



Southeast Compact Commission
for Low-Level Radioactive Waste Management

States Working for Responsible Waste Management

2006 SEP 20 AM 11:48

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BY FACSIMILE

September 5, 2006

RECEIVED

Chief, Rules and Directives Branch
Mail Stop T6-D59
U.S. Nuclear Regulatory Commission
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71 FR 38675

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SUBJECT: Response to Request for Comments on the Nuclear Regulatory
Commission's Low-Level Radioactive Waste Program
(71 Fed. Reg. 38,675)

This letter provides comments of the Southeast Compact Commission (Commission) on the Nuclear Regulatory Commission (NRC) request for comments regarding the agency's low-level radioactive waste program, as described in the subject *Federal Register* notice.

First, I am attaching responses to the specific questions posed in the *Federal Register* notice.

Second, I provide the attached policy statement adopted by the Commission on November 30, 2005. In its statement, the Commission indicates its preference for permanent disposal of low-level radioactive waste, while recognizing that loss of access to the Barnwell disposal facility in 2008 may result in storage of some wastes for an undetermined period. The Commission expresses its agreement with the U.S. Government Accountability Office (GAO) that "there is no health or safety crisis posed in the near term by the lack of access to disposal for Class B & C waste."

The Commission cautions proponents of Congressional action to allow disposal of commercial LLRW at the U.S. Department of Energy sites or to allow construction of a commercial disposal facility on federal land that federal involvement in the siting of a waste facility does not guarantee success. The Commission urges all concerned parties to closely examine the politics and economics of low-level radioactive waste disposal and insists that any proposed solution must support and uphold the rights of all interstate compacts to control the flow of waste into waste processing or disposal facilities within their borders. The Commission explains that "Threats to these controls, such as the suggestion that the LLW Policy Act should be amended or replaced, run the risk of impeding the continued operation of the existing processing and disposal facilities or leading to the actual closure of the facilities."

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U.S. Nuclear Regulatory Commission
September 5, 2006
Page Two

The Commission maintains that "adequate mechanisms exist for compacts with facilities to voluntarily accept waste from additional states/compacts and that voluntary acceptance has been and will continue to be critical to a lasting solution to this issue." The Commission affirms its plans to continue efforts in voluntary cooperation with other states and compacts to facilitate access to all low-level radioactive waste management services and to minimize the cost of these services. However, the Commission is not averse to pursuing other alternatives as long as those alternatives are well thought out and do not jeopardize the tenuous balance we have achieved to this point. In fact the Commission has expressed its desire to solve the waste disposal problem for all low-level radioactive waste (NORM, NARM, as well as AEA LLW).

Finally, I attach notes from a Roundtable Discussion sponsored by the Commission in May 2006 to explore the option of disposal at federal sites or on federal land. I believe the notes from that discussion illustrate the wide range of views across the nation with regard to the future of low-level radioactive waste disposal.

I appreciate the opportunity to provide comments on the future of the LLRW program. I am available to discuss the Commission's views at 931-801-7540.

Sincerely,



Michael H. Mobley
Chair

Attachment: Responses to Questions in 71 Federal Register 38,675
Southeast Compact Commission Policy Statement, November 30, 2005
Notes, Roundtable Discussion, May 22, 2006

**RESPONSES TO QUESTIONS POSED IN 71
FEDERAL REGISTER 38,675**

**SUBMITTED BY SOUTHEAST COMPACT
COMMISSION**

September 5, 2006

What changes, if any, should be made to the current LLW program regulatory framework as well as specific actions that the staff might undertake to facilitate such changes?

RESPONSE: The Commission has no recommendations for change to the program.

Regarding the Current LLW Disposal Regulatory System

1. *What are your key safety and cost drivers and/or concerns relative to LLW disposal?*

RESPONSE: Our primary concern is that Class B and Class C waste in the Southeast Compact region may not have access to disposal after June, 2008.

2. *What vulnerabilities or impediments, if any, are there in the current regulatory approach toward LLW disposal in the U.S., in terms of their effect on:*
 1. *Regulatory system reliability, predictability, and adaptability;*
 2. *Regulatory burden (including cost); and*
 3. *Safety, security and protection of the environment?*

RESPONSE: No comment.

Potential Alternative Futures

1. *Assuming the existing legislative and regulatory framework remains unchanged, what would you expect the future to look like with regard to the types and volumes of LLW streams and the availability of disposal options for Class A, B, C, and greater-than-class-C (GTCC) LLW five years from now? Twenty years from now? What would more optimistic and pessimistic disposal scenarios look like compared to your "expected future"?*

RESPONSE: Realistic: In 2011, we would expect Class A waste to be disposed at Clive, Utah, and that Class B & C and GTCC waste would be stored on site. Volumes will continue to be too low to attract development of a new site.

Optimistic: In 2011, we would expect Class A waste to be disposed at Clive, Utah, and that Class B & C waste would be disposed at a licensed facility by virtue of a contract between the Southeast Compact and another compact region. GTCC would be disposed at a DOE facility.

2. *How might potential future disposal scenarios affect LLW storage and disposal in the U.S. in terms of:*
 1. *Regulatory system reliability, predictability, and adaptability;*
 2. *Regulatory burden (including cost); and*
 3. *Safety, security and protection of the environment?*

Can the Future Be Altered?

1. *What actions could be taken by NRC and other federal and state authorities, as well as by private industry and national scientific and technical organizations, to optimize management of LLW and improve the future outlook?*

Which of the following investments are most likely to yield benefits:

 1. *Changes in regulations;*
 2. *Changes in regulatory guidance;*
 3. *Changes in industry practices;*
 4. *Other (name).*

RESPONSE: We believe that generators and waste management vendors can and will make changes to their practices to further minimize waste production and develop new treatment practices and technologies to manage Class B & C waste.

2. *Are there actions (regulatory and/or industry initiated) that can/should be taken in regard to specific issues such as:*
 1. *Storage, disposal, tracking and security of GTCC waste (particularly sealed sources);*
 2. *Availability and cost of disposal of Class B and C LLW;*
 3. *Disposal options for depleted uranium;*
 4. *Extended storage of LLW;*

5. *Disposal options for low-activity waste (LAW)/very low level waste (VLLW);*
6. *On-site disposal of LLW;*
7. *Other (name).*

RESPONSE: It would be helpful to have new NRC guidance on on-site storage ASAP, especially with regard to sealed sources.

3. *What unintended consequences might result from the postulated changes identified in response to questions 5 and 6?*

RESPONSE: As explained in the attached position statement of the Southeast Compact Commission, we believe it is possible that use of alternative disposal methods could have a deleterious effect on the financial viability of existing treatment and disposal facilities.

Further, widespread discussion of alternative technologies or other distractions by NRC or other federal agencies can have a deleterious effect on efforts to site new disposal facilities. For example, in the 1990's, representatives of the Environmental Protection Agency did considerable harm to state efforts to site disposal facilities when they made presentations alleging the LLW standards for disposal facilities were inferior to EPA disposal standards for hazardous wastes.

Interagency Communication and Cooperation

1. *Based on your observations of what works well and not-so-well, domestically and/or internationally, with regard to the management of radioactive and/or hazardous waste, what actions can the NRC and other Federal regulatory agencies take to improve their communication with affected and interested stakeholders?*
2. *What specific actions can NRC take to improve coordination with other Federal agencies so as to obtain a more consistent treatment of radioactive wastes that possess similar or equivalent levels of biological hazard?*
3. **RESPONSE:** No comment

SOUTHEAST COMPACT COMMISSION POLICY STATEMENT

Management of Low-Level Radioactive Waste Adopted November 30, 2005

The Southeast Interstate Low-Level Radioactive Waste Management Compact was enacted by its party states in 1983 and ratified by Congress in 1985. Party states currently include Alabama, Florida, Georgia, Mississippi, Tennessee, and Virginia.

The mission of the Southeast Interstate Low-Level Radioactive Waste Management Commission (Southeast Compact Commission) is to ensure that adequate, reliable, and appropriate services are available, now and in the foreseeable future, such that low-level radioactive waste generated in the Southeast Region can be safely managed in an efficient, equitable, economical, and environmentally responsible manner in order that each party state may meet its responsibility for providing for the availability of capacity either within or outside the State for disposal of low-level radioactive waste generated within its borders (Article 1, PL 99-240).

The Commission believes that it has successfully fulfilled its mission since 1983. Its efforts to site a new disposal facility in North Carolina were thwarted in 1997 when North Carolina refused to honor its commitment to build a regional disposal facility. Nonetheless, through inter-regional cooperation, the Commission has provided for access to licensed waste management services for waste generators in the Southeast on an almost continuous basis for twenty-two years, while balancing issues of political equity and cost.

Generators in the Southeast Compact states currently ship waste to processing and disposal facilities without export restrictions. The majority of the region's waste by volume is Class A waste, most of which is disposed at a facility in Clive, Utah. A much smaller portion of the region's waste is Class B and Class C waste, which is disposed in Barnwell, South Carolina. Unless the South Carolina legislature amends existing law, this waste will not be accepted in South Carolina beginning July 1, 2008.

The Southeast Compact Commission believes that permanent disposal of low-level radioactive waste is preferable. However, the Commission agrees with the United States General Accountability Office that there is no health or safety crisis posed in the near term by the lack of access to disposal for Class B & C waste.¹ This waste is regulated and has been and can be safely stored temporarily at the site of generation, pending the availability of permanent disposal. To date, the Commission has seen no evidence that lack of disposal capacity will impede research, medical, industrial, or other beneficial uses of radioactive materials in the region. However, some generators have altered the use of radioactive materials because of potential disposal problems. There is no crisis now, but states, compacts, and the federal government should closely monitor the situation to avoid a crisis in the future.

¹ GAO-04-604, a report to the Chairman, Committee on Energy and Natural Resources, U.S. Senate, June 2004.

The Commission cautions that decisions should be made in the light of full understanding of all the factors, including political and economic realities.

The Commission firmly maintains that any effort to improve access to low-level radioactive waste management facilities must support and uphold the rights of the Northwest Compact, the Rocky Mountain Compact, the Atlantic Compact, the Texas Compact, and all other interstate compacts to control the flow of waste into waste processing or disposal facilities within their borders. Threats to these controls, such as the suggestion that the LLW Policy Act should be amended or replaced, run the risk of impeding the continued operation of the existing processing and disposal facilities or leading to the actual closure of the facilities.² Such a threat is what led to the development of the current compact system.

Adequate mechanisms exist for compacts with facilities to voluntarily accept waste from additional states/compacts. We maintain that voluntary acceptance has been, and will continue to be critical to a lasting solution to this issue. Just as it has done successfully in the past, this Commission will continue its efforts in voluntary cooperation with other states and compacts to facilitate access to all low-level radioactive waste management services and to minimize the cost of these services.

Proponents of Congressional action to make Department of Energy disposal sites available for the disposal of commercial waste or to allow commercial entities to site disposal capacity on federal land must consider that all DOE sites are located in states. Such an effort should therefore be expected to meet the same local and statewide political opposition faced by states and compacts that attempted to site facilities in the 1980's and 1990's. One could actually expect that opposition to be compounded by the existing public opposition and conflicts associated with the existing DOE sites.³ Further, one could argue that the federal government is no better equipped to deal with public opposition than are state governments. In the case of the siting efforts in the Southwestern compact, it was the Federal government -- not the state of California or the public of California -- that ended the siting of a disposal facility on federal land.

Acceptance of commercial waste at DOE disposal sites would also require a new regulatory framework. The DOE facilities were not sited under 10 CFR Part 61⁴ and did not go through the

² The State of Washington serves as the host state of the Northwest Compact and, by contract, accepts low-level waste from the three member states of the Rocky Mountain Compact. Washington has always been willing to do its fair share but does not want to be put in the position of again having to accept waste from states throughout the nation. To ensure that this does not occur, the new sublease with the site operator contains a clause allowing the state to terminate the sublease should compacts lose the exclusionary authority provided by federal law (statement by Mike Garner, Executive Director, Northwest Compact Committee, March 25, 2005).

³ In Washington State, a law was enacted by public referendum in 2004 that prohibits disposal of more Department of Energy waste at radioactive mixed waste sites until all on-site waste is treated, stored or disposed in compliance with all state and federal environmental laws.

⁴ 10 CFR Part 61 is that part of the NRC regulations that sets forth the standards for issuing a license for a commercial LLW disposal facility. Agreement States generally have compatible regulations for licensing a LLW disposal facility.

stringent siting requirements required by 10 CFR Part 61. These sites were not licensed and are not regulated by the NRC nor the states.

Moreover, we suggest that proponents of establishing new facilities for low-level radioactive waste disposal should more closely examine the economic factors. It is economics--not the existence of interstate compacts--that makes development of new disposal sites unattractive to commercial companies. In actuality, siting new facilities could drastically increase the cost of disposal. The cost of licensing and construction of a new disposal site is estimated to be at least \$100 million. At today's disposal volumes, even if all the Class A, B and C wastes from the 36 non-sited states were disposed at the new facility, it would not be possible to recover the development costs unless fees were considerably higher and/or the federal government subsidized the cost. Without the prospect of cost recovery in the near term and significant profit in the foreseeable future, no commercial company will be interested in siting a facility.

It is noted that the current trend in declining disposal volumes and continued efforts in waste minimization will further impact the economics of disposal for Class B and Class C waste. In addition, if the efforts of the NRC, EPA, and others are successful to allow exemption of waste streams from disposal requirements and to allow disposal of certain waste streams at facilities for hazardous or solid waste, this will further impact the economic viability of facilities managing low-level radioactive waste. We urge decision makers to thoroughly study the potential impacts to waste brokers, waste processors, and low-level radioactive waste disposal facilities before proceeding with regulatory changes.

The Commission applauds individuals and organizations in the United States who are bringing the issue of low-level radioactive waste management into the light of public debate. Certainty in waste management is needed and desirable. Whereas the current national policy provides the greatest certainty at the present time, the Commission is open to any option, including options that would disband compacts, if such options hold a better promise for providing a reliable, permanent solution for managing the waste of our region and the nation in a safe and cost-effective manner.

**Federal Sites Options Meeting – Monday, May 22, 2006
Combined Notes Taken by Todd Lovinger, LLW Forum, Inc., and
Ted Buckner, Southeast Compact Commission Staff**

Disclaimer: The following notes are provided to enable participants to recall general points of the discussion. They may contain inaccuracies and should not be quoted or referenced for other purposes.

Introductions and Welcome: Mike Mobley does introductions. Mobley states that we are here today to look at federal options. The purpose of the meeting is to explore this option and to get anything that anyone has knowledge of on the table and to identify issues. Briefly, the federal option as he understands it, is to use an existing DOE site or find a new site on federal land that would be regulated by the NRC. He wants to determine if there is a clear-cut method to move forward and, if so, the Southeast Compact and others in this room could form a coalition and go to Congress to ask for assistance.

[Mobley asked two questions]:

- 1) Is this option feasible?
- 2) If so, what issues need to be addressed and how best can they be addressed?

Mobley introduces Chip Cameron who will serve as facilitator. Cameron goes over meeting format, ground rules, etc. Idea is to have a roundtable dialogue to promote discussion rather than monologues. Start off with a few background topics on commercial low-level waste situation, see if there are any clarifying questions, move to discussion issues, and go to discussion. Focus is at table, but will go to audience as well.

Introductions:

Roundtable:

Mark Yeager – South Carolina, responsible for Barnwell and also representing CRCPD
Ray Brady – Director of Lands and Realty for BLM
Dan Schultheisz – EPA ORIA
James Kennedy – NRC (address regulatory issues)
Lee Thomasson – Dominion Generation
Scott Kirk – Health Physics Society
Leonard Slosky – Executive Director of the Rocky Mountain Compact
Tommiann McDaniel – US Army Corps of Engineers
Paul Genoa – Nuclear Energy Institute
Donna Earley – Cedars Sinai Medical Center, Southwestern Compact Commission, and Board at Cal Rad
Don Womeldorf – Executive Director of Southwestern Compact Commission
Bill House – Chem Nuclear/Duratek
John Dewes – American Nuclear Society

Jim Hardeman – Georgia Environmental Radiation Program and the Southeast Compact Commission

Jamie Joyce – Department of Energy

Larry McNamara – PermaFix Environmental

Steve Romano – American Ecology

Mike Mobley – Chairman of the Southeast Compact Commission

Annie Caputo – House Energy Committee

Wendy Caulk – RSO, Inc.

Audience:

Larry Camper - NRC

Alan Pasternak, - Cal Rad Forum

Mark Carver - Entergy

Peter Grana - GAO

Max Batavia, - Atlantic Compact

Vicki Tygart, - University of Mississippi Medical Center

Phil Retallick - Clean Harbors

Dale Mack – Morehouse School of Medicine

Jeff Kiser - Progress Energy

Matt Posner - Exchange Monitor

Marjan Mashhadi - Florida Power and Light

Pepper McCrary – Aerojet (Tennessee)

Dianne D'Arrigo - NIRS

Kathy Gibson, generator

Tim Barney – EnergySolutions

Tye Rogers – EnergySolutions

Pauline Calder - Energy Solutions

Neal Jensen – NRC OGC

Leonard Smith – Council of Radionuclides and Radiopharmaceuticals (CORAR)

Stephen Kowalewski – SWLLRWC attorney

Jim Lieberman – consultant Talisman International

Jeff Steel – Navy

Hans Honerlah - Army Corps of Engineers

Paul Lohaus – Interested Citizen

Jim Shissias – PSEG

Amir Kouhestani – USNRC

Terese Ghio – Ligand Pharmaceuticals

Rich Janati – Appalachian Compact/PA DEP

Kathleen Yhip – Southern California Edison

Dr. Michael Ryan

Jim Kennedy asks Mike to define his view of federal sites option. Mike says his view may be narrower than that of other entities, possibly because it is what he sees as possible. Options include sending it to DOE and they take care of it. Option he sees as more realistic is to have a site on federal land that would be regulated by the NRC. Don't want to get more specific. Mike says this may be workable in the "near-term."

Larry McNamara raises issues of what does this mean? Would federal government run site or merely make land available? Need to clarify this early on in order to get discussion going.

What are all of the options?

- federal land (privately operated, NRC regulated, Part 61 site) [Mobley]
- use of currently existing DOE sites that would accept commercial llw under a different regulatory scheme [Romano]
- other federal agencies providing land such that government would have closure responsibilities but it would be operated as a commercial facility (Government Owned/Commercially Operated) [McNamara]
- Genoa raises whose land, whose regulator, what type of materials [look 3 pages before the yellow tab] Paul also asks if we are looking for something short-term or more long term
- Whose waste are you talking about? (waste generated by users other than DOE) Are we looking at near-term or long-term solutions? (their view is only look to existing facilities, but for longer term are proposing use of federal land with regulation by NRC)
- Use of tribal lands [Mark Yeager]
- Use of RCRA subtitle C co-located [Phil Retallick raised later in the meeting]

Mike Mobley comments that, in the near term, he does not see a crisis. He was thinking of looking at this as a long-term solution. You are talking years for development of legislation, development of a site, etc. He does not see that there is a crisis.

Basic Facts About Federal Land

Ray Brady gives a presentation about federal lands. Look at first handout behind the tab for his presentation. Notes that tribal land is not included within the federal land and is managed by individual tribal entities. Bureau of Indian Affairs assists, but individually managed. There are about 50 million acres of tribal lands. Refers to PFS proposal. Reviews enabling act (FLPMA). This provides for a wide variety of uses, but the overall policy is to retain lands for long-term public ownership. Have seen a significant change in use of and perspectives of value of federal land, specifically in the West. Land use planning process is open and evolving. Disposal of federal lands is done through sales process at fair market values, parcel by parcel. (Las Vegas is an example.) Also have authority to withdraw federal lands for other public uses (i.e., conservation purposes). There is one specific authority that is generally used for waste disposal ... that is the Recreation and Public Purposes Act. This act was not repealed at time of passage of FLPMA. Have used this for transfer of landfills to state and local governments. The act was amended in 1992 and the leasing for landfill use was repealed. There are some discounts on fair market value for landfills. General policy is that any disposal on federal land is not allowed if land will be retained under federal ownership – cannot lease, must convey.

Questions for Ray Brady re BLM Authority

Mike clarifies that use of federal land for disposal authority is not unusual. Ray says yes, but usually to state governments. For transfer to a federal authority, this would be a different transfer authority.

Larry asks about authorization of facility for special uses. Ray says can't authorize for disposal under special uses if retain authority for public use. Waste disposal would be prohibited use under lease.

Bill House clarifies that land has to be transferred if used for disposal purposes. Is there a possibility of transfer back to federal government? Upon end of withdrawal action of land used by another federal agency (such as DOE), then typically BLM would not accept its return and it would go to GSA.

Slosky asks if there has ever been a federal land withdrawal or disposition for hazardous or radioactive waste disposal. Three examples are Hanford, WIPP and Yucca Mountain. Congress can intervene to transfer land.

Romano asks how long WIPP and Yucca Mountain took for withdrawal - key process, milestones, etc.? Any decision for withdrawal is through an open, public process. If the proposed public land use is consistent with an existing land use plan, this speeds up the process and gets you part of the way down the path. A withdrawal action to another federal agency requires 2-year process for petition, then preliminary studies need to be completed, if Congress does not need to intervene, then Secretary of Interior can sign order for withdrawal - this is the shortest. If Congress needs to intervene, this could take one or more sessions of Congress. For a land sale action, this can take place within a 1 to 2 year period if consistent with existing land use plan and no lawsuits, etc.

Womeldorf notes that it is completely discretionary on part of BLM ... such as in California. Ray says that is contingent upon level of public interest. Level of public interest in California is high, plus there are a lot of protections of endangered species and other interests that come into play. Many times cases are held up in litigation.

Chip asks for clarification of "consistent with land use plans." This is BLM's land use plans, which require consultation with counties, states and others.

Mobley asks what other federal lands are out there other than BLM lands? The second largest federal land agency is US Forest Service. There is also Fish and Wildlife, National Park Service, Department of Defense, and all other federal agencies. But, BLM, Forest, Fish, and Park are largest land holders. It would be very unlikely that other agencies would authorize use of land for disposal ... only BLM or DOE.

Paul raises issue of military base closing and efforts to find additional uses for those properties. Ray says we have gone through a couple of rounds of base closures. BLM would only look at those which were specifically withdrawn for military uses. A few

came back to BLM ownership, but most went through local base closure program. On second round, there was not any BLM withdrawn land. Must go to local program for appropriate uses of withdrawn lands.

Pasternak says problem with Ward Valley land transfer was not fault of BLM. Also says that tucked away in HLW Policy Act is requirement that land used for disposal be transferred to DOE after 100 year institutional control period. This statutory requirement indicates that, to this extent, DOE has an existing role in land use management for disposal facilities for non-DOE waste.

Basic Facts About Federal Disposal Sites

Jamie Joyce gives presentation for Christine Gelles. Department's presence here is not intended to indicate support for this idea. Department feels that there is no immediate crisis and sufficient disposal capacity at this time. Also, must differentiate between commercial A, B and C waste and GTCC ... the latter of which DOE has responsibility for. DOE sites include Hanford, New Mexico, Nevada, Idaho, Savannah River. DOE also operates facilities that receive waste from CERCLA cleanup activities as Superfund sites.

Facilities provide long-term isolation of waste. Limited to DOE activities and Navy. Hanford and NTS are designated as lead sites for off-site waste, though Hanford not currently accepting off site waste during pending litigation.

Reviews technology for disposing of this waste.

Reviews regulation. DOE is self regulated, but must comply with other federal regulations.

Unused capacity is unknown, but existing capacity is sufficient to take care of DOE operations.

Questions

Don Womeldorf asks if DOE has ever looked at incremental difference if DOE were to take commercial B/C waste? No

John Dewes asks if ever looked at licensing questions? There were some previous DOE documents that can be found on South Carolina's website that compare DOE regulations to Part 61 that were done by prior national program.

Scott Kirk questions whether DOE has considered looking at disposal of orphan commercial sources. There is a task force that is looking at this. Notes that GAO report identifies concerns and issues that need to be considered. Jamie Joyce notes that department does have responsibility for disposal of GTCC sources.

Paul Genoa notes that future market for B/C waste is down in the range of 16,000 cubic feet per year and so this is a very small and trivial issue.

Steve Kowalewski asks if DOE can accept non-DOE LLRW without congressional statutory change. Jamie says this is an issue that would have to be looked at in-depth.

Basic Facts About Commercial LLRW Requiring Disposal

Presentation given by Bill House. See slides. Reviews compact membership and unaffiliated states. Reviews disposal access. Reviews Barnwell site waste volumes, types and activities. Discusses Barnwell Site Class B/C waste volumes. (total in 04/05 is about 21,000 cubic feet without RPVs) Projections for after 2008 are approximately 14,520 cubic feet for utilities of commercial B/C waste and 1,470 for non-utility and 50 for medical. This brings us to a total of approximately 16,000 cubic feet of commercial B/C waste after 2008.

Mike clarifies that total volumes disposed at Barnwell are 43,000 cubic feet in 04/05.

Steve Romano points out that need to look at economics of developing a disposal facility for 16,000 cubic feet of waste.

Larry McNamara asks how firm is 2008 closure date. Bill House says that is existing law and no current effort to change that law. Larry asks how susceptible would Atlantic Compact be to federal intervention to extend period of disposal at Barnwell? Max Batavia says there would be concern, but if federal solution cost would be cheaper than Barnwell, then generators in compact would want to use federal solution. Larry clarifies question. Max says Atlantic Compact commissioners have not discussed that question.

Steve Romano notes that State of South Carolina owns Barnwell land and that they have 2 votes.

Max Batavia says that as far as he can tell the July 2008 date is firm. He believes present Governor is on record as saying don't anticipate any change to law, but politics can always sway things.

Donna Earley notes that Utah site does not take all Class A waste and that she respectfully disagrees that there is not a crisis in biomedical community with this type of waste.

Leonard Smith said we have a crisis now because some LLRW disposal is excessively expensive for some generators in the biomedical research community, which causes them to store the waste or discontinue the research. This in turn contributes to reducing the quality and increasing the cost of healthcare in the US, which is an ongoing national concern. This situation is expected to worsen if Barnwell further restricts access in 2008.

Larry McNamara says to consider decommissioning waste in 10 to 20 years, which will include some B/C waste. Paul Genoa says he does not have any firm figures. He says vast majority of waste is Class A waste and then GTCC. He agrees with Donna Earley that we need to identify orphan waste streams such as biological waste.

Tye Rogers clarifies that Clive facility can take biological waste if it has been treated previously and that there are other facilities out there that can treat this waste.

Rich Janati says that he does not believe DOE taking the waste is a technical issue and that DOE facilities are geologically feasible. We need to know what the policy and legal issues are in considering this. In short term, we need to focus on sealed sources and B/C waste. Asks about DOE task force looking at this issue. Jamie Joyce clarifies that task force is with regard to sealed sources for national security purposes. The task force is being chaired by NRC under Energy Policy Act with report due August 8 which will include disposal of sealed sources.

Terese Ghio from biological community in San Diego says that she believes that there is an issue with disposal of class A biological waste.

Leonard Smith stated that much of the non-utility radwaste is from government, academic and industry biomedical research labs and from the manufacturers who supply radio-chemicals for these uses and drug discovery and hospital uses. All this waste should be classified as medical waste to better educate the public on essential services that can be jeopardized if access to cost-effective LLRW disposal is not ensured.

Alan Pasternak notes that the waste disposed at Barnwell from the 36 states without assured access after July 1, 2008 contains 98% of curies of all waste disposed at Barnwell, Clive, and Hanford. Also says generators need assured access. Says South Carolina legislature turned down recent proposals to accept 100,000 cubic feet more waste for one-time payment. Pasternak says he does not think that the medical figure includes biotech research, universities, etc. Final comment is that State of Illinois has report out that predicts only 15 years of capacity left at Energy Solutions facility.

Bill House says these totals include all of the volumes of waste accepted at Barnwell. There remains 2 million cubic feet capacity at Barnwell ... so, this remains a political issue, not a technical issue.

EnergySolutions has received 120 million cubic feet of waste over 20 years and has over 700 million cubic feet left, so they don't agree with 15 year estimate. They have done detailed market analysis to show that they have more than sufficient capacity for decommissioning of all facilities in the country plus all DOE designated waste for commercial disposal.

Mike Mobley notes that original LLRWPA has emergency clause and we should ask NRC to discuss that.

BREAK

Technical Issues Regarding Disposal of Commercial Waste at Federal Sites

Lee Thomasson: See comments as listed in packet. Notes that significant technical issues may exist for use of federal sites, although may not be insurmountable. Need to recognize renewed interest in expansion of nuclear power and need to deal with result.

Mike Mobley: Sitting in for Bill Sinclair. These are Bill's written comments. Need to protect existing structure of those states and compacts that have existing sites. If pursue federal disposal, must require non-sited states to participate in siting process. Everybody has to be on-board which means you are willing to have site located in your state in the future. Siting on federal land under federal jurisdiction may not be as difficult in that licensing would be done by NRC. Any new site chosen has to meet Part 61 standards. Process must pay for itself. This will be interesting given the numbers that Bill House threw out today.

Dan Schultheisz: See prepared remarks. Says US Ecology site is a perfect example in that the way the site was characterized was not any different because of federal ownership, but the requirements that need to be met are different. From a technical perspective, ownership does not matter. Characterization is the same no matter who owns the site. In terms of DOE sites or DoD sites, there may be a history of contamination that has to be considered and of which you need to be cognizant. Forest Service or Interior sites may have oil, mineral, gas or other leases or explorations of properties that need to be considered. Also need to look at definition of what "federal option" means. Characterization may be problematic given the length of time DOE sites have been operating, different classification systems, different regulatory schemes, etc. In that sense, probably better to have physical separation of DOE waste disposal cell from commercial disposal cell. Transportation brings up another issue ... there is no difference in issues here for DOE versus commercial.

Larry McNamara: See prepared remarks. This is a cycle that has been repeated. There is an underestimation as to issues associated with moving commercial waste to federal facilities. First issue is extreme scrutiny of DOE in past years by federal agencies and citizen's groups. In order to get qualified to ship waste to a DOE facility, the hurdles are significant. In McNamara's experience, this took 18 - 24 months and significant changes to quality control issues. Difficult to get into form acceptable for government disposal under current operations. Substantial increases in characterization, packaging, waste form, administrative functions, etc. Second issue is one of payment and how contracts will be constructed in order to move waste from small generators to government. Small generators would be forced to work through entities such as PermaFix to consolidate waste and then contract with government. There are some real issues associated with administration. Third, there are some significant liability issues. Under current rules, there is an obligation at the state level. Not sure what happens when cross over to using a facility that commingles with DOE and states. From McNamara's standpoint, he sees

[illegible]

Leonard Slosky picks up on technical aspect of 10 CFR Part 61 licensing of an existing disposal facility. He says just from a technical aspect, it is not clear to him that a number of DOE's currently existing facilities could make it through a 10 CFR Part 61 facility process.

Steve Romano says it is important to note that all existing sites have gone through a careful process for approval of waste form, containers, etc. These are not things that DOE has done for individual generators, but have been done for DOE. Thus, you can't take commercial waste and send it to DOE based on DOE characterization and so forth which may have been done for a different waste stream. Adding commercial radioactive waste disposal to existing DOE sites will not be well-received. Another factor is consideration of existing contamination from DOE waste.

Mike Mobley says he was expecting to get a little more of a rise from comment that unsited states have to agree that they are in and willing to serve as host. Donna Earley says if we want to throw out political issues and focus on safety issues, which we should do, then that is not realistic. Too many states could not meet safety burden. Economics do not support 50 sites.

Donna Earley says you can't separate out political issues. Can you punish generators because of political issues? California had perfect site, but politically it is not going to happen. From generators' perspective, going toward a national solution has greater probability of success than fighting 50 political battles.

Jim Hardeman clarifies that screening process will take into account safety issues. Hardeman notes that according to Ray Brady's presentation, most federal land is in states

located in Rocky Mountain or Northwest Compacts ... so, what is the implication thereof?

Mike Mobley says concept of LLWPAA was fairness and equity and need to maintain that.

Scott Kirk does not think it is insurmountable for a generator to move from Part 61 to DOE scheme. Says that performance requirements for Part 61 are nearly identical to those used for DOE facilities.

Steve Romano says from technical aspect, there will need to be some nexus between NRC/agreement state regulators and DOE officials. You would need to look at how DOE officials interrelate with NRC and state officials. The one technical aspect that may be insurmountable for some DOE sites is that many of these sites were sited based on proximity of waste rather than on technical requirements. For instance, DOE Idaho site could not meet Part 61 technical requirements. Also, how does existing background and contamination come into play?

Mike Mobley says that most DOE sites will not meet Part 61 standards and that is a real problem. Indeed, many of them do not even meet their own standards. This is a historical problem.

Bill House says that any number of places in this country cannot meet Part 61 requirements. When look at new, virgin sites you need to be aware of who is asking question, what are the questions, what answers are acceptable, etc. The benefit of using existing sites is having years of performance and data. Idea is that have more pertinent information when looking at existing sites.

Steve Kowalewski addresses focus of group. You are talking about 20,000 or less cubic feet and nobody is going to economically invest to address 20,000 cubic feet.

Question arises that federal government has responsibility to accept waste that may be orphaned and where would they put this waste? Jamie Joyce says his comments were limited to GTCC.

Phil Retallick asks about federally sanctioning RCRA subtitle C sites – why not use those as a vehicle for handling all B/C waste? Dan Schultheisz says have been looking at that with regard to lower activity waste and there are significant political and regulatory issues. There is nothing preventing existing RCRA subtitle C sites from applying to co-locate, but they still have to meet Part 61 requirements.

Steve Romano clarifies that government has responsibility for orphan waste for GTCC, but not for Class A, B and C. The emergency access provisions of the LLRWPA have been narrowly construed. Perhaps maybe they should be more broadly interpreted to assist generators having problem under current system.

Steve also comments that WCS is best example regarding RCRA subtitle Class C. You still need to meet Part 61.

Alan Pasternak points out useful actions of federal government: EPA regarding low activity waste, NRC comments on GAO report, DOE work on offsite source recovery program, etc. States that he has not heard anything insurmountable and thinks there is an imminent crisis.

LUNCH BREAK

Economic Issues Regarding Disposal of Commercial Waste at Federal Sites

Donna Earley: refer to written notes in packet. Notes that prices have exponentially increased and options have exponentially decreased. Academics and biotechs work on grants that are submitted several years in advance. This makes it impossible to plan and operate. Also there is the concern of monopoly and EnergySolutions. Also must consider costs of no disposal access and use of storage facilities (in California, requires public process), insurance and liability requirements, value of lost opportunities, etc. Donna Earley says research has been curtailed to date.

Jim Hardeman: Refer to prepared remarks. Who is going to invest in a venture like this given that the market is only 20,000 cubic feet of class B/C waste per year ... this comment was on point. Look to prior siting processes for lessons learned. Costs for disposal access would have to be well in excess of \$500 per cubic feet if look to development of a new site. Developing a new site for B/C waste does not seem economically feasible.

Jamie Joyce: DOE has not developed a formal perspective on the issue. Three considerations are (1) DOE not allowed to compete with commercial facilities, (2) shifting waste to commercial facilities may impact economic viability of existing facilities, and (3) payments would be problematic. Seems reasonable to conclude that acceptance of commercial waste at DOE facilities would impact commercial facilities currently in existence.

Bill House: Takes view that it is all economics. Fixed costs exist regardless of whether receive or ship waste. Time is money. Federal facilities waste acceptance criteria is different from commercial sites and would be an expense to consider. As one example, it costs \$100,000 to simply get certified to ship waste to NTS. Even though we have talked about federal land licensed by NRC, there will be a number of other stakeholders involved which will get quite costly. Another issue is rates of disposal at federal facilities. Also must consider economics of site closure, long-term care, liabilities associated with oversight of the waste. Also, who owns waste after disposal and who is ultimately liable for it?

Discussion:

Mark Yeager asks if market forces still influence availability of disposal access. Some wastes may be stranded after 2008. Michigan experience shows that lost access is not a crisis. Interim storage can and does work.

Mike Mobley asks if DOE worked out a methodology or cost of disposal or if DOE has any numbers or range of numbers. Jamie Joyce says in 2002/2003 DOE did a report on these costs.

Mobley asks about disposal costs at Barnwell? Class A base cost is \$300 - \$400/cubic foot. B/C waste base price is \$600 - \$1,000/cubic foot.

Donna Earley says it costs her about \$500 per cubic foot for processing and disposal of Class A waste.

Steve Romano says State of Washington disposal rate for Class A waste is less than \$100/cubic foot. The Class B and C rate is considerably higher in recognition that it is considerably more hazardous.

Steve Romano makes comment regarding pricing for small generators - intermediate brokers tend to put a substantial markup and that high costs are not necessarily related to disposal but rather result of markups for aggregation, processing/treatment, etc.

Larry McNamara asks Bill House how much of costs are taxes and fees, etc. House says about \$20 - \$30 per cubic foot covers those costs.

EnergySolutions says they as a general rule do not comment on prices. Their prices are several orders of magnitude lower than Barnwell and closer to Washington State prices.

Lee Thomasson notes that two of Dominion's reactors do not have on-site storage capabilities and that they are looking at \$5 to \$6 million to develop that at these sites.

Chip Cameron says general conclusion was that technical issues are not insurmountable, though they exist.

Chip Cameron asks group if there is a consensus about economic problems with use of federal facilities.

Mike Mobley says that his recollection is that DOE's numbers are in the ranges of what we are discussing here and that DOE sends significant amount of waste to commercial facilities. Does not think that the numbers are going to be that different at a DOE site versus at a commercial site. Notes that could reasonably expect that costs may very well go up given the reducing volumes.

Slosky offers conclusions: in terms of establishing a new facility on federal land, not clear that costs would be different from developing a new commercial facility but will likely be tens of millions of dollars and many, many years. In terms of using an existing

DOE facility, we do not know what process would be used, but it should not be assumed that there is a switch that could be flipped and that commercial waste could go to a DOE facility at current DOE disposal costs.

Larry McNamara says there is no way to estimate the costs of doing something at a DOE facility that you do with commercial market. It is the experience that costs are one and one-half to two times when going to DOE facilities.

Regulatory Issues Regarding Disposal of Commercial Waste at Federal Facilities

Scott Kirk: Refer to talking points in packet, which are based on position statement of HPS. Feels compact system has not produced results and needs review. Only one or two sites currently needed. Focus on what happens if Barnwell closes its doors. Cannot calculate what the actual burdens will be. They looked at several different options. Could DOE take title to commercial B/C waste? Could new commercial disposal facility be developed on DOE land? Does it make sense to develop facility for B/C in conjunction with GTCC to deal with economies of scale and so forth?

Mark Yeager: Reviews what the state currently does with regard to regulation. Refers further comment on behalf of compacts to Max Batavia. On negative side of DOE taking over would be 1) loss of control for states and compacts, 2) different classification systems, 3) different processing requirements, etc. On the positive side are 1) DOE facilities may require little or no change to performance assessments, and 2) DOE has better record of development than states and compacts. Look to WIPP facility as a model if this were to come to fruition.

Jim Kennedy: Comments are those of his own. Commission has not developed a formal position on this. For DOE option, licensees are authorized to transfer waste to federal government. DOE is an authorized recipient, as are a number of other entities. NRC regulations do not address whether DOE is authorized by law to accept such waste. Draws parallel to DOE acceptance of commercial mixed waste. Under current regulations, DOE is exempted from licensing for most of its activities, including low-level radioactive waste disposal. There are certain DOE activities that are not exempted as identified in specific laws. Facilities that NRC regulates of DOE do not include low-level waste sites and are very limited in nature and scope. Must also note that DOE waste acceptance criteria is different from commercial sector and would require generators to alter activities and practices. Notes emergency access provisions that authorize disposal of low-level waste. This does not relate to federal facilities, but rather to non-federal facilities, and the current threshold has been very high. Commercial disposal could take place on existing federal land in that requirements are that federal or state government own the land. Government ownership is required. Legislation would be needed for federal government to own land on which commercial entity is located according to 2004 Senate Energy Committee hearings.

Jamie Joyce: Big issue in DOE is self-regulating whereas NRC regulates commercial sites.

Wendy Caulk: Fears that will be fewer and fewer brokers due to reduced waste stream. Will find more and more companies not specializing in radioactive waste anymore - diversification. Believe that some states are going to have to step up and assist brokers. Communication between states and small brokers must be there.

Discussion:

Jamie Joyce says DOE's perspective is that they do not have the authority or legal right to accept this waste. Jim Hardeman defends compact system. The primary purpose of the compact system was to safely manage waste and we have provided for continued access for most of the waste most of the time. Development of new sites was not the main goal. Says MOX Fuel Facility siting on DOE land has not been successful as of yet in that it is the subject of several intervention actions. Says he would have liked to have input on development of HPS policy statement before it hit street.

Larry McNamara asks what part of the act do you (Scott Kirk) feel has not lived up to its expectations and needs to be changed? Scott says lack of political will to site facilities.

Steve Romano says he does not agree that it is lack of political will on part of states (CA), but rather that white house killed the project. This is significant to look at and consider before tasking this to the federal government. Romano notes that there is a disconnect between view that there is a crisis and not one request for emergency access. Is the problem that public health and safety is at risk or that cost is too high? Encourages looking at use of this provision as a safety valve. Political continuity is an important factor.

Mike Mobley says as a former regulator, you don't like storage because there is potentially no end in sight and difficult to keep licensees focused on ensuring storage is adequate. All this does is add to the cost of the facility because eventually need to dispose of it.

Jim says it is national policy to dispose of waste. That does not necessarily mean that it has to be immediate, but it has to be the end goal.

Paul says there is a continuum between economics and health and safety and if you stumble too long then you will create health and safety problems.

Legal, Legislative and Political Issues

Paul Genoa: Refer to prepared comments. Feels we need to narrow scope prior to moving forward. What lands talking about, what waste management practices referring to, what regulatory structure, what wastes, and are we talking about a short term fix of an immediate problem or a long term fix? Are we talking about B/C or are we talking about GTCC or are we talking about everything? Does not think Congress or federal government will take away authorities from states that have met their obligations or to

compete with existing facilities. Views this as a very small problem and getting smaller and difficult to deal with commercially.

Leonard Slosky: Except for DC, most federal land is in states and that is the fundamental problem that we have. To go to a DOE site or federal land, you still have state issues and public issues. This will not resolve the problem, but rather will likely exacerbate it. It is essential to remember the original problem that led to original crisis: disposal equity. Fundamentally it was the political issue of equity. Need to keep that in mind. Does not think that problem will be resolved by recreating or perpetuating the problem that led to passage of original act. Hanford continues to act only because of exclusionary authority and the lease has a provision to close if lost. Nevada feels it has done its share. NTS receives more llw than any other DOE facility. While DOE operates facilities in many states, there are many concerns that exist over the operation of those facilities and struggles going on as a result. To ask them to take more waste is not politically viable. The notion that commercial waste would go to federal sites would add fuel to the fire. Any repeal of compact authority would inevitably lead to closure of existing sites. Important not to hold states and compacts that have met their obligations to the fire. Even discussing this is a problem for Texas and must consider that because could impact their siting process.

Jamie Joyce: Attorneys gave him this thought. Disposal of commercial waste at DOE facilities is not authorized. This is a state responsibility. DOE has responsibility for disposal of waste only from DOE and the Navy and GTCC. This gets down to issue of the authorization. There are state equity issues. States hosting disposal facilities would have serious concerns. Current litigation at Hanford is a good indicator.

Annie Caputo: Only been Congressional staff for a little over a year and not very knowledgeable about this issue. Idea for today was to learn more than to give feedback. Before you can propose that legislation is needed, you need to show a compelling reason to change the law. Must realize that legislative change could result in worse problem than existing law. Must define the problem. Is there really a problem? For some there is a growing crisis, for some there is a shrinking problem. Must first deal with this issue. Then must come to consensus on whether there is a solution. Not much consensus other than Congress needs to act and federal government needs to solve the problem. Various options have to be analyzed. Next step is possibly most difficult indicating that need consensus as to how to move forward. Need to get all stakeholders to agree. She is coming away with theme that there is a lot of concern, that there is consensus that there is a problem but not on what a solution could be ... and that is an obstacle to developing a bill. These views are her own and not the committees.

Steve Romano: Agrees with Leonard Slosky entirely. All of these sites are in states. If Yucca Mountain has proved anything, it is that a single state can frustrate process even if federal government tries to push a solution on its own. Says that he feels that states are capable of dealing with this issue and hazardous waste is an example. Compacts have done a very good job at providing management at existing facilities. Notes that \$700 - \$800 million has been spent on new siting efforts. His company does not support

legislation, does not think it is needed, thinks it will create more problems, thinks it will interfere with Texas, notes that nothing has been done with GTCC which is federal responsibility, points out lawsuits in Washington and Nevada, points at problems with high level waste program. Says private sector can work this out within the existing system. Notes that Clive site has worked within the confines of the existing system. WCS effort is a private effort being undertaken by a private company which is what has proven effective in past. Government efforts have not proven successful. Launching a federal effort will create obstacles and problems and interfere with existing access. Another comment about economics is that there is a lot that has to happen in process and that it is easier to receive waste from one party than multiple and that there is a lot that could be done by organizations short of legislation to reduce economics. Leonard Slosky makes important point that these sites are in states and to think that federal government can do this without support of the states has been disproved by history.

To review: Annie Caputo gave caution from legislative front and don't know what you will get if go down that route and must consider that when looking toward legislation.

Comments:

Scott Kirk says he is hearing that perhaps a federal option is not the ideal solution and that is okay but then consider what other option should we pursue post 2008? What is the appropriate solution post 2008?

John Dewes says he has heard compacts defend status quo, but if you look at it from other perspective, he has not heard a single compact come up and recognize their responsibility to find a pathway for B/C waste. Dewes says he agrees with and understands not wanting to interfere with Texas process. Medical practices are being impacted today. Same with medical researchers. Asks question who has the mandate and if compacts feel that they do not then this is invitation for legislative fix.

Leonard Slosky says the reason that states and compacts have not developed capacity is lack of political will. He thinks solution is for generators to band together and go to compacts and states and inspire them to develop political will.

Annie Caputo says as long as utilities are willing to wait, this will be a large drag on finding solution.

Lee Thomasson noted that the Policy Act lost its teeth when the Supreme Court struck down the take title provision.

Paul Genoa says everyone was wed to early compact processes and over time fatigue set in. Can't develop more political will than was developed for California and yet it still failed. Real question is can we develop political will to solve problem that is so small? Maybe there are other solutions beyond federal sites. The fact that Michigan was barred access for 5 years and dealt with problem, both utilities and other generators, shows that this can be done.

Tommiann McDaniel does not have B & C waste, but has a lot of waste. Everyone is willing to pay a fair market price, if that is what you can get. Key is that the requirements are exposed so that the public know what is being dealt with. More numbers about B & C waste would be good. Public participation is a key to any disposal issue. Risk informed management should be applied across the spectrum of LLRW. There are other issues beyond regulatory issues.

Jim Hardeman spoke to the political demand issue. The Policy & Planning Committee of the Southeast Compact Commission was charged with dealing with the long-term issue and developed a policy statement. Generators were surveyed. Visits were made to generators... the needs and issues differed. However, they did not want the SECC to site a new facility. No demand for that.

Leonard Slosky says he did not intend to imply that California, Texas, Illinois or others failed to make a concerted effort. Rather he is saying that in recent years there have not been a lot of generators pounding table that there is a crisis.

Other Issues Regarding Disposal of Commercial Waste at Federal Sites

Tommiann McDaniel: Says that public participation is a key to any solution that moves forward with at this point. Education is another vital component. Competition has been one of the big stories she has tried to push and that is not just an economic issue but also an access issue. For instance, no facilities on east coast despite significant generation. Shipping waste clear across the country and many people have issue with that. Does not know that federal sector is appropriate path to go to for a solution. Have been able to get some cost savings by combining wastes. Not always easy to do, but generators may want to look at doing that. Think outside of the box.

John Dewes: He believes that consensus is that everyone has a desire to maintain compact system. He understands that. He challenges however that there is a need to keep pressure on to develop solution for B/C waste. Early action, planning ahead, thinking about how to come up with a solution is vital.

Don Womeldorf: Must recognize that private industry is out there and needs to be protected. Would like to see DOE do some study of what would need to be done and what would be impact of taking waste at an existing federal facility. To start over from scratch is not a practical option. Need to come up with an inventory of what orphan wastes may be out there ... both as a result of pending crisis from loss of access and from no facilities. Must look at state and compact laws for sending waste to DOE facilities as well.

Discussion

Donna Earley does not agree that compact system is working. We are currently minimizing or mitigating problem. We need to move from a disaster response mode to an emergency preparedness mode, get out in front of the issue and find a solution.

Steve Kowalewski notes that there is a difference of opinions as to whether there is a problem with biomedical waste. Terese Ghio says there is the economic issue. She says her company built a storage facility, did not use Barnwell, etc. Then got to the point where there was no more room. Then compacted. Then sent it to an incinerator. Kowalewski says that Homeland Security should have been here.

Paul Genoa says clearly what we are talking about today is one solution and that there are other solutions and that industry has responded best through technological solutions and so forth. When we walk out of here, there is more work to be done and must look at other options.

Steve Romano: Issues a challenge to generators across the country that he does not see much work being done by generator organizations to organize and combine your buying power. He says he sees generators saying lets go to Congress and lets go to states/compacts and so forth. Instead, he suggests that they group together and coordinate to get the best price. Donna Earley says that is what her broker does. Wendy Caulk agrees. Larry McNamara agrees that it is up to generators to organize to force brokers and processors to come up with greater solutions and greater economies of scale. Says Romano is right that you need to find greater volume. Bill House agrees that pricing scale is based on volumes. Tye Rogers agrees with sentiment. Rogers challenges that use of federal facilities will reduce economics. He believes that disposing of waste at federal facilities will be more costly.

Leonard Smith says much of the radwaste of concern is generated in very small quantities by thousands of generators who may not have the knowledge, time or money to participate in resolving national LLRW problems.

We've heard of a large number of reasons why federal land could not be used for disposal of "commercial" LLRW. Federal regulations are required to have emergency provisions for removing uncontrolled radioactive material, including LLRW, from the public domain to protect public health and safety. Where would such material be disposed in the long term and why can't "commercial" LLRW be placed in the same location?

Alan Pasternak: Starts by pointing out that in 1992, the Supreme Court struck down the take title provision. We do not have the same law today as was originally on the books. Without this, there is not sufficient incentive to develop disposal facilities. A lot of the effort stopped after striking down of this provision. Says that the act discourages private development because it says that if you develop such a facility it may be available to regional generators only. Says that Cal Rad has not suggested dismantling of federal compact system in looking for a solution because it is not appropriate to punish those states that met their responsibilities. He disagrees with Jim Hardeman's comments that

compact system was not intended to develop new sites. Alan Pasternak feels it would be hard to find a system that has failed more fully than compact system. Reviews history of California siting process. Every compact which has received consent from Congress includes a clause that Congress may review compact after 5 years. When Cal Rad suggests that Congress revisit LLRWPA, they are suggesting that Congress provide a national solution that will probably involve the U.S. Department of Energy. There has been a comment that the federal government should not be in competition with private sector. This is already occurring in that DOE can send their waste to their own sites and to commercial sites.

Closing Remarks

Mike Mobley thanks all of the other sponsors for helping SE Compact to get this meeting together. Says heard more today about cost than about continued access. The primary concern of the SE Compact has been to provide for continued access, although willing to help to work on cost. Feels we have been very successful at identifying issues.

Pasternak says have not discussed the problem of the class A waste produced by the 34 states that will be subject to monopoly control ... approximately 300,000 cubic feet.

Rich Janati says he does not believe we have answers to basic fundamental questions – legal challenges facing DOE, what constitutes emergency access, etc. Also says very surprised to hear that at least one major generator does not have storage capacity. It is incumbent on states and compacts to talk to other generators. Thinks use of DOE facilities for class B and C waste is a viable option.

Mobley says where we go from here is unknown. He agrees with Annie Caputo's assessment that it would be very difficult to go to Congress with this issue given the varied perspectives that are out there. The SE Compact will get notes out for this meeting and will continue to pursue disposal access for their generators. SE Compact will continue to try to lead national effort.

Thanks to Chip Cameron for skillful facilitation.