

# LLW *notes*

Volume 22, Number 2 March/April 2007

## *Atlantic Compact/State of South Carolina*

### **House Committee Rejects Proposed Barnwell Legislation**

On March 28, 2007, the South Carolina House Agriculture, Natural Resources and Environmental Affairs Committee voted 16 to 0 against H.3545—proposed legislation that would allow the Barnwell, South Carolina low-level radioactive waste disposal facility to continue taking a limited amount of non-compact waste through fiscal year 2023.

As a result, the legislation will not be forwarded to the full House for consideration.

#### **Background**

Under current law, the Barnwell facility would be open only to the Atlantic Compact member states of Connecticut, New Jersey and South Carolina beginning July 1, 2008. The proposed bill, however, would change the law to allow Barnwell to continue taking out-of-compact waste through fiscal year 2023.

The proposed bill establishes an annual volume limit of “40,000 cubic feet in fiscal year 2008 through fiscal year 2023.” So, the effect is to increase fiscal year 2008 volumes from 35,000 to 40,000 cubic feet ... and, then to allow up to 40,000 cubic feet per year through 2023. (See *LLW Notes*, January/February 2007, pp. 1, 6 – 7.)

The total volume of Class B and C waste generated outside the Atlantic Compact could range from 8,000 to 30,000 cubic feet per year, according to an

estimate by Budget and Control Board staff, depending on the extent to which resins and filters are volume-reduced through commercial services.

#### **Prior Hearing**

On March 6, 2007, the Agriculture, Natural Resources and Environmental Affairs Committee held a public hearing on H.3545. Both supporters and opponents of the proposed legislation showed up to express their views at the hearing. Indeed, the session—which attracted more than 200 persons—became so crowded that legislators had to adjourn to a bigger room to accommodate everyone.

**Statements by Proponents** Proponents of the proposed legislation argue, among other things, that the Barnwell facility has operated safely for 36 years and brings much-needed economic benefits to the county and state. They note that the volume of

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As part of that mission, the LLW Forum publishes a newsletter, news flashes, and other publications on topics of interest and pertinent developments and activities in the states and compacts, federal agencies, the courts and waste management companies. These publications are available to members and to those who pay a subscription fee.

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# Low-Level Radioactive Waste Forum, Inc.

## LLW Notes

Volume 22, Number 2 March/April 2007

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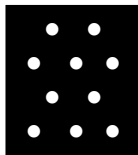
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## Key to Abbreviations

U.S. Department of Energy.....	DOE
U.S. Department of Transportation.....	DOT
U.S. Environmental Protection Agency.....	EPA
U.S. Government Accountability 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

## *Low-Level Radioactive Waste Forum, Inc.*

## **LLW Forum Meets in San Diego**

The Low-Level Radioactive Waste Forum held its winter meeting on March 19 – 20 at the Bahia Hotel in San Diego, California. The Southwestern Low-Level Radioactive Waste Compact Commission sponsored the one and one-half day meeting.

### **Agenda**

The following topics were on the agenda for the meeting:

- ◆ reports on new development in states and compacts and within the industry and federal agencies;
- ◆ safe drinking water standards—federal and compact initiatives;
- ◆ litigation and waste management;
- ◆ strategic assessment of NRC's low-level radioactive waste program and implementation of the agency's NARM authority;
- ◆ achieving stakeholder consensus—how and when to do it and what are the alternatives;
- ◆ regulator and disposal facility operator reports from representatives from the Texas Commission on Environmental Quality and Waste Control Specialists; the Utah Department of Environmental Quality and Energy Solutions; and, the South Carolina Budget and Control Board and Barnwell;
- ◆ the U.S. Government Accountability Office's report on international waste management practices and their application to U.S. policies;
- ◆ release of a technical report on TENORM wastes from the U.S. Environmental Protection Agency and the development of an associated database;
- ◆ implementation by EPA of an upgraded national monitoring system (RadNet) for radiation with fixed and deployable monitors;
- ◆ the Global Nuclear Energy Partnership (GNEP)—challenges and costs;
- ◆ characterization of low-level radioactive waste;
- ◆ the development of risk-informing regulations for low-level radioactive waste;
- ◆ developments in waste treatment and processing—continuing the dialogue begun at the September 2006 special workshop on crafting solutions for current and post-2008 problematic waste streams;
- ◆ alternate disposal/restricted release authorization—regulatory guidance and practical application;
- ◆ emergency preparedness—responding to a transportation accident that involves radioactive material;
- ◆ early site permit (ESP) and license renewal applications—a look at the future of the nuclear industry;
- ◆ proposed use of RCRA sites for low-level radioactive waste disposal—continuing the search for solutions; and,
- ◆ solutions for assuring access to safe disposal facilities post-2008—point of view from one organization of users of radioactive materials.

### **Executive Committee Meeting**

Most state and compact members attended the LLW Forum Executive Committee meeting, which was held on Monday morning—March 19. During the course of the meeting, members

- ◆ received the 2006 year-end financial report;
- ◆ heard an overview of 2007 current and projected expenditures and revenues;
- ◆ discussed funding issues including the annual

## Low-Level Radioactive Waste Forum, Inc. *continued*

shortfall and consideration of increasing membership and subscription fees for 2008;

- ◆ received a report from a DOE official on the current status of the grant and logistical matters for submitting a new grant application;
- ◆ reviewed locations, dates and logistical matters for future LLW Forum meetings; and,
- ◆ voted for 2007 officer and committee positions.

### **Executive Committee and Officer Elections**

The following individuals were elected to serve on the LLW Forum's Executive Committee and as officers in 2007:

- ◆ *Chair:* Larry Goldstein, Northwest Compact/State of Washington;
- ◆ *Chair-Elect:* Marcia Marr, Central Midwest Compact/State of Illinois;
- ◆ *Past-Chair:* Bill Sinclair, State of Utah;
- ◆ *Treasurer:* Terrence Tehan, State of Rhode Island;
- ◆ *Committee Member:* Ted Buckner, Southeast Compact;
- ◆ *Committee Member:* Mike Garner, Northwest Compact/State of Washington;
- ◆ *Committee Member:* Susan Jablonski, State of Texas;
- ◆ *Committee Member:* Don Womeldorf, Southwestern Compact.

### **Dinner and Social Event**

In conjunction with the LLW Forum meeting in San Diego, a social gathering and dinner were held at the Bahia Hotel's Ventana Room, overlooking the marina, beginning at 6:30 p.m. on Monday evening—March 19, 2007. Although attendance at the dinner was not required, most meeting attendees participated in the evening event as it was a wonderful opportunity to relax, enjoy good food and company, and interact with many friends and colleagues.

### **Future Meeting Locations and Dates**

The fall 2007 meeting will be held in Illinois at the Oak Brook Hills Marriott on October 1 – 2, 2007. The Central Midwest Interstate Low-Level Radioactive Waste Compact is sponsoring the meeting.

The Northwest Compact/State of Washington has agreed to host the first meeting in April 2008 at a location to be determined. The Appalachian Compact has agreed to host the fall 2008 meeting in Annapolis, Maryland.

*The LLW Forum is currently seeking sponsors and/or hosts for the 2009 meetings. Interested parties should contact Todd D. Lovinger, the organization's Executive Director, at (202) 265-7990.*

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waste disposed at Barnwell is relatively small—currently less than 40,000 cubic feet per year—and they raise concerns about the site’s economic viability if only waste from the Atlantic Compact region is accepted. (According to an official at the South Carolina Energy Office’s Budget and Control Board, Atlantic Compact generators can be expected to ship between 8,000 to 14,000 cubic feet per year after 2008.) The Barnwell County Council, Barnwell City Council, Snelling Town Council, Williston Town Council, Barnwell County Economic Development Commission, and the Southern Carolina Regional Development Alliance (Hampton, Bamberg, Barnwell and Allendale Counties) have all signed a letter in support of the proposed legislation.

**Statements by Opponents** Opponents of the proposed legislation assert, on the other hand, that the economic benefits are inconsequential. They point out that the facility has been known to leak on at least two separate occasions and express concern about the impact on the environment, public health and safety, and potential contamination of drinking water. One speaker commented that the NRC had concluded that the site operator most likely accepted and buried a spent fuel rod from Millstone in Connecticut. Opponents also note that the facility has only 1.2 million cubic feet of remaining disposal capacity available and argue that this capacity should be conserved for regional generators. At least one official from Governor Mark Sanford’s office has been quoted in local newspapers as stating that “nobody has presented us with a compelling reason” to keep the facility open to out-of-region waste. The Conservation Voters of South Carolina, the League of Women Voters, the Sierra Club, and Environmentalists, Inc. have all come out in opposition to the bill.

**Statements from Atlantic Commission Chair** During the hearing, Benjamin Johnson, Chair of the Atlantic Interstate Low-Level Radioactive Waste Commission, provided a brief history of the act and the compact. On the issue of the site’s remaining capacity, Johnson noted that there is just enough left for compact member states for the next 40 plus

years. In regard to economics, Johnson pointed out that the Atlantic Compact and the South Carolina Budget Control Board have proposed several options for consideration to ensure that the site operates on a break-even basis.

### Atlantic Compact Chair Outlines Options for Barnwell Viability Post-2008

On March 19, 2007, Atlantic Interstate Low-Level Radioactive Waste Compact Commission Chairman Benjamin Johnson sent a letter to South Carolina Governor Mark Sanford that, among other things, states that proposed legislation to keep the Barnwell low-level radioactive waste disposal facility open to out-of-region waste for an additional 15 years “should not be passed by the General Assembly—and in any event should be vetoed—because it is against South Carolina’s best interests.” Instead, according to Johnson, the state’s Budget and Control Board “should invoke the procedures already contained in the ... [Atlantic Compact Act of 2000] and consider a number of much less drastic—and more responsible—options that will ensure the economic viability of the Barnwell site.”

#### Background

Under current law, the Barnwell facility would be open only to the Atlantic Compact member states of Connecticut, New Jersey and South Carolina beginning July 1, 2008.

**Proposed Legislation** On February 15, 2007, however, Chairman William D. Witherspoon of the House Agriculture Committee introduced H.3545—proposed legislation that would change the law to allow Barnwell to continue taking out-of-compact waste through fiscal year 2023. The proposed bill establishes an annual volume limit of “40,000 cubic feet in fiscal year 2008 through fiscal year 2023.” So, the effect is to increase fiscal year 2008 volumes from 35,000 to 40,000 cubic feet ... and, then to allow up to 40,000 cubic feet per year

## States and Compacts *continued*

through 2023. (See *LLW Notes*, January/February 2007, pp. 1, 6 – 7.)

**Volume Estimates** The total volume of Class B and C waste generated outside the Atlantic Compact could range from 8,000 to 30,000 cubic feet per year, according to an estimate by Budget and Control Board staff, depending on the extent to which resins and filters are volume-reduced through commercial services.

**Committee Actions** On March 28, 2007, the House Agriculture Committee voted 16 to 0 against H.3545. As a result, the legislation will not be forwarded to the full House for consideration. (See related story, this issue.) The vote followed a March 6 committee hearing that was open to the public. Both proponents and opponents of the proposed legislation showed up to express their views at the hearing. Indeed, the session—which attracted more than 200 persons—became so crowded that legislators had to adjourn to a bigger room to accommodate everyone.

**Opposing Viewpoints** The Barnwell County Council, Barnwell City Council, Snelling Town Council, Williston Town Council, Barnwell County Economic Development Commission, and the Southern Carolina Regional Development Alliance (Hampton, Bamberg, Barnwell and Allendale Counties) have all signed a letter in support of the proposed legislation. The Conservation Voters of South Carolina, the League of Women Voters, the Sierra Club, and Environmentalists, Inc. have all come out in opposition to the bill. At least one official from Governor Mark Sanford's office has been quoted in local newspapers as stating that “nobody has presented us with a compelling reason” to keep the facility open to out-of-region waste.

### Johnson's Letter

Johnson begins his letter by acknowledging that disposal volumes after June 2008 may not generate sufficient operating income under the current law absent changes in the cost structure or income stream for the operations. Nonetheless, Johnson disputes that any anticipated shortfall in operating

funds at the facility constitute a crisis, nor does he believe that it is insurmountable. According to Johnson, “[t]he Act *already* contemplates reduced operating volume beginning in 2008, and it *already* prescribes procedures that the Board must follow to ensure the continuing economic viability of the Barnwell site.” Disregarding such procedures at this time, he argues, would essentially result in the abandonment of sound public policy that will allow South Carolina to restrict access to out-of-region waste from being disposed at the Barnwell facility in mid-2008. Indeed, it was the ability to restrict access which, according to Johnson, caused South Carolina to initiate events leading to the formation of the Atlantic Compact.

**Historical Perspective** Johnson's letter stresses that the Atlantic Compact Act represented a compromise to keep the Barnwell facility open in a reduced role after 2008 as opposed to the more extreme, but politically palatable, position to close the site altogether. The act, he notes, “afforded the Barnwell community nearly \$13 million in development money and gave both the Barnwell area and the nuclear waste industry 9 years to plan for their future needs.” He also argues that the act reflects South Carolina's desire to preserve the limited remaining disposal capacity at Barnwell for decommissioning of the state's 7 nuclear reactors, as well as for any additional reactors that may be built and for limited additional waste from fellow compact member states. The remaining licensed 1.2 million cubic feet of capacity may not even be sufficient for that, according to Johnson.

**Post-2008 Economics** In his letter, Johnson specifically rejects as misleading claims that the operation of Barnwell may result in a loss of up to \$3.6 million per year after 2008. Instead, Johnson asserts that the act's built-in process to address the economics of a low-volume operation post-2008 should be followed. Doing so, he asserts, will yield a number of viable options for consideration as follows:

- ◆ *Public Service Commission Cost Review Process* Johnson argues that the operator's cost estimate of \$7.65 million to run the facility will likely be reduced upon rigorous examination as part of

## States and Compacts *continued*

the Public Service Commission's (PSC) statutory review of operating costs for modified operations. He predicts that "the PSC will likely cause the operator to pursue new business models, perhaps including part-time disposal operations."

- ◆ *Revenue Assurances and the Volume Hold Incentive Program* The state, according to Johnson, is already securing business commitments from regional generators for FY 2009 through its Volume Incentive Hold Program. Under the program, regional generators are provided inducements to stage shipments of stored items after FY 2008 to help ensure an appropriate income stream.
- ◆ *Existing Extended Care Fund* Johnson also asserts that, "because some 95% of the site will be in closure status after 2008, significant parts of the claimed operating/maintenance costs will be properly recoverable under the Extended Care Fund as has been planned for several years."
- ◆ *New Revenue Measures* The South Carolina Budget and Control Board and the Atlantic Compact Commission will be exploring a number of options to ensure that there is adequate income to cover regional operations after 2010. Some possible options, according to Johnson, may include (1) asking for voluntary contributions of \$200,000 to \$300,000 per year from the region's 13 nuclear power plants, (2) continuing to schedule the disposal of some 12 to 15 steam generators stored in the region, (3) imposing a surcharge on waste (including Class A) that is sent out of the region for disposal; (4) increasing the disposal charges at Barnwell, and (5) requesting the return of at least \$10 million in payments made to the Southeast Compact in the 1990's for the North Carolina disposal facility project.
- ◆ *New Regional Disposal Assurance Fund* The creation of a Regional Disposal Assurance Fund is allowed under the act, according to Johnson, in order to serve as a cushion during the post-2008 transition phase. He suggests that the anticipated \$14 million in net income to South Carolina for FY 2007 – 08 could serve as the

basis for such a fund and provides a draft Memorandum of Understanding on the issue as an attachment to his letter.

In conclusion, Johnson states in part as follows:

It is regrettable that the proponents of H.3545 would call into question the viability of the Barnwell site without following current law by working with the Atlantic Compact, the Budget and Control Board and the Public Service Commission to plan to operate the site on a regional basis after 2008. But the pending legislation is not really about protecting the South Carolina's best interests. If the objective were simply to cover an annual \$3.65 million shortfall—and if *not one* of the cost-saving or revenue-producing measures were adopted—this could be done by accepting just 750 to 1,000 cubic feet of waste from outside the Atlantic Compact region, not the 40,000 cubic feet called for in the bill.

The 2000 Act contemplated that the status quo would change. The parties are expected to work together cooperatively to make the Barnwell operation a success for in-region needs. If the parties choose not to cooperate and fail to adapt to a low volume operation post-2008, then South Carolina has the right to close the Barnwell site and terminate its relationships with Connecticut and New Jersey upon payment of \$1 million to each state. This amount has already been set aside in an interest-bearing account by the Budget and Control Board from the original entry fee paid by Connecticut and New Jersey, and would not have to be appropriated from general funds.

But let's not give up too soon. South Carolina is finally in control after so many years. There are numerous ways the Barnwell facility can operate successfully for the benefit of South Carolina as well as Connecticut and New Jersey.



*A copy of the letter is available on the Atlantic Compact's website at [www.atlanticcompact.org](http://www.atlanticcompact.org). For additional information, contact Max Batavia, Executive Director of the Atlantic Compact, at (803) 737-1879.*

### **Barnwell Post-Closure Proposals Sought**

On March 12, 2007, the South Carolina Budget and Control Board issued a Request for Proposals to examine costs associated with post-closure extended care of the Barnwell low-level radioactive waste disposal facility. The deadline for submitting proposals was April 9, 2007. A notice of award is expected to be issued on April 20, 2007.

*A copy of the request for proposals is available for viewing or download at [http://www.state.sc.us/mmo/aps2000/spo/solicitations/S7430\\_001\\_20070409.doc](http://www.state.sc.us/mmo/aps2000/spo/solicitations/S7430_001_20070409.doc).*

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### ***Northwest Compact/State of Washington***

### **Governor Huntsman and EnergySolutions Enter Agreement Regarding Expansion Plans**

On March 15, 2007, Utah Governor Jon Huntsman, Jr. and EnergySolutions' Chief Executive Officer Steve Creamer entered into an agreement that, among other things, requires that the company immediately withdraw a pending license amendment that would have provided additional disposal capacity at its Clive, Utah facility. In return, Governor Huntsman agreed to refrain from requesting that the Northwest Interstate Compact on Low-Level Radioactive Waste Management take action to limit future disposal volumes at the facility, as he had previously indicated that he was contemplating doing.

### **The Agreement**

The agreement provides as follows:

- ◆ EnergySolutions will promptly withdraw its combined Class A license amendment currently pending before the Utah Board of Radiation Control and its Executive Secretary, although the company may complete (and utilize upon approval) the required licensing process for the conversion of the remaining already licensed unused capacity of the currently-licensed 11e.(2) cell to a Class A cell;
- ◆ both parties reiterate their commitment that they do not support Class B or C waste disposal—or the disposal of waste having radionuclide concentrations higher than that allowed under licenses existing on February 25, 2005—in Utah; and,
- ◆ Governor Huntsman agrees to refrain from asking the Northwest Compact to take action to limit waste disposal volumes at the EnergySolutions' facility as long as the company refrains from seeking licensing action to increase disposal capacity volumes except as provided above.

The agreement specifically provides that nothing in it shall be construed as an admission by EnergySolutions that the Northwest Compact has jurisdiction over its operations or facilities, nor shall the agreement constitute a waiver of EnergySolutions' rights of recovery based on future actions of the state or compact. It also provides that, other than the foregoing commitments made by the Governor, the agreement shall not alter or limit the authority or legal rights of the state, the compact, the Utah Board of Radiation Control, or the Board's Executive Secretary.

### **Statement by EnergySolutions**

In a recent press release, EnergySolutions characterizes the document as a “standstill agreement” which it says will have no impact on its current or future operations or business plans, but which will assure that the company will have full disposal capacity to meet its life of plant agreements, other long term contractual agreements, and

to meet the future needs of the nuclear industry. Indeed, the company says that it has simply agreed to postpone, but not to abandon, its right to seek authority to utilize all of the Clive facility's licensed capacity. From time-to-time and as the need arises, the company states that it will evaluate the need for the development of additional disposal cells.

*EnergySolutions* stresses that the additional disposal capacity that would be provided by the license amendment which the company agreed to withdraw is not critical at this time. The company highlights that, in return, the Governor has agreed not to oppose a license amendment to convert the remaining capacity of the currently-licensed 11e.(2) cell to receive Class A waste. If the conversion is approved, the company says that it will have over 153 million cubic feet of remaining licensed disposal capacity. In the past 18 years, in contrast, the Clive facility has disposed of over 137 million cubic feet of waste.

### **Statement by Governor Huntsman**

In a March 15 press release, Governor Huntsman states that the agreement will ensure "that Utah will not continue to be the dumping ground for other states' radioactive waste." He asserts that the agreement will reduce the total amount of radioactive waste that will be disposed of in the State of Utah.

"This is a monumental win for Utahns marking the endgame for the in-migration of other states' radioactive waste. Not only are we not going to have a radioactive super cell, but we are reducing the total amount of waste coming to our State," Governor Huntsman said in a press release. "I am pleased we were able to work something out that is in the best long-term interest of Utahns without the burden of lengthy and costly litigation."

Huntsman was quoted in the local press as stating that there is not much that he can do about waste streams agreed to by his predecessors, but that he intends to change the culture of what is deemed to be acceptable in Utah. He said that the agreement follows efforts by his administration in the past to keep dangerous waste out of the state.

## **Utah Oversight Bill Becomes Law without Governor's Signature**

### **Huntsman Vows to Limit Disposal Volumes at *EnergySolutions*' Facility**

At midnight on February 27, 2007, legislation (SB 155) governing the oversight of radioactive waste disposal facilities in the State of Utah became law without signature by Governor Jon Huntsman, Jr. Among other things, SB 155 will allow *EnergySolutions* to change operations on its current site without requiring specific approval from the Governor and legislature.

In a press release on the matter, Utah Governor Jon Huntsman, Jr. announced that, among other things, he will "notify the Northwest Interstate Low-Level Waste Compact to limit the volume of waste that can be disposed at the *EnergySolutions* facility to the currently approved volume."

*EnergySolutions* and Governor Huntsman subsequently entered into an agreement that, among other things, requires that the company immediately withdraw a pending license amendment that would have provided additional disposal capacity at its Clive facility and that the governor refrain from requesting that the Northwest Compact take action to limit future disposal volumes at the facility. (See related story, this issue.)

### **Impact of Legislation and Reaction Thereto**

The law has no impact on the acceptance of Class B and C waste in the State of Utah, which is still prohibited under state regulations. In addition, *EnergySolutions* will still be required to receive gubernatorial and legislative approval if they move onto a new geographic area or for specified increases in capacity and facility costs outside of the existing boundary.

**Reaction from *EnergySolutions*** According to *EnergySolutions*' officials, the bill "simply re-affirms

## States and Compacts *continued*

the intent of the initial act passed in 1990, which has been correctly followed by the Department of Environmental Quality (DEQ) and the Division of Radiation Control (DRC) for the last 18 years.” EnergySolutions’ issued a press release expressing its appreciation to the Legislature, Attorney General and Tooele County Commissioners for their overwhelming support of the bill. According to the company, “it was a simple bill with no impact on the regulatory process that has run well for nearly two decades.”

**Reaction from Governor** Governor Huntsman also characterized the bill as “simply a clarification of current practice.” He issued a statement that he was allowing the law to go into effect without his signature “in part because of the need to recognize the ‘grandfather’ status of an existing facility.” The Governor noted, however, that “it is not the legislation that concerns me, but the nuclear waste industry and its impact on Utah.”

The Governor’s press release specifically points out that he opposed expansion of the facility and its acceptance of Class B and C waste, but states that such actions are “not enough.”

The press release goes on to state as follows:

As the Governor of the State of Utah, I take very seriously my responsibility to ensure that our State will not become the dumping ground for other states’ nuclear waste. I remain committed to fighting increased volumes of wastes.

Therefore, I will take the following actions:

- ◆ I will notify the Northwest Interstate Low-Level Waste Compact to limit the volume of waste that can be disposed at the EnergySolutions facility to the currently approved volume.
- ◆ I will exercise my statutory powers to supervise the conduct of the Department of Environmental Quality officers responsible for licensing the EnergySolutions facility, to include

requesting the Utah Radiation Control Board to make special reports to me concerning the quantities and types of wastes received at the Facility.

- ◆ I will exercise my constitutional authority to issue executive orders to ensure protection of the public health and environment for wastes received at the EnergySolutions facility.

**Public Response** Local news reports indicate that the Governor’s office had been receiving hundreds of calls a day asking that he veto the bill—despite the fact that it passed with veto-proof majorities in both the House and the Senate. According to EnergySolutions’ officials, however, opponents had misled the public to suggest that the bill would remove government oversight of the facility, which is in fact one of the most highly regulated businesses in the State of Utah.

### The Bill

The purpose of the bill is to exempt certain radioactive waste disposal facilities from certain approval and siting requirements. Specifically, the legislation

- ◆ exempts a radioactive waste disposal facility license in effect on or before December 31, 2006 from local government planning and zoning approval, legislative and gubernatorial approval, and certain siting requirements; and,
- ◆ exempts an amendment to or renewal of a radioactive waste disposal facility license in effect on or before December 31, 2006 from local government planning and zoning approval, legislative and gubernatorial approval, and certain siting requirements unless the amendment or renewal would authorize waste disposal at a different geographic location.

The Senate Natural Resources, Agriculture and Environment Committee had previously approved the bill without dissent on January 24 and it passed the full Senate on February 7 by a vote of 22 to 5. The House Committee then approved the bill with

## States and Compacts *continued*

a favorable recommendation by a vote of 13 to 2 on February 12 before sending it to the full House for consideration. On February 14, the House approved the bill on the third reading by a vote of 55 to 10. Shortly thereafter, the Senate approved a last-minute House amendment to the bill by a vote of 22 to 5. The Speaker of the House signed the bill on February 14 and the President of the Senate signed it on February 15.

The legislation passed with veto-proof majorities in both the House and the Senate. Overriding a veto requires a minimum of 50 votes in the House and 20 in the Senate.

Utah Senator Darin Peterson is the chief sponsor of the bill. Co-sponsors include state Senators Bramble, Buttars, Christensen, Dayton, Dmitrich, Eastman, Hickman, Killpack, Knudson, Madsen, Niederhauser, Stephenson, and Stowell.

### **Application to EnergySolutions' Clive Facility**

Supporters of the bill, including the Utah Mining Association and Tooele County's three commissioners, say it will not have any impact on the regulatory process. Opponents, including Healthy Environment Alliance of Utah, argue that it removes political accountability for nuclear waste expansion.

EnergySolutions' Clive facility is seeking to increase its disposal cell from the current 54 feet to a new maximum of 83 feet. Although environmentalists have objected to the proposed change, supporters assert that it is better to pile material safely in a small footprint than to spread it around in a larger site. Passage of SB 155 allows EnergySolutions to make the requested change without gubernatorial or legislative approval, although any amendments to the company's license would still need to be reviewed and approved by state regulators.

### **Background and Prior Legislation**

A 1990 state law requires that all applicants seeking to license a new hazardous or radioactive waste disposal facility in Utah (or to renew or amend an

existing application) must receive approval from political leaders (including the legislature and the Governor) in addition to regulators.

On January 18, 2006, Utah State Senator Howard Stephenson (R) introduced SB 70—a bill that would effectively allow the legislature with a two-thirds vote to override a governor's decision to halt changes in a disposal operation or the creation of a new disposal facility. The bill was heard in the Senate Natural Resources, Agriculture, and Environment Committee and passed out with a favorable recommendation 3 to 2 to the full Senate. (See *LLW Notes*, January/February 2006, p. 10.) The bill passed the Senate by a vote of 22 to 6 and the House approved it by a vote of 47 to 27. On March 1, 2006, Utah Governor Jon Huntsman, Jr. vetoed the bill. The Senate subsequently overrode the Governor's veto, but the House failed to take it up before adjournment of the 2006 Utah Legislature. (See *LLW Notes*, March/April 2006, p. 8.)

## **EnergySolutions to go Public**

On March 29, 2007, EnergySolutions filed papers with the U.S. Securities and Exchange Commission seeking to make an initial public offering of stock for the company. According to the registration statement, the proposed maximum aggregate offering amount is estimated to be \$500 million.

*A copy of the registration statement may be found on the SEC's website at [www.sec.gov](http://www.sec.gov).*

### **Details and Reaction**

EnergySolutions has indicated that it intends to apply to list the company's stock on the New York Stock Exchange under the symbol "ES." The registration statement does not disclose how many shares EnergySolutions intends to issue, nor does it provide an estimated price range for the offering. The filing of a registration statement with the SEC is only the first step in the process. The company does not

## States and Compacts *continued*

expect to complete the initial public offering until the summer of 2007, subject to market conditions and the receipt of various regulatory approvals.

According to EnergySolutions' SEC disclosure, the company intends to use the net proceeds from the offering "to pay \$6.9 million to members of our management pursuant to provisions in their employment agreements and to repay outstanding debt under our senior credit facilities, with the remainder, if any, to be used for general corporate purposes."

In terms of outstanding debt, the company's SEC filing states as follows:

As of December 31, 2006, we had \$764.2 million of borrowings outstanding under our senior credit facilities. The term loans under our senior credit facilities amortize in annual amounts of \$7.6 million and have final maturities of June 7, 2013. The revolving portion of our senior credit facilities has a stated maturity of June 7, 2011. Borrowings under our senior credit facilities bear interest at variable rates. As of December 31, 2006, the weighted average interest rate under our senior credit facilities was 7.63%.

According to local press reports, Utah Department of Environmental Quality Director Dianne Nielson has stated that EnergySolutions' decision to go public will have no impact on how the department oversees operations at the company's Clive facility. However, she did acknowledge that it may make it easier to obtain information about their business and financial dealings.

Utah Senate Majority Leader Curtis Bramble was quoted in the local press as welcoming EnergySolutions' decision to go public, indicating that he believes it will be good for the state. "They are a company that is dealing with a national problem [of nuclear waste disposal] in an environmentally responsible way," said the Provo Republican.

Utah Governor Jon Huntsman, Jr. declined to comment to the local press on EnergySolutions' decision to go public. "That's something they have to plan and prepare for," he said.

### **Background**

EnergySolutions was formed in early 2006 when BNG America, Envirocare of Utah, and Sciencetech D&D merged to create "a national energy services company headquartered in Salt Lake City, Utah, that ... will manage over 1000 employees in 14 states with operating support facilities in Virginia, South Carolina, Massachusetts, Tennessee, Washington State, Connecticut, Idaho, and Utah." (See *LLW Notes*, January/February 2006, pp. 1, 6.)

Shortly thereafter, EnergySolutions acquired Duratek—a Columbia, Maryland-based radioactive waste disposal company that, among other things, operates the Barnwell low-level radioactive waste disposal facility in South Carolina. With the acquisition of Duratek, EnergySolutions more than doubled its work force to 2,500 persons in 40 states and increased its annual revenue by approximately \$280 million based on prior Duratek financial statements. (See *LLW Notes*, January/February 2006, p. 7.)

Then, on December 4, 2006, EnergySolutions EU announced that it has completed the acquisition of Safeguard International Solutions Ltd—a leading provider in the United Kingdom of turn-key services for the dispositioning of radioactive materials (including waste) from non-nuclear power generating facilities. The acquisition marked EnergySolutions' first acquisition in the UK that, according to the company, demonstrates its "commitment to work in the UK and grow its business here." (See *LLW Notes*, November/December 2006, pp. 14 – 15.)

On January 17, 2007, EnergySolutions announced that it has acquired Parallax, Inc., an environmental clean-up, engineering and management company that provides services to the nuclear industry. (See *LLW Notes*, January/February 2007, pp. 9 – 10.)

## States and Compacts *continued*

Parallax—which is headquartered in Germantown, Maryland—serves various public and private sector clients including several federal agencies, national labs, the military, and commercial nuclear power companies. Parallax has particular expertise in nuclear facility and criticality safety in power generation, fuel manufacturing, enrichment, research, reprocessing and waste storage and disposal.

*For additional information, contact Tye Rogers of EnergySolutions at (801) 649-2000.*

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### **Northwest Compact/State of Idaho**

## **US Ecology Idaho Receives OSHA Safety Recognition**

On March 15, 2007, American Ecology Corporation announced that its subsidiary, US Ecology Idaho, has been designated by the U.S. Occupational Safety and Health Administration (OSHA) as a Voluntary Protection Program (VPP) “Star” company for having an exceptional safety record and training programs. According to the press release, the “Star” designation is OSHA’s highest level of safety recognition. A banner, plaque and flag commemorating the achievement was presented by an OSHA regional administrator during a ceremony at the company’s Grand View hazardous waste facility on March 16.

In announcing the designation, Edwin Foulke, Jr.—OSHA’s Assistant Secretary for Occupational Health & Safety—stated as follows:

You join an elite group of facilities that provide exemplary safety and health protection. Designation as a VPP Star participant is a testament to sustained excellence in all areas of your safety and health management system. Please accept my hearty congratulations on this noteworthy achievement.

“Safety is a core value at American Ecology,” stated Stephen Romano, President and Chief Executive Officer of American Ecology. “We intend to maintain this recognition through a continuing commitment to safety at all levels of our organization.”

OSHA initially recognized US Ecology Idaho in 2004 for exceptional safety practices under the Safety and Health Achievement Recognition Program. American Ecology’s Texas facility achieved Star status in 2006.

*Additional information on OSHA’s VPP program can be found at <http://www.osha.gov/dcspp/vpp/index.html>.*

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### **Texas Compact/State of Texas**

## **WCS Files Revised Facility Application Company Responds to Noted Technical Deficiencies**

On March 19, 2007, the Texas Commission on Environmental Quality (TCEQ) formally accepted the response to noted technical deficiencies from Waste Control Specialists, LLC (WCS), as well as a revised application, in furtherance of the company’s efforts to license a low-level radioactive waste disposal facility in Andrews County, Texas.

After identifying significant technical deficiencies in the company’s original license application, TCEQ had granted WCS an extension to address the problems by May 1, 2007. According to the timeline provided by TCEQ at that time, the agency will need until October 1, 2007 to review WCS’ submission, write an environmental analysis and prepare a recommendation on the application—including, if applicable, a draft license.

### **Noted Technical Deficiencies**

As of June 2006, TCEQ identified, among other things, the following “significant” issues that remain

## States and Compacts *continued*

unresolved including the incomplete characterization of the site, performance assessment, waste characterization, and facility design:

- ◆ the depth to the water table is not sufficiently demonstrated by the site characterization to ensure that groundwater will not intrude into the disposal units and contact the waste;
- ◆ surface geologic processes, such as erosion, are not sufficiently discussed in the application to demonstrate that these processes will not affect the ability of the disposal site to meet the performance objectives and to provide defensible modeling and prediction of long-term impacts;
- ◆ the performance assessment does not appear to use defensible assumptions in the modeling or use adequate waste characterization for the basis of the assessment;
- ◆ the application's waste characterization information appears to be an underestimation in terms of total radioactivity and specific radionuclide concentration which impacts performance assessment, worker dose calculations, accident scenario assessments and the overall assessment of the site in meeting required performance objectives;
- ◆ the facility design does not comply with TCEQ rules with respect to the proposed disposal of Class A low-level radioactive waste containing longer-lived radionuclides; and,
- ◆ requests for exemption from TCEQ rules regarding ownership do not include necessary justification to recommend granting these exemptions.

Additional technical issues related to the application include the adequacy of engineering features of the proposed facility design; groundwater monitoring and other environmental parameters; radiological protection and related ALARA considerations; proposed staffing and training programs; corrective

action plan for operations; waste verification plans; decommissioning plan; cost estimates; and the lack of professional engineering seals on documents as required.

### **Revised Application**

Since June 2006, the parties have conducted over 20 interactive sessions to ensure that the applicant fully understands the regulator's concerns and to discuss proposed solutions.

According to a WCS official, the following revisions were made to the company's license application in an effort to address some of the key technical deficiencies identified by the TCEQ:

#### *Depth to Water Table*

- ◆ installed additional monitoring wells
- ◆ detailed study of soil matric potential

#### *Description of Surface Geologic Processes*

- ◆ supplemental erosion analyses
- ◆ supplemental salt dissolution study

#### *Performance Assessment*

- ◆ supplemental data and analyses incorporated into performance assessment
- ◆ increased conservatism of performance assessment assumptions
- ◆ results are defensible and show that health and the environment are protected
- ◆ WCS disposal systems meet performance objectives

#### *Waste Characterization Information*

- ◆ inventories updated with new information
- ◆ provided more detail on waste characterization process
- ◆ beefed up waste verification processes

#### *Operations and Safety*

- ◆ a new General Manager has been hired that has a DOE facility background
- ◆ ConOps discipline brought to low-level radioactive waste procedures and operations
- ◆ WGI nuclear safety and operations mentors

## States and Compacts *continued*

- have been on-site since October 2006
- ◆ increased rigor of training

The above overview is intended as an outline only. Persons interested in more detailed information are directed to the notices of technical deficiencies from TCEQ and to the responses and revised application submitted by WCS.

*Documents and information related to the TCEQ review can be found on-line 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). The response and revised application submitted by WCS may also be found on-line at [www.wcstexas.com](http://www.wcstexas.com).*

### Revised Timeline

TCEQ anticipates completing technical review of the revised WCS application in October 2007.

Under Texas statute, administrative hearing proceedings would be conducted within 60 days (December 2007) and a proposal for decision must be issued within one year thereafter (December 2008).

TCEQ commissioners must then issue a license or denial within 90 days—i.e., in March 2009.

### Potential Legislative Implications

In regard to review of the WCS revised license application, it is important to note that the Texas legislature is still in session and several bills have been proposed which could impact the regulatory control of radioactive waste in Texas.

Among others, the following bills have been proposed and remain pending:

#### *Senate Bills*

- ◆ SB 1604—relating to the responsibilities of certain state agencies concerning radioactive substances

- ◆ SB 1837—relating to the regulation of uranium mining and disposal of certain radioactive materials and low-level radioactive waste

#### *House Bills*

- ◆ HB 3835—relating to information provided to the Railroad Commission and to certain groundwater conservation districts by applicants for in situ uranium mining permits
- ◆ HB 3836—relating to notification by the Commission on Environmental Quality to certain elected officials of an application for a permit to drill an injection well used for in situ uranium mining
- ◆ HB 3837—relating to regulation by the Railroad Commission of injection wells used for in situ uranium mining
- ◆ HB 3838—relating to regulation of injection wells used for in situ uranium mining by the Commission on Environmental Quality

*Information about all of the above-identified bills can be found via bill number at <http://www.capitol.state.tx.us/Search/BillSearch.aspx>.*

### Background Information

WCS submitted a license application to the TCEQ on August 4, 2004. (See *LLW Notes*, July/August 2004, pp. 8 – 10.) Thereafter, there were three rounds of administrative notice of deficiencies that spanned 225 days, as built into the statutory timeline for license review. On February 18, 2005, TCEQ issued a Notice of Administrative Completeness. (See *LLW Notes*, March/April 2005, p. 7.)

On September 16, 2005, TCEQ sent a certified letter to WCS itemizing the first round of various technical deficiencies contained in the company's license application. (See *LLW Notes*, September/October 2005, pp. 16 – 17.) WCS responded by letter dated November 30, 2005. On January 30, 2006, TCEQ issued a second and final Technical Notice of Deficiency. (See *LLW Notes*, January/February 2006, pp. 16 – 17.) WCS responded with

*(Continued on page 18)*



### *Healthy Environment Alliance of Utah v. Utah Radiation Control Board*

## Parties Agree to End Suit Over Clive Facility Boundary EnergySolutions Withdraws Expansion Request

On the morning of March 26, 2007, EnergySolutions made a formal request to the Utah Division of Radiation Control to withdraw its license amendment request to expand low-level radioactive waste disposal operations at the company's Clive facility onto 536-acres of adjacent land that were purchased in 2005 from Cedar Mountain Environmental. Regulators quickly agreed and reduced the boundary back to its previous configuration. Then, later that same day, attorneys for EnergySolutions asked the Utah Supreme Court to dismiss a lawsuit filed by Healthy Environment Alliance of Utah ("HEAL Utah") that seeks review of a January 2006 order granting the amendment request. With oral arguments set for the next day, attorneys for both the Utah Division of Radiation Control and HEAL Utah agreed and the case was dismissed without prejudice by the court.

### The Lawsuit

HEAL Utah originally filed an administrative challenge to contest an August 2005 decision by the Utah Division of Radiation Control to grant a preliminary license for the boundary expansion request at the Clive facility. In particular, HEAL Utah sought more information on the quantity of waste that would be disposed in the expanded area as well as the type of waste, its origins and "the schedule for developing disposal sites, and how disposal sites will be constructed." HEAL Utah contends that the new acreage has not been fully and appropriately analyzed for its suitability to hold waste.

In February 2006, after the Radiation Control Board upheld the decision, HEAL Utah sought

review in the Utah Court of Appeals. (See *LLW Notes*, March/April 2006, pp. 14 – 15.) In pursuing the appeal, HEAL Utah claimed that the approval process was a "sham" and that the board failed to meet the legal or technical requirements for granting an extension.

In July 2006, the Utah Court of Appeals announced that it would hand the case up to the Utah Supreme Court for review. (See *LLW Notes*, July/August 2006, pp. 8 - 9.) A case may be transferred if another court has cases involving similar cases before it. Or, a case may be transferred if it appears likely that it will end up before the higher court no matter what the appellate judges do. In either case, transfer to the Utah Supreme Court will shorten the appeals process.

### Other Related Issues

In late 2005, Utah Governor Jon Huntsman, Jr. told local press that he would not approve the Clive facility's amendment request to expand the site. (See *LLW Notes*, November/December 2005, pp. 1, 7-8.) Although the Radiation Control Board nonetheless approved the amendment request, the language used to do so underscored the board's intent that the approval was for a boundary change only, not for waste disposal on the new acreage that could require additional safety and engineering reviews that have not been conducted.

Shortly after the board's decision, EnergySolutions announced that it was suspending the expansion plans. "In this instance," said the company in a statement, "we feel it is in everyone's best interest to announce that we will not pursue legislative approval for ... [the new section] at this time."

More recently, on March 15, 2007, Governor Huntsman and EnergySolutions entered into an agreement that, among other things, requires that the company immediately withdraw the contested license amendment and that the governor refrain from requesting that the Northwest Compact take action to limit future disposal volumes at the

facility. (See LLW Forum [News Flash](#) titled, “Governor Huntsman and Energy Solutions Enter Agreement Regarding Expansion Plans,” March 23, 2007.)

*For additional information, contact Bill Sinclair, Deputy Director, Utah Department of Environmental Quality, at (801) 536-4405 or Tye Rogers, Vice President of Compliance and Permitting, the Clive Facility, at (801) 532-1330.*

### **NRC’s FY ’08 Budget Request Released**

In early February, the U.S. Nuclear Regulatory Commission released its proposed budget request to Congress for fiscal year 2008. The agency is requesting \$916.6 million “to effectively regulate nuclear power plants and other users of nuclear materials to protect people and the environment.” The proposed budget is offset by \$765.1 million in fees that the agency is required to collect from its licensees.

According to NRC, the budget increases primarily to support the review of twelve of the new reactor applications anticipated to arrive in 2008, two standard reactor design certification applications, three early reactor site permit applications, and the development of the reactor construction inspection program. The budget also includes modest decreases for regulation of nuclear materials and waste safety.

*More details are available in NUREG-1100, Volume 23, on NRC’s web site at [www.nrc.gov](http://www.nrc.gov).*

**(Continued from page 16)**

submissions on March 31 and April 28 of 2006. (See *LLW Notes*, March/April 2006, pp. 13, 19.)

On June 5, 2006, TCEQ sent a letter to WCS providing a status update on the agency’s review of WCS’ license application. In the letter, TCEQ advised WCS that the application contains “significant” unresolved deficiencies that put in jeopardy the schedule for completing the technical review in 15 months and “are problematic and affect our ability to offer a recommendation to issue a license for the proposed facilities.” (See *LLW Notes*, May/June 2006, pp. 8 - 10.)

On June 30, 2006, TCEQ issued a List of Concerns to WCS—which includes 13 attachments in total—that describes in detail what information must be provided to the Radioactive Material Licensing Team to resolve specified concerns. WCS responded by letter requesting an extension to respond to the concerns on August 8, 2006.

On August 30, 2006, TCEQ granted the requested extension until May 1, 2007—conditioned, however, upon any future direction or clarification by the Texas Legislature. (See *LLW Notes*, September/October 2006, pp. 11 - 13.)

*For additional information, contact Susan Jablonski of the Texas Commission on Environmental Quality at (512) 239-6731 or Rodney Baltzer of Waste Control Specialists at (972) 450-4235.*

*U.S. Government Accountability Office*

## GAO Releases International Waste Management Practices Report

On March 22, 2007, the U.S. Government Accountability Office released a report on international waste management practices and their applications to U.S. waste management policies and procedures. The report, which is titled "Low-Level Radioactive Waste Management: Approaches Used by Foreign Countries May Provide Useful Lessons for Managing U.S. Radioactive Waste," can be found on the agency's web site at <http://www.gao.gov/>. To access the report, simply go to the site and click on "GAO Reports" and search for "GAO-07-221."

### Results in Brief

In preparing the report, GAO conducted a survey of 18 countries to identify their approaches to the management of low-level radioactive waste. GAO then compared the results with U.S. survey results and with management approaches suggested by low-level radioactive waste generators, disposal operators and regulators in the United States.

GAO concluded that other countries manage their waste in some ways that are different from that in the United States including that

- ◆ most countries surveyed indicated that they have national radioactive waste inventory databases that include information on all waste generators, waste types, storage locations and disused sealed sources which they use to forecast future disposal capacity needs;
- ◆ most countries surveyed indicated that they facilitate the timely removal of higher-activity low-level radioactive waste (mainly sealed sources) from generator sites to enhance safety and security, including requiring the return of disused sources to the supplier;
- ◆ most countries surveyed indicated that they have disposal options for lower-activity waste, centralized storage options for higher-activity waste, and alternative disposal options for very low-activity waste that in most cases does not require an exemption review by a nuclear regulatory authority; and,
- ◆ approximately half of the countries surveyed indicated that they impose financial assurance requirements on all waste generators to cover disposition costs, most of which also use other approaches to reduce government-related costs to recover higher-activity waste, such as by imposing a disposal fee at the time that a sealed source is purchased.

GAO also found that two-thirds of the countries surveyed rely on national radioactive waste management plans to guide the management of their radioactive wastes. According to GAO, several of these plans require that radioactive waste be managed from a national perspective and specify one administrative entity as responsible for coordinating their development. In addition, GAO found that there was often a requirement in the plans for periodic public reporting of low-level radioactive waste conditions.

### Recommendations from GAO

The GAO report includes recommendations to improve low-level radioactive waste management in the United States and to address a potential lack of disposal access for 36 states for Class B and C waste after June 2008 if the Barnwell facility closes to out-of-region waste as currently planned. Specifically, GAO recommends that the NRC Chairman and Energy Secretary evaluate and report back to Congress within one year on the usefulness to the United States of

- ◆ adopting the low-level radioactive waste management approaches used in countries surveyed for the report; and,
- ◆ developing a U.S. radioactive waste management plan—and exploring the potential costs, steps and any authorities necessary to develop such a plan—if deemed appropriate.

In this regard, the GAO report includes, in part, the following concluding remarks:

Currently, the United States does not have a national radioactive waste management plan and does not have a single federal agency or other organization responsible for coordinating LLRW stakeholder groups to develop such a plan. Such a plan for the United States could integrate the various radioactive waste management programs that reside at the federal and state levels into a single source document. A national plan could assist those interested in radioactive waste management to identify waste quantities and locations, plan for future storage and disposal development, uncover research and development opportunities, and assess the need for regulatory or legislative actions. For example, there are no national contingency plan, other than allowing LLRW storage at waste generator sites, to address the impending closure of a key LLRW disposal facility. The availability of a national plan and periodic reporting on waste conditions might also provide the Congress and the public with a more accessible means to monitor the management of radioactive waste and provide a mechanism to build greater public trust in the management of these wastes in the United States.

### **Agency Comments**

The State Department did not comment on GAO's draft report. However, both NRC and DOE offered comments—which are included in the final report, along with responses from GAO. According to GAO, both NRC and DOE generally agreed with recommendations in the draft report, but raised a number of issues regarding their implementation. Specifically, the agencies suggested other means through which they could report to Congress on the results of their evaluations and they questioned the benefits of developing a national radioactive waste management plan.

**NRC Comments** In particular, NRC stated that it has already evaluated many of the management approaches discussed in the report and is in the process of evaluating additional approaches as part of a strategic assessment of its LLRW program. NRC prefers to continue evaluating approaches through ongoing efforts and to report its findings in its annual letter to Congress. NRC also raised concerns about the development of a national radioactive waste management plan, pointing out that the costs would be significant and the benefits unclear, particularly given the complex composition of the current U.S. system. Legislative changes would likely be needed, according to NRC, before any such plan could be developed.

**DOE Comments** DOE accepted GAO's recommendation to evaluate the international approaches summarized in the report, but did not agree that a report to Congress is necessary at this time. Instead, DOE offered to brief Congress on the status of its waste management efforts if and when requested to do so. DOE acknowledged that a national radioactive waste management plan would facilitate a better understanding of complex agency programs, but the department expressed concern that the development of such a document would provide limited utility to the actual implementation of waste management strategies while diverting significant resources from agency efforts. In addition, DOE suggested that the U.S. Second National Report for the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management provides a summary of the existing national waste management strategies, issues and progress.

**GAO Response** Although GAO recognizes current and past evaluation efforts by the NRC, GAO still “believe[s] that the Congress would benefit from a consolidated report that contains the evaluations of these LLRW management approaches as they apply to the U.S. situation.” GAO nonetheless states that it does not take issue with how the agencies might collaborate together and with other stakeholders on reporting to Congress as long as the evaluations are comprehensive. In addition, GAO states that it

## Congress *continued*

acknowledges the concerns of NRC and DOE regarding the draft recommendation to evaluate and report on the development of a national radioactive waste management plan. As such, GAO revised the recommendation in the final report to clarify that the agencies should evaluate and report on the usefulness of such a plan and only conduct further analysis if deemed appropriate. Nonetheless, GAO reiterates its own view that there is value in the potential development of a national radioactive waste management plan. Finally, GAO comments that the U.S. national report to the joint convention provides useful information but is not comprehensive and does not contain strategies to guide the management of such waste.

### Background

GAO was asked to prepare the report by Senate Energy and Natural Resources Committee Chairman Pete Domenici (R-NM).

**Driving Factors** According to GAO, some of the driving forces behind the request included

- ◆ concerns about the reliability and cost-effectiveness of the current LLRW disposal system;
- ◆ concerns about a lack of comprehensive information on LLRW and sealed sources;
- ◆ awareness that the significance of the above concerns has risen along with an increase in power plant relicensing and early site permit applications, and,
- ◆ awareness that management techniques utilized by other countries may be used to improve the U.S. system.

**Research Objectives** In preparing the report, GAO set out as objectives to determine to what extent the U.S. and other countries have established

- ◆ comprehensive national waste inventory and source tracking systems;
- ◆ requirements for the timely removal of waste from user sites;
- ◆ reliable and cost-effective waste disposal options; and,

- ◆ funding mechanisms and requirements to ensure that users have adequate financial reserves to cover waste storage and disposal costs.

**Scope and Methodology** Both domestic and foreign analysis components were involved in the study.

The domestic component included

- ◆ reference to recent GAO reports including that on LLRW disposal availability (GAO-04-604) and on the recovery of sealed radioactive sources (GAO-05-967);
- ◆ survey of domestic LLRW management experts representing key stakeholder agencies, organizations and groups;
- ◆ specific data collection at federal and state agencies, disposal operators and waste generator groups; and,
- ◆ completion of a questionnaire by the U.S. Nuclear Regulatory Commission.

The foreign analysis component included

- ◆ survey of 18 foreign countries that are members of the OECD Nuclear Energy Agency's (NEA) Radioactive Waste Management Committee to seek the identification of management approaches which are utilized;
- ◆ case study assessments of management approaches taken in France, Japan and Sweden;
- ◆ review of country information from the IAEA and NEA country reports; and,
- ◆ review of country information from the IAEA Net-Enabled Waste Management Database.

*For additional information, contact Dan Feehan, Assistant Director of GAO's Natural Resources and Environmental Division, at (303) 572-7352 or Tom Laetz, Senior Policy Analyst in GAO's Natural Resources and Environmental Division, at (303) 572-7441.*

## Federal Agencies and Committees

### *Advisory Committee on Medical Uses of Isotopes*

#### **Darrell Fisher Appointed to ACMUI**

In late February, the U.S. Nuclear Regulatory Commission announced the appointment of Darrell Fisher, Ph.D., as the patient's rights advocate on the Advisory Committee on the Medical Uses of Isotopes (ACMUI). The ACMUI, which was established in 1958, is charged with advising the NRC on policy and technical issues related to the regulation of the medical uses of radioactive material.

Dr. Fisher is a medical physicist with experience in the dosimetry and health effects of radionuclides and radiopharmaceuticals used for diagnosing and treating cancer. He currently serves as a senior scientist with 28 years experience at the Pacific Northwest National Laboratory in Richland, Washington. He leads the radioisotopes research program and serves as scientific director of the Department of Energy's isotope production program.

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### *Advisory Committee on Nuclear Waste*

#### **ACNW Meets with Commissioner Jaczko**

On March 20 – 22, 2007, the U.S. Nuclear Regulatory Commission's Advisory Committee on Nuclear Waste (ACNW) met at the agency's headquarters in Rockville, Maryland. ACNW is charged with reporting to and advising the Commission on all aspects of nuclear waste management.

The agenda for the meeting included, among other items, discussion of topics of interest with NRC Commissioner Gregory Jaczko. In addition, the committee was briefed on issues related to transportation canisters for spent nuclear fuel, the status of design activities related to the proposed Yucca Mountain repository for high-level

radioactive waste and the decommissioning plan for the Shialdalloy site in New Jersey.

*A complete agenda from the committee's meeting can be found at <http://www.nrc.gov/reading-rm/doc-collections/acmw/agenda/2007/>.*

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### *Advisory Committee on Reactor Safeguards*

#### **ACRS Holds Public Meeting**

On March 8 – 10, 2007, the U.S. Nuclear Regulatory Commission's Advisory Committee on Reactor Safeguards (ACRS) held a public meeting at the agency's headquarters in Rockville, Maryland. ACRS is charged with advising the Commission on licensing and operation of nuclear power plants and related safety issues.

Among other items, the committee discussed the technical basis for proposed regulatory action relating to the dissimilar metal weld issue at nuclear power plants. The committee also discussed the final results of chemical effects tests in a pressurized water reactor sump pool environment, and guidance documents in support of new reactor licensing.

*A complete agenda from the meeting can be found on-line at <http://www.nrc.gov/reading-rm/doc-collections/acrs/agenda/2007/>.*

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### *Atomic Safety and Licensing Board*

#### **ASLB Holds Hearing on Proposed USEC Plant**

On March 13, 2007, the Atomic Safety and Licensing Board (ASLB) held a hearing on the U.S. Nuclear Regulatory Commission staff's review of a license application by USEC, Inc. to build and operate a gas centrifuge uranium enrichment plant near Piketon, Ohio. The hearing, which was open to the public, was held at NRC headquarters in Rockville, Maryland.

During the course of the hearing, a three-judge ASLB panel heard testimony regarding the sufficiency of USEC's application and the NRC staff's licensing review regarding both technical safety and environmental impacts of the proposed facility. The board must now consider whether the staff review conformed to NRC regulations and the National Environmental Policy Act, as well as whether the license should be issued, denied or appropriately conditioned.

The ASLB panel consists of administrative judges and administrative law judges with science, engineering or legal expertise, who are independent of the NRC staff. The board conducts adjudicatory hearings on matters in the licensing of nuclear reactors, nuclear materials, and nuclear material facilities. Board rulings may be appealed to the five-member Commission that heads the agency.

*Information about USEC's application, including the NRC staff's Environmental Impact Statement and Safety Evaluation Report, are available on the NRC web site at <http://www.nrc.gov/materials/fuel-cycle-fac/usecfacility.html>.*

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### ***U.S. Nuclear Regulatory Commission***

## **NRC Issues ESP to Clinton**

On March 15, 2007, the U.S. Nuclear Regulatory Commission announced that it has issued the first-of-a-kind Early Site Permit (ESP) to the Exelon Generation Company for the Clinton ESP site near Clinton, Illinois. In so doing, NRC has resolved many site-related safety and environmental issues and determined that the site is suitable for possible future construction and operation of a nuclear power plant. The permit is valid for up to 20 years. During that time, Exelon must still apply to the NRC for a Combined License to build one or more nuclear plants on the site before any significant construction can occur.

### **Clinton ESP Application and Review**

Exelon filed the Clinton application on September 25, 2003. NRC staff subsequently issued a final EIS

in July 2006 and a final Safety Evaluation Report in May 2006. The conclusions of both documents supported the issuance of the ESP. The NRC staff's conclusion is based on its independent review of a report submitted by Exelon, taking into account consultations with federal, state, tribal and local organizations, and consideration of comments received during the public scoping process. The staff's conclusions include a finding that there are no obviously superior alternative sites, and that any adverse environmental impacts from possible site preparation and preliminary construction activities at Clinton could be redressed.

### **Other Pending Applications**

NRC continues to work on three other ESP applications: Grand Gulf in Mississippi; North Anna in Virginia; and Vogtle in Georgia. The staff has completed its technical review of the North Anna and Grand Gulf applications. The Grand Gulf application is before the Commission for its decision, and the North Anna application is currently the focus of a hearing by the Atomic Safety and Licensing Board (ASLB). The staff expects to issue a draft environmental impact statement and initial safety report on the Vogtle application by late summer.

The ASLB held a pre-hearing conference on February 13 to hear arguments on several contentions filed on the Vogtle application. The contentions were filed jointly by the Center for a Sustainable Coast, Savannah Riverkeeper, the Southern Alliance for Clean Energy, the Atlanta Women's Action for New Directions, and the Blue Ridge Environmental Defense League. The contentions raise issues under the National Environmental Policy Act (NEPA) concerning the potential impacts of two new reactors on the aquatic resources of the Savannah River, low-income and minority communities nearby, potential terrorist attacks, and energy alternatives.

### **Background**

The ESP process allows an applicant to address site-related issues, such as environmental impacts, for possible future construction and operation of a nuclear power plant at the site. If a permit is

granted, the applicant has up to 20 years to decide whether to build a new nuclear unit on the site and to file an application with the NRC for approval to begin construction.

*Documents related to the Clinton ESP permit application and reviews are available at <http://www.nrc.gov/reactors/new-licensing/esp.clinton.html>.*

### Hearing Opportunity on Harris Renewal Application

On March 21, 2007, the U.S. Nuclear Regulatory Commission announced the opportunity to request a hearing on a license renewal application for the Shearon Harris Nuclear Power Plant in North Carolina. Petitions may be filed by anyone whose interest may be affected by the license renewal and who wishes to participate as a party in the proceeding. The deadline for requesting a hearing is May 21, 2007.

#### Shearon Harris Application

The Shearon Harris plant is a pressurized water reactor located approximately 20 miles southwest of Raleigh, North Carolina. The current operating license expires on October 24, 2026. The applicant, Carolina Power and Light (a subsidiary of Progress Energy), submitted the renewal application on November 16, 2006.

On April 18, 2007, the agency held a public meeting near the plant to discuss the license renewal process and the scope of its review of the environmental impacts of the proposed renewal.

*The Shearon Harris license renewal application can be found on the NRC's web site at <http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html>.*

#### NRC Regulations/Status of Renewals

Under NRC regulations, a nuclear power plant's original operating license may last up to 40 years. License renewal may then be granted for up to an additional 20 years, if NRC requirements are met. To date, NRC has approved license extension requests for 48 reactor units. In addition, NRC is

currently processing license renewal requests for several other reactors.

*For a complete listing of completed renewal applications and those currently under review, go to <http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html>.*

### Opportunity for Hearing on MOX Fuel Plant

On March 15, 2007, the U.S. Nuclear Regulatory Commission announced the opportunity to request a hearing on a proposed license for Shaw Areva MOX Services to operate a mixed-oxide fuel fabrication facility at the U.S. Department of Energy's Savannah River site in South Carolina. Shaw Areva submitted its application for the operating license in September 2006 and supplemented it in November 2006. NRC staff has determined that the application contains sufficient information for the agency to begin its detailed technical review. NRC staff will hold a public meeting on April 12 in Aiken, South Carolina to discuss the technical review process and the opportunity for members of the public to request an adjudicatory hearing.

The MOX facility, which will be owned by DOE's National Nuclear Security Administration, is part of a bilateral effort between the United States and the Russian Federation to convert supplies of surplus weapons-grade plutonium into more proliferation-resistant forms by blending it with uranium. Converting the plutonium into MOX fuel will enable it to be used in commercial reactors to generate electricity. In the United States, only those reactors authorized by the NRC will be permitted to use MOX fuel.

The deadline for requesting a hearing is May 14, 2007.

*A non-proprietary version of the Shaw Areva application may be viewed at <http://www.nrc.gov/materials/fuel-cycle-fac/mox/licensing.html>.*



### **Palisades License Transfer Approved**

On April 6, 2007, the U.S. Nuclear Regulatory Commission announced that it has approved transfer of the operating license for the Palisades Nuclear Plant from owner Consumers Energy and operator Nuclear Management Company to new owner Entergy Nuclear Palisades and operator Entergy Nuclear Operations. An application requesting the transfer was submitted on August 31, 2006 and was supplemented by letters dated December 15, 2006; March 1, 2007; and, April 4, 2007. Major issues considered by NRC included financial qualifications as well as transfer and maintenance of accumulated decommissioning funds.

*A copy of the NRC's approval order and accompanying non-proprietary safety evaluation report will be placed in the NRC's Public Document Room. The non-proprietary safety evaluation will also be available on the NRC's Agency-wide Documents Access and Management System (ADAMS) by entering ML070780051 at <http://adamswebsearch.nrc.gov/dologin.htm>.*

### **NRC Considers Enforcement Policy Revisions**

The U.S. Nuclear Regulatory Commission is seeking public comment on a proposed major revision to the agency's Enforcement Policy. The proposed revision is intended to clarify terminology and address enforcement issues in areas not currently covered, including the NRC's use of alternative dispute resolution in the enforcement process. The Enforcement Policy contains policy and procedures used by the NRC to initiate and review enforcement actions in response to violations of NRC requirements.

The public comment period on the proposed revisions closed on March 26, 2007. NRC sought public comment on what specific topics should be added or removed from the policy and what topics

currently addressed require additional guidance. NRC does not intend to modify the agency's emphasis on compliance with its requirements.

*The full Federal Register notice on this issue is available at <http://a257.g.akamaitech.net/7/257/2422/01jan20071800/docket.access.gpo.gov/2007/pdf/E7-1088.pdf>.*

### **Plant Physical Security Requirements Reviewed**

On March 9, 2007, the U.S. Nuclear Regulatory Commission hosted a public meeting to discuss a proposed rule amending the agency's security regulations related to the physical protection of nuclear power plants. The proposed rule enhances requirements for access controls, event reporting, security personnel training, safety and security activity coordination, contingency planning and radiological sabotage protection. It would also add requirements related to background checks for firearms users and authorization for enhanced weapons to fulfill certain provisions in the Energy Policy Act of 2005.

The proposed rule that is the subject of the meeting was published in the *Federal Register* in 2006 and the public was invited to submit comments. The comment period ended on March 26, 2007.

*The entire proposed rule can be found on NRC's eRulemaking Portal at <http://www.regulations.gov>. More information about security requirements for NRC licensees can be found at <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/safety-security.html>.*

### **NRC Issues Annual Assessments**

The U.S. Nuclear Regulatory Commission has issued annual assessment letters for each of the nation's 103 operating commercial nuclear power plants ... all of which continue to operate safely according to the agency. "NRC's assessments of

*(Continued on page 26)*

## *Country of Israel*

### **Israeli Firm Announces New Processing Technology**

According to recent press articles, the Israeli firm of Environmental Energy Resources (EER) has developed a reactor “that converts radioactive, hazardous and municipal waste into inert byproducts such as glass and clean energy.” Itschak Shrem, the Chair of EER, presented the innovation to delegations from Russia, Japan, Korea and the United States in Tel Aviv in March. Shrem said that EER’s innovation could produce clean energy that “can be used for just about anything” from low-level radioactive waste and municipal solid waste. The resultant byproduct, according to Shrem, also makes a good recyclable material for building and paving roads.

EER was founded in 2000 and construction began on its pilot waste treatment reactor in 2003. The company’s technology was developed with the help of Russian scientists. The technology combines high temperatures and low-radioactive energy to transform waste using a system called plasma gasification melting technology (PGM) that was developed by scientists from Russia’s Kurchatov Institute research center, the Radon Institute in Russia, and Israel’s Technion Institute in Haifa.

The EER reactor is said to combine three different processes by using plasma torches to break down the waste with carbon leftovers being gasified and inorganic components being converted to solid waste. The remaining vitrified material, according to EER, is inert and can be cast into molds to produce tiles, blocks or plates for the construction industry.

Shrem says that the processes do not burn, which produces dioxin, but rather vacuums out the oxygen to prevent combustion. EER then purifies the gas and with it operates turbines to generate electricity. According to the company, EER produces

energy—70% of which goes back to power the reactor and 30% excess which can be sold.

According to EER, the company’s waste disposal reactor does not harm the environment and leaves no surface water, groundwater or soil pollution. EER claims that its facilities in Karmiel and in the Ukraine have the capacity to convert 500 to 1,000 kilograms of waste per hour. The process is said to cost about \$3,000 per ton and produce only a 1% per volume solid byproduct.

According to reports, EER is negotiating contracts with EnergySolutions to work in the United States, the Ukraine government to clean up waste from the Chernobyl accident, and the Chinese government to help deal with medical waste.

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#### ***(Continued from page 25)***

nuclear power plant performance are central to the agency’s mission of protecting people and the environment,” said Elmo Collins, Director of the Division of Inspection and Regional Support in NRC’s Office of Nuclear Reactor Regulation. “These annual assessments report the results of NRC’s reviews and give the public an overview of how each plant has performed.”

NRC plans to meet publicly with the operators of each plant to discuss plant performance later this spring. A separate announcement will be issued for each plant meeting. In addition to the annual assessment letters, plants also receive an NRC inspection plan for the coming year and mid-cycle assessment letters. Updated information on plant performance is posted to the NRC web site every quarter.

*The assessment letters can be found on-line at <http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/index.html>.*

## Obtaining Publications

### To Obtain Federal Government Information

#### by telephone

- DOE Public Affairs/Press Office ..... (202) 586-5806
- DOE Distribution Center ..... (202) 586-9642
- DOE's National Low-Level Waste Management Program Document Center ..... (208) 526-6927
- EPA Information Resources Center ..... (202) 260-5922
- GAO Document Room ..... (202) 512-6000
- Government Printing Office (to order entire *Federal Register* notices) ..... (202) 512-1800
- NRC Public Document Room ..... (202) 634-3273
- Legislative Resource Center (to order U.S. House of Representatives documents) ..... (202) 226-5200
- U.S. Senate Document Room ..... (202) 224-7860

#### by internet

- NRC Reference Library (NRC regulations, technical reports, information digests, and regulatory guides). ..... [www.nrc.gov](http://www.nrc.gov)
- EPA Listserve Network • Contact Lockheed Martin EPA Technical Support at (800) 334-2405 or e-mail (leave subject blank and type help in body of message). ..... [listserv@unixmail.rtpnc.epa.gov](mailto:listserv@unixmail.rtpnc.epa.gov)
- EPA • (for program information, publications, laws and regulations) ..... [www.epa.gov](http://www.epa.gov)
- U.S. Government Printing Office (GPO) (for the Congressional Record, *Federal Register*, congressional bills and other documents, and access to more than 70 government databases). ..... [www.access.gpo.gov](http://www.access.gpo.gov)
- GAO homepage (access to reports and testimony) ..... [www.gao.gov](http://www.gao.gov)

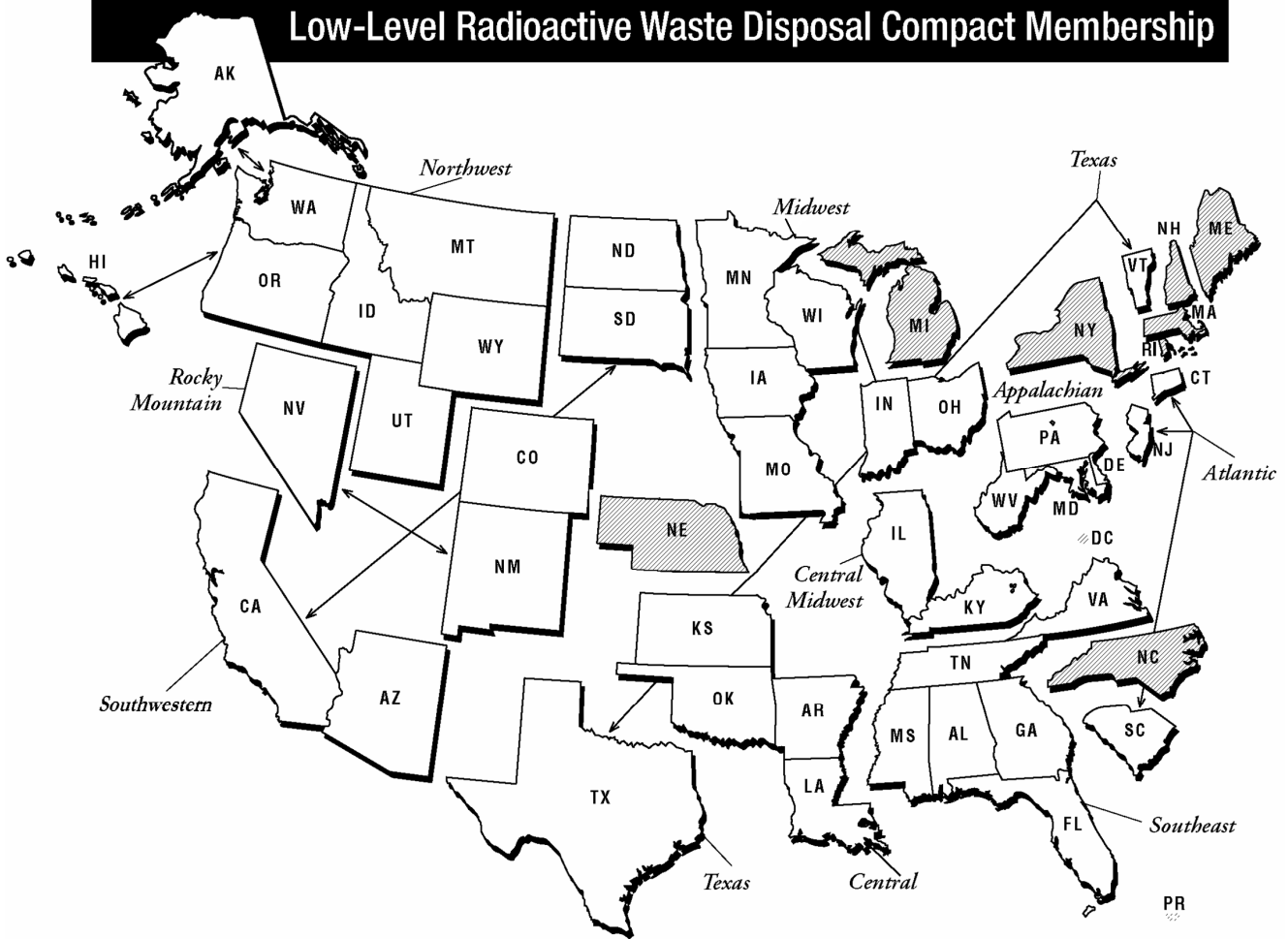
**To access a variety of documents through numerous links, visit the web site for the LLW Forum, Inc. at [www.llwforum.org](http://www.llwforum.org)**

#### Accessing LLW Forum, Inc. Documents on the Web

*LLW Notes*, LLW Forum Meeting Reports and the *Summary Report: Low-Level Radioactive Waste Management Activities in the States and Compacts* are distributed to the Board of Directors of the LLW Forum, Inc. As of March 1998, *LLW Notes* and LLW Forum Meeting Reports are also available on the LLW Forum web site at [www.llwforum.org](http://www.llwforum.org). The *Summary Report* and accompanying Development Chart, as well as LLW Forum News Flashes, have been available on the LLW Forum web site since January 1997.

As of March 1996, back issues of these publications are available from the National Technical Information Service at U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161, or by calling (703) 605-6000.

# 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