LLW notes

Volume 21, Number 5 September/October 2006

Low-Level Radioactive Waste Forum, Inc.

LLW Forum Hosts Problematic Waste Streams Workshop

Next Meeting to be in San Diego in March 2007

The Low-Level Radioactive Waste Forum held its fall 2006 meeting on September 18 – 19 at the Marriott on Marco Island, Florida. The Southeast Compact Commission for Low-Level Radioactive Waste Management sponsored the full two-day meeting, which was followed by an optional workshop devoted to addressing current problematic waste streams and post-2008 concerns should the Barnwell low-level radioactive waste disposal facility close to out-of-region waste as scheduled and no other alternative disposal options become available.

Approximately 82 persons attended the September LLW Forum meeting and workshop including 36 state and compact officials, 19 federal officials, 7 non-federal associate members, 19 non-member representatives of private companies and one staff.

Meeting Agenda

Topics included on the agenda of the regular LLW Forum meeting included

- recent activities in the states and compacts, federal agencies and by operators and other facilities;
- the monitoring and reporting of tritium leaks at nuclear facilities;
- licensing of and waste management plans for the Louisiana Enrichment Services' New Mexico facility and the NRC's review of the classification of depleted uranium;
- sealed sources recovery project by the Conference of Radiation Control Program Directors;
- treatment and disposal options for biological wastes and animal carcasses;
- current status and future plans for the Barnwell low-level radioactive waste disposal facility;
- long-term storage options provided by the Waste Control Specialists' and Barnwell low-level radioactive waste disposal facilities;

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The Low-Level Radioactive Waste Forum, Inc. is dedicated to the goals of educating policy makers and the public about the management and disposal of low-level radioactive wastes, and fostering information sharing and the exchange of views between state and compact policy makers and other interested parties.

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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LLW Notes
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Editor and Writer: Todd D. Lovinger
Layout and Design: Rita Houskie, Central Interstate Low-Level Radioactive Waste Compact

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Directors that serve on the Board of the Low-Level Radioactive Waste Forum, Inc. are appointed by governors and compact commissions. The LLW Forum, Inc. was established to facilitate state and compact implementation of the Low-Level Radioactive Waste Policy Amendments Act of 1985 and to promote the objectives of low-level radioactive waste regional compacts. The LLW Forum, Inc. provides an opportunity for state and compact officials to share information with one another and to exchange views with officials of federal agencies and other interested parties.

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LLW FORUM, INC

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Key to Abbreviations

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

- U.S. Nuclear Regulatory Commission guidance and industry perspective regarding the storage of non-utility waste at utility sites;
- provisions of and interpretive analysis regarding the emergency access clause of the Low-Level Radioactive Waste Policy Amendments Act of 1985;
- NRC 20.2002 authorizations and section 61.58 alternative requirements for waste classification and characteristics;
- projects and activities related to low-level radioactive waste management and disposal including the upcoming U.S. Government Accountability Report on the implications of international waste management practices, the LLW Forum's scheduled panel presentation at Waste Management '07, the Advisory Committee on Nuclear Waste's Low-Level Radioactive Waste Working Group meeting and white paper, and the federal sites' roundtable discussion held in May '06 in the DC metropolitan area;
- ongoing initiatives and activities at the U.S. Department of Energy;
- the NRC's low-level radioactive waste planning initiative;
- emergency preparedness and disaster planning regarding radioactive materials; and
- the economics of waste management and disposal activities.

Special Workshop Agenda

Topics included on the agenda of the special LLW Forum workshop included

- reports from generators (including the identification of issues, plans and preparations) concerning current problem waste streams and post-2008 Barnwell restricted access low-level radioactive waste management and disposal;
- responses from brokers/processors and disposal operators;
- Electric Power Research Institute initiatives to reduce the impact of potential loss of Class B and C access including the development of standardized low-level radioactive waste storage guidelines and the utilization of waste conditioning techniques that optimize concentration averaging opportunities; and,
- NRC's perspective on long-term storage and revisions to the agency's storage guidance document.

The special workshop, which was intended to be completely interactive in nature, included the division of all meeting attendees into break-out groups to discuss the issues identified and to brain-storm about mitigating actions and potential solutions. Afterwards, elected representatives from each group provided a brief report on the discussions and suggested actions. The workshop concluded with attendees discussing plans for future activities and steps.

Officer, Executive Committee and Business Meetings

The LLW Forum's Board of Directors held its Executive Committee meeting on September 18 in the morning and went into Executive Session in the afternoon. During the course of those meetings, the board:

- heard a financial report on 2006 revenues and expenditures;
- reviewed the results of our annual audit performed by an independent accounting firm;
- approved an operating budget for 2007;
- reviewed membership, subscription and meeting registration fees and determined to maintain them at their current level (which means that the LLW Forum has <u>not</u> increased its fees, and in some instances has reduced its fees, in the five years since it began operating as an independent, non-profit entity);
- reviewed and approved a proposed amendment to the Discussion of Issues Statement that was adopted by the Board of Directors at our

September 2005 meeting in Las Vegas; in particular, the board reviewed a statement in Position 3 of the document that states and compacts must be allowed to pursue "unfettered" the ultimate goal of providing safe, environmentally sound, reliable, and permanent access for the disposal of all commercial LLRW generated in the nation; the board determined to remove the word "unfettered" and make minor changes to the language in order to address misinterpretation of its intended meaning; the revised sentence now reads "States and compacts must be allowed to pursue that goal by identifying solutions appropriate to the needs of their generators and to their unique political situations;"

- heard a report from members that attended meetings in the Washington metropolitan area in May with officials from the Department of Energy, Environmental Protection Agency, Nuclear Regulatory Commission, and staff of energy committees of the U.S. House and Senate; and,
- discussed planning for future LLW Forum meetings.

Future LLW Forum Meetings

The next LLW Forum meeting will be held in San Diego, California at the Bahia Hotel on March 19 – 20 and is being sponsored by the Southwestern Compact. Meeting bulletin and registration forms are available on the LLW Forum's web site at www.llwforum.org. Pre-registration is required. It is strongly suggested that interested parties make hotel reservations early, as space is limited at the discounted rate.

The fall 2007 meeting is being hosted by the State of Illinois at a location to be determined in September/October. More information will be forthcoming once a facility is selected and a contract is signed.

The Northwest Compact/State of Washington has tentatively agreed to host the first meeting in 2008. The Appalachian Compact has tentatively agreed to host the fall 2008 meeting in Annapolis, Maryland subject to approval by its Commissioners at their upcoming meeting in November.

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

LLW Forum Welcomes Studsvik as its Newest Member

The LLW Forum is pleased to welcome Studsvik, Inc. as its newest member. Studsvik, a leading supplier of services to the international nuclear industry, joined the LLW Forum as a non-federal associate member in October 2006.

Studsvik, which has 1,400 employees in 7 countries, has almost fifty years of experience regarding nuclear technology and services in a radiological environment. The company operates in a high-growth market and provides qualified services through four Strategic Business Areas (SBA's): Operating Efficiency and Safety, Service and Maintenance, Waste Treatment and Decommissioning.

Jack Harrison, Studsvik's Vice President of Business Development, attended and participated in the September 2006 LLW Forum meeting and special workshop. Mr. Harrison can be reached at (423) 735-6300 or at jharrison@studsvik-inc.com. Additional information about the company can be found at www.studsvik-inc.com.

The LLW Forum looks forward to having Studsvik as an active member and strong participant of our organization.

Northwest Compact/State of Utah

Utah DEQ Issues Facilities Evaluation Report

On October 4, the Utah Department of Environmental Quality publicly issued an electronic version of its report titled, "Evaluation of Closure, Post-Closure, and Perpetual Care and Maintenance for Commercial Hazardous Waste and Commercial Radioactive Waste Treatment, Storage, and Disposal Facilities." The report—which was requested by the Utah legislature—can be found on the agency's web site at http://www.deq.utah.gov under "Issues to Watch."

Commercial Radioactive Waste Management Facilities

Financial Assurances The report concludes that "[t]he amounts of financial assurance required and provided for closure and institutional control of commercial radioactive waste disposal facilities under UC 19-3-104(12) are judged to be adequate at current levels and with current rules, controls, and practices."

According to the report, the projected future value of the Radioactive Waste Perpetual Care and Maintenance Fund is $93 million at the end of the 100 years of the institutional control period. This assumes that

- Energy*Solutions*' facilities continue active operations for at least 20 more years,
- the return on investment of the funds produces a minimum 2 percent per year, and
- no monies are paid out from the fund prior to the end of the institutional control period.

The report estimates a range of $1 million to $60 million (with $5 million to $32 million being the most likely) for probable costs (or financial risk) for unplanned or unexpected events in excess of the minimal maintenance and monitoring for reasonable risks that may occur following closure.

The report includes a table itemizing present financial assurances provided by Energy*Solutions* for its low-level radioactive waste, mixed waste and 11e.(2) facilities.

Recommended Legal and Regulatory Revisions
The Utah Radiation Control Board included the following recommendations in its report:

- "The annual contribution to the Radioactive Waste Perpetual Care and Maintenance Fund should be based on the amount of disposal capacity depleted each year. Alternatively, an immediate one-time contribution could be required to the Radioactive Waste Perpetual Care and Maintenance Fund to bring the fund to an adequate level. Either of these recommendations should ensure that the value of the Radioactive Waste Perpetual Care and Maintenance Fund in constant 2006 dollars be no less than about $13 million in the year 2026 (that is, present value of the fund be no less than about $9 million."
- Ambiguities created by present exemptions from Utah's land ownership requirement rules should be specifically addressed by the legislature in regard to long-term responsibility for monitoring and maintenance of the closed and stabilized facility.
- Any pressure to divert funds from the Perpetual Care Fund to other applications needs to be resisted by the legislature.

Commercial Hazardous Waste Facilities

Financial Assurances The report concludes that "[t]he amounts of financial assurance required and provided for closure and post-closure care of commercial hazardous waste treatment, storage, and disposal facilities under Section 19-6-108 are judged to be adequate at current levels and with current rules, controls, and practices." Utah rules do not currently require financial assurance or funds for the perpetual care of, maintenance of, or corrective actions at commercial hazardous waste land disposal facilities should the need arise following the post-closure periods.

The report includes a table itemizing present financial assurances provided by commercial hazardous waste management facilities permitted in the state including Clean Harbors Grassy Mountain, Energy*Solutions*, Clean Harbors Aragonite, Northeast Casualty Real Property, Safety-Kleen Pioneer Road, and Asland Chemical Company. The report does not address numerous non-commercial hazardous waste management facilities that operate in Utah.

Recommended Legal and Regulatory Revisions

The Utah Solid and Hazardous Waste Control Board has identified the following as areas in which improvements might be made to address the issue of perpetual care at closed commercial hazardous waste disposal facilities:

- a perpetual care fund should be created and funded to provide for ongoing monitoring and maintenance of commercial hazardous waste land disposal facilities after termination of the post-closure permit;
- the financial impact on current facilities should be taken into account in the creation of any such fund; and,
- based on engineering controls employed to build landfill cells to current regulatory standards, additional funds should not be required at this time to cover potential catastrophic failure of the landfill cells, groundwater corrective action or major maintenance at commercial hazardous waste land disposal facilities.

In regard to the latter recommendation, the board found that "[t]he design and construction of landfill cells provide reasonable assurance that wastes are contained as a means to prevent additional superfund sites." Other factors taken into consideration by the board include the remote location of current facilities and lack of a nearby population center (including establishment of the Tooele County Hazardous Waste Corridor which prevents residential development in the area), the non-potable groundwater, the lack of precipitation and restricted access to facilities.

Background

Utah Senate Bill 24, dated February 2005, stipulated that the Utah Radiation Control Board and the Utah Solid and Hazardous Waste Control Board prepare and submit a report evaluating adequacy of funding and financial assurances provided for the closure, post-closure, and perpetual care and maintenance of hazardous waste and radioactive waste treatment, storage, and disposal facilities. (See *LLW Notes*, January/February 2005, p. 6.) The report was prepared by URS Corporation, a contractor to the Utah Department of Environmental Quality, and then reviewed by both boards. Upon review and concurrence, the boards developed recommendations contained in the report.

For additional information, please contact William Sinclair, Deputy Director of the Utah Department of Environmental Quality, at (801) 536-4405.

Rocky Mountain Compact/State of Colorado

Deer Trail Designated as Limited, Non-Exclusive Regional Facility

At a meeting on September 13, 2006, the Rocky Mountain Board approved the State of Colorado's request to designate the Clean Harbors' Deer Trail Facility (CHDTF) as a non-exclusive regional facility for the disposal of certain Naturally Occurring Radioactive Materials (NORM) and Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM) wastes in addition to radium processing wastes for which the facility was designated in June 2005. The board's approval allows the facility to accept the same NORM/TENORM wastes as the Radioactive Materials License issued to CHDTF by the Colorado Department of Public Health and Environment (CDPHE) in January 2005.

The board has made no determination regarding the classification of utility residuals. However, the board adopted an emergency rule which clarifies that utility residuals (from water treatment, wastewater treatment, and electricity generation) generated in the three-state compact region, that are NORM/TENORM waste, can continue to be disposed of at *any* facility allowed under state laws. The board will conduct a stakeholder involvement process to finalize the emergency rule within 90 days. During this process, the board intends to develop a permanent rule that expands the emergency rule so that most NORM/TENORM wastes can be approved to either be exported from the compact region or disposed of at any facility allowed by the compact states under state environmental and public health laws. These actions provide another disposal option for generators of NORM/TENORM waste in the Rocky Mountain Low-Level Radioactive Waste Compact region (Colorado, Nevada, New Mexico) without requiring that most of it be disposed at CHDTF.

The board adopted a permanent enforcement moratorium stating that it will not take enforcement regarding the disposal within the compact region of utility residuals generated within the compact region that occurred prior to the emergency rule. The board also amended Rule 6 concerning waste export to make it consistent with the amended designation of CHDTF. The import and export of NORM/TENORM into and out of the compact region continues to require the approval of the board, as has been the case since 1986.

For additional information, please contact Leonard Slosky, Executive Director of the Rocky Mountain Board, at (303) 825-1912.

Background

In January 2005, the State of Colorado received from Clean Harbors a radioactive materials license application that proposes the disposal of NORM and TENORM at the company's Deer Trail facility. Subsequently, in early May 2005, the state submitted an application to the Rocky Mountain Board for the designation of CHDTF as a limited regional low-level radioactive waste disposal facility. The application submitted to the board was limited to wastes from mining, milling, smelting or similar processing of ores and mineral-bearing material primarily for radium. At a meeting in June 2005, the board designated CHDTF as a limited regional disposal facility for radium processing waste subject to specified terms and conditions, including the subsequent issuance of a radioactive materials license by CDPHE. (See *LLW Notes*, May/June 2005, pp. 1, 7.)

In October 2005, Adams County submitted comments and supporting materials in opposition to renewal of the CHDTF's hazardous waste treatment, storage and disposal permit and to issuance of a final radiation materials license for the facility. (See *LLW Notes*, November/December 2005, pp. 10, 11.) In December 2005, CDPHE issued the requested permit renewal and materials license. The radioactive materials license allows the facility to accept limited types of NORM or such waste that has been modified in industrial processes. It prohibits the acceptance of artificial

or artificially altered radioactive material from research, medicine, weapons, nuclear power plants or other operations.

On January 20, 2006, Adams County filed two lawsuits against CDPHE. One suit—which was filed in the District Court of Adams County—challenges the CHDTF's hazardous waste permit renewal. The other suit—which was filed in the District Court for the City and County of Denver—challenges the issuance of the radioactive materials license to CHDTF. (See *LLW Notes*, January/February 2006, pp. 19 - 20.) On July 5, 2006, the District Court of Adams County vacated a judicial stay of CHDTF's radioactive materials license via bench verdict. In so doing, the court found among other things that plaintiff Adams County Board of Commissioners does not have judicial standing to sue the State of Colorado. (See *LLW Notes*, July/August 2006, pp. 10-11.)

For information on the details of the permit or license, contact Joe Schieffelin, Steve Tarlton or Jeannine Natterman of the CDPHE at (888) 569-1831 or Phil Retallick of Clean Harbors at (803) 691-3427.

Judiciary Committee Agrees to Conduct Compact Inquiry

On September 14, U.S. Senate Judiciary Chair Arlen Specter (R-PA) agreed to "launch an inquiry into the actions of the Rocky Mountain Compact" concerning its claim of jurisdiction and authority over Naturally Occurring Radioactive Materials (NORM) and Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM). Specter's action, which was a response to a September 6 letter of complaint from Senator Wayne Allard, came one day after the Rocky Mountain Board held a meeting in Santa Fe, New Mexico where one of the issues considered was a request by the State of Colorado to amend the regional facility designation of the Clean Harbors Deer Trail Facility (CHDTF) to include the disposal of NORM and TENORM. At the September 13 meeting, the Rocky Mountain Board amended its designation of CHDTF to be a *non-exclusive* regional disposal facility for certain limited waste streams and clarified that utility residuals can continue to be disposed of at *any* facility allowed under state laws. (See related story, this issue.)

Allard's Letter to Judiciary Committee

On July 28, 2006, members of the Colorado congressional delegation sent a letter to the Rocky Mountain Board questioning the compact's jurisdiction over NORM and TENORM wastes. The Rocky Mountain Board responded by letter dated August 1, 2006. In the letter, the board expressed the opinion that it does indeed have authority to exercise such jurisdiction and noted that it has been doing so since Congress authorized the compact in 1986.

Nonetheless, in the September 6 letter, Allard expresses concern that the compact's assertion of jurisdiction over NORM and TENORM violates the Commerce Clause of the U.S. Constitution. According to Allard, "Various affected stakeholders, including municipal utilities and other commercial entities, have presented legal arguments contrary to the Compact's position." Allard asserts that concerns that the board may require regional NORM and TENORM waste producers to utilize the CHDTF "despite the availability of competing disposal facilities in neighboring, non-Compact states" has deepened his "significant reservations regarding the Rocky Mountain Compact's expansive interpretation of its Congressional mandate."

Based upon the Judiciary Committee's role in the development and approval of the low-level radioactive waste compact system and its approval and oversight responsibility for actions restricting interstate commerce, Allard is asking that the committee conduct an inquiry and respond to the following questions:

1. Does the Rocky Mountain Compact Board have jurisdiction and authority to classify NORM and TENORM wastes as LLRW? If so, are there limits to this authority?
2. Was it the intent of Congress in approving the Rocky Mountain Compact that its

Board may designate a "limited" regional LLRW disposal facility that is only permitted to accept NORM/TENORM waste, but not Class A, B or C LLRW as defined in 10 CFR § 61.55 and referenced in the LLRW Policy Act?

3. Does the Rocky Mountain Compact Board have authority to force NORM/TENORM waste producers to utilize a limited regional LLRW disposal facility that can only accept NORM/TENORM waste? If so, are there limits on this authority?
4. What authority does Congress have to amend or repeal the Rocky Mountain Compact, and what process is required to do so?

Allard's letter requests "a timely indication of the Committee's willingness to conduct the requested inquiry and a response as appropriate" in the hopes of convincing the Rocky Mountain Board to defer related action at its September 13 meeting.

Judiciary Committee's Response

In its September 14 response to Senator Allard, the Judiciary Committee acknowledged "congressional action may be warranted" if Allard's interpretation of the Low-Level Radioactive Waste Policy Amendments Act of 1985 and the Rocky Mountain Board's subsequent actions are correct.

Specifically, Chair Specter wrote as follows:

"The questions specifically posed by your letter may have implications for matters of interstate compact that fall within the jurisdiction of the Judiciary Committee, as well as constitutional matters implicating the Committee's jurisdiction. As such, my staff will launch an inquiry into the actions of the Rocky Mountain Compact."

Rocky Mountain Board's September 13 Meeting

At its September 13 meeting, the Rocky Mountain Board approved the State of Colorado's request to designate CHDTF as a *non-exclusive* regional facility for the disposal of certain NORM and TENORM wastes in addition to radium processing wastes for which the facility was designated in June 2005. In addition, the board adopted an emergency rule which clarifies that utility residuals (from water treatment, wastewater treatment, and electricity generation) generated in the three-state compact region, that are NORM/TENORM waste, can continue to be disposed of at *any* facility allowed under state laws. The board will conduct a stakeholder involvement process to finalize the emergency rule within 90 days. (See related story, this issue.)

For additional information on the Rocky Mountain Board, please contact Leonard Slosky, Executive Director of the Rocky Mountain Board, at (303) 825-1912.

Utilities Submit Comments to Committee

On September 29, Colorado Springs Utilities, the City and County of Denver (acting by and through its Board of Water Commissioners), the Consolidated Mutual Water Company, and the Pueblo Board of Water Works submitted comments and requests to the U.S. Senate Judiciary Committee in regard to its inquiry concerning claims of jurisdiction and authority by the Rocky Mountain Low-Level Radioactive Waste Compact over Naturally Occurring Radioactive Materials (NORM) and Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM).

In the letter, the Utilities ask the Committee to find that the Rocky Mountain Compact does not have the authority to regulate NORM as low-level radioactive waste, to direct the Rocky Mountain Board to discontinue doing so, and if necessary to initiate Congressional legislation to amend the Rocky Mountain Compact or the Low-Level Radioactive Waste Policy Act to clarify the compact's lack of jurisdiction over these materials.

Southeast Compact

McNamara Named 2007 Hodes Award Recipient

The Southeast Compact Commission for Low-Level Radioactive Waste Management has named Larry McNamara as the 2007 recipient of the 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. McNamara, who currently serves as the President and Chief Operating Officer of Perma-Fix Environmental Services, was chosen for his significant role in the commercialization of new technologies and the development of new applications for existing technologies. The award will be presented during the Waste Management '07 Symposium in Tucson, Arizona.

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. Dr. 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.

In 2004, the Southeast Compact Commission chose W.H. "Bud" Arrowsmith as the winner of the first Hodes Award. The Texas A & M University Student Chapter of Advocates for Responsible Disposal in Texas (ARDT) was also chosen in 2004 for special recognition as an Honorable Mention in the Hodes Award program for its innovation in educational activities related to low-level radioactive waste management. William Dornsife of Waste Control Specialists, LLC was chosen as the second Hodes Award recipient in 2005 and the California Radioactive Materials Management Forum (CalRad Forum) received the award in 2006.

For further information, please contact Ted Buckner of the Southeast Compact Commission at (919) 821-0500.

Texas Compact/State of Texas

TCEQ Responds to WCS Request for Extension

On August 30, the Texas Commission on Environmental Quality (TCEQ) responded to Waste Control Specialists' (WCS) August 8 letter requesting additional time to address issues by revision to the company's application for a license to authorize low-level radioactive waste disposal. In the letter, TCEQ Executive Director Glenn Shankle notified WCS President Rodney Baltzer that the agency would grant the requested extension until May 1, 2007. The extension, however, is "conditioned upon any future direction or clarification by the Texas Legislature."

WCS' Request for Extension

WCS requested the extension to address outstanding issues that "may require field work and the collection of additional data, thus requiring additional time for WCS to fully respond" to the TCEQ's Second Notice of Technical Deficiency.

In explaining the request for extension, Baltzer wrote:

> The issues surrounding the proposed license are complex, and WCS has provided a significant amount of information in its application to address

those issues. Additionally, the TCEQ staff has put forth a substantial effort in reviewing the application. Unfortunately, it appears that despite the tremendous efforts by all involved, the schedule for completing the technical review of the application will not be met. Therefore, as provided by TAC 281.19(c), WCS respectfully requests an extension to May 31, 2007 in order to fully respond to the outstanding technical issues from the Second Technical Notice of Deficiency.

TCEQ's Response to Request

House Bill 1567 of the 78th Texas Legislature established the schedule and milestones for licensing a disposal facility in the State of Texas. The Texas Radiation Control Act provides that TCEQ will complete technical review of the selected license application and prepare a draft license within 15 months of the beginning of the technical review—which, for the WCS application, would be by August 31, 2006. The act neither specifically addresses extension of the technical review period nor provides consequences or direction for exceeding the stated timeframe. However, TCEQ rules allow the Executive Director to approve a request for an extension of time to respond to a notice of deficiency.

Pursuant to said rule, Shankle "conditionally" granted the extension requested by WCS. Shankle's letter states, however, that "[i]f the Legislature makes clear that review may not continue beyond the fifteen months, I will return the application to WCS." If the extension continues and WCS timely responds to all remaining unresolved issues identified by TCEQ, Shankle anticipates that the agency will need five months to review WCS' submission, write an environmental analysis and prepare a recommendation on the application—including, if applicable, a draft license.

Background Information

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

On September 16, 2005, TCEQ sent a certified letter to WCS itemizing the first round of various technical deficiencies contained in the company's license application. (See *LLW Notes*, September/October 2005, pp. 16 – 17.) WCS responded by letter dated November 30, 2005. On January 30, 2006, TCEQ issued a second and final Technical Notice of Deficiency. (See *LLW Notes*, January/February 2006, pp. 16 – 17.) WCS responded with submissions on March 31 and April 28 of this year. (See *LLW Notes*, March/April 2006, pp. 13, 19.)

On June 5, 2006, TCEQ sent a letter to WCS providing a status update on the agency's review of WCS' license application. In the letter, TCEQ advised WCS that the application contains "significant" unresolved deficiencies that put in jeopardy the schedule for completing the technical review in 15 months and "are problematic and affect our ability to offer a recommendation to issue a license for the proposed facilities." Accordingly, the letter stated that WCS will need to request an extension of time consistent with TCEQ rules and that Baltzer should contact Eden within 24 hours "to discuss a proposed timeline for moving forward." (See *LLW Notes*, May/June 2006, pp. 8 - 10.)

On June 30, 2006, TCEQ issued a List of Concerns to WCS—which includes 13 attachments in total—that describes in detail what information must be provided to the Radioactive Material Licensing Team to resolve specified concerns. WCS

responded by letter requesting an extension to respond to the concerns on August 8, 2006.

For additional information, contact Susan Jablonski of the Texas Commission on Environmental Quality at (512) 239-6731 or Rodney Baltzer of Waste Control Specialists at (972) 448-1415.

Documents and information related to the WCS license application and TCEQ review thereof can be found on-line at http://www.tceq.state.tx.us/permitting/waste_permits/rad_waste/wcs_license_app.html.

Exelon to File COL Application for New Texas Plant

In a recent letter to the U.S. Nuclear Regulatory Commission, Exelon Generation notified the agency of its intention to begin the application process for licensing a nuclear power plant at an unspecified location in Texas. In the letter, Exelon states that it will seek a combined construction and operating license (COL) –a process that will preserve the company's option of developing a new plant in Texas without full commitment to the project. Exelon expects to file the COL application, which it anticipates will cost about $30 million to develop, in 2008—thereby allowing the company to participate in nuclear production tax credits, financial risk insurance and federal loan guarantees that were contained in the Energy Policy Act of 2005.

Although Exelon is working with GE and Westinghouse on suitable designs for a new plant, the company cautioned that it has not finalized a decision on whether to build one. In this regard, the company indicated that it is awaiting decisions on issues involving permanent radioactive waste disposal solutions, public acceptability, and the financial viability of developing a new plant.

Exelon—which has 17 operating reactors in Illinois, Pennsylvania and New Jersey—is the largest operator of nuclear energy plants in the country and the third largest in the world. The company is reportedly considering Texas as the site of a new plant due to an expected surge within the state of electricity demand over the next 20-years and the fact that nuclear-generated power can help reduce greenhouse gas emissions. In addition, Exelon owns natural gas generation plants within the state's regional transmission grid, known as the Electric Reliability Council of Texas (ERCOT).

Clean Harbors Deer Trail, LLC v. Board of County Commissioners of the County of Adams, State of Colorado

Clean Harbors Seeks Injunctive Relief Against Adams County

On September 1, 2006, Clean Harbors Deer Trail, LLC ("Clean Harbors") filed a complaint for declaratory relief and a motion for injunctive relief against the Adams County Board of Commissioners ("Adams County") in the District Court of Adams County, Colorado. According to a company news release, Clean Harbors took the action in order to prevent the defendants "from interfering with the licensed operation of the company's hazardous waste management facility in Deer Trail, Colorado."

Clean Harbors is a provider of environmental and waste management services throughout North America. The company's Deer Trail facility has been designated by the Rocky Mountain Low-Level Radioactive Waste Board as a limited regional disposal facility for radium processing waste subject to specified terms and conditions. Earlier this year, Adams County filed two lawsuits challenging renewal of the company's hazardous waste permit and issuance of a radioactive materials license to the facility. Both actions were subsequently dismissed for lack of judicial standing.

Background

In January 2005, the State of Colorado received from Clean Harbors a radioactive materials license application that proposes the disposal of NORM and TENORM at the company's Deer Trail facility. Subsequently, in early May 2005, the state submitted an application to the Rocky Mountain Board for the designation of the Deer Trail facility as a limited regional low-level radioactive waste disposal facility. The application submitted to the board was limited to wastes from mining, milling, smelting or similar processing of ores and mineral-bearing material primarily for radium. At a meeting in June 2005, the board designated Deer Trail as a limited regional disposal facility for radium processing waste subject to specified terms and conditions, including the subsequent issuance of a radioactive materials license by the Colorado Department of Public Health and the Environment ("CDPHE"). (See *LLW Notes*, May/June 2005, pp. 1, 7.)

In October 2005, Adams County submitted comments and supporting materials in opposition to renewal of the facility's hazardous waste treatment, storage and disposal permit and to issuance of a final radiation materials license for the facility. (See *LLW Notes*, November/December 2005, pp. 10, 11.) In December 2005, CDPHE issued the requested permit renewal and materials license. The radioactive materials license allows the facility to accept limited types of NORM or such waste that has been modified in industrial processes. It prohibits the acceptance of artificial or artificially altered radioactive material from research, medicine, weapons, nuclear power plants or other operations.

Prior Litigation

On January 20, 2006, Adams County filed two lawsuits against CDPHE. One suit—which was filed in the District Court of Adams County—challenges the facility's hazardous waste permit renewal. The other suit—which was filed in the District Court for the City and County of Denver—challenges the issuance of the radioactive materials license to the facility. (See *LLW Notes*, January/February 2006, pp. 19 - 20.) On July 5, 2006, the District Court of Adams County vacated a judicial stay of CHDTF's radioactive materials license via bench verdict. In so doing, the court found among other things that plaintiff Adams County Board of Commissioners does not have judicial standing to sue the State of Colorado. (See *LLW Notes*, July/August 2006, pp. 10-11.)

Recent Correspondence

In April 2006, Adams County notified Clean Harbors of its determination that the company's 2004 Certificate of Designation ("CD") prohibits the acceptance of any radioactive wastes from any source, including drinking water treatment residuals containing NORM and TENORM. The county, through its counsel, reiterated its position in July 2006 that "the acceptance for disposal at Deer Trail of radioactive wastes above background levels is prohibited." In August 2006, counsel for the county stated in a public meeting of the Rocky Mountain Board that Adams County would completely revoke Clean Harbors CD—thereby preventing the receipt of any material allowed under the company's RCRA permit—if the Deer Trail facility received any radioactive materials. Adams County reiterated its position to Clean Harbors in a letter dated August 24, 2006.

Plaintiff's Arguments

In its legal filings, Clean Harbors argues that the CD authorizes the Deer Trail facility to dispose of licensed materials because Adams County deferred all authority regarding radioactive materials to CDPHE. In response to prior claims by Adams County that a 1983 resolution bans the disposal of radioactive waste at the facility, Clean Harbors asserts that (1) the 2004 CD does not incorporate any such restriction and (2) the licensed material is not considered "radioactive waste" or even "radioactive" under Colorado law.

Clean Harbors also contends that Adams County has a long history of interpreting the CD to defer waste disposal restrictions to the state and that the county is bound to that determination. Such deference to the state is, according to Clean Harbors, consistent with the county's limited role and the state's overall superior authority.

In addition, Clean Harbors alleges in its legal filings that Adams County has routinely approved the disposal of NORM/TENORM totaling tens of thousands of tons at another local facility owned by Conservation Services, Inc. ("CSI"). According to the filing, "That facility is not permitted to accept any hazardous waste for disposal, demonstrating that Adams County has already concluded that the disposal of NORM and TENORM is not 'hazardous.'" Furthermore, Clean Harbors asserts that the CSI facility is located in a more heavily-populated area and, as an industrial solid waste disposal facility, "is subject to a much lower level of regulatory scrutiny than Clean Harbor's Facility."

The Issues

In its legal filings, Clean Harbors summarizes the issues that it is asking the district court to consider as follows:

- "Do Adam County's purported restrictions on the disposal of 'Radioactive Waste' apply to wastes that are not 'Radioactive' under the Colorado Radiation Control Act?"
- "Does the CD allow disposal of all materials authorized by the State?"

Relief Sought

In its Complaint for Declaratory Relief, Clean Harbors requests among other things that the district court

- declare that the CD for the facility "defers all authority to the State regarding the materials that may be accepted, treated, and disposed of at the Facility, specifically including those materials authorized by the RCRA Permit and the License;"
- in the alternative, declare that acceptance of the licensed materials does not violate the CD; and,
- declare that NORM, TENORM and Denver Radium are not "radioactive" or "radioactive wastes" as defined under the state Radiation Control Act.

In the Motion for Preliminary Injunction, Clean Harbors requests among other things that the district court

- enjoin Adams County from issuing any cease and desist order that is grounded on the premise that the CD prohibits the acceptance, treatment and disposal of materials licensed or permitted by CDPHE; and

- enjoin Adams County from initiating any administrative proceedings to suspend or revoke the 2004 CD based on the premise that it prohibits the acceptance, treatment, and disposal of CDPHE licensed and permitted materials.

Statement by Clean Harbors

"Clean Harbors deeply regrets having to take this defensive posture but had no choice since Adams County continues to place frivolous legal and administrative roadblocks in front of our efforts to serve Colorado's communities and environment," stated Phillip Retallick, Clean Harbors' Senior Vice President for Compliance and Regulatory Affairs, in a September 5 News Release. "We have made every effort to take the high road, pursuing amicable negotiations with the Commissioners and offering to provide them with veto power over any expansion plans that involve the management of radioactive waste. In response, the County has threatened to revoke our Certificate of Designation and filed multiple unsuccessful lawsuits against us."

The News Release goes on to state, in part, as follows:

> Having been through the state's rigorous licensing and permitting processes, the Deer Trail facility was granted the ability to accept materials that fall below Colorado's statutory threshold for 'radioactive waste,' which is .002 micocuries per gram. This definition includes naturally occurring radioactive materials and technologically enhanced naturally occurring radioactive materials (NORM/TENORM), which are so low-level that the state specifically exempts them from regulation as a 'radioactive waste.'
>
> Among other sources, NORM/TENORM materials are found in drinking water treatment residues that come from municipalities that must comply with the Federal Safe Drinking Water Act's new radionuclide maximum contaminant levels …

For information on the details of the Deer Trail facility's permit or license, contact Joe Vranka, Bureau Chief, Radiation Programs, of the CDPHE at (888) 569-1831. For information on Clean Harbors or the recent legal filings, contact Phil Retallick, Senior Vice President of Compliance and Regulatory Affairs, of Clean Harbors at (803) 691-3427. For information on the Rocky Mountain Board's limited regional facility designation for Deer Trail, contact board Executive Director Leonard Slosky at (303) 825-1912.

(Continued from page 26)

technical assistant. Since 1988, she has held a number of senior management positions in the Office of Nuclear Reactor Regulation including program director for the Policy and Rulemaking Program, chief of the Inspection Program Branch, and deputy director of the Division of Inspection Program Management. In 2004, she became director of the Program Management, Policy Development and Planning Staff.

Carpenter received a Bachelor of Sciences degree in Civil Engineering from the University of Pittsburgh. Prior to joining NRC, she worked for the Bettis Atomic Power Laboratory at the Naval Reactors Facility in Idaho Falls and in the Nuclear Engineering departments at Charleston and Puget Sound Naval Shipyards as a shift refueling engineer and nuclear engineer.

Advisory Committee on Nuclear Waste

ACNW Presents LLW Recommendations to NRC

On August 16, the Advisory Committee on Nuclear Waste sent a letter to U.S. Nuclear Regulatory Commission Chair Dale Klein providing observations and recommendations from a working group meeting held in May 2006 regarding emerging low-level radioactive waste (LLW) issues and opportunities to better risk inform the management of these wastes.

Background

Approximately 100 attendees participated in the two-day working group meeting. Among other things, the ACNW used the meeting to

- obtain current information from a variety of stakeholders on commercial LLW management practices;
- identify emerging LLW management issues and concerns;
- solicit industry and stakeholder views regarding NRC's future role in the area of commercial LLW management; and,
- solicit stakeholder views on what changes to the regulatory framework for managing LLW should be recommended for Commission consideration.

The meeting derived from a March 2005 ACNW briefing of the Commission during which time the ACNW agreed to examine issues regarding the national LLW program. The Committee began its review by preparing a background report (the "White Paper") that examines "the history and current status of commercial LLW disposal in the United States as well as the reasoning and approach used to develop the NRC LLW regulations in 10 CFR Part 61."

The White Paper, NUREG-1853, was transmitted to the Commission on December 27, 2005—together with a list of areas within NRC existing LLW regulation that could be risk-informed to improve the effectiveness of LLW regulation—and discussed during a February 2006 briefing. It subsequently underwent editorial and limited external peer review, during which time the following three new topics were added:

(1) an expanded discussion concerning low-activity radioactive wastes (LAW), including a brief review of NRC's earlier *de minimis* regulatory initiative and the subsequent Below Regulatory Concern Policy Statements;
(2) additional Advisory Committee on Reactor Safeguards (ACRS) letters were identified and included in the discussion of past reviews; and,
(3) a summary has been prepared of how the U.S. Department of Energy manages LLW from its programs.

The White Paper is expected to be published by NRC shortly.

Working Group Summary and Observations

The following are brief highlights from the letter of identified observations from the May 2006 LLW working group meeting. Persons interested in a more detailed summary are directed to the letter itself or to transcripts of the meeting.

(1) Several participants noted that significant changes have occurred in the type and quantities of LLW being generated since the development and adoption of 10 CFR Part 61—due, at least in part, to advances in consolidation, treatment and compaction technologies—and that future waste generation may include additional changes. Accordingly, a lot of the focus was on LLW with high (Class C and Greater-than-Class C) and very low concentrations of radioactive materials.

(2) Most participants agreed that the current regulatory system is workable, though complex, and that revision to Part 61 is not necessary. Participants observed that NRC has effectively used guidance and case-specific license or permit determinations to address emerging issues.

(3) Several participants suggested developing performance assessment scenarios using a risk-informed and site-specific approach for disposal evaluations.

(4) Several participants suggested emphasizing the specific radionuclide content of wastes, rather than their origins or types of licenses, in developing risk-informed approaches to LLW management. This could expand disposal options for wastes based on the risks of a given disposal scenario.

(5) Many participants noted that disposal using case-specific health and safety analyses are an effective way to assess appropriate disposal options for some current and emerging waste streams, as is currently accomplished using 10 CFR 20.2002 case-specific authorizations in conjunction with 10 CFR Parts 30.11 and 40.14. In addition, 10 CFR 61.58 anticipates that alternative waste classification systems can be further developed. Participants welcome NRC guidance to address a more transparent process for submittal, review and decision-making using these provisions.

(6) Some participants suggested using case-specific guidance, as noted in item 5, to develop more formal and widely applicable guidance (such as Regulatory Guides or Branch Technical Positions) to make the evaluation of disposal of materials with new or different characteristics more easily accomplished and transparent.

(7) In one specific example, it was suggested that NRC revisit the "factor 10 rule" embodied in the Branch Technical Position on Waste Form and Waste Classification which states that for discrete pieces of irradiated hardware in a particular waste container, the piece of metal with the highest concentration of radioactive material may not be greater than a factor of 10 higher than the piece of metal with the lowest concentration. By applying a risk-informed approach, it may be possible to dispose a wider range of concentrations of radioactive materials in irradiated hardware.

(8) Sealed sources are generally classified as Class B or C waste when considered for disposal. "Prompt secure disposal can be accomplished by considering waste form, radionuclide content, robust packaging, and specific disposal site conditions in a risk-informed way."

(9) Increased attention has been given in recent years to the management of some LAW streams that are not regulated as LLW, even with radionuclide concentrations greater than background, due to the substantial volume of such waste. Some participants suggested that NRC could provide more guidance on how to dispose of these low-activity wastes in a manner that is commensurate with risk analyses specific to these materials.

(10) The uncertain future availability of disposal capacity for Class B and C wastes was discussed, including the scheduled closure of the Barnwell facility to out-of-region waste in July 2008 and the ongoing licensing effort in Texas. Also, one participant suggested undertaking a new initiative to allow commercial waste disposal at either an existing DOE facility or at a new facility operated on federal land. "These issues, while interesting, were beyond the scope of the Committee's LLW Working Group Meeting aimed at addressing potential improvements in NRC LLW regulations."

(11) Some participants provided comments on unrelated issues, such as the use of the so-called "reference man" in radiological dose assessments, the need for more stringent dose standards, and consideration of public comments in NRC decision-making. "These issues, while interesting, were beyond the scope of this particular working group meeting."

Recommendations

The following is an exact quote from the letter of five recommendations put forth by the Committee based on the working group meeting.

(1) The Committee believes that there is no need to revise NRC's LLW regulations found in 10 CFR Part 61 at this time. The Committee recommends that the Commission develop license conditions and regulatory guidance to better implement the provisions of 10 CFR 20.2002 and 10 CFR 61.58 which give specific authority to implement such guidance.

(2) The Committee recommends that NRC develop guidance permitting management and disposal of unique and emerging waste streams. Such guidance should consider waste types and forms, packaging, and disposal site conditions in a way that is risk-informed and performance-based consistent with the performance criteria in 10 CFR 61.41 to 61.44 and 10 CFR 61.58, as appropriate.

(3) The Committee recommends that NRC should encourage a more risk-informed approach to LLW management that places greater emphasis on the radionuclide content of the waste rather than the waste source or origin.

(4) The Committee recommends examining how NRC and the Agreement States are preparing to regulate potential increases in the storage of Class B and C LLW if and when Barnwell closes to out-of-compact waste in July 2008, and no alternative options become available.

(5) The Committee recommends that, because the waste classification provisions in 10 CFR Part 61 are referenced by and included in legislation and other regulations, it is important to identify and evaluate any unintended consequences from changes recommended in this letter. The Committee believes that the incremental changes and improvements suggested in this letter are unlikely to have such unintended consequences.

The ACNW letter can be found at http://www.nrc.gov/reading-rm/doc-collections/acnw/letters/2006/. For additional information, contact Mike Lee of the ACNW at (301) 415-8200.

ACNW Holds Waste Management Workshop

On September 18 – 21, the U.S. Nuclear Regulatory Commission's Advisory Committee on Nuclear Waste (ACNW) held a working group meeting in Rockville, Maryland. The meeting focused on using monitoring to build model confidence on waste management issues and included discussions on the role of models and monitoring in licensing and evaluating radionuclide releases and groundwater contamination. Among other items, the committee was briefed on public comments received on two tunnel fire studies and how these comments will be addressed in the final versions of the two reports.

The ACNW reports to and advises the Commission on all aspects of nuclear waste management. ACNW meeting agendas can be found on the NRC's web site at http://www.nrc.gov/reading-rm/doc-collections/acnw/agenda/2006/.

Advisory Committee on Reactor Safeguards

Two New Members Appointed to ACRS

The U.S. Nuclear Regulatory Commission has appointed two new members—Dr. Said Abdel-Khalik and Dr. Michael Corradini—to its Advisory Committee on Reactor Safeguards (ACRS), which advises the Commission on licensing and operation of nuclear power plants and related safety issues.

Dr. Abdel Khalik earned his Bachelor of Science degree in mechanical engineering from Alexandria University in Egypt in 1967. He earned his Master of Science degree and doctorate, also in mechanical engineering, from the University of Wisconsin-Madison in 1971 and 1973, respectively. He was a faculty member at the University of Wisconsin until 1987, when he became the Georgia Power Distinguished Professor at the Georgia Institute of Technology. He was named the Southern Nuclear Distinguished Professor at Georgia Tech in 1993. In the past 30 years, he has supervised more than 100 graduate theses in mechanical and nuclear engineering and published a textbook and numerous papers and articles. He holds several patents and has conducted extensive research.

Dr. Michael Corradini earned his Bachelor of Science degree in mechanical engineering at Marquette University in Milwaukee, Wisconsin in 1975. He earned both his Master of Science degree and doctorate in nuclear engineering at the Massachusetts Institute of Technology in Cambridge in 1976 and 1978, respectively. He is professor and chair of the Nuclear Engineering and Engineering Physics Program at the University of Wisconsin and director of the Wisconsin Institute of Nuclear Systems. He has more than 30 years of research experience, served on various advisory committees, received numerous awards, and authored two book chapters and one book and more than 200 technical papers. He served as a consultant to ACRS from 1982 to 1997.

U.S. Department of the Interior

Interior Department Denies PFS Lease Application

In a pair of decisions issued on September 8, two U.S. Department of the Interior agencies issued decisions rejecting applications by Private Fuel Storage, LLC—a consortium of eight nuclear utilities—relating to PFS' plans to build a temporary spent nuclear fuel storage facility on the reservation of the Skull Valley Band of Goshute Indians in Utah. In one decision, the Bureau of Land Management (BLM) refused to grant the rights of way needed to build transportation methods needed to get the fuel to the site. In another, the Bureau of Indian Affairs (BIA) disapproved a lease agreement allowing PFS to use Goshute reservation land for the facility.

Utah Governor Jon Huntsman, Jr., members of the Utah delegation, and local environmental groups rejoiced in the news and argued that the decisions effectively kill the project. A PFS and Goshute spokesperson was more cautious, however, noting that the decisions may be challenged in court and are being reviewed by the applicants.

The Decisions

In its decision, BLM wrote that it could not approve a rail line to the Goshute reservation because it would have to cross a newly created wilderness area. A proposal to transfer waste onto tractor-trailers and truck it to the reservation was also rejected because BLM found it would significantly increase traffic along the two-lane route and because workers transferring the casks would be exposed to radiation.

Based on the BLM decision, as well as concerns about the vulnerability of the site to a terrorist attack, BIA disapproved the tribe's lease agreement with PFS. The BIA decision also cited inadequate police protection on the reservation, noting that Tooele County sheriff deputies lack jurisdiction on

the reservation and that the nearest BIA officers are stationed 4.5 hours away. BIA also found that it lacks the technical knowledge to monitor the waste, especially with the planned Yucca Mountain permanent repository facing continued hurdles.

Both rulings state that the ultimate decision belonged to Interior Secretary Dirk Kempthorne, a former Governor of Idaho who was confirmed to his post in May. Kempthorne is the "trustee-delegate" charged with "the complex task of weighing the long-term viability of the Skull Valley Goshute reservation as a homeland for the Band (and the implications for preservation of tribal culture and life) against the benefits and risks from economic development activities …" Associate Deputy Interior Secretary James Cason wrote that, after conducting this balancing test, "we conclude that it is not consistent with the conduct expected of a prudent trustee to approve a proposed lease that promotes storing [spent nuclear fuel] on the reservation."

Other Hurdles

Although in September 2005—nine years after the initial application was filed—NRC voted to issue PFS a license, approval was conditioned upon BLM's approval of a plan to transport the waste to the site and BIA's final approval of the Goshute's lease with PFS. (See *LLW Notes,* September/October 2005, pp. 25-26.) In addition, PFS is required to have commitments for the cost of constructing and decommissioning the site before work can begin.

After NRC's action, however, Utah's congressional delegation was successful in pushing through legislation to create the Cedar Mountain Wilderness Area adjacent to the Goshute reservation—thereby blocking rail access to the site. Members of the Utah delegation then wrote to BLM in May arguing that the wilderness designation makes it impossible to build the proposed rail line to the site and that the alternate plan of using trucks is not viable for various security-related reasons.

PFS has also faced problems with financial support from members of the consortium. Earlier this year, Senator Orin Hatch (R-UT) released two letters announcing that one partner plans to drop out of the group and another formalized a decision not to provide any additional funding to the project. (See *LLW Notes,* January/February 2006, pp. 11, 18.)

In addition, Congress continues to consider efforts to create one or more government-run interim storage facilities, potentially making private storage unnecessary. (See *LLW Notes,* July/August 2006, pp. 14-15.)

Background

PFS submitted its application for a license to construct and operate a spent fuel storage facility to the NRC in June 1997. The NRC issued its final Environmental Impact Statement in January 2002 and a Consolidated Safety Evaluation Report in March 2002. On September 9, 2005, NRC denied the final appeals of the State of Utah in adjudication of PFS' application. In so ruling, NRC upheld a February 24 decision by the Atomic Safety and Licensing Board (ASLB) that rejected Utah's contention that the license application should be denied because there is too high a probability of a radiation release resulting from an accidental crash of one of 7,000 flights over the Skull Valley each year by F-16 single-engine jets from Hill Air Force Base. By a 3 to 1 vote, the Commission authorized staff to issue PFS a license once the requisite findings are made under NRC regulations. (See *LLW Notes,* September/October 2005, p. 25-26.)

PFS seeks to locate its facility on the reservation of the Skull Valley Band of Goshute Indians—about 50 miles southwest of Salt Lake City. The proposed above-ground facility would use up to 4,000 NRC-approved Holtec International HI-STORM 100 storage casks, each of which can hold up to 10 tons of spent fuel. The HI-STORM cask consists of a steel canister in which the fuel is stored and contained in a steel and concrete overpack. To shield the spent fuel, the canister is welded closed and then placed in the overpack of two steel shells encasing a wall of concrete more than two feet thick. The concrete provides additional shielding from radiation during storage. The cask weighs 180 tons when full.

U.S. Nuclear Regulatory Commission

NRC Materials and Agreement State Programs Reorganized

According to an October 4 news release, "The Nuclear Regulatory Commission has reorganized its nuclear materials and Agreement State programs into two new program offices, completing a restructuring approved by the Commission in June to help the agency approach new challenges in the materials, waste and environmental areas." (See *LLW Notes*, May/June 2006, pp. 24 – 25.)

Operations began for the newly created Office of Federal and State Materials and Environment Management Programs (FSME) on October 1. On the same date, a refocused Office of Nuclear Material Safety and Safeguards (NMSS) began operations.

Office of Federal and State Materials and Environment Management Programs

FSME is comprised of the former Office of State and Tribal Programs, two of the technical divisions from NMSS and a small program support staff. Director Charles Miller will head FSME, with George Pangburn serving as Deputy Director. Other senior staff includes

- Janet Schleuter as Director of the Division of Materials Safety and State Agreements;
- Dennis Rathburn as Director of the Division of Intergovernmental Liaison and Rulemaking;
- Larry Camper as the Director of the Division of Waste Management and Environmental Protection; and,
- Joseph Holonich as Director of the Program Planning, Budgeting and Program Analysis Staff.

Office of Nuclear Material Safety and Safeguards

The refocused NMSS will concentrate on the nuclear fuel cycle, from uranium conversion and enrichment to fuel manufacturing and high-level waste storage, transportation and disposal. Director Jack Strosnider will head the office, with Margaret Federline serving as Deputy Director. Other senior staff includes

- William Brach as Director of the Division of Spent Fuel Storage and Transportation;
- Robert Pierson as Director of the Division of Fuel Cycle Safety and Safeguards;
- Lawrence Kokajko as Director of the Division of High-Level Waste and Repository Safety; and,
- Mark Flynn as Director of the Program Planning, Budgeting and Program Analysis Staff.

Background

Thirty-four states currently participate in NRC's Agreement State program. Three additional states are currently in the process of negotiating agreements to regulate the industrial, academic and medical uses of radioactive materials. Approximately 18,000 licenses are currently maintained by Agreement States. NRC has jurisdiction over approximately 4,400 licenses in the remaining states.

"The increase in the number of Agreement States, along with the expected wave of applications for new nuclear power plants, spent fuel reprocessing plants and a high-level waste repository at Yucca Mountain, have created new challenges and demands on the agency's resources," said Martin Virgilio, the agency's Deputy Executive Director for Materials, Research, State and Compliance Programs. "This reorganization will help us meet these demands while maintaining our ability to protect public health and safety and the environment."

ESP Applications Move Forward

The Atomic Safety and Licensing Board, an independent judicial arm of the U.S. Nuclear Regulatory Commission, held a meeting in Port Gibson, Massachusetts on August 28 to receive comments from interested members of the public in connection with an Early Site Permit (ESP) application for the Grand Gulf nuclear power plant. In addition, NRC announced on August 15 the availability of an application from Southern Nuclear Operating Company for an ESP for property located near the Vogtle nuclear power plant, about 23 miles southeast of Augusta, Georgia.

The ESP process allows an applicant to address site-related issues, such as environmental impacts, for possible future construction and operation of a nuclear power plant at the site. If a permit is granted, the applicant has up to 20 years to decide whether to build a new nuclear unit on the site and to file an application with the NRC for approval to begin construction.

Grand Gulf ESP

System Energy Resources, Inc.—a subsidiary of Entergy—filed the Grand Gulf ESP application on October 21, 2003. The Grand Gulf site is located 25 miles south of Vicksburg. A final environmental impact statement issued by NRC in early April 2006 contains the staff's finding that there are no environmental impacts that would prevent issuing the ESP. Combined with a safety evaluation report issued by NRC in mid-April, this marks the end of the staff's technical review on the application, although additional steps must be completed before NRC reaches a final decision on the matter. The NRC expects to finish this process in early 2007.

The final EIS and SER for the Grand Gulf ESP application can be found at http://www.nrc/gov/reactors/new-licensing/esp/grand-gulf.html.

Vogtle ESP

The Vogle site, which is owned by Southern Nuclear Operating Company, currently contains two commercial nuclear power plants. Last May, NRC held two public meetings in Waynesboro, Georgia to provide information to the public about the ESP process including how it works and how the public can participate. NRC staff is currently conducting an initial review of the ESP application to determine if it contains enough information for the staff to perform a comprehensive technical review that will address site safety, environmental protection and emergency planning issues. If the application contains sufficient information, NRC will formally "docket" it and will announce an opportunity for affected persons to participate in the required hearing.

The Vogtle ESP application can be found at http://www.nrc.gov/reactors/new-licensing/esp.html.

SER Issued for Oyster Creek Renewal Application

In August 2006, the U.S. Nuclear Regulatory Commission issued its Safety Evaluation Report with Open Items for the proposed renewal of the operating license for the Oyster Creek Nuclear Generating Station in Lacey Township, New Jersey. In the report, staff concludes there are no safety concerns that would preclude renewal of the license provided the open items are resolved.

Background

The Oyster Creek plant is located approximately nine miles south of Toms River, New Jersey. Its current operating license expires on April 19, 2009. The licensee, AmerGen Energy Company, submitted a renewal application on July 22, 2005. Subsequently, NRC held a public meeting in late August 2005 to discuss how the agency will review the application. In September 2005, NRC staff determined that the application has sufficient information for the agency to formally "docket," or file, it and begin its technical review. On September 12, 2005, NRC announced the opportunity to

request a hearing on the application. The environmental scooping process concluded on November 15, 2005. A draft supplemental environmental impact statement was then issued in June 2006 that found that there are no environmental impacts that would preclude renewal of the operating license.

A copy of the Oyster Creek renewal application is available on the NRC's web site at http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html.

Safety Evaluation Report

A copy of the Safety Evaluation Report was transmitted to AmerGen on August 18. NRC requested responses to the Open Items identified in the document by October 20. All of the Open Items deal with corrosion issues involving the plant's drywell. In some cases, NRC staff is seeking additional information regarding the company's efforts to mitigate corrosion in the drywell. In others, it is asking that specific steps be taken to confirm the thickness and integrity of the component.

A complete and revised Safety Evaluation Report will be issued by December 1.

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 44 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.

Bellefonte Construction Permits Terminated

In mid-September, the U.S. Nuclear Regulatory Commission announced that it has approved a request by the Tennessee Valley Authority to terminate the construction permits for the unfinished Bellefonte Nuclear Plant, Units 1 and 2. TVA requested the termination in a letter dated April 6. The Bellefonte site is located on approximately 1,600 acres adjacent to the Tennessee River near Hollywood, Alabama.

NRC granted construction permits for Bellefonte, a dual-unit pressurized water reactor plant, in 1974. TVA deferred completion of the plant in 1988, when Unit 1 was approximately 88 percent complete and Unit 2 was approximately 58 percent complete. In 1992, NRC conducted an inspection and determined that there was no nuclear fuel on the site.

NRC recently published an environmental assessment on the termination with a finding of no significant environmental impacts, in the *Federal Register*. As part of its findings, NRC concluded that terminating the construction permits and the TVA's limited site redress activities would not have a significant effect on the quality of the environment.

During the NRC review, TVA expressed its intention to continue using existing environmental permits at the site, as well as to maintain major plant components such as water intake and discharge facilities, cooling towers and transmission switchyards. TVA indicated that the existing containment, turbine and auxiliary buildings would be left in place, while unnecessary structures such as warehouses would be disassembled, abandoned or demolished. TVA also indicated it would continue conducting periodic site inspections to ensure none of the equipment or materials are causing environmental or health problems.

MOX Fuel Fabrication Application Submitted

On September 27, Duke, Cogema, Stone & Webster (DCS) submitted to the U.S. Nuclear Regulatory Commission an operating license application for a proposed mixed-oxide (MOX) fuel fabrication facility. The applicant proposes to construct the facility at the U.S. Department of Energy's Savannah River Site in South Carolina.

NRC staff is currently reviewing the application to determine whether it contains sufficient information for the required formal reviews. If the application has enough information, the NRC will formally "docket" it and will announce the opportunity for the public to request an adjudicatory hearing on the license application.

The U.S. Department of Energy's National Nuclear Energy Security Administration would own the facility. It would operate as part of a bilateral effort between the United States and the Russian Federation to convert supplies of surplus weapons-grade plutonium into more proliferation-resistant forms by blending it with uranium. Converting the plutonium into MOX fuel will enable it to be used in commercial reactors to generate electricity. Only those reactors authorized by NRC will be permitted to use MOX fuel in the United States.

On March 30, 2005, NRC issued a construction authorization for the facility. During that license review, NRC staff completed an Environmental Impact Statement on the construction and operation of the proposed facility. That report is available on NRC's web site, as is information on various public meetings that were held in regard to the MOX facility.

The DCS application is available on the NRC's web site at http://www.nrc.gov/materials/fuel-cycle-fac/mox/licensing.html.

Report Issued re Ohio Enrichment Plant

In early September, the U.S. Nuclear Regulatory Commission issued its Safety Evaluation Report for a proposal to construct a gas centrifuge enrichment plant in Piketon, Ohio. The report concludes that the plant, as described, would operate safely and would not pose an undue risk to the health and safety of workers or the public.

A license application for the plant, to be known as the American Centrifuge Plant, was submitted by USEC Inc. on August 23, 2004. USEC proposes to use a design based on gas centrifuge technology that was developed by the U.S. Department of Energy to enrich uranium for use in fuel for commercial nuclear power reactors. The proposed location of the plant is DOE's Portsmouth Gaseous Diffusion Plant site in Piketon.

NRC staff's review and safety and safeguards evaluation of the application is documented in the Safety Evaluation Report. The review evaluates the facility's potential adverse impacts on worker and public health and safety, under both normal operating and accident conditions. Also considered in the review are physical protection of special nuclear material and classified matter, material control and accounting of special nuclear material, as well as the management organization, administrative programs and financial qualifications provided to ensure the facility's safe design and operation.

The Safety Evaluation Report is the second of two major reports in NRC staff's review of the application. An Environmental Impact Statement (NUREG-1834) that concluded that there would be no significant adverse impacts that would preclude granting a license was published in April.

The license review process is scheduled to be completed in February 2007, after an adjudicatory hearing by the Atomic Safety & Licensing Board.

NRC's Safety Evaluation Report (NUREG-1851) is available on the agency's web site at http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/.

NRC Hosts Nuclear Security Meeting

On September 14, the U.S. Nuclear Regulatory Commission hosted a public meeting to discuss security enhancements required by the agency and actions taken by licensees to implement these enhancements. The meeting, which was held at the agency's headquarters in Rockville, Maryland, included discussions on reactor security oversight, force-on-force exercises, nuclear material security initiatives, security activities related to the Energy Policy Act of 2005, and new reactor security.

NRC's Office of Nuclear Security and Incident Response hosted the meeting. It was conducted as a roundtable discussion among invited participants and NRC officials. The meeting was open and the public was provided the opportunity to ask questions and offer comments.

A detailed agenda for the meeting is available at http://www.nrc.gov/public-involve/public-meetings.html.

NRC Information Digest Issued

In early September, the U.S. Nuclear Regulatory Commission issued its 2006 – 2007 edition of the Information Digest that contains up-to-date information about the agency, domestic and worldwide nuclear energy, nuclear materials safety, and radioactive waste in an easy-to-use format. An expanded discussion about future U.S. commercial power reactor licensing is included in the edition. It also features updated design, graphics, and illustrations as well as visual cues for easier reference. The edition is NUREG-1350, Volume 18.

The Information Digest is published annually. It provides a compilation of NRC-related and nuclear-related data and is intended to serve as a quick reference to major facts about the agency and the industry it regulates.

The Information Digest is available electronically at http://www.nrc.gov in the lower right-hand corner of the agency's home page. It may also be purchased from the U.S. Government Printing Office at (202) 512-1800 or the National Technical Information Service at (800) 553-6847.

Mid-Cycle Plant Assessments Issued

On September 1, 2006, the U.S. Nuclear Regulatory Commission announced that it has issued mid-cycle assessment letters for 103 operating nuclear power plants and posted them to its web site. According to NRC, "The letters show that U.S. commercial nuclear power plants continue to operate safely."

Every six months, each plant receives either a mid-cycle review letter or an annual assessment letter along with an NRC inspection plan. NRC posts updated information on plant performance to its web site every quarter. The next annual assessment letters will be issued in March 2007.

The assessment letters for each plant are available on the NRC web site at http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/listofasmrpt.html.

Carpenter Appointed NRC Enforcement Director

On August 15, 2006, the U.S. Nuclear Regulatory Commission announced that Cynthia Carpenter has been appointed, effective September 3, as the Director of the agency's Office of Enforcement. Carpenter succeeds Michael Johnson, who is now the Assistant for Operations in the Executive Director's Office. In her new position, Carpenter will be responsible for managing the programs that develop and implement the policies and programs that enforce NRC requirements. In addition, she will oversee the agency's allegations management program, NRC allegations review process and external safety culture policy.

Carpenter joined NRC in 1987 as a reactor engineer in the agency's Region I in King of Prussia, Pennsylvania. She has held a number of progressively more responsible positions since that time, including resident inspector at both the Yankee Rowe and Pilgrim nuclear power plants. She also worked as an operations engineer and

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

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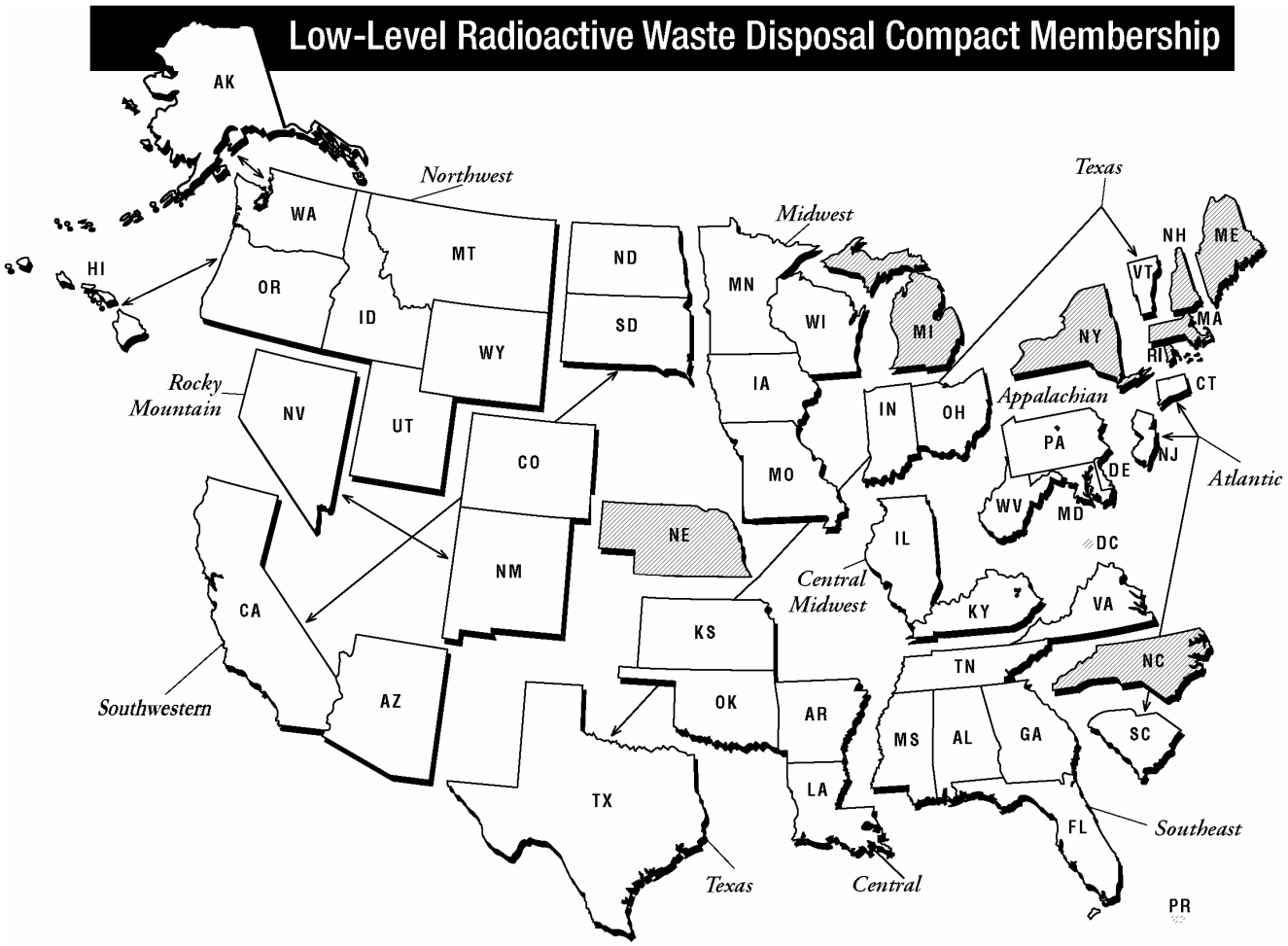
LLW Notes, LLW Forum Meeting Reports and the *Summary Report: Low-Level Radioactive Waste Management Activities in the States and Compacts* are distributed to the Board of Directors of the LLW Forum, Inc. As of March 1998, *LLW Notes* and LLW Forum Meeting Reports are also available on the LLW Forum 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.



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New Mexico

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