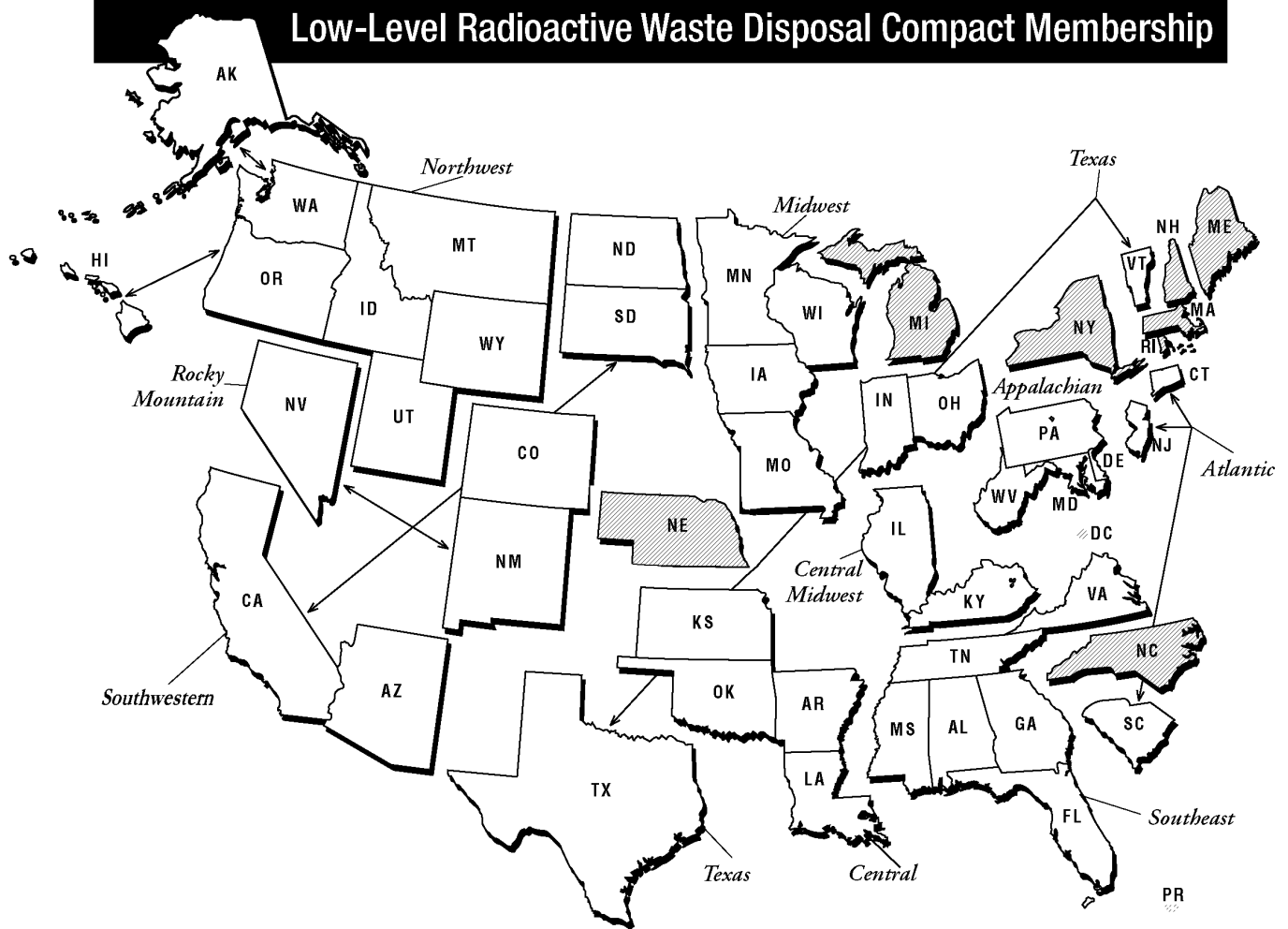
**Current Waste Management** Use of the EnergySolutions' commercial Class A, B and C LLRW disposal facility in Barnwell, SC has been discontinued, as the Barnwell facility ceased acceptance of non-compact waste as of June 30, 2008. However, certain Class A domestic-generated LLRW may be shipped for disposal 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.

**Other** In 2010, citing financial restrictions, the State of Nebraska terminated its membership in the Low-Level Radioactive Waste Forum, Inc.

**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