LLWnotes

Volume 23, Number 3 May/June 2008

Northwest Compact

NW Compact Clarifies Position on Foreign Waste Disposal Including Foreign Generated Waste Characterized as Domestic by Another Compact or Unaffiliated State

On May 8, 2008, the Northwest Interstate Compact on Low-Level Radioactive Waste Management met in Boise, Idaho. During the course of the meeting, compact members discussed—among other items—access to facilities within the region for the disposal of waste from foreign countries, including a proposal by Energy *Solutions* regarding waste from Italy.

Following discussion, compact members unanimously adopted a resolution concerning access for low-level radioactive wastes generated in foreign countries to the region for disposal at the Energy *Solutions'* Clive Facility—including foreign generated waste that is characterized as domestic generated waste by another compact or unaffiliated state. The resolution clarifies that an arrangement would need to be adopted by the compact prior to such waste being afforded access to the region for disposal and that to date the compact has not considered, reviewed or approved any such arrangement.

Third Amended Resolution and Order

On May 1, 2006, the Northwest Compact adopted a Third Amended Resolution and Order to authorize

access for LLRW to the Clive Facility subject to the provisions of the company's license from the State of Utah. The resolution and order specifically state that they "shall constitute an arrangement under Article V of the Compact statute with any unaffiliated state or compact that approves waste for export to the Energy Solutions' facility." The resolution and order further state that Utah retains the right to specifically approve each disposal arrangement before waste is allowed access to the facility and that the Northwest Compact retains the right to modify or rescind its authorization at any time. The resolution and order recognize that the compact "has no authority and assumes no responsibility for the licensing and operation of the Energy Solutions facility."

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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

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Key to Abbreviations		
U.S. Department of Energy	DOE	
U.S. Department of Transportation	DOT	
U.S. Environmental Protection Agency		
U.S. Government Accountability Office		
U.S. Nuclear Regulatory Commission	NRC	
Naturally-occurring and accelerator-produced		
radioactive material	NARM	
Naturally-occurring radioactive material	NORM	
Code of Federal Regulations		

Low-Level Radioactive Waste Forum, Inc.

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Low-Level Radioactive Waste Forum Meetings 2008 and Beyond

The following information on future meetings of the Low-Level Radioactive Waste Forum is provided for planning purposes only. Please note that the information is subject to change.

For the most up-to-date information, please see the LLW Forum's web site at www.llwforum.org

Fall 2008 Meeting

Registration for the fall meeting of the Low-Level Radioactive Waste Forum is now open. The one and one-half day meeting, which is being sponsored by the Appalachian States Low-Level Radioactive Waste Compact Commission, will be held at the Westin Hotel in Annapolis, Maryland on September 11-12, 2008. (The Executive Committee will meet on Thursday morning, September 11.)

Persons who plan to attend this meeting are strongly encouraged to register and make hotel reservations as soon as possible. Due to the proximity to Washington, D.C. and various federal and congressional offices, high attendance is anticipated for this meeting and space may be limited. And, please note that the deadline for getting the discounted rate at the hotel is August 11, 2008.

Meeting bulletin and registration forms are available on the LLW Forum's web site at www.llwforum.org. Links to the documents will be located both in the first bold paragraph of the Home Page, as well as under "Meetings" on the About Page.

2009 Meetings

The Atlantic Compact will serve as host of the spring 2009 LLW Forum meeting. The meeting will be held at the Hilton Hotel in Columbia, South Carolina on March 23-24, 2009.

The State of Utah has agreed to host the fall 2009 LLW Forum meeting at a location to be determined in Salt Lake City, Utah.

Other Future Meetings

The State of New York has agreed to host the fall 2010 meeting at a location to be determined within the state.

The LLW Forum is currently seeking a volunteer to host the spring 2010 meeting. Although it may seem far off, substantial lead-time is needed to locate appropriate facilities. Anyone interested in potentially hosting or sponsoring a meeting should contact one of the officers or Todd Lovinger, the organization's Executive Director, at (202) 265-7990.

Atlantic Compact/State of South Carolina

South Carolina Clarifies Barnwell Importation Policy

By letter dated May 12, 2008, the Budget and Control Board of the State of South Carolina provided public notice to interested parties that "the board, effective July 1, 2008, no longer authorizes importation for the purposes of disposal at the Barnwell site." According to the letter, "importation" includes disposal at the Barnwell facility "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."

The letter includes the following clarifications with regard to the board's policies on the disposal of waste at Barnwell after July 1, 2008:

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."

The letter concludes by noting that the board believes the above-stated policies are consistent with state and federal laws, longstanding federal practices, and the regulations of the South Carolina Department of Health and Environmental Control (DHEC). Frank Fusco, Executive Director of the South Carolina Budget and Control Board, signed the letter.

For additional information on the board's policies, please contact Bill Newberry, Manager of the Radioactive Waste Disposal Program, at (803) 737-8037. For questions regarding DHEC regulations related to identifying and manifesting radioactive waste shipped to the Barnwell facility, please contact Richard Haynes, Director of DHEC's Division of Waste Management, at (803) 896-4070.

Central Compact/State of Oklahoma

EIS Issued re Sequoyah Fuels **Corp Remediation Plan**

On June 2, the U.S. Nuclear Regulatory Commission announced that it has published its final environmental impact statement (EIS) for the Sequoyah Fuels Corp.'s plan for surface reclamation at its former uranium conversion site near Gore, Oklahoma. The EIS, which is part of NRC's review of Sequoyah's proposed surface reclamation and groundwater corrective actions, concludes that impacts of the proposed actions on the physical environment and nearby communities would be small, while impacts on land use are classified as moderate.

The proposed action and reasonable alternatives, including no action, are described in the report, as are the proposed mitigation measures. NRC assessed the impacts of the proposed action and its alternatives on the public and occupational health, air quality, water resources, waste management, geology and soils, noise, ecology resources, land use, transportation, historical and cultural resources. visual and scenic resources, socioeconomics, accidents and environmental justice. The costs and benefits of the proposed action are also analyzed and compared in the report. The agency issued a draft version of the report in September 2007 for public comment, and held a public meeting. Fifty eight substantive comments were received and are addressed in the report.

"The Environmental Impact Statement for the Reclamation of Sequoyah Fuels Corp Site in Gore, Okla.," NUREG-1888, is available on the NRC web site at http:// www.nrc.gov/reading-rm/doc-collections/nuregs/staff/ sr1888/.

Central Midwest Compact/State of Kentucky

Recertification of Paducah USEC Enrichment Plant

On May 12, NRC staff held a public meeting in Paducah, Kentucky to receive public comment on an application by the U.S. Enrichment Corporation, Inc. (USEC) for recertification of its Paducah gaseous diffusion uranium enrichment plant. An open house was held prior to the meeting to give members of the public an opportunity to meet informally with NRC staff.

USEC submitted applications on April 10 for recertification of its gaseous diffusion enrichment plants in both Paducah, Kentucky, and Portsmouth, Ohio. Certification of the plants is required by the Atomic Energy Act of 1954, as amended by the Energy Policy Act of 1992, which created USEC. A certification is issued only if the plant is in compliance with safety, safeguards and security regulations established by the NRC for these facilities. Certifications are valid for five years. The current certification for each plant expires on December 31, 2008. A public meeting on recertification of the Portsmouth plant was held on June 10. (See related story, this issue.)

Comments will be accepted in writing for 30 days following publication of a notice in the *Federal* Register, expected shortly. Comments should be mailed to Chief. Rules Review and Directives Branch, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

Midwest Compact/State of Ohio

Recertification of Portsmouth USEC Enrichment Plant

On June 10, NRC staff held a public meeting in Piketon, Ohio to receive public comment on an application by the U.S. Enrichment Corporation, Inc. (USEC) for recertification of its Portsmouth gaseous diffusion uranium enrichment plant. An open house was held prior to the meeting to give members of the public an opportunity to meet informally with NRC staff.

USEC submitted applications on April 10 for recertification of its gaseous diffusion enrichment plants in both Paducah, Kentucky, and Portsmouth, Ohio. Certification of the plants is required by the Atomic Energy Act of 1954, as amended by the Energy Policy Act of 1992, which created USEC. A certification is issued only if the plant is in compliance with safety, safeguards and security regulations established by the NRC for these facilities. Certifications are valid for five years. The current certification for each plant expires on December 31, 2008. A public meeting on recertification of the Paducah plant was held on May 12. (See related story, this issue.)

Comments will be accepted in writing for 30 days following publication of a notice in the *Federal Register*, expected shortly. Comments should be mailed to Chief, Rules Review and Directives Branch, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

(Continued from page 1)

Proposal to Import Waste from Italy

On September 14, 2007, Energy Solutions applied for licenses from the U.S. Nuclear Regulatory Commission ("NRC") to import up to 20,000 tons of potentially radioactively contaminated material from Italy and to export for return to generators in Italy any of the imported waste that can not be recycled or does not meet the Clive Facility's waste acceptance criteria for disposal. (See LLW Notes, November/December 2007, pp. 6-9.) Under the proposal, the contaminated material would be processed at Energy Solutions' Bear Creek Facility for recycling and beneficial reuse with any resultant waste being disposed at the Clive Facility. Energy Solutions estimates that approximately 1,600 tons of the imported material would be disposed as Class A LLRW at the Clive Facility.

On February 11, 2008, the NRC published two notices in the *Federal Register* announcing the receipt of applications from Energy *Solutions* regarding the Italian waste import proposal and inviting public comment thereon. In response to requests from interested stakeholders, NRC extended the public comment period—which was originally set to expire on March 12, 2008—to June 10, 2008. (See *LLW Notes*, March/April 2008, pp. 7-8.)

Compact Meeting and Action

During the course of the May 8 meeting, Northwest Compact members heard from both proponents and critics of Energy *Solutions'* proposal, including from officials representing the company and the State of Utah. Just prior to the meeting, Utah Governor Jon Huntsman, Jr. announced that he would "direct Bill Sinclair, who represents Utah on the Northwest Interstate Low-Level Waste Compact, to vote against any proposals for foreign nuclear waste to come in to Utah." (See related story, this issue.) Sinclair is the Deputy Director of the state's Department of Environmental Quality.

Following a closed-door session, the eightcommittee members of the compact voted

unanimously that the Third Amended Resolution and Order does not address foreign low-level radioactive waste and that an arrangement would need to be adopted prior to such waste—including foreign generated waste that is characterized as domestic generated waste by another compact or unaffiliated state—being provided access to the region for disposal at the Clive Facility.

Text of Clarifying Resolution

The full text of the resolution is as follows:

Whereas, the Compact Committee continues to support the Low-Level Radioactive Waste Policy Amendments Act, Public Law 99-240;

Whereas, no facility located in any party state may accept low-level radioactive waste generated outside the region comprised of the party states, prior to an arrangement being adopted by the Compact Committee in accordance with Articles IV and V of the Compact statute;

Whereas, the Compact Committee most recently approved on May 1, 2006, the Third Amended Resolution and Order that serves as an arrangement that provides certain access to the region to low-level radioactive wastes generated in unaffiliated states and compacts that meet the requirements of the Third Amended Resolution and Order for disposal at the EnergySolutions facility in Clive, Utah;

Whereas, the Third Amended Resolution and Order does not address foreign low-level radioactive wastes and the Compact Committee has never considered or reviewed the issue of adopting an arrangement that would provide low-level radioactive wastes generated in foreign countries access to the region for disposal at the EnergySolutions facility in Clive, Utah:

BE IT HEREBY RESOLVED AND ORDERED THAT:

The Third Amended Resolution and Order does not serve as an arrangement for disposal of low-level radioactive wastes generated in foreign countries—including foreign generated waste that is characterized as domestic generated waste by another compact or an unaffiliated state, and such an

arrangement, as required by Articles IV and V of the Compact statutes, would need to be adopted by the Compact Committee prior to foreign generated low-level radioactive wastes being provided access to the region for disposal at EnergySolutions facility in Clive, Utah.

Congressional Interest and Legal Action

On November 19, 2007, Representatives Joe Barton (R-TX) and Ed Whitfield (R-KY) sent a letter to NRC Chairman Dale Klein expressing concern about Energy Solutions' proposal and requesting additional information regarding the agency's "regulatory criteria and decision making process for import license applications for large volumes of radioactive wastes imported from foreign countries for disposal here in the United States." (See *LLW Notes*, November/December 2007, pp. 6-9.) Barton is the Ranking Member of the House Committee on Energy and Commerce. Whitfield is the Ranking Member of the committee's Subcommittee on Oversight and Investigations. Klein responded by letter dated December 13, 2007. (See *LLW Notes*, January/ February 2008, pp. 15-18.)

Representative Bart Gordon (D-TN) has also written to the NRC expressing concern about the proposal and has introduced legislation proposing to strip NRC of its jurisdiction to authorize the import and export of LLRW. Gordon is the Chairman of the House Science and Technology Committee. On May 20, the Subcommittee on Energy and Air Quality of the House Energy and Commerce Committee is held a hearing that, among other things, addressed Gordon's proposed legislation and the Energy Solutions' proposal. (See related story, this issue.)

On May 5, 2008, Energy Solutions filed a lawsuit in the U.S. District Court for the District of Utah, Central Division, against the Northwest Compact and against Michael Garner solely in his official capacity as Executive Director of the Northwest Compact. The action seeks, among other things, a declaratory judgment "to clarify the authority of the Northwest Compact to govern Energy Solutions' privately owned, commercial, low-level radioactive

disposal site in Clive, Utah." (See related story, this issue.)

For additional information, please contact Michael Garner, Executive Director of the Northwest Compact, at (360) 407-7102 or Tye Rogers, Vice President of Compliance and Permitting at EnergySolutions, at (801) 649-2000.

Northwest Compact/State of Utah

Utah Requests Hearing and Intervention re Italy Waste Proposal

On June 10, 2008, on behalf of Utah Governor Jon Huntsman, Jr., the state's Attorney General's Office filed with the U.S. Nuclear Regulatory Commission a request for a hearing and a petition for leave to intervene regarding specific import and export license applications filed by Energy *Solutions*.

In its filing, the state argues that (1) it has an interest that may be affected by the Commission's actions, (2) its timely intervention is in the public interest; (3) its participation will assist the Commission in making its licensing determination; and (4) the requested relief—denial of the license applications—is within the Commission's authority to grant.

Background

Energy Solution's Applications On September 14, 2007, Energy Solutions applied for licenses from the U.S. Nuclear Regulatory Commission ("NRC") to import up to 20,000 tons of potentially radioactively contaminated material from Italy and to export for return to generators in Italy any of the imported waste that can not be recycled or does not meet the Clive Facility's waste acceptance criteria

for disposal. (See *LLW Notes*, November/ December 2007, pp. 6-9.) Under the proposal, the contaminated material would be processed at Energy *Solutions*' Bear Creek Facility for recycling and beneficial reuse with any resultant waste being disposed at the Clive Facility. Energy *Solutions* estimates that approximately 1,600 tons of the imported material would be disposed as Class A LLRW at the Clive Facility.

For additional information, please contact Tye Rogers, Vice President of Compliance and Permitting at EnergySolutions, at (801) 649-2000.

NRC's Review On February 11, 2008, the NRC published two notices in the *Federal Register* announcing the receipt of applications from Energy *Solutions* regarding the Italian waste import proposal and inviting public comment thereon. In response to requests from interested stakeholders, NRC extended the public comment period—which was originally set to expire on March 12, 2008—to June 10, 2008. (See *LLW Notes*, March/April 2008, pp. 7-8.)

The notice of receipt of the import application may be found at 73 Federal Register 7765 (February 11, 2008). The notice of receipt of the export application may be found at 73 Federal Register 7764 (February 11, 2008).

Litigation On May 5, 2008, Energy *Solutions* filed a lawsuit in the U.S. District Court for the District of Utah, Central Division, against the Northwest Compact and against Michael Garner solely in his official capacity as Executive Director of the Northwest Compact. The action seeks, among other things, a declaratory judgment "to clarify the authority of the Northwest Compact to govern Energy *Solutions*' privately owned, commercial, low-level radioactive disposal site in Clive, Utah." (See related story, this issue.)

Northwest Compact Resolution On May 8, 2008, the Northwest Interstate Compact on Low-Level Radioactive Waste Management unanimously adopted a resolution concerning access for low-level radioactive wastes generated in foreign countries to the region for disposal at the

Energy Solutions' Clive Facility—including foreign generated waste that is characterized as domestic generated waste by another compact or unaffiliated state. The resolution clarifies that an arrangement would need to be adopted by the compact prior to such waste being afforded access to the region for disposal and that to date the compact has not considered, reviewed or approved any such arrangement. (See related story, this issue.)

For additional information, please contact Michael Garner, Executive Director of the Northwest Compact, at (360) 407-7102.

Congressional Interest On May 20, 2008, the Subcommittee on Energy and Air Quality of the House Energy and Commerce Committee of the U.S. Congress held a hearing that, among other things, addressed (1) legislation [H.R. 5632] introduced by Representative Bart Gordon (D-TN) that proposes to strip the NRC of its jurisdiction to authorize the importation of low-level radioactive waste and (2) Energy Solutions' proposal regarding the importation of waste from Italy. Testifying at the hearing were representatives from NRC, the Utah Radiation Control Board, Energy Solutions and the U.S. Government Accountability Office. (See related story, this issue.)

To view an archived video Web Cast of the subcommittee's hearing please go to http://energycommerce.house.gov. Windows Media Player is required to view the Web cast.

NRC Standards

Requests for Hearing or Intervention A request for hearing or intervention petition must be timely, list the issues to be raised, and meet the relevant provisions of 10 CFR 110.82 and 110.84. The Commission will consider granting a hearing or intervention request when the petitioner has asserted an interest which may be affected by considering the nature of the alleged interest and how it relates to the licensing decision, as well as "the possible affect of any order on that interest, including whether the relief request is within the Commission's authority, and, if so, whether granting relief would redress the alleged injury."

The Commission has discretion to grant a hearing even if the petitioner fails to assert or establish an interest that may be affected if (1) "a hearing would be in the public interest" and (2) "would assist the Commission in making the statutory determinations required by the Atomic Energy Act."

Licensing Determination 10 CFR 110.43 provides that, in making its licensing determination, the Commission will consider the following criteria:

- (a) The proposed import is not inimical to the common defense and security.
- (b) The proposed import does not constitute an unreasonable risk to the public health and safety.
- (c) Any applicable requirements of subpart A of part 51 of this Chapter [NEPA] are satisfied.
- (d) With respect to the import of radioactive waste, an appropriate facility has agreed to accept the waste for management or disposal.

Utah's Interest

The State of Utah asserts that it has an interest in whether or not NRC grants the license applications because (1) the disposal facility is located in the state, (2) the state regulates the facility, (3) the state is a member of the Northwest Compact, and (4) the state, under the doctrine of *parens patriae*, has a quasi-sovereign right to protect the interests of its citizens.

The state goes on to contend that there is limited disposal capacity in the nation and that the question of foreign waste importation requires a different analysis regarding the risk to public health and safety. In particular, the state acknowledges that there is some level of risk inherent in any proposal to transport and dispose of radioactive waste, but argues that societal benefits that flow from processes that created such waste may make such risks reasonable. This assessment does not apply to foreign-generated waste, according to the state, due to the absence of such societal benefits to American citizens. In addition, the state alleges that, in

balancing such risk, only domestically generated waste was considered when licensing the Clive facility. Finally, the state asserts that Utah's economy will likely suffer harm if the license applications are granted.

The state also argues that it should be allowed to intervene due to the high public interest in this issue and the fact that Utah's citizenry will "bear the brunt" of any foreign-waste disposal authorized pursuant to the applications. "As a regulator of Energy Solutions' Clive facility, as a member of the Northwest Interstate Compact, and as a participant in past NRC proceedings, the State brings a unique perspective that will assist the Commission in evaluating the 10 C.F.R. Part 110 criteria for issuing an import/export license for foreign-generated low level radioactive waste."

Issues to be Raised

In its petition, Utah seeks to raise three issues, all of which the state argues are critical to NRC's decision on the license applications.

Does importing waste from Italy constitute an unreasonable risk to public health and safety?

The state argues that EnergySolutions' import license application does not adequately quantify the radioactive content of the material and that its export license application does not adequately demonstrate that the proposed import would not constitute "an unreasonable risk to the public health and safety." Whether risk is "unreasonable," according to the state, must be evaluated in light of all the circumstances. Moreover, conditioning license issuance on Italy's acceptance of returned waste is, according to the state, unenforceable as a practical matter and may result in orphaned waste.

Do granting import and export licenses for foreign-generated radioactive waste present "special circumstances" such that the 10 CFR Part 110 categorical exclusion to the National **Environmental Policy Act (NEPA) does not apply?** The state asserts that "special circumstances" are present and that EnergySolutions' testimony before Congress

"leaves no doubt that this application is the first of many future requests to dispose of foreigngenerated waste in the United States." Accordingly, the state claims that "this is one of many connected actions that cannot be segmented and NRC cannot comply with NEPA through a categorical exclusion." NRC, according to the state, must conduct an environmental assessment or environmental impact statement.

Has an appropriate facility agreed to accept the foreign-generated waste that is the subject of EnergySolutions' applications (whether or not it has been processed in the U.S.) for **management or disposal?** The state's filing points out that, although EnergySolutions acknowledges that it intends to dispose of some of the imported material at the Clive facility, the Northwest Compact has notified NRC "that should it choose to issue the import license (IW023) it is doing so with the understanding there is no facility within the Northwest Compact region that is authorized to legally accept this waste for disposal." Utah's filing states that it supports the Northwest Compact's position. The filing further states that, if NRC were to issue the license over the Northwest Compact's explicit exercise of its exclusionary authority, the agency would risk jeopardizing both the viability of the Hanford site and the entire compact system.

Other Filings and Comments

Filings Also on June 10, multiple organizations made a joint filing to the NRC opposing Energy Solutions' license applications, supporting Utah's request for a hearing in the State of Utah, and requesting a public hearing in middle Tennessee. The organizations listed in the filing include the Nuclear Information and Resource Service (NIRS), Tennessee Environmental Council, Citizens to End Dumping in Tennessee, Tennessee Conservation Voters, Friends of the Earth, Bellefonte Efficiency and Sustainability Team, American Environmental Health Studies Project, Southern Alliance for Clean Energy, Nuclear Watch South and various chapters of the Sierra Club.

The request identifies the following issues, among others, for consideration: the amount and type of radioactive waste and material that will be processed in Tennessee and what will remain in the state; the amount of recycled metal that would enter the commercial market, including destinations and transportation routes; the final destinations of waste resulting from processing; additional technical information on how the waste will meet acceptance criteria at U.S. facilities and estimates of the amount of material and waste that could be returned to Italy; information about transportation, ports and routes to be used; potential impacts on the public health and safety and common defense and security of the states and the nation; and, the potential impact on policy goals set forth in NRC regulations.

NIRS also filed a separate, independent request for a hearing that includes issues specific to both Tennessee and Utah.

Comments Local press quote an NRC official as saying that, as of the close of the public comment period on June 10, a few hundred supporters and approximately 2,000 opponents have weighed in on EnergySolutions' license applications. The article states that Healthy Environment Alliance (HEAL) of Utah plans to forward an additional 1,300 opposition postcards.

Next Steps

10 CFR 110.83 provides 30 days for an answer to a request for hearing and ten days for a reply to an answer. Also, 10 CFR 110.81(c) states that the Commission will provide the applicant with a copy of the comments and, if appropriate, a reasonable opportunity for response.

Governor Huntsman to Block Italian Waste Import Proposal

On April 23, 2008, the Office of the Governor of the State of Utah put out a press release titled "Governor Huntsman Blocks Italian Waste." According to the release, Utah Governor Jon Huntsman, Jr. has decided, "to direct Bill Sinclair, who represents Utah on the Northwest Interstate Low-Level Waste Compact, to vote against any proposals for foreign nuclear waste to come in to Utah." Sinclair is the Deputy Director of the state's Department of Environmental Quality.

The issue came up at a meeting of the Northwest Compact that was held on May 8, 2008. (See related story, this issue.) At that meeting, the compact commission considered a proposal by Energy *Solutions* to import up to 20,000 tons of potentially radioactively contaminated material from Italy to the company's licensed disposal facility in Clive, Utah and to export for return to generators in Italy any of the imported waste that does not meet the waste acceptance criteria for the Clive facility. (See *LLW Notes*, November/December 2007, pp. 6-9.)

Governor's Press Release

The press release quotes Governor Huntsman as follows:

As I have always emphatically declared, Utah should not be the world's dumping ground. Our country has limited space to store even domestic waste and it would be most appropriate to have a federal policy against the importation of foreign nuclear waste. However, as the federal government is slow to adopt such a policy, Utah will lead the way.

The press release acknowledges that the authority to approve or disapprove the transport of foreign waste into the United States lies with the NRC. However, it notes that the Northwest Compact has

the authority to approve or disapprove foreign nuclear waste for facilities within its region—even if NRC grants its approval. And, according to the press release, an impacted state within the region has the ability to veto the importation of waste into its borders.

Background

Energy Solutions' License Applications On September 14, 2007, Energy Solutions filed an application with NRC for "a generic license to allow the importation of up to 20,000 tons of radioactively contaminated material including metals, graphite, dry activity material such as wood, paper, and plastic, ion exchange resins, and liquids such as aqueous and organic based fluids." Most of the waste, according to company officials, would be recycled into metal with about 1,600 tons being disposed at the Clive site in Utah. Energy Solutions also filed the export license application to allow any waste that may not be disposed in Utah to be returned back to Italy.

A copy of EnergySolutions' license applications may be found on the NRC's Agencywide Documents Access and Management System (ADAMS) at <u>www.nrc.gov</u>.

Barton and Whitfield Correspondence On November 19, 2007, Representatives Joe Barton and Ed Whitfield sent a letter to NRC Chairman Dale Klein expressing concern about the proposal and requesting additional information regarding the agency's "regulatory criteria and decision making process for import license applications for large volumes of radioactive wastes imported from foreign countries for disposal here in the United States." Barton is the Ranking Member of the U.S. House of Representatives Committee on Energy and Commerce. Whitfield is the Ranking Member of the committee's Subcommittee on Oversight and Investigations.

A complete copy of the letter from Representatives Barton and Whitfield to NRC Chairman Klein can be found at <u> http://republicans.energycommerce.house.gov/Media/File/</u> <u>News/11-19-07%20NRC.PDF</u>. The letters may also be found on the NRC's Agencywide Documents Access and

Management System (ADAMS) at <u>www.nrc.gov</u> using accession numbers ML073330805 and ML073330814.

NRC's Response On December 13, 2007, Chairman Klein responded to the inquiry from Barton and Whitfield. (See *LLW Notes*, January/ February 2008, pp. 15-18.) In his letter, Klein notes that all import and export license applications that are submitted to the NRC are reviewed using criteria defined in Title 10 of the Code of Federal Regulations (10 CFR) Part 110, "Export and Import of Nuclear Equipment and Material." As part of the application review process, NRC staff consults with and/or solicits input from the U.S. Department of State, the U.S. Environmental Protection Agency (for applications that include mixed waste), affected states and compacts, and the general public.

A complete copy of Klein's letter to Barton and Whitfield may be found at http://www.nrc.gov/reading-rm/doc- <u>collections/congress-docs/correspondence/2007/barton-12-</u> 13-2007.pdf.

Public Comment Period On February 11, 2008, the U.S. Nuclear Regulatory Commission published two notices in the *Federal Register* announcing the receipt of applications from Energy Solutions regarding the Italian waste import proposal and inviting public comment thereon. In response to requests from interested stakeholders, NRC extended the public comment period—which was originally set to expire on March 12, 2008—to June 10, 2008. (See *LLW Notes*, March/April 2008, pp. 7-8.)

The notice of receipt of the import application may be found at 73 Federal Register 7765 (February 11, 2008). The notice of receipt of the export application may be found at 73 Federal Register 7764 (February 11, 2008).

For additional information, please contact Tye Rogers of EnergySolutions at (801) 649-2000 or Dave McIntyre of the U.S. Nuclear Regulatory Commission at (301) 415-*8200.*

Southeast Compact

Nominations Sought for 2009 Hodes Award

The Southeast Compact Commission for Low-Level Radioactive Waste Management is seeking nominations for the 2009 Richard S. Hodes, M.D. Honor Lecture Award—a program that recognizes an individual, company, or organization that contributed in a significant way to improving the technology, policy, or practices of low-level radioactive waste management in the United States. The award recipient will present the innovation being recognized at a lecture during the Waste Management '09 Symposium in Phoenix, Arizona. The award recipient will receive a \$5,000 honorarium and all travel expenses will be paid.

Background

Dr. Richard S. Hodes was a distinguished statesman and a lifetime scholar. He was one of the negotiators of the Southeast Compact law, in itself an innovative approach to public policy in waste management. He then served as the chair of the Southeast Compact Commission for Low-Level Radioactive Waste Management from its inception in 1983 until his death in 2002. Throughout his career, Dr. Hodes developed and supported innovation in medicine, law, public policy, and technology. The Richard S. Hodes, M.D. Honor Lecture Award was established in 2003 to honor the memory of Dr. Hodes and his achievements in the field of low-level radioactive waste management.

Past Recipients

The following individuals and entities are past recipients of the Richard S. Hodes, M.D. Honor Lecture Award:

- W.H. "Bud" Arrowsmith (2004)
- Texas A & M University Student Chapter of Advocates for Responsible Disposal in Texas (2004 honorable mention)

- William Dornsife (2005)
- California Radioactive Materials Management Forum (2006)
- ◆ Larry McNamara (2007)
- Michael Ryan (2008)

The Award

The Richard S. Hodes Honor Lecture Award established in March, 2003—is awarded to an individual, company, or organization that contributed in a significant way to improving the technology, policy, or practices of low-level radioactive waste management in the United States. The award recipient will be recognized with a special plaque and an invitation to present a lecture about the innovation during the annual international Waste Management Symposium (WM 09). The 2009 symposium is sponsored by the University of Arizona and will be held in Phoenix, Arizona in late February 2009. A special time is reserved during the Symposium for the lecture and the award presentation. The Southeast Compact Commission will provide the award recipient a \$5,000 honorarium and will pay travel expenses and per diem (in accordance with Commission Travel Policies) for an individual to present the lecture.

Criteria

The Richard S. Hodes Honor Lecture Award recognizes innovation industry-wide. The award is not limited to any specific endeavor—contributions may be from any type of work with radioactive materials (nuclear energy, biomedical, research, etc.), or in any facet of that work, such as planning, production, maintenance, administration, or research. The types of innovations to be considered include, but are not limited to:

- conception and development of new approaches or practices in the prevention, management, and regulation of radioactive waste;
- new technologies or practices in the art and science of waste management; and,

new educational approaches in the field of waste management.

The criteria for selection include:

- 1. *Innovation*. Is the improvement unique? Is it a fresh approach to a standard problem? Is it a visionary approach to an anticipated problem?
- Safety. Does the practice enhance radiation protection?
- 3. *Economics*. Does the approach produce significant cost savings to government, industry or the public?
- *Transferability.* Is this new practice applicable in other settings and can it be replicated? Does it increase the body of technical knowledge across the industry?

Eligibility

To be eligible for the award, the individual/group must consent to being nominated and must be willing to prepare and present a lecture about the innovation being recognized at the Waste Management Symposium. Individuals or organizations can nominate themselves or another individual, company, institution, or organization.

Nominations

To nominate yourself or another individual, company, or organization for this distinguished award, please contact:

Ted Buckner, Associate Director Southeast Compact Commission 21 Glenwood Avenue, Suite 207 Raleigh, NC 27603 919.821.0500 tedb@secompact.org

or visit the Southeast Compact Commission's website at http://www.secompact.org/.

Nominations must be received by June 30, 2008.

Southeast Compact/State of Tennessee

Environmental Impacts of Uranium Disposal Program

On April 2, the U.S. Nuclear Regulatory Commission held a public meeting in Erwin, Tennessee to discuss a 2007 report from the National Nuclear Security Administration (NNSA) on the environmental impact of the program at Nuclear Fuel Services in Erwin to dispose of highly enriched uranium by converting the material to lower enrichment for use in commercial nuclear power plants. The 2007 report was a supplement that updated an environmental impact statement issued by NNSA in 1996. Representatives from both NRC and NNSA participated in the meeting. Members of the public were invited to provide comments and ask questions during the meeting.

State of California/Southwestern Compact

Meeting re Proposed Partial Release of San Onofre Site

On June 11, U.S. Nuclear Regulatory Commission staff held a public meeting to discuss San Onofre Nuclear Generating Station's proposed release of a portion of its Unit 1 site for unrestricted use. NRC is reviewing plans by Southern California Edison, the plant's operator, to release the area containing the offshore portion of Unit 1's circulating water system. The agency will only authorize release if it poses no threat to public health and safety.

During the course of the meeting, NRC staff described the overall process for reviewing applications to release sites and how the agency plans to inspect the site. The public was given an opportunity to ask questions and comment on the proposal.

San Onofre Unit 1 began operations in March 1967 and permanently shut down in November 1992. Southern California Edison has been decommissioning Unit 1 for several years.

The company's application is available from the agency's electronic database, ADAMS, by entering ML080580468 at http://adamswebsearch.nrc.gov/dologin.htm.

Texas Compact/State of Texas

TCEQ Issues Byproduct License to WCS

On May 21, 2008, the Texas Commission on Environmental Quality (TCEQ) issued a license to Waste Control Specialists LLC (WCS) to dispose of radioactive byproduct material at the company's facility in Andrews County, Texas. Among the material to be disposed is approximately 3,700 canisters of cold-war era waste from cleanup of the Fernald site in Ohio which WCS is presently storing pursuant to a contract it won from a U.S. Department of Energy contractor in April 2005. It will take approximately six months of construction, however, before WCS is ready to begin disposing of any byproduct material pursuant to the license.

WCS also has an application pending before TCEQ for near-surface disposal of low-level radioactive waste. On December 10, 2007, TCEQ provided for WCS review and comment an initial draft license and draft licensing Order including preconstruction, construction, operational, and maintenance requirements that may differ or expand upon information provided in the application. (See *LLW Notes*, January/February 2008, pp. 1, 9-11.) WCS has submitted comments thereon, which TCEQ is currently reviewing.

Background

General Information By-product material is defined as the tailings or wastes produced by or resulting from the extraction or concentration of uranium or thorium from ore processed primarily for its source material content. In its application, WCS proposed to locate a by-product disposal facility approximately 31 miles west of the city of Andrews in Andrews County, Texas, and six miles east of the City of Eunice, New Mexico. The proposed facility is located just east of the Texas—New Mexico boundary and one mile north of Texas State Highway 176. The WCS facility is currently licensed for the processing, storage and disposal of

a broad range of hazardous, toxic and certain types of low-level and mixed low-level radioactive waste.

Application Review Review of the WCS application was initiated by the Texas Department of Health in June 2004 pursuant to Title 25 of the Texas Administrative Code (TAC), Section 289.260. On September 1, 2004, the Department was reorganized into the Texas Department of State Health Services (DSHS). In the newly formed DSHS, the Technical Assessments Group continued with the review until the 80th Texas Legislature passed, and the Governor signed, Senate Bill 1604. Among other things, that legislation transferred regulatory authority for uranium/byproduct waste disposal to the TCEQ. (See *LLW Notes,* May/June 2007, pp. 9-10.) Technical review staff officially transferred to the TCEQ on July 1, 2007 and the new Uranium Technical Assessments Section of TCEQ continued the WCS application review until October 1, 2007. The by-product material regulations of 25 TAC 289.260 were in effect during the review of the application.

Issuance of Draft Documents TCEQ completed its technical review of WCS' application and prepared supporting documentation—including a draft Environmental Analysis (EA) and a draft license—on October 22, 2007. (See *LLW Notes*, September/October 2007, pp. 1, 11-12.) The draft EA is a technical assessment of the Executive Director's staff review of the license application. It documents the review performed through the technical review period and discusses the review and analysis of technical issues in several critical areas that were subsequently addressed in draft license conditions.

Response to Comments The comment period on the draft EA and the draft license issued by TCEQ ended on November 27, 2007. TCEQ received comments from various individuals, municipalities, organizations and associations, environmental and other groups, and WCS itself. In addition to the comments, TCEQ received approximately twelve requests for a public meeting— submitted by eleven individuals residing in or around Eunice using an identical form letter, as well as the Lone Star

Chapter of the Sierra Club—none of which were submitted from or on behalf of individuals residing in Texas. TCEQ's Executive Director "determined that there was not a significant degree of public interest in the application and decided against conducting a public meeting on the WCS application for a license authorizing by-product material disposal." (See *LLW Notes*, March/April 2008, pp. 12-14.) He recommended that TCEQ Commissioners deny the hearing requests and grant the license.

The Decision

In granting the license application, three TCEQ Commissioners voted two to one in favor of a motion to deny the requests for a hearing and approve the license.

Prior to the vote, a representative from the office of state Senator Kel Seliger—whose district includes the WCS site—read a statement supporting denial of the hearing requests and issuance of the license. Seliger's statement noted that WCS has the support of Andrews County, the City of Andrews, and Lea County, New Mexico and surrounding towns. "Their support was certainly earned through good science, good geology and open communication," said Seliger in the statement.

Commissioner Larry Soward voted against the motion, noting that he wanted the Commissioners to grant the contested case hearing to address media reports that inferred and outright stated that the agency was "somehow suppressing" a full review of the site's viability. "I believe it would be in everyone's benefit to air all of the issues out," said Soward. "I think we lose nothing in the scheme of things by sending this to a hearing, but we gain a great deal. We clear the air in the public about how this application was processed and how the issues were addressed."

Reaction from Interested Parties

WCS issued a press release praising the Commissioner's decision, noting that the company believes the newly issued license will allow it to

provide "an extremely necessary public service the safe and permanent disposal of material that plays a prominent role in our modern society."

WCS' President Rodney Baltzer added as follows:

"Our license application has gone through a thorough and exhaustive review by TCEQ staff since 2004. Our site in Andrews County is one of—if not the—most characterized, analyzed, modeled and monitored sites in the country. In addition to having a great site for disposing of this byproduct material, we have tremendous community support, as demonstrated by more than 30 individuals from the Permian Basin attending the hearing."

An official of the Sierra Club was quoted in the local press, however, as saying that an appeal of the Commissioner's decision is "probable." The official went on to state, "We have not made that decision yet ... It's likely we would ask for a motion of reconsideration and failing that, go to district court."

A link to the WCS web site for the license application, the TCEQ Executive Director's technical summary, the draft license, the draft EA, and the Response to Comments, are available for viewing on the TCEQ's web site at www.tceq.state.tx.us/goto/wcsbyproductapp/.

For additional information, please contact Susan Jablonski, Director of the TCEQ's Radioactive Materials Division, at (512) 239-6731, or Rodney Baltzer, President of WCS, at (972) 450-4235.

Texas Compact/State of Texas

TCEQ Holds 2nd Stakeholder Meeting re Radioactive Material Legislation

On April 25, 2008, the Texas Commission on Environmental Quality (TCEQ) hosted a stakeholder meeting beginning at 9:00 a.m. at its offices at 12100 Park 35 Circle (Building E, Room 201S) in Austin, Texas. The purpose of the meeting was to provide an opportunity for the regulated community and the public to offer input on the next phase of implementation of legislation for radioactive waste management and source material recovery (uranium mining).

Of particular interest to LLW Forum members is TCEQ's consideration of disposal rate setting for low-level radioactive waste and related disposal fee assessment and collection.

Background

TCEQ hosted the meeting in order to provide information to the public and solicit comments on proposed phase II rule changes to implement the remaining provisions of Senate Bill (SB) 1604 and House Bill (HB) 3838. The agency hosted a stakeholder meeting on proposed phase I rule changes on February 15, 2008. (See LLW Notes, January/February 2008, pp. 12-13.)

SB 1604 SB 1604 concerns the transfer of certain regulatory responsibilities for radioactive waste management licensing from the Texas Department of State Health Services (DSHS) to the TCEQ. (See *LLW Notes*, May/June 2007, pp. 9-10.) Prior to its enactment, TCEQ had jurisdiction to regulate and license the disposal of radioactive substances except for by-product material. SB 1604, however, provides that TCEQ will also have jurisdiction to regulate and license:

the processing or storage of low-level radioactive waste or naturally occurring

radioactive material (NORM) waste received from other persons, except oil and gas NORM;

- the recovery or processing of source material;
- the processing of by-product material; and,
- sites for the disposal of radioactive waste, byproduct material or NORM waste.

In addition, SB 1604 provides that TCEQ by rule may exempt a source of radiation or a kind of use or user that is under its jurisdiction from the statutory licensing or registration requirements if it determines that the exemption will not constitute a significant risk to the public health and safety and the environment.

HB 3838 HB 3838 relates to the regulation of injection wells used for in situ uranium mining by the TCEQ. The legislation expands the TCEQ's jurisdiction to include wells used in the development of information that TCEQ requires for area permit applications. It clarifies that TCEQ has exclusive jurisdiction over wells used to provide geologic, hydrologic and water quality information in support of the development of mining permit applications. The bill requires that these wells be registered with TCEQ unless they are later included in a production area permit, at which point the wells become subject to applicable area permit provisions, including notice and hearing requirements.

HB 3838 further requires that a person developing an application for an area permit for in situ uranium mining within a groundwater conservation district shall provide certain, specified information to the district. And, it clarifies TCEQ authority for right of entry inspection and investigation to include production and monitoring wells as defined and any business or operating records required to be maintained for such wells.

Finally, HB 3838 expands the TCEQ's discretion to require financial assurance to ensure proper closure of wells regulated under Water Code Chapter 27 by making such assurance mandatory for any person

issued a permit for any well used for in situ uranium mining.

Discussion Topics

Uranium mining rulemaking was discussed from 9:00 a.m. to 12:00 p.m. Fee setting was then discussed from 1:00 p.m. to 4:00 p.m.

Susan Jablonski, Director of the TCEQ's Radioactive Materials Division, led the discussions.

Projected Schedule

According to TCEQ's projected schedule, it is expected that proposed rule changes would be published in the *Texas Register* on or about August 22. A 30-day comment period would then follow, after which the adopted rules would be published in the *Texas Register* on or about January 2, 2009.

The schedule anticipates that the revised rules would become effective on or about January 6, 2009.

For additional information, including bulleted lists of draft rule concepts by chapter, please go to http://www.tceq.state.tx.us/permitting/radmat/sb1604group.html. You may also contact the Radioactive Materials Division at radmat@tceq.state.tx.us or at (512) 239-6466.

Congress

U.S. House of Representatives

Congress Holds Hearing re Foreign Waste Imports

On May 20, 2008, a subcommittee of the House of Representatives of the U.S. Congress held a hearing that, among other things, addressed legislation introduced by Representative Bart Gordon (D-TN) that proposes to strip the U.S. Nuclear Regulatory Commission of its jurisdiction to authorize the importation of low-level radioactive waste.

The Subcommittee on Energy and Air Quality of the House Energy and Commerce Committee sponsored the hearing. The hearing focused on Gordon's legislation, H.R. 5632, as well as on a proposal by Energy *Solutions* regarding the importation of waste from Italy. Gordon is the Chairman of the House Science and Technology Committee.

There were two panels during the nearly two and one-half hour hearing. The first panel included Margaret Doane, Director of the Office of International Programs at the U.S. Nuclear Regulatory Commission, and Kent Bradford, Chairman of the Utah Radiation Control Board. The second panel included Steve Creamer, Chairman and Chief Executive Officer of Energy Solutions and Gene Aloise, Director of Natural Resources and the Environment at the Denver Field Office of the U.S. Government Accountability Office.

Gordon's Legislation

Gordon introduced his legislation on March 13, 2008. The purpose of the bill is to ban NRC from authorizing the importation of foreign-generated nuclear waste. It is co-sponsored by Representatives Russ Carnahan (D-MO), Ed Markey (D-MA), Jim Matheson (D-UT), Dennis Moore (D-KS), Sue Wilkins Myrick (R-NC), Lee Terry (R-NE) and Ed Whitfield (R-KY).

"No other country in the world is accepting nuclear waste from other countries," stated Gordon upon introducing his bill. "By doing so, the United States is putting itself in position to become the world's nuclear dumping ground." Gordon contends that America only has a "finite" amount of space available for nuclear waste disposal and that using this space for the disposal of foreign waste serves only a company's financial interests rather than American interests.

The bill, as introduced, would prohibit the importation of nuclear waste unless the material originated in the United States. The President could grant specific exemption only if an application showed the importation would serve a national or international policy goal, such as a research purpose.

The complete text of the bill can be found at http://thomas.loc.gov/cgi-bin/thomas by looking up bill no. H.R. 5632.

Energy Solutions' Proposal

On September 14, 2007, Energy Solutions applied for licenses from the U.S. Nuclear Regulatory Commission ("NRC") to import up to 20,000 tons of potentially radioactively contaminated material from Italy and to export for return to generators in Italy any of the imported waste that can not be recycled or does not meet the Clive Facility's waste acceptance criteria for disposal. (See *LLW Notes*, November/December 2007, pp. 6-9.) Under the proposal, the contaminated material would be processed at Energy Solutions' Bear Creek Facility for recycling and beneficial reuse with any resultant waste being disposed at the Clive Facility. Energy *Solutions* estimates that approximately 1,600 tons of the imported material would be disposed as Class A LLRW at the Clive Facility.

On February 11, 2008, the NRC published two notices in the *Federal Register* announcing the receipt of applications from Energy *Solutions* regarding the Italian waste import proposal and inviting public comment thereon. In response to requests from interested stakeholders, NRC extended the public

comment period—which was originally set to expire on March 12, 2008—to June 10, 2008. (See *LLW Notes*, March/April 2008, pp. 7-8.)

For additional information, please contact Tye Rogers, Vice President of Compliance and Permitting at EnergySolutions, at (801) 649-2000.

Related Issues

Various members of Congress have written to NRC expressing opposition to Energy *Solutions'* proposal. In addition, the Northwest Compact recently passed a resolution clarifying its position on the importation of foreign-generated low-level radioactive waste for disposal at the Clive Facility. And, Energy *Solutions* recently filed a lawsuit seeking, among other things, a declaratory judgment to clarify the authority of the Northwest Compact to govern the Clive Facility (See related stories, this issue.)

For additional information on the Northwest Compact's resolution, please contact Michael Garner, Executive Director of the Northwest Compact, at (360) 407-7102.

For additional information on EnergySolutions' lawsuit, please contact Tye Rogers, Vice President of Compliance and Permitting at EnergySolutions, at (801) 649-2000.

Subcommittee Hearing

Below are some very brief highlights from the testimony of each of the witnesses. Persons interested in more specific detail are directed to the written testimony or to the Web Cast of the hearing itself.

NRC Testimony In her testimony, Doane began by describing the history of and framework for NRC's regulatory authority over the export and import of radioactive waste, after which she went into more specific detail on how the NRC processes such applications and gave an overview of the agency's implementation experience. She concluded by reviewing the current status of NRC's review of the Energy *Solutions*' applications and by

commenting on national waste disposal capacity and foreign waste.

In outlining the framework, Doane emphasized that NRC's role in evaluating an import application is "a regulatory one, limited to ensuring that the proposed import can be accomplished safely and securely in accordance with all applicable legal requirements." NRC reviews such applications against criteria defined in Part 110 based on an evaluation of health and safety and common defense and security. During the process, according to Doane, consultation is done with the Executive Branch (which in turn consults with the affected foreign government) as well as the applicable host state and compact and public comments are considered. (EPA is also consulted regarding applications that include mixed waste.) NRC bases its licensing decisions on three criteria found in 10 CFR Part 110.43: (1) the proposed import will not be inimical to the common defense and security; (2) the proposed import will not constitute an unreasonable risk to the public health and safety; and, (3) an appropriate facility has agreed to accept the waste for management or disposal.

In regard to the role of states and compacts, Doane's testimony states the following:

The NRC has exclusive jurisdiction within the United States for granting or denying licenses to import radioactive waste. The NRC, however, recognizes the legal authority of the relevant host State and Low-Level Radioactive Waste Compact to accept or reject low-level radioactive waste for disposal or management in the compact region. Accordingly, the NRC consults the applicable host Agreement State regulatory officials for their health and safety views on the proposed import and to confirm that the proposed import of radioactive waste is consistent with the state-issued possession license for the disposal facility. Likewise, the NRC consults with the applicable Low-Level Radioactive Waste Compact Commission to determine whether the compact will

accept out-of-compact waste for disposal in a regional facility. To ensure that no radioactive waste imported into the United States becomes orphaned waste, the NRC will not grant an import license for waste intended for disposal unless it is clear from these consultations that the waste will be accepted by the applicable host Agreement State and where applicable Low-Level Radioactive Waste Compact. (emphasis added)

In regard to the Energy Solutions' applications, Doane noted that the agency has solicited views from the States of Tennessee and Utah, the Southeast Compact Commission and the Northwest Compact Commission, and the Executive Branch (through the Department of State). To date, over 2,000 comments have been received on the application.

According to Doane's testimony, NRC has issued 13 licenses for the import of radioactive waste since 1995. Of the 13 licenses, seven authorized import for disposal in the United States (with three of the seven applying to U.S.-origin waste) and the remaining six authorized import for processing and return of the processed waste to the country of origin.

As for domestic disposal capacity, Doane stated that NRC has not identified any capacity issues with regard to Class A disposal at the Clive facility in the near-term. However, Doane stated that "the disposal capacity for Class B, C and greater than Class C waste is limited and in short supply, in part because of the States' failure to develop new sites under the Low-Level Radioactive Waste Policy Act, and the decisions of two Low-Level Waste Compacts to bar out-of-compact waste disposal in their regional facilities." Doane concluded her remarks by noting that, "The pure policy question of whether as a general matter foreign waste should be permitted to take up space in U.S. disposal facilities is a foreign commerce issue which is best addressed by Congress in conjunction with the Departments of State and Energy." Accordingly,

NRC took no position on Representative Gordon's proposed legislation.

Utah Testimony Bradford began his testimony by providing background on the Utah Radiation Control Board including its composition and responsibilities. He then went on to address past actions by the Board with regard to foreign waste imports to Utah, discuss the adequacy of disposal capacity, and comment on H.R. 5632.

Bradford commented that the Board has two duties that are pertinent to the importation of waste from foreign countries. First, the Board is charged with regulatory oversight of low-level radioactive waste disposal facilities, including the Clive facility. Second, the Board "has statutory authority to promote the planning and application of pollution prevention and radioactive waste minimization measures to prevent the unnecessary waste and depletion of natural resources."

In regard to the issue of foreign waste disposal, Bradford testified in part as follows:

When the matter of disposal of low-level radioactive waste from foreign countries arose, the Board first considered issuing a rule prohibiting that disposal. However, we received legal advice that such a rule could be challenged as a violation of the Commerce Clause of the U.S. Constitution.

The Board elected then to issue a position statement in the form of a letter to the Chairman of the Nuclear Regulatory Commission ... The letter expressed the Board's opposition to license amendments under review by the Nuclear Regulatory Commission for the importation of foreign waste from Italy.

In the letter to the Nuclear Regulatory Commission the Board expressed what it had heard: the citizens of the State of Utah strongly opposed the importation of foreign waste. The Board believes that

the State has done its fair share and more in providing appropriate disposal capacity for the nation's low-level waste by permitting a low-level waste facility in the state. Providing disposal capacity for foreign waste was never discussed or contemplated at the time the State issued a license to the predecessor to Energy *Solutions*.

The Board, according to Bradford's testimony, has not taken any previous action or position with regard to the disposal of foreign waste in Utah. Nor has the Board taken a position with respect to domestic low-level waste capacity "except to note that the nation's capacity is finite and that we must ensure that the nation provides and retains domestic capacity for our own radioactive waste." The Board, according to Bradford, has also not taken any position with respect to Congressman Gordon's proposed legislation.

In concluding his testimony, Bradford noted that the Board recommended in its letter to NRC Chairman Dale Klein that the agency and Congress should work together to adopt a workable National Low-Level Waste plan. Bradford stated in part as follows:

This current system has not been successful in locating low-level waste disposal sites within the various State Compacts. As a result, the large majority of volume of radioactive waste—over 90% —is disposed at Energy Solutions. The majority of that waste has been from federal generators. Congress should evaluate the current system and encourage other States and Compacts to establish low-level disposal sites. (emphasis added)

Energy *Solutions* **Testimony** Creamer began his testimony with some background information about Energy *Solutions* including an overview of the type of services offered by the company, its day-to-day operations, the permits and licenses it possesses, and its vision for the future.

In his testimony, Creamer specifically addressed the issues of foreign waste disposal and of domestic disposal capacity, stating in part as follows:

Class A low-level waste from international generators has been disposed at Clive for over eight years. Clive has enough capacity to take all of the Class A waste from the 104 domestic nuclear plants, from both on-going operations and the ultimate decommissioning of every plant, and still have approximately 50 million cubic feet of capacity remaining. According to the GAO, in testimony before Congress in 2004, 'disposal availability of class A waste is not a problem in the short or longer term.' (citation omitted)

The Clive facility has disposal capacity for at least the next 30 years, assuming future receipts are equal to 2007. This does not take into account that many of the nuclear plants will get license extensions and therefore will delay decommissioning of some of these plants. Nor does it take into account the technical advancements that will take place over the years which will likely reduce the volume of waste to be disposed.

Nonetheless, in response to concerns regarding capacity issues, Creamer said that Energy Solutions' Clive facility—which he describes as a "national asset"—has offered to self-impose a limit on foreign waste disposal equal to five percent of the site's remaining disposal capacity. "We will not under any circumstance use Clive in a manner that will adversely affect its capacity to fully serve our United States customers, either now or in the future," testified Creamer. "You have my commitment on this."

Throughout the remainder of his testimony, Creamer put forth the following contentions among others: Energy *Solutions* is helping clean up the legacy of waste at many DOE sites, the services which Energy *Solutions* provides are essential to

helping to make the nuclear renaissance a reality and to address growing energy demands in the United States and around the world, and Energy *Solutions* is exploring opportunities to site low-level waste disposal facilities abroad in order to assist other countries in addressing their waste management needs.

Creamer asserted that the company's application to import waste from Italy for processing at Bear Creek with disposal of residual waste at Clive "is consistent with all applicable laws and regulations, consistent with past practices, and consistent with, in limited situations, utilizing our world class facilities to solve complex challenges." He noted that approximately one-third of the Italian material would be recycled and formed into shield blocks, with the remaining material being incinerated and volume-reduced such that only around eight percent would be disposed at the Clive facility. "This is less than one percent of what we dispose at Clive each year," said Creamer. He also testified that three of the four nuclear reactors in Italy were built by American companies, that over 80% of the uranium used to make the fuel for these reactors was mined in the United States, and that the Italian spent nuclear fuel (which contains 99.998% of the radioactivity) has either been sent to the United Kingdom, or will be sent to France, for recycling.

Creamer concluded his remarks by stating that he has "full faith in the Nuclear Regulatory Commission and believe[s] that the NRC has the scientific and technical expertise to continue to make decisions on import license applications." Creamer testified that he does not believe that the action proposed in H.R. 5632 is warranted.

GAO Testimony Aloise began his testimony with an overview of what constitutes low-level radioactive waste, the regulations which govern its disposal, the status of existing facilities, NRC's regulatory oversight role, and similar challenges faced by foreign countries. He stated that "the impetus to develop new disposal facilities has been dampened by many factors, including decreases in disposal volumes, existing disposal availability, rising costs of developing a new facility, and public

and political resistance in states designated to host these facilities." He acknowledged NRC's concern "that future disposal availability and the costs of disposal under the current system remain highly uncertain and waste generators need predictability and stability in the national disposal system." However, he also noted that 29 other countries generate electricity from 331 nuclear power reactors and that many of these countries face disposal challenges similar to those of the United States.

The remainder of Aloise's testimony focused substantially on two prior GAO reports: (1) a June 2004 report that examined the adequacy of low-level radioactive waste disposal availability and (2) a March 2007 report that examined approaches taken by foreign countries to manage their low-level radioactive waste.

The June 2004 report found that "existing disposal facilities had adequate capacity for most LLRW and were accessible to waste generators ... in the short term, but constraints on the disposal of class B and C wastes warranted concern." The report did not take into consideration the impact on domestic disposal capacity of including additional waste from foreign generators. (See *LLW Notes*, May/June 2004, pp. 1, 18-22.)

The March 2007 report found that ten of the 18 surveyed countries have disposal options similar to the U.S. classes A, B and most of C wastes, with six (including Italy) indicating that they plan to build such facilities in the future. (Italy's plans have been delayed, however, due to resistance from the local government.) The report contained various suggestions, including the maintenance of a comprehensive national radioactive waste inventory and the development of a national radioactive waste management plan. (See *LLW Notes*, March/April 2007, pp. 19-21.)

To view an archived video Web Cast of the subcommittee's hearing please go to http://energycommerce.house.gov. Windows Media Player is required to view the Web cast.

Courts

EnergySolutions v. Northwest Interstate Compact on Low-Level Radioactive Waste Management

Energy Solutions Seeks Declaratory Order re NW Compact Authority

On May 5, 2008, Energy Solutions LLC filed a lawsuit in the U.S. District Court for the District of Utah, Central Division, against the Northwest Interstate Compact on Low-Level Radioactive Waste Management and against Michael Garner solely in his official capacity as Executive Director of the Northwest Compact. The action seeks, among other things, a declaratory judgment "to clarify the authority of the Northwest Compact to govern Energy Solutions' privately owned, commercial, low-level radioactive disposal site in Clive, Utah."

Background

The Parties Energy *Solutions* is a limited liability company operating under the laws of Utah and having its principal place of business in Salt Lake City. Among other pursuits, the company operates a low-level radioactive waste ("LLRW") disposal facility in Clive, Utah (the "Clive Facility") that accepts Class A LLRW.

The Northwest Compact was created pursuant to the Low-Level Radioactive Waste Policy Act of 1980 and its 1985 amendments (the "LLRW Act")—which authorizes states to enter into interstate compacts for the management of commercial LLRW—and approved by Congress. It consists of the party states of Alaska, Hawaii, Idaho, Montana, Oregon, Utah, Washington and Wyoming. Michael Garner currently serves as Executive Director of the compact.

Third Amended Resolution and Order On May 1, 2006, the Northwest Compact adopted a Third Amended Resolution and Order to authorize access

for LLRW to the Clive Facility subject to the provisions of the company's license from the State of Utah. The resolution and order specifically state that they "shall constitute an arrangement under Article V of the Compact statute with any unaffiliated state or compact that approves waste for export to the Energy Solutions' facility." The resolution and order further state that Utah retains the right to specifically approve each disposal arrangement before waste is allowed access to the facility and that the Northwest Compact retains the right to modify or rescind its authorization at any time. The resolution and order recognize that the compact "has no authority and assumes no responsibility for the licensing and operation of the Energy *Solutions* facility." According to the complaint, Energy Solutions has never been denied the right to receive any materials under the resolution and order and has therefore not had any occasion to seek to clarify the Northwest Compact's authority to issue them.

Proposal to Import Waste from Italy On September 14, 2007, Energy Solutions applied for licenses from the U.S. Nuclear Regulatory Commission ("NRC") to import up to 20,000 tons of potentially radioactively contaminated material from Italy and to export for return to generators in Italy any of the imported waste that can not be recycled or does not meet the Clive Facility's waste acceptance criteria for disposal. (See LLW Notes, November/December 2007, pp. 6-9.) Under the proposal, the contaminated material would be processed at Energy Solutions' Bear Creek Facility for recycling and beneficial reuse with any resultant waste being disposed at the Clive Facility. Energy Solutions estimates that approximately 1,600 tons of the imported material would be disposed as Class A LLRW at the Clive Facility.

Public Comment Period On February 11, 2008, the NRC published two notices in the *Federal Register* announcing the receipt of applications from Energy *Solutions* regarding the Italian waste import proposal and inviting public comment thereon. In response to requests from interested stakeholders, NRC extended the public comment period—which

was originally set to expire on March 12, 2008—to June 10, 2008. (See LLW Notes, March/April 2008, pp. 7-8.)

Reaction from Public Officials

Congressional Leaders On November 19, 2007, Representatives Joe Barton (R-TX) and Ed Whitfield (R-KY) sent a letter to NRC Chairman Dale Klein expressing concern about Energy Solutions' proposal and requesting additional information regarding the agency's "regulatory criteria and decision making process for import license applications for large volumes of radioactive wastes imported from foreign countries for disposal here in the United States." (See LLW Notes, November/December 2007, pp. 6-9.) Barton is the Ranking Member of the House Committee on Energy and Commerce. Whitfield is the Ranking Member of the committee's Subcommittee on Oversight and Investigations.

Representative Bart Gordon (D-TN) has also written to the NRC expressing concern about the proposal and has introduced legislation proposing to strip NRC of its jurisdiction to authorize the import and export of LLRW. Gordon is the Chairman of the House Science and Technology Committee.

On May 20, the Subcommittee on Energy and Air Quality of the House Energy and Commerce Committee held a hearing that, among other things, addressed Energy *Solutions'* proposal to import radioactive material from Italy.

NRC Chairman On December 13, 2007, Klein responded to the inquiry from Barton and Whitfield. (See *LLW Notes*, January/February 2008, pp. 15-18.) In his letter, Klein notes that all import and export license applications that are submitted to the NRC are reviewed using criteria defined in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 110, "Export and Import of Nuclear Equipment and Material." As part of the application review process, NRC staff consults with and/or solicits input from the U.S. Department of

State, the U.S. Environmental Protection Agency (for applications that include mixed waste), affected states and compacts, and the general public.

Utah Governor On April 23, 2008, Utah Governor Jon Huntsman, Jr. issued a press release announcing his intention to "direct Bill Sinclair, who represents Utah on the Northwest Interstate Low-Level Waste Compact, to vote against any proposals for foreign nuclear waste to come in to Utah." Sinclair is the Deputy Director of the state's Department of Environmental Quality. (See related story, this issue.) The press release acknowledges that the authority to approve or disapprove the transport of foreign waste into the United States lies with the NRC. However, it states that the Northwest Compact has the authority to approve or disapprove foreign nuclear waste for facilities within its region even if NRC grants its approval and that an impacted state within the region has the ability to veto the importation of waste into its borders.

Northwest Compact The Northwest Compact met on May 8, 2008 in Boise, Idaho. During the course of the meeting, compact members heard from both proponents and critics of Energy *Solutions'* proposal. Following a closed-door session, the eight-committee members of the compact voted unanimously that the Third Amended Resolution and Order does not address foreign LLRW and that an arrangement would need to be adopted prior to such waste—including foreign generated waste that is characterized as domestic generated waste by another compact or unaffiliated state—being provided access to the region for disposal at the Clive Facility. (See related story, this issue.) The committee previously agreed to forward its views on Energy Solutions' proposal to the NRC within five working days of the meeting.

The Issues

Authority Although Energy *Solutions* recognizes that it has "coordinated" some of its activities with the Northwest Compact, the company argues that it "has maintained that the Northwest Compact has no authority to control its receipt of materials." In

this regard, Energy *Solutions* maintains that the Clive Facility is not a "regional disposal facility" as defined in the LLRW Act. The company explains its position as follows:

Although Article IV of the Northwest Compact's Charter provides that, subject to certain limited exceptions, "[n]o facility located in any party state may accept lowlevel waste generated outside of the region comprised of the party states;" and, although Article II of the [Northwest Compact's Charter purports to define "facility" as "any site, location, structure, or property used or to be used for the storage, treatment, or disposal of low-level waste, excluding federal waste facilities;" the LLRW Act and Consent Act authorize the Northwest Compact to control only those LLRW shipments destined for "regional disposal facilities" ... Thus, any effort by the Northwest Compact to restrict LLRW shipments to an enterprise that is not a "regional compact facility" would fall outside the authority that Congress has granted to the Northwest Compact through the LLRW Act and Consent Act ... Energy *Solutions'* Clive, Utah facility is a private, commercial LLRW management site that was not established as a "regional disposal facility" as that term is used in the LLRW Act.

Energy *Solutions* also states that the compact has historically approved the storage of international LLRW pursuant to licenses granted by the NRC and that the company has agreed to a self-imposed limit on the amount of international LLRW that could be received by its Clive Facility equal to five percent of the site's remaining capacity.

Waste Stream In regard to the proposed waste stream, Energy *Solutions* states that the Clive Facility has "for several years applied for and received licenses from the NRC to recycle, process and safely dispose of LLRW from international sources." The company argues that the material which it is proposing to import from Italy "is

scientifically indistinguishable from material that Energy *Solutions* currently receives from US and international generators of LLRW" and that "NRC has publicly stated that it has received no technical objections to the proposed License from the States of Tennessee or Utah."

In addition, Energy *Solutions* argues that, "As a result of past cooperation, substantial quantities of foreign LLRW have been received at the Clive Facility, and no material has ever been excluded because of its foreign origin."

Contentions

In its complaint, Energy *Solutions* requests declaratory judgments on three specific items:

Count One: Authority of the Northwest Compact Energy Solutions asserts that the Northwest Compact "has never sought in the past to restrict the Clive Facility's receipt of foreign LLRW, and substantial amounts of such material are being managed already at the site."

Energy Solutions further argues that it is not a "regional disposal facility" as defined in the LLRW Act. In support of this contention, the company states that the compact was not involved in chartering or establishing the facility, the facility is privately owned, and the compact has no role in the licensing or health and safety inspections or protocols for the facility.

Energy Solutions contends that the authority that compacts derive from the LLRW Act to restrict the flow of waste within their regions is limited only to "regional disposal facilities" and does not extend to other entities that, like the Clive Facility, cannot be characterized as a "regional disposal facility."

Accordingly, Energy *Solutions* seeks a declaratory judgment from the court that "the Northwest Compact lacks the authority to restrict the flow of LLRW to the Clive Facility."

Count Two: NRC's Regulatory Authority While acknowledging that the LLRW Act delegates certain

federal powers and responsibilities to the states, Energy *Solutions* contends that NRC retains the authority and responsibility for the regulation of the export and import of byproducts and nuclear materials. Pursuant to this authority, NRC has established a comprehensive licensing and review mechanism for applications to import nuclear materials into the country.

Accordingly, Energy *Solutions* argues that NRC's authority, which the company describes as "exclusive," would preempt any attempt by the Northwest Compact to restrict or prevent the importation of foreign waste to the Clive Facility. In this regard, Energy *Solutions* states as follows:

The ability to grant licenses for the importation of materials to be managed at U.S. facilities without interference from the States or compacts is a necessary component of the NRC's regulatory authority. Any other result would render the NRC's regulatory authority meaningless.

In this regard, Energy Solutions seeks a declaratory judgment from the court that "any effort by the Northwest Compact to restrict the Clive Facility from receiving foreign LLRW would be preempted by federal law and would be a violation of the applicable statutes and regulatory schemes."

Count Three: Commerce Clause Implications

Under the Commerce Clause of the U.S.
Constitution, Congress is afforded the exclusive power to "regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes." The so-called "dormant" component of the Commerce Clause provides that local efforts may not discriminate against an article of commerce by reason of its origin or destination outside of a state or the country unless authority to do so has been granted by Congress or unless such efforts advance a legitimate local interest that cannot be served by non-discriminatory means.

Energy *Solutions* argues that the Northwest Compact's grant of authority to regulate interstate

commerce does not authorize discrimination against "foreign" commerce. In this regard, the company asserts as follows:

The Northwest Compact does not restrict, and has never restricted, the use of the Clive Facility to LLRW "generated within the compact region." Consequently, even if it had authority over the Clive Facility, any effort by the Northwest Compact to restrict foreign LLRW from the Clive Facility, based solely on its origin outside the United States, would amount to discrimination against foreign commerce ... Congress has never authorized the Northwest Compact to discriminate against foreign commerce by treating domestic LLRW more favorably than its foreign (but otherwise identical) counterpart, based solely on the latter's origin outside the United States ... Such unauthorized discrimination against foreign commerce could not survive the strict scrutiny to which it would be subject because it would not advance any legitimate local interest that could not be served as well by non-discriminatory means.

Based on this analysis, Energy Solutions seeks a declaratory judgment "that any effort by the Northwest Compact to restrict or prohibit the Clive Facility from receiving foreign LLRW would amount to unauthorized discrimination against foreign commerce, and would be prohibited by the dormant Commerce Clause."

For additional information, please contact Tye Rogers, Vice President of Compliance and Permitting at EnergySolutions, at (801) 649-2000, or Michael Garner, Executive Director of the Northwest Compact, at (360) 407-7102.

U.S. Department of Energy v. State of Washington

Ninth Circuit Upholds Striking Down of Hanford Initiative

On May 21, 2008, the U.S. Court of Appeals for the Ninth Circuit upheld a lower court's decision to strike down the Washington State Cleanup Priority Act—a voter initiative that would bar the U.S. Department of Energy from sending any additional waste to the Hanford nuclear reservation until the department cleans up the facility. In so holding, the court wrote as follows:

"Although the desire to take action against further environmental contamination and to protect the public health and welfare of the community is understandable, we conclude that the statute enacted through the passage of Initiative 297 ("I-297"), the Cleanup Priority Act ("CPA"), is preempted by federal law. This result is dictated by a plain reading of the Washington statute, as interpreted by the Washington Supreme Court, as well as long-standing principles of federal preemption."

Background

By a margin of roughly 2 to 1, voters in the State of Washington on November 2, 2004 overwhelmingly approved an initiative to require DOE to clean up the Hanford nuclear reservation before it sends any additional waste to the facility. In addition, I-297 also seeks to prevent the disposal of waste in unlined trenches. (See *LLW Notes*, January/ February 2004, p. 7.) The initiative was sponsored by Heart of America Northwest and received endorsements from environmental groups, the state Democratic Party and the League of Women Voters.

Radioactive waste is currently retrievably stored at Hanford. The State of Washington and the federal government have entered into an agreement on a long-term schedule for cleanup of the site. In

addition, the federal government has shipped small quantities of radioactive waste from two other federal sites to Hanford for packaging before sending it on to the Waste Isolation Pilot Plant (WIPP) in New Mexico.

The Lawsuit

After passage of the initiative, DOE filed a lawsuit challenging its constitutionality and sought a restraining order on its enforcement. In so doing, the department argued that there are too many uncertainties about how the state will implement the measure. In addition, Department of Justice attorneys contended that some cleanup efforts at the site have already been halted as a result of the initiative. On December 2, 2004, the U.S. District Court for the Eastern District of Washington ruled for the federal government and issued the requested restraining order—although waste shipments to the site had already been halted under another lawsuit. In so ruling, the court found that there is a possibility that the initiative may be invalid and that DOE will suffer irreparable injury with regard to onsite cleanup at Hanford if it were to immediately become law. (See *LLW Notes*, November/ December 2004, pp. 13-14.)

Federal attorneys argue that the initiative should be invalidated on various grounds including that (1) it pre-empts the federal government's nuclear waste and interstate commerce policies and (2) imposes an illegal tax on the federal government. On July 28, 2005, the Washington State Supreme Court answered certified questions of state law for the district court pertaining to the CPA. (See *LLW Notes,* July/August 2005, pp. 14 - 17.) In particular, the state court provided certified answers to five questions on how the act should be interpreted. It is important to note that while the state court answered questions regarding interpretation of the initiative, however, the court did not rule on the constitutionality of the initiative or parts thereof. Instead, the case was returned to the federal district court, which then applied the state court's certified answers in adjudicating the case.

The District Court's Ruling

On June 12, 2006, the U.S. District Court for the Eastern District of Washington struck down the CPA as unconstitutional after finding that it violates the federal government's authority over nuclear waste and interstate commerce. The court held, among other things, that the initiative is preempted by the Atomic Energy Act (AEA) and violates sovereign immunity and the Supremacy Clause of the U.S. Constitution. In addition, the court found that specific sections of the CPA violate the dormant Commerce Clause, the deliberative process privilege, and the Resource and Conservation Recovery Act (RCRA) waiver of immunity to the United States. Moreover, the court ruled that the initiative is facially invalid and cannot be applied constitutionally in any circumstances—i.e., severability is not an issue. (See *LLW Notes*, May/ June 2006, pp. 1, 11 – 12.)

On July 12, 2006, the Washington Department of Ecology filed an appeal with the U.S. Court of Appeals for the Ninth Circuit in San Francisco challenging a lower court's decision. "We respectfully disagree with the federal district court's conclusion that Initiative 297 is unconstitutional and we are not content to let this decision rest with a single district court judge," wrote Attorney General Rob McKenna in a press release. McKenna's office had argued that the initiative is valid because the state has authority to regulate mixed wastes. The state also argued that the federal government could not strike down a law without first seeing how it would be applied. (See *LLW Notes*, July/August 2006, pp. 12 – 13.)

The Appellate Court's Ruling

The Issues In framing the discussion, the appellate court identified the issues before it as follows:

"Generally speaking, 'mixed waste' is waste that has both a nonradioactive hazardous component and a radioactive component. Unquestionably, the State has the authority to regulate nonradioactive hazardous materials, and does so primarily through the RCRA and the HWMA. The parties also agree that the regulation of pure radionuclides is governed by the AEA. The question we address here is whether the regulation of the radioactive component of mixed waste is preempted by the AEA."

Preemption In determining whether the CPA is preempted by the AEA, "the test ... is whether 'the matter on which the state asserts the right to act is in any way regulated by the federal government.'" According to the court, "the AEA preempts the CPA if (1) the purpose of the CPA is to regulate against radiation hazards, or (2) if the CPA directly affects decisions concerning radiological safety." The court concluded that the CPA is preempted on both grounds.

The CPA's Purpose is to Regulate Radioactive Materials The appellate court held that the text of the CPA itself makes it abundantly clear that it is intended to regulate both nonradioactive hazardous substances and radioactive hazardous substances in order to protect health and environmental safety. In support of its finding, the court cited language from section after section of the CPA referencing radiation hazards, noted that the CPA imposes a condition on the ability of facility owners to accept mixed waste that is generated off-site, and pointed out that some provisions in the CPA regulate "pure" AEA radionuclides. Based on the foregoing, the court concluded that the purpose of the CPA is "to regulate the treatment, storage, and disposal of radioactive materials, among other materials, in order to protect the health and safety of Washington residents and the environment." While the court commented that such regulation might be "laudable" in its purpose, it concluded that it clearly "invades the province of the AEA."

The CPA Has Direct and Substantial Effects The court found that the CPA "is also preempted because it directly and substantially impacts the DOE's decisions on the nationwide management of nuclear waste." In so ruling, the court noted that Hanford is the only federal facility that can accept off-site mixed waste for disposal and that the use of commercial facilities is limited due to uncertainties

regarding their long-term availability and prohibitions against the acceptance of higheractivity mixed waste, classified waste and other types of waste. The fact that DOE is not currently shipping waste to Hanford is irrelevant, according to the court. "The facilities at Hanford are part of the DOE's overall nuclear waste management plan," said the court. "Legislation geared to effectively close Hanford for an extended period of time directly affects the DOE's ability to make decisions regarding if and when it will ship additional waste to Hanford."

Savings Clause The court noted that the CPA contains a savings clause that authorizes the Washington Department of Ecology to "regulate" mixed wastes to the fullest extent it is not preempted by federal law." The court, however, declined to simply sever the offending provisions, stating as follows:

"Although it might be possible to excise those provisions that deal solely with radioactive materials, to construe the remaining sections of the CPA as limited to the nonradioactive component would require us to examine and rewrite most of the statute in a vacuum as to how the various provisions were intended to intersect and in a way that would be at odds with the purpose of the statute ... We will not undertake this task of unscrambling the egg ... And, as a practical matter, excising the most significant conflicts in the statute would result in a very [different] statute than the one envisioned by I-297."

International

International

INRA Encourages Worldwide Nuclear Safety Enhancements

The International Nuclear Regulators Association (INRA) issued a statement earlier this year that strongly encourages countries that are expanding their programs for peaceful uses of nuclear energy and those that are developing new nuclear programs to adopt programs of continuous improvement in nuclear safety. The statement goes on to assert that the enhancement of international cooperation and commitment by all nuclear nations, both existing and future, is key to achieving high levels of nuclear safety worldwide. The International Atomic Energy Agency (IAEA) was asked to convey the statement to all of its members. The INRA is offering its assistance to countries in developing legislation and independent regulatory entities with a sound safety culture.

In its statement, the INRA identified the following four commitments that countries should consider to achieve and maintain high levels of nuclear safety:

- to have a legislative and regulatory framework to govern the safety of nuclear materials and installations that meets the requirements of the international Convention on Nuclear Safety that meets relevant fundamental safety principles, and appropriate standards;
- to establish an independent nuclear safety regulatory body with authority, competence, and financial and human resources to fulfill its responsibilities to secure a high level of safety;
- to ensure that such an independent regulatory body is able to come to its regulatory judgments or decisions on nuclear safety issues based on expert nuclear safety technical understanding unfettered by outside interest or pressure, and that this is underpinned by an appropriate legal framework, custom and practice and through

- other measures established by governments and parliaments; and,
- to anchor an effective system of nuclear safety regulation and control on a strong national commitment to develop cultures in all relevant organizations, bodies, that emphasize nuclear safety as the priority.

The INRA is a group of international nuclear regulators that was formed 11 years ago to provide a forum for regulators to discuss nuclear safety. NRC Chairman Dale Klein is the current Chairman of INRA. The group met in mid-March in Washington, DC. At that meeting, members discussed the importance of nuclear safety with renewed emphasis due to the increased interest of many countries across the world in developing or expanding nuclear programs. Countries represented at the meeting were: Canada, France, Japan, Spain, South Korea, Sweden, the United Kingdom and the United States.

The letters and statement are available on NRC's Agencywide Documents Access and Management System (ADAMS) through the NRC's web site at http://www.nrc.gov in the Electronic Reading Room at these numbers: ML081150667 and ML081150662.

Federal Agencies and Committees

Advisory Committee on Medical Uses of Isotopes (ACMUI)

ACMUI Discusses NORM Transition Plan

The U.S. Nuclear Regulatory Commission's Advisory Committee on Medical Uses of Isotopes (ACMUI) met on April 28 – 29 to discuss several issues, including a transition plan for NRC to regulate naturally-occurring and accelerator-produced radioactive material; recommendations on regulating the Leksell Gamma-Knife Perfexion; potential revisions to the NRC's abnormal occurrence criteria; guidance for yttrium-90 microsphere brachtherapy sources and devices; status of specialty board applications for NRC recognition; and review of recent medical events. The meeting, which was open to the public, was held at NRC headquarters in Rockville, Maryland.

A transcript of and written comments from the meeting are available for inspection on the ACMUI web site at http://www.nrc.gov/about-nrc/regulatory/advisory/acmui.html.

Advisory Committee on Nuclear Waste and Materials (ACNW&M)

ACNW&M Discusses Effects of Low Radiation Doses

The U.S. Nuclear Regulatory Commission's Advisory Committee on Nuclear Waste and Materials met at the agency's headquarters in Washington, DC on May 20 – 22 to discuss, among other things, a proposed report on the effects of low radiation doses, and the science and policies related to this matter.

The committee had previously met at agency headquarters on April 8 – 10. At that meeting,

committee members heard opening remarks by NRC Commissioner Pete Lyons and presentations by others on the effects of low radiation doses, among other items.

The ACNW&M reports to and advises the Commission on all aspects of nuclear waste and materials management. ACNW&M agendas can be found on the NRC web site at http://www.nrc.gov/reading-rm/doc-collections/acnw/agenda/20008.

Advisory Committee on Reactor Safeguards (ACRS)

ACRS Meets to Discuss New Reactor Designs

The U.S. Nuclear Regulatory Commission's Advisory Committee on Reactor Safeguards (ACRS) held a public meeting from June 4 - 6 at the agency's headquarters in Rockville, Maryland. During the course of the meeting, among other things, committee members discussed designs of both the Evolutionary Power Reactor (EPR) and the U.S. Advanced Pressurized Water Reactor (US-APWR). The EPR is a 1,600 MWe large pressurized water reactor of evolutionary design that is currently under NRC review. (For additional information, go to http://www.nrc.gov/reactors/ new-licensing/design-cert/epr.html.) The US-APWR is a Mitsubishi Heavy Industries-designed 1,700 MWe pressurized-water reactor that is also currently under NRC review for possible certification. (For additional information, go to http://www.nrc.gov/reactors/new-licensing/ design-cert/apwr.html.) ACRS had previously discussed design of the Economic Simplified Boiling Water Reactor (ESBWR), among other items, at its meeting in Rockville on May 8 – 10. (For additional information, go to http:// www.nrc.gov/reactors/new-licensing/design-cert/ esbwr.html.)

Federal Agencies and Committees continued

The committee also discussed the status of activities associated with the development of rules and regulatory guidance in the safeguards and security areas and the resolution of Generic Safety Issue 91—the assessment of debris accumulation on pressurized-water reactor sump performance at the nuclear power plants.

The ACRS advises the Commission, independently from NRC staff, on licensing and operation of nuclear power plants and related safety issues. ACRS agendas can be found on the NRC web site at http://www.nrc.gov/reading-rm/doc-collections/acrs/agenda/20008.

Atomic Safety and Licensing Board (ASLB)

ASLB Hosts Public Meeting re HLW Adjudication

On May 14, the U.S. Nuclear Regulatory
Commission's Atomic Safety and Licensing Board
(ASLB) held a public meeting in Las Vegas to
discuss, among other things, possible formats for
contentions to be filed in an adjudicatory hearing
on a proposed high-level waste repository at Yucca
Mountain. During the course of the meeting, which
was held at NRC's Las Vegas Hearing Facility, the
ASLB's "Advisory Pre-Application Presiding
Officer Application Board" asked representatives of
the NRC staff, the U.S. Department of Energy, the
State of Nevada, and any other prospective parties
to present their ideas on how best to expedite a
hearing by using uniform formats for contentions,
answers and replies.

DOE filed a license application for the Yucca Mountain repository in early June. (See related story, this issue.) By law, NRC has three to four years to review the application, including resolving any adjudicatory hearings, and decide whether to authorize the construction. Potential parties to the Yucca Mountain proceeding have advised the PAPO Board to expect as many as 650 or more contentions to be filed, which is five times the largest number filed in any NRC proceeding since the contention admissibility standards were revised in 1989. Using a uniform format for these filings could promote efficiency and fairness as various Boards are formed to conduct multiple hearings.

ASLB Adds Prehearing Conference re Vogtle Site Permit

The Atomic Safety and Licensing Board (ASLB), an independent judicial arm of the U.S. Nuclear Regulatory Commission, added a prehearing conference to its April 27-28 sessions in Atlanta, Georgia concerning an Early Site Permit (ESP) for the Vogtle site near Waynesboro, Georgia. During the conference, the board heard presentations from NRC staff and the applicant, Southern Nuclear Operating Company, about possible interconnections between the ESP and the Combined License (COL) processes. (See related story, this issue.) Southern recently filed a COL application for two new reactors referencing the Vogtle ESP site. The board also gave several public interest groups the opportunity to address any parts of the presentations that are relevant to the ESP proceeding.

Federal Agencies and Committees continued

U.S. Department of Energy

DOE Submits Yucca Mountain Application

On June 3, 2008, the U.S. Department of Energy submitted an application to the U.S. Nuclear Regulatory Commission for authorization to construct a spent nuclear fuel and high-level radioactive waste repository at Yucca Mountain, Nevada. The application, which is 8,600 pages long, details DOE's plans "to safely isolate spent nuclear fuel and high-level radioactive waste in tunnels deep underground at Yucca Mountain, a remote ridge on federally controlled land in the Mojave Desert 90 miles northwest of Las Vegas." The waste is currently being stored at 121 temporary locations in 39 states throughout the nation.

Background

The Nuclear Waste Policy Act of 1982 (NWPA), as amended, created a process for the identification, characterization and approval of a site for a permanent geologic repository and for its licensing by the NRC. In 2002, over strong objections from the State of Nevada, President George W. Bush and both chambers of Congress accepted the recommendation of then-Energy Secretary Spencer Abraham and designated Yucca Mountain as the site for America's first permanent repository. (See LLW Nots, January/February 2002, pp. 16-17 and LLW Notes, March/April 2002, p. 26.)

A Final Environmental Impact Statement (EIS), as well as approximately 200 key supporting documents, accompanies the license application submitted by DOE. In addition, DOE has made available more than 3.6 million documents relating to the Yucca Mountain licensing proceeding on the NRC's Licensing Support Network.

Next Steps

NRC will now conduct an initial docketing review to determine whether the application is sufficiently complete to accept it and begin a formal licensing review. If accepted, the NRC will formally docket the application and publish a notice of opportunity to request a hearing before the agency's Atomic Safety and Licensing Board (ASLB). A decision to docket the application for review does not preclude the NRC from requesting additional information or documentation from DOE during review of the license application. If NRC dockets the application, it will announce at that time the extent to which it will adopt DOE's final EIS.

The NWPA and NRC regulations provide for a three-year licensing process for NRC to review the Yucca Mountain application and determine whether to authorize construction. Congress has given the NRC an option to request a one-year extension. Although NRC noted in its press release that it expects to need a fourth year, the agency stated that it "expects to meet this schedule, subject to Congress providing sufficient resources in a timely manner."

NRC Review

NRC's review of the application is expected to involve more than 100 staff and contractor employees with expertise in several scientific disciplines, including geochemistry, hydrology, climatology, structural geology, volcanology, seismology, health physics, security, and law, as well as chemical, mechanical, nuclear, mining, materials and geological engineering. Participating in the review process will be staff at NRC's headquarters in Rockville, Maryland; the Region IV office in Arlington, Texas; and, the NRC's office in Las Vegas, Nevada. Technical assistance will be provided to the NRC by the Center for Nuclear Waste Regulatory Analysis in San Antonio, Texas a federally funded research and development center.

Federal Agencies and Committees continued

NRC's Office of Nuclear Material Safety and Safeguards, under the direction of Michael F. Weber, will conduct the licensing review of the Yucca Mountain application. Within that office, the Division of High-Level Waste Repository Safety will oversee daily operations for the review.

The ASLB expects to form several boards of three judges each to conduct multiple hearings regarding the Yucca Mountain application. Potential parties to these hearings indicated earlier this year that they expect to file as many as 650 contentions. The ASLB Panel, which is headed by Chief Judge E. Roy Hawkins, includes 16 full-time judges with legal and technical expertise. Many of the hearing proceedings will be conducted at the NRC's Las Vegas Hearing Facility, although some will be held at agency headquarters.

Statements by NRC and DOE

DOE Comments "Submittal of the Yucca Mountain license application will further encourage the expansion of nuclear power in the United States, which is absolutely critical to our energy security, environmental goals, and national security," said Secretary of Energy Samuel Bodman. "This license application is the culmination of more than two decades of expert scientific research and engineering, and represents a major milestone for the Department. We are confident that the NRC's rigorous review process will confirm that the Yucca Mountain repository will provide for the safe disposal of spent nuclear fuel and high-level radioactive waste and will be protective of human health and the environment now and into the future."

NRC Comments "We are ready to get to work on this challenging review," said NRC Chairman Dale Klein. "Congress has given the NRC a strict timetable for reviewing this application, and I want to assure the American people that we will perform an independent, rigorous and thorough examination to determine whether the repository can safely house the nation's high-level waste. The NRC's

licensing decision will be based entirely on the technical merits."

For additional information about NRC's role in regulating the disposal of high-level nuclear waste, please go to http://www.nrc.gov/waste/hlw-disposal.html. For early access to the application and related documents, please go to the NRC's Licensing Support Network at http://lsnnet.gov/.

Yucca Mountain Application "Walk-Through" Public Meeting June 19 – 20

In mid-June, officials from the U.S. Department of Energy presented a "walk-through" of their recently submitted license application for a proposed high-level nuclear waste repository at Yucca Mountain, Nevada. The presentation, which was open to the public, took place at the headquarters of the U.S. Nuclear Regulatory Commission in Rockville, Maryland on June 19 – 20. During the public walk-through, DOE officials reviewed the layout and organization of the application, which totals in excess of 8,600 pages.

DOE submitted the license application on June 3. NRC staff is currently conducting its docketing review of the application to determine if it is sufficiently complete to warrant docketing it and to begin a full technical safety review.

U.S. Nuclear Regulatory Commission

NRC Provides Updated Guidance re Extended LLRW Storage

On May 29, 2008, the U.S. Nuclear Regulatory Commission announced that the agency has issued updated guidance to its fuel cycle and materials licensees regarding the potential need to store some low-level radioactive waste on site for an extended period after the closure of the Barnwell facility to out-of-region waste.

The guidance was issued as NRC Regulatory Issue Summary 2008-12, "Considerations for Extended Interim Storage of Low-Level Radioactive Waste by Fuel Cycle and Materials Licensees."

Background

NRC regulations establish safety requirements for the near-surface disposal of low-level radioactive waste. As of July 1, 2008, the Barnwell facility in South Carolina will no longer accept out-of-region waste for disposal. As a result, generators in 36 states, the District of Columbia, the Commonwealth of Puerto Rico, and the U.S. Territories will likely need to store a portion of their low-level radioactive waste for an indefinite period of time. This will include Class B and C wastes as well as certain Class A waste streams that do not meet the waste acceptance criteria of Energy Solutions' Clive facility in Utah. All generators throughout the country will continue, however, to have disposal access for most of their Class A waste—which is the least hazardous and represents approximately 96 percent of all commercial low-level radioactive waste generated in the United States.

Nuclear power plants generate approximately 95% of Class B and C waste. These facilities have the space, expertise and experience needed to store radioactive wastes for extended periods of time. In preparation for the closure of Barnwell to out-of-

region waste, the Nuclear Energy Institute (NEI) and the Electric Research Power Institute (EPRI) have together prepared updated low-level radioactive waste storage guidance for nuclear power plants. The guidance was submitted to NRC on May 13 of this year. NRC plans to review the guidance and, if in agreement with it, may possibly endorse it.

The remaining 5% or so of Class B and C waste generated in the United States consists primarily of liquid wastes from radiochemical producers and sealed radioactive sources from industrial, research or medical licensees. While not all of these licensees will need to store radioactive wastes for an extended period and some of these licensees may have limited storage experience, NRC believes that the need for extended interim storage for some of these licensees may present new challenges. Accordingly, such licensees are the intended audience of NRC's updated guidance.

NRC's guidance updates information provided in Information Notice 90-09, "Extended Interim Storage of Low-Level Radioactive Waste by Fuel Cycle and Materials Licensees," dated February 5, 1990. Similar information for power reactor licensees is given in Generic Letter 81-38, "Storage of Low-Level Radioactive Wastes at Power Reactor Sites," dated November 10, 1981. NRC staff also prepared recommendations related to storage of all low-level radioactive waste in SECY-94-198, "Review of Existing Guidance Concerning Extended Storage of Low-Level Radioactive Waste," dated August 1, 1994.

Guidance

NRC's guidance advises licensees to consider ways to minimize the production of Class B and C low-level radioactive wastes. It also recommends that licensees consider whether they may need to seek a license amendment to increase their possession limit for radioactive materials as a result of the need to store waste on-site. Other considerations—such as security, worker safety, and the need to keep track of radioactive materials (including during emergencies)—are addressed in the guidance.

Some of the highlights from the guidance are listed below. Persons interested in a more detailed analysis are directed to the guidance itself.

- Other than storage for decay or other shortterm operational considerations, low-level radioactive waste should only be stored when disposal capacity is unavailable and for no longer than necessary. Licensees are encouraged to specify a date by which storage of specific waste streams will end and disposal or alternative disposition (such as processing or return to manufacturer) will occur. Licensees are also encouraged to identify those stored waste streams (Class B, C, greater-than-Class C, and unprocessed biological waste) for which no disposition pathway is reasonably foreseen.
- If possible, wastes should be stored in a form suitable for disposal and should be processed and/or packaged in a manner consistent with physical stability and radiation protection goals. Individual circumstances will determine whether labeling containers of stored waste is required or exempt.
- Stored waste packages should be protected from the elements and from extremes of temperature and humidity in order to ensure the integrity of packaging and maintenance of waste form.
- Storage should occur in an area that allows for ready visual (direct or remote) inspection on a routine basis and it is recommended that inspections be documented on a regular basis.
- Licensees may wish to consider a real-time waste tracking system that allows the location of specific packages or accumulations of packages during emergencies.
- The potential for deterioration of waste packages, and the need for procedures and equipment to repackage waste, should be evaluated.
- Licensees should evaluate stored radioactive waste and take measures to prevent or mitigate the adverse consequences of gas generation or other reaction products that may occur due to

- decomposition and chemical reaction of incompatible waste materials over time. Additional ventilation, air filtration, or fire systems may be warranted. New or revised provisions may also be necessary for waste facility environmental release and contamination monitoring programs in order to continue to ensure and demonstrate compliance.
- Although most waste forms and packaging used during storage are not expected to significantly increase direct radiation exposure potential to workers, licensees may wish to consider if additional shielding or other actions are warranted.
- Storage should occur in a manner that minimizes potential exposure to workers who are required to access the waste periodically, including the consideration of alternative disposition pathways and times for different waste streams.
- Stored waste should be located in a restricted area or managed in controlled areas to ensure security. When waste storage areas are unoccupied by authorized personnel, stored waste should be locked inside a facility as part of a key control system or equivalent system.
- Increased control and related orders addressing fingerprinting and criminal history should be followed, including specific security, access and detection requirements. Related programs that have already been established should be reviewed to ensure compliance in areas where waste containing radioactive material in quantities of concern will be stored and handled/processed.
- Licensees storing low-level radioactive waste are encouraged to develop and maintain a strategy and timeline for disposition and/or disposal.
 Waste streams for which the licensee can identify no foreseeable disposition pathway should be specifically acknowledged. <u>Licensees are also encouraged to maintain communication with applicable regional compact and/or unaffiliated state officials concerning potential</u>

disposal options and any changes in disposal availability circumstances.

- To the extent possible, licensees are encouraged to estimate the total life-cycle financial burden of interim waste storage (including, among other things, operations and maintenance, inspection and monitoring, and eventual disposition) and to provide this estimate to organization decision-makers for overall budget consideration.
- Since some licensees will need to store low-level radioactive waste that also contains hazardous wastes, it may be prudent or necessary to supplement information found in the NRC document with guidance (or requirements) provided by authorities with jurisdiction over the hazardous component of the stored waste.

NRC's guidance includes four enclosures that provide (1) a list of the information that agency staff may require to authorize extended interim storage of low-level radioactive waste; (2) contact information for low-level radioactive waste compacts and unaffiliated states; (3) a bibliography of references which NRC staff believe may be helpful to specific licensees or categories of licensees; and, (4) a list of generic communications recently issued by NRC's Office of Federal & State Materials & Environmental Management Programs.

Distribution

NRC's guidance has been distributed to its fuel cycle and materials licensees, as well as to regulatory authorities (radiation control program directors and state liaison officers) in the 35 Agreement States that regulate the commercial use of radioactive materials pursuant to agreements with the agency. According to NRC, "Those state agencies may use the guidance as they deem appropriate to meet the needs of their regulatory programs."

NRC's Regulatory Issue Summary 2008-12, "Considerations for Extended Interim Storage of Low-Level Radioactive Waste by Fuel Cycle and Materials Licensees," is available on the NRC web site at http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2008/index.html.

For additional information, please contact James Shaffner of NRC's Office of Federal & State Materials & Environmental Management Programs, Division of Waste Management and Environmental Protection, at (301) 415-5496.

NRC Proposes Expansion of National Source Tracking System

The U.S. Nuclear Regulatory Commission is proposing to expand its National Source Tracking System (NSTS) to include an additional 3,500 NRC and state licensees and nearly 17,000 additional radioactive sources. The proposed rule—which is intended to improve accountability and control of radioactive materials—would require the additional licensees to report information on the manufacture, transfer, receipt, disassembly, and disposal of these radioactive sources to the NSTS. Manufacturers will be required to assign a unique serial number to each nationally tracked source.

As established in a final rule published on November 8, 2006, the NSTS covers radioactive sources in Categories 1 and 2 as determined by the International Atomic Energy Agency. These sources are typically used in radiothermal generators, irradiators, radiation therapy, industrial gamma radiography and high- and medium-doserange brachytherapy cancer treatments. That rule covers approximately 1,350 licensees nationwide who possess category 1 and 2 sources. The system is to be implemented by January 31, 2009.

The proposed rule would expand the NSTS to include Category 3 sources as well as sources in the upper range of Category 4—or at about 1/10 of the activity threshold for Category 3. These sources include fixed industrial gauges (level gauges, conveyor gauges, thickness gauges, blast furnace gauges, and pipe gauges); well logging devices; medium- and low-dose-range brachytherapy; and certain radiography devices.

NRC considers Category 1 and 2 sources to be the most significant from a security perspective. Expanding the NSTS will guard against the possibility that a small number of Category 3 or 4 radioactive sources could be collected to form a Category 2 amount of radioactive material. NRC believes that the additional cost to the agency and licensees of an expanded NSTS is reasonable given the additional improvement in accountability and control of radioactive sources.

Comments Sought re Reactor Design Policy

On May 12, the U.S. Nuclear Regulatory Commission announced that the agency is updating its policy on advanced nuclear power plant designs and has published a draft policy statement for public comment. Issuance of the policy, which was last updated in 1994, is intended to encourage the earliest possible interactions between NRC and reactor vendors, potential applicants, the public, and other government agencies. The policy revision aims to provide expectations and guidance on security and preparedness-related issues to allow designers to address them early in the development of advanced reactors.

The Commission believes that designers should consider several reactor characteristics, including:

- highly reliable, less complex safe shutdown systems—particularly ones with inherent or passive safety features;
- simplified safety systems that allow more straightforward engineering analysis, operate with fewer operator actions and increase operator comprehension of reactor conditions;
- concurrent resolution of safety and security requirements, resulting in an overall security system that requires fewer human actions;

- features that prevent a simultaneous breach of containment and loss of core cooling from an aircraft impact, or that inherently delay any radiological release; and,
- features that maintain spent fuel pool integrity following an aircraft impact.

The draft policy was published in the *Federal Register* on May 9. Interested parties should submit their comments by July 9. NRC will consider comments received after that date where practical. Comments can be emailed to <u>Rulemaking.Comments@nrc.gov</u> or submitted via facsimile to (301) 415-1101 [include NRC-2008-0237 in the subject line].

The draft policy is available electronically at http://www.regulations.gov and on the NRC web site by entering ML081070069 at http://adamswebsearch.nrc.gov/dologin.htm. For additional information, contact Wesley Held at (301) 415-1583 or at Wesley.Held@nrc.gov.

Comments Accepted re Fatigue Analysis

The U.S. Nuclear Regulatory Commission accepted through June 16 public comment on a proposed regulatory issue summary (RIS) to notify power plant licensees that a methodology used by some license renewal applicants to demonstrate the ability of a plant to withstand the stress of an additional 20 years of operation may not be sufficiently conservative if not correctly applied. The methodology in question calculates the fatigue usage of certain components during plant startups and shutdowns. Full calculation requires consideration of six stress components, as detailed by the American Society of Mechanical Engineers Boiler and Pressure Code. Some licensees, however, have performed a simplified version of this calculation using only one stress value for the evaluation of actual plant conditions. Although the simplified calculation may provide acceptable results for some applications, it also requires a great deal of judgment by the analyst to ensure that the simplification still provides a conservative result.

The NRC requested that recent license renewal applicants who used the simplified calculation perform confirmatory analyses using all six stress components. To date, confirmatory analysis of one component (a boiling-water reactor feed water nozzle) indicated that the simplified calculation did not produce conservative results in the nozzle bore area when compared to the detailed analysis. However, the confirmatory analysis still demonstrated that the nozzle had acceptable fatigue usage.

Combined License Application Reviews Continue

The U.S. Nuclear Regulatory Commission continues to process Combined License (COL) applications for the Lee site in South Carolina; the South Texas Project site in Texas; the Bellefonte site in Alabama; the North Anna site in Virginia; the Calvert Cliffs site in Maryland; the Grand Gulf site in Mississippi; and the Shearon Harris site in North Carolina. In addition, the agency is conducting an acceptance check on an application for the Vogtle site in Georgia and will in the near future conduct a check on an application for the Summer site in South Carolina. The agency is also making preparations for 10 more applications that are expected to be submitted in 2008.

A COL, if issued, provides authorization from the NRC to construct and, with conditions, operate a nuclear power plant at a specific site and in accordance with laws and regulations.

Comanche Peak

A public meeting was conducted in Glen Rose, Texas on June 12 to discuss how the agency will review an expected COL application for two reactors at the Comanche Peak site, about four miles north of Glen Rose. The prospective applicant, Luminant Power, has informed NRC that it intends to apply later this year for a license to build and operate two U.S.-Advanced Pressurized Water Reactors (US-APWR) at the site. The US-APWR is a Mitsubishi Heavy Industries-designed 1,700 MWe pressurized-water reactor that is currently under NRC review for possible certification. (For additional information, go to http://www.nrc.gov/reactors/new-licensing/design-cert/apwr.html.)

Shearon Harris

NRC staff held public meetings on June 10 in Holly Springs, North Carolina to discuss the agency's review of a COL application for two new reactors

proposed for the Shearon Harris site and the environmental issues the agency should consider in reviewing the application. Progress Energy submitted the application on February 19 seeking a license to build and operate two AP1000 reactors at the site, approximately 20 miles southwest of Raleigh. The AP1000 is a Westinghouse-designed 1,100 MWe pressurized-water reactor that was certified by the NRC in 2006. NRC is currently reviewing a Westinghouse application, submitted in May 2007, to amend the certified design. (For additional information, go to http://www.nrc.gov/reactors/new-licensing/design-cert/amended-ap1000.html.) NRC will accept written comments on the scoping process until July 25, 2008.

Grand Gulf

On June 19, NRC staff held public meetings in Port Gibson, Mississippi to discuss the agency's review process for a COL application from Entergy Operations for a new reactor at the Grand Gulf site near Port Gibson, and the environmental issues the agency should consider in reviewing the application. Energy submitted the application on February 27, seeking approval to build and operate an Economic Simplified Boiling Water Reactor (ESBWR) at the site, which is located approximately 25 miles south of Vicksburg. The ESBWR is a 1,500 MWe design that is currently under NRC review, expected to be completed in mid-2010, for possible certification. (For additional information, go to http:// <u>www.nrc.gov/reactors/new-licensing/design-cert/</u> <u>esbwr.html.</u>) NRC will accept written comments on the scoping process until July 29, 2008.

Calvert Cliffs

NRC has accepted for review the safety analysis portion of a COL application for an Evolutionary Power Reactor (EPR) at the Calvert Cliffs nuclear power plant near Lusby, Maryland. The agency had previously accepted the application's environmental report in January. UniStar is applying for a license to build and operate an EPR at the Calvert Cliffs site, approximately 40 miles south of Annapolis. UniStar submitted the safety analysis and related information on March 17, and submitted the

environmental report July 13, 2007, along with supplemental information on December 14, 2007. The EPR is a 1,600 MWe large pressurized water reactor of evolutionary design that is currently under NRC review. (For additional information, go to http://www.nrc.gov/reactors/new-licensing/design-cert/epr.html.)

Levy County

NRC staff conducted a public meeting in Crystal River, Florida on June 5 to discuss how the agency will review an expected COL application for two reactors at the Levy County site, about 10 miles northeast of Crystal River. The prospective applicant, Progress Energy, has informed NRC of its plans to apply later this year for a license to build and operate two AP1000 reactors at the site. (For information on the AP1000 reactor, see above.)

Lee

On April 28, NRC announced the opportunity to participate in a hearing on a COL application for two new reactors at the Lee site near Gaffney, South Carolina. Duke Energy submitted the COL application and associated information on December 12, 2007. Duke seeks approval to build and operate two AP1000 reactors at the site, approximately 35 miles southwest of Charlotte. (For information on the AP1000 reactor, see above.) The application was docketed on February 25 and assigned docket numbers 52-018 and 52-019. The deadline for petitioning to intervene is June 27.

Vogtle

On April 15, NRC made available the public version of a COL application for two new reactors at the Vogtle site near Waynesboro, Georgia. The applicant, Southern Nuclear, submitted the application and associated information on March 31. Southern is seeking approval to build and operate two AP1000 reactors at the site, approximately 26 miles southeast of Augusta, Georgia. (For information on the AP1000 reactor, see above.) NRC staff is currently conducting an

initial check of the application to determine whether it contains sufficient information required for a formal review. If accepted, NRC will then notice an opportunity for the public to request an adjudicatory hearing on the application.

North Anna

NRC staff held a public meeting on April 16 in Mineral, Virginia to discuss the agency's review process for a COL application from Dominion Virginia Power for a new reactor at the North Anna site near Louisa, Virginia, and the environmental issues that the agency should consider in reviewing the application. Dominion submitted the application on November 27, 2007, seeking approval to build and operate an ESBWR at the site, approximately 40 miles northwest of Richmond. (For information on the ESBWR reactor, see above.)

Additional information on the NRC's new reactor licensing process is available on the agency's web site at http://www.nrc.gov/reactors/new-reactor-licensing.html.

License Renewals Continue to Move Forward

The U.S. Nuclear Regulatory Commission continues to process license renewal applications from various nuclear power plant operators. In that regard, the agency recently

- met with Southern Nuclear Operating Company officials to discuss the results of the company's inspection of the Vogtle nuclear power plant's license renewal program;
- announced that an application for a 20-year renewal of the operating licenses for the Prairie Island nuclear power plant, Units 1 and 2, is available for public review;
- sought public comments on its preliminary conclusion that there are no environmental impacts that would preclude renewal of the operating license for the Susquehanna nuclear power plant;
- completed its final environmental impact statement on the proposed renewal of the operating license for the Wolf Creek nuclear power plant;
- conducted a pair of public meetings to solicit comments on possible environmental impacts of a proposed 20-year license extension for the Three Mile Island 1 nuclear power plant; and,
- conducted an evidentiary hearing on an issue raised by an environmental group with regard to a 20-year license extension sought for the Pilgrim nuclear power plant.

Vogtle Nuclear Plant

On June 6, NRC staff held a meeting with officials from Southern Nuclear Operating Company in Waynesboro, Georgia to discuss the results of the company's inspection of the Vogtle nuclear power plant's license renewal program. The meeting was

open to public observation and NRC officials were available prior to the close of the meeting to answer questions from interested observers. A report on the inspection—which took place from May 19 through June 6 to verify that programs are in place to manage the material condition of the plant's systems, structures and components during 20 additional years of operation should the renewal application be approved—will be issued approximately 45 days after the meeting and made available to the public.

Vogtle Units 1 and 2 are pressurized water reactors located about 26 miles southeast of Augusta, Georgia. The current operating licenses expire on January 16, 2027 for Unit 1 and on February 9, 2029 for Unit 2. Vogtle's operator, Southern Nuclear Operating Co., submitted the license renewal application on June 29.

A copy of the Vogtle plant license renewal application is available on the NRC web site at http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html.

Prairie Island Nuclear Plant

On May 13, NRC announced that an application for a 20-year renewal of the operating licenses for the Prairie Island nuclear power plant, Units 1 and 2, is available for public review.

The Prairie Island Nuclear Generating Plant, which is located approximately 28 miles southeast of Minneapolis, has two pressurized water reactors. The current operating licenses expire on August 9, 2013 for Unit 1 and on October 29, 2014 for Unit 2. Nuclear Management Company, the plant's operator, submitted the renewal application on April 15. NRC staff is currently conducting its initial reviews to determine whether it contains sufficient information required for the safety and environmental reviews. If it contains sufficient information, NRC will "docket" the application and announce an opportunity for the public to request an adjudicatory hearing.

A copy of the Prairie plant license renewal application is available on the NRC web site at http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html.

Susquehanna Nuclear Plant

On May 14, NRC announced that it is seeking public comments on its preliminary conclusion that there are no environmental impacts that would preclude renewal of the operating license for the Susquehanna nuclear power plant in Salem Township (Luzerne County), Pennsylvania. NRC staff conducted two public meetings in the vicinity of the plant on May 28 to receive comments.

In April, NRC staff issued a draft environmental impact statement on the renewal application submitted by the plant's owner, PPL Susquehanna. The report concludes preliminarily that the adverse environmental impacts of granting an extension are not so great that "preserving the option of license renewal for energy-planning decision-makers would be unreasonable."

PPL Susquehanna filed the renewal application on September 15, 2006. If approved, the expiration date for Unit 1 would be extended to July 17, 2042 and the expiration date for Unit 2 would be extended to March 23, 2044.

The draft environmental impact statement for Susquehanna, along with other related documents, is available on NRC's Agencywide Documents Access and Management System (ADAMS) at http://www.nrc.gov/reading-rm/adams/web-based.html by entering accession number ML081140337.

Wolf Creek Nuclear Plant

On May 16, NRC announced that staff had completed its final environmental impact statement on the proposed renewal of the operating license for the Wolf Creek nuclear power plant. The report contains NRC staff's finding that there are no environmental impacts that would preclude license renewal for an additional 20 years of operation. Publication of the statement does not represent final NRC action on the application. Agency staff is completing its safety evaluation report, and the NRC's Advisory Committee on Reactor Safeguards will evaluate that report and make its recommendation before the agency makes a final decision.

The Wolf Creek Generation Station is a pressurized water reactor located approximately three miles northeast of Burlington, Kansas. Wolf Creek **Nuclear Operating Corporation submitted its** application for license renewal on October 4, 2006. The current license for the Wolf Creek nuclear plant expires on March 11, 2025. If approved, the plant's NRC license would be extended for 20 years.

The Wolf Creek nuclear plant's license renewal application is available on the NRC web site at http://www.nrc.gov/ <u>reactors/operating/licensing/renewal/applications.html</u>. The final environmental impact statement is posted on the NRC web page at http://www.nrc.gov/reading-rm/doc-collections/ nuregs/staff/sr1437/supplement32/.

Three Mile Island Nuclear Power Plant

On May 1, NRC staff conducted a pair of public meetings to solicit comments on possible environmental impacts of a proposed 20-year license extension for the Three Mile Island 1 nuclear power plant. Both meetings were held in Middleton and included an "open house" to allow members of the public to talk informally with agency staff.

The Three Mile Island Nuclear Station Unit 1 is a pressurized water reactor located 10 miles southeast of Harrisburg, Pennsylvania. The current operating license for Unit 1 expires on April 19, 2014. Three Mile Island's operator, AmerGen Energy Co., a subsidiary of Exelon Generating Co. LLC, submitted the renewal application on January 8, 2008.

Unit 2 was shut down in March 1979 following a partial meltdown and has been out of service since the event. It has been defueled and decontaminated to the extent that the plant is in a safe, stable condition suitable for long-term monitoring. Three Mile Island 1 was not affected by the accident and has had a safe operating record for many years.

A copy of the Three Mile Island renewal application is available on the NRC web site at http://www.nrc.gov/ reactors/operating/licensing/renewal/applications.three-mileisland.html.

Pilgrim Nuclear Plant

On April 10, a three-judge panel of the NRC's Atomic Safety and Licensing Board (ASLB) conducted an evidentiary hearing on an issue raised by an environmental group with regard to a 20-year license extension sought for the Pilgrim nuclear power plant. The hearing included lawyers for the parties and expert witnesses addressing questions from the judges. The contention at issue has to do with whether the plant's aging management program is adequate with regard to buried pipes and tanks that contain radioactively contaminated water since it does not provide for monitoring wells that would detect leakage. Members of the public were able to attend the hearing but were not allowed to participate.

The Pilgrim Nuclear Plant is a boiling water reactor located on the western shore of Cape Cod bay in the town of Plymouth, Massachusetts. Entergy Nuclear Operations, Inc. submitted an application to renew the operating license for the plant on January 27, 2006. The current operating license expires on June 8, 2012.

The Pilgrim renewal application is available on NRC's web site at http://www.nrc.gov/reactors/operating/licensing/ renewal/applications/pilgrim.html. The Pilgrim final EIS can be found at http://www.nrc.gov/reading-rm/doccollections/nuregs/staff/sr1437/supplement29/index.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.

NRC Updates New Reactor Licensing Hearings Policy

The U.S. Nuclear Regulatory Commission has updated its policy on procedures for hearings on new nuclear power plant license applications. The agency expects upcoming applications to use more standardized plant designs, so the Commission has looked at how best to handle several hearings on largely identical applications. The Commission policy objectives remain unchanged, with the Commission aiming to provide a fair hearing process, avoid unnecessary delays in technical reviews and the hearing process, and develop an informed record that supports the agency's mission of protecting people and the environment.

The revised policy, which appeared in the *Federal Register* on April 17, builds on work produced in 1981 and 1988 and incorporates recent revisions to the agency's hearing rules. Major policy subjects include:

- A Notice of Hearing will only be issued when a complete application is accepted for review, or "docketed," with two exceptions.
- 2) Combined License (COL) applications retain the ability to submit in two parts: environmental and safety. By rule, applicants now have up to 18 months (previously six months) to submit both parts.
- 3) A single hearing can now resolve issues common to several COL applications of the same design, as long as the applications are filed relatively close together in time. The Commission reiterates that the public retains the right to petition to intervene on every issue concerning each individual application.
- 4) Issues relating to a standard reactor design under certification review should be resolved in the certification process, and not in any related COL hearing. If the COL application is later revised to treat the reactor as a "custom" design, the normal

- hearing process would resolve any design issues.
- 5) If the initial COL for a given standard design resolves a particular issue, subsequent applications for that design can adopt the approach, and the NRC staff need only verify the applicant has adopted and implemented the approach.
- 6) The Commission itself will preside over any request for a hearing on a given plant's completion of the inspections, tests, analyses and acceptance criteria needed to show the plant will operate safely.

The Commission will monitor all new reactor licensing proceedings and provide guidance to licensing boards and parties in individual cases, as appropriate, and it will decide issues in the interest of prompt and effective resolution of matters in a hearing.

The policy is available electronically on the NRC's web site at http://www.nrc.gov/reading-rm/doc-collections/commission/policy/.

Changes to Materials Licensing Process Recommended

The U.S. Nuclear Regulatory Commission's **Independent External Review Panel has** recommended several changes to the NRC's process for granting licenses to possess radioactive materials that are intended to eliminate vulnerabilities that could be exploited by terrorists or other adversaries. The panel was chartered last October as part of the agency's response to a Government Accountability Office report that identified several vulnerabilities in the agency's materials licensing process. The report noted that GAO investigators were able to obtain an NRC materials license under fraudulent pretexts and then alter the license in order to procure radioactive materials in excess of the amounts authorized by the license.

The panel's report contains a series of observations and recommendations for the NRC and its 34 Agreement States including, but not limited to, the following:

- suspend the "good faith presumption" that new applicants or licensees seeking significant increases in their possession limits for radioactive materials are honest, perform site visits to a new applicant's facilities before issuing a license, and conduct background checks on key personnel;
- review publicly available licensing guidance to identify and remove information that might be helpful to an adversary seeking to exploit the process;
- integrate the NRC's web-based Licensing Sytem and the National Source Tracking System, both now under development, and include a mechanism for licensees and vendors to enter real-time information on transfers of radioactive materials;
- develop detailed physical security requirements

for licensees who possess risk-significant radioactive materials; and,

 give security equal billing to health and safety when training NRC or Agreement State licensing officers, so that license reviewers are trained to recognize a malevolent applicant.

The Independent External Review Panel was chaired by Thomas Hill, former director of the Georgia Radiation Control Program, and included Benjamin Nerud of the Defense Threat Reduction Agency and Michael Ryan of the NRC's Advisory Committee on Nuclear Waste and Materials.

The panel's report is available through the NRC's ADAMS document system at http://www.nrc.gov/reading-rm/adams/web-based.html by entering access number ML080700957.

NRC Endorses Industry Guidance re Emergency Drills

On March 20, the U.S. Nuclear Regulatory Commission endorsed revised guidance developed by the Nuclear Energy Institute (NEI) regarding how nuclear power plants should voluntarily conduct baseline hostile action-based emergency preparedness drills. The Regulatory Issue Summary (RIS) requires no action or written response by licensees.

Under current regulations, licensees are not required to use hostile action scenarios in their emergency preparedness drills and exercises. However, in 2005, NEI offered a phased approach for licensees to voluntarily conduct such drills within a three-year period. The drills are not evaluated by the NRC or the Federal Emergency Management Agency (FEMA) and provide a "no fault" opportunity for licensees to demonstrate responses to the unique challenges security actions pose to existing emergency preparedness programs. During 2007, nine hostile action-based drills were conducted, with an additional 26 scheduled for 2008.

The revised guidance being endorsed clarifies the scope and methods of demonstration of key objectives of these hostile action drills. NRC is working with FEMA to identify proposed changes to emergency preparedness regulations and guidance to incorporate hostile action-based scenarios into biennial emergency preparedness exercises.

A copy of the RIS can be found at http://www.nrc.gov/ reading-rm/doc-collections/gen-comm/reg-issues/2008/ index.html.

NRC Publishes Fitness-for-**Duty Enhancements**

On March 31, the NRC published in the *Federal Register* updated requirements to enhance the "fitness for duty" of operators, security officers and other personnel at nuclear power plants and certain nuclear materials facilities. The requirement went into effect 30 days later, although the rule includes a phased approach for two elements of the new requirements.

The final rule pertains to 10 CFR Part 26 requirements, which include chemical and alcohol testing, employee assistance programs and workhour limitations. It essentially requires that "fitness for duty" programs at NRC-licensed facilities be more effective, and establish clear and enforceable work-hour controls. It also offers greater clarity on drug and alcohol testing requirements for construction workers who will be working on new reactor construction.

NRC finalized the first 10 CFR Part 26 in 1989. with drug and alcohol testing requirements. The rule was expanded in 1993, and has been frequently under review since that time. Work on this final rule, which began in 1996, included combining it with requirements to control fatigue of nuclear power plant workers in 2004, several rounds of public comment and incorporation of several petitions for rulemaking.

Although drug and alcohol testing requirements for construction workers involved in new reactor plant construction will be effective within 30 days, licensees have 12 months to implement the portion of the new rule addressing drug and alcohol testing programs at operating sites. Licensees also have 18 months to be in full compliance with stricter workhour controls, which in essence will reduce the number of hours certain workers can work each week.

The entire final rule, which consists of nearly 1,000 pages, can be found at http://www.access.gpo.gov/su_docs/aces/frcont.html.

NRC Affirms Final Safeguards Information Rule

On March 17, the U.S. Nuclear Regulatory Commission affirmed a final rule that will amend its regulations on the designation and handling of security-related information known as "Safeguards Information," or SGI—a special category of sensitive unclassified information authorized under the Atomic Energy Act. The rule will become effective 120 days after its publication in the Federal Register.

The final rule reflects changes in the threat environment since the September 11, 2001 terrorists attacks and the need to protect as SGI additional types of security information held by a broader group of licensees. The final rule incorporates public comments and new authority granted to the NRC by the Energy Policy Act of 2005. An original version of the proposed rule was published in February 2005, and a revised version was published for additional comment in October 2006.

Individuals provided access to SGI must have a valid "need to know" the information, and be authorized for access based on a background check for trustworthiness and reliability. Since the unauthorized release of SGI could harm the country's nuclear power plants and other facilities and materials regulated by the NRC, SGI must be protected from unauthorized disclosure and physically controlled. Inadvertent release and unauthorized disclosure may result in civil penalties while willful violation of SGI regulations is a felony.

Svinicki Takes Oath of Office at **NRC**

On March 28, Chairman Dale E. Klein at the NRC headquarters in Rockville, Maryland swore in Kristine Svinicki as a Commissioner of the U.S. Nuclear Regulatory Commission. Svinicki, whose term will end on June 30, 2012, was nominated by the President and confirmed on March 14 by the U.S. Senate. (See *LLW Notes*, March/April 2008, p. 17.) Her background as a nuclear engineer and a policy-maker at senior levels in the U.S. government will be a substantial benefit to the Commission.

Svinicki has had a distinguished career as a nuclear engineer and in the policy arena, having worked as a professional staff member on the Senate Armed Services Committee since 2005 for the Committee's former Chairman, Senator John Warner (R-VA), and its current ranking Republican, Senator John McCain (R-AZ). Prior to joining the Senator's staff, Svinicki worked as a nuclear engineer in the U.S. Department of Energy's Office of Nuclear Energy, Science and Technology, as well as serving in other capacities at DOE. Before that, she was an engineer for the Wisconsin Public Service Commission.

Through her work, Svinicki has experience on defense science and technology programs, as well as DOE's atomic energy defense activities including nuclear weapons and environmental management programs with a collective budget of \$25 billion. She was also involved in the development of legislation and legislative strategies on energy, environmental and technology issues in the areas of telecommunications, energy research and development and nuclear waste management.

NRC Receives Performance & Accountability Reporting Award

For the seventh consecutive year, the U.S. Nuclear Regulatory Commission received a prestigious award recognizing the quality of its annual performance and accountability reporting. The Association of Government Accountants (AGA) awarded the NRC the Certificate of Excellence for its outstanding efforts in preparing the agency's Performance and Accountability Report for Fiscal Year 2007. The Certificate of Excellence is the highest form of recognition in federal government reporting of financial performance results. NRC's 2007 report—which was recognized for presenting the costs for achieving the agency's two strategic goals of safety and security—helps the public to understand how the NRC allocates resources to regulate commercial nuclear facilities, and oversee the use of radioactive materials to protect public health and safety, and the environment.

At the same time, the Mercatus Center at George Mason University has ranked NRC 4th among 24 agencies and one of the most improved from previous years. The Mercatus Center annually issues a scorecard on government agencies' effectiveness in communicating their performance results to the general public. The scorecard rank took into consideration the transparency, public benefits, and forward-looking leadership in the agency's Performance and Accountability Report (PAR).

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

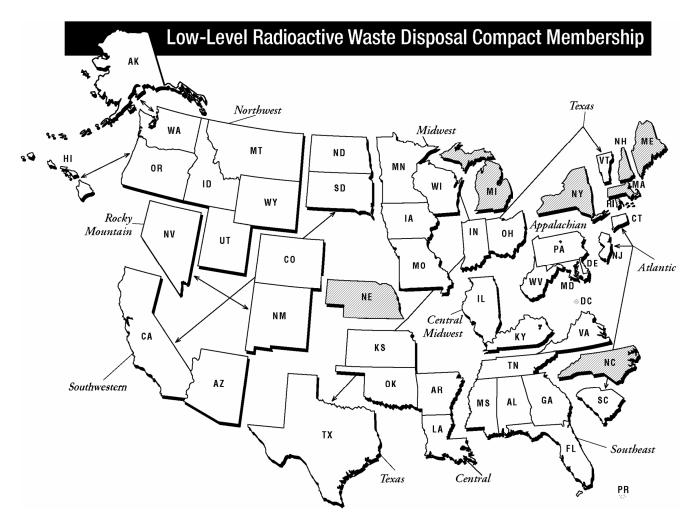
- EPA (for program information, publications, laws and regulations)<u>www.epa.gov</u>
- GAO homepage (access to reports and testimony)<u>www.gao.gov</u>

To access a variety of documents through numerous links, visit the web site for the LLW Forum, Inc. at 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. 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.



Appalachian Compact

Delaware Maryland Pennsylvania West Virginia

Atlantic Compact

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Alaska Hawaii Idaho Montana Oregon Utah Washington Wyoming

Midwest Compact

Indiana Iowa Minnesota Missouri Ohio Wisconsin

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Illinois Kentucky **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**

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