

Meeting of the Northwest Interstate Compact on
Low-Level Radioactive Waste Management
October 22, 2008
Portland, Oregon

Present:

Doug Dasher, Alaska
Russell Takata, Hawaii
Brian Monson, Idaho
Roy Kemp, Montana
Ken Niles, Oregon
Bill Sinclair, Utah
Larry Goldstein, Washington
Carl Anderson, Wyoming
Mike Tribble, Compact Counsel
Lynn Noah, Compact Staff
Mike Garner, Executive Director

Compact Chair, Mr. Larry Goldstein, convened the meeting at 9:00 a.m. The committee unanimously approved the meeting minutes from the May 8, 2008 meeting.

Party State Reports

Mr. Bill Sinclair, Utah, reported waste volumes at EnergySolutions are down significantly from previous years. This impacts the Department of Environmental Quality as fees for disposal fund regulatory oversight responsibilities. The agency is proposing the annual site access fee for generators using the Clive facility be increased to \$2,500, and the annual fee for waste brokers be increased to \$7,500. Fee increases for operating uranium mills will be increased by \$20,000 per year. All proposed fee increases are posted for public comment. The comment period started on September 30th and ends on October 28th. Once completed, staff will identify those fee increases to forward to the legislature's Appropriation Committee for approval. If approved, the new fees will take effect on July 1, 2009.

The annual volumes for solid and hazardous waste have remained more stable. Staff will be reviewing these statutory fees to ensure revenue generated by the fees is sufficient to fund state regulatory responsibilities. These fees fund all hazardous waste programs, the majority of our radiation programs, and some of our administration functions.

The Division of Radiation Control approved EnergySolutions' operating license renewal. Cedar Mountain Environmental (CME) has filed an appeal on the licensing decision. CME is awaiting word on a review of their "standing" to challenge the license decision. If CME is granted "standing", the Radiation Control Board will hold a hearing on the license appeal.

EnergySolutions has an amendment request pending before the Division of Radiation Control to convert an unused portion of its 11.e(2) cell to low-level waste disposal capacity. Staff has made progress in resolving questions related to the proposed amendment. Staff needs to assess the impact the amendment would have on perpetual care at the facility if the cell footprint is altered. The U.S.

Department of Energy (USDOE) must take responsibility for the 11e(2) cell and they could decide to take responsibility for the low-level radioactive waste portion of the cell as well.

The state of Utah submitted a request for a hearing to the U.S. Nuclear Regulatory Commission (NRC) in regards to the EnergySolutions' application to import Italian low-level waste. NRC has deferred ruling on the license application as well as the hearing request until litigation related to the suit filed by EnergySolutions is resolved.

Mr. Roy Kemp, Montana, reported there were some exploratory efforts related to the in-situ mining of uranium. Those efforts have ceased.

Mr. Carl Anderson, Wyoming, reported the state is examining issues related to the jurisdiction and management of wastes resulting from the in-situ mining of uranium. These are considered to be 11.e(2) wastes.

Mr. Russell Takata, Hawaii, reported efforts to resolve uranium issues associated with military bases in the state continue. During the remediation process, the bases will continue operation.

Mr. Doug Dasher, Alaska, reported the U.S. Army Corp of Engineers is looking for funds to perform an assessment of the Fort Greely reactor and final decommissioning. A party is looking to start an operation in Anchorage for the production of medical isotopes. There is some interest in the old uranium mines in SE Alaska due to recent increases in the price of uranium.

Mr. Brian Monson, Idaho, and Mr. Ken Niles, Oregon, had nothing to report.

US Ecology Activities Overview

US Ecology was unable to send a representative to the meeting. Mr. Mike Garner reported that US Ecology's revenue requirement for 2007 was \$5,682,173. The company reduced its revenue requirement to \$5.1 million for 2008. It is projected the disposal facility will receive approximately 35,000 cubic feet of low-level waste during 2009.

Washington Activities Overview

Mr. Larry Goldstein reported soil and groundwater analysis resulting from the US Ecology MTCA Remedial Investigation initiated in June 2008 have not revealed any surprises to date. It is challenging for the Washington State Department of Ecology (Ecology) to balance the requirements of the investigation with the needs of the Washington State Department of Health (Health) to close the filled trenches as soon as possible. Health wants to cover the filled trenches as soon as possible to ensure the site meets dose levels contained within NRC regulations.

Mr. Goldstein reported the cover design is 90% complete. The goal is to complete installation of the cover on the filled trenches by 2012, but there are a number of outstanding issues. One issue is initiating construction before the investigation is completed. Another issue involves retrofitting the ground water monitoring wells at a cost of roughly \$1.5 million. In addition, the design of the cover's vapor extraction system still needs to be completed.

USDOE has offered the agencies 800,000 cubic feet of soils from the Environmental Restoration Disposal Facility (ERDF), free of charge, for use in the cover construction. The state would contract

with US Ecology to have the soils moved. The agencies are currently establishing a cost estimate and timeline for moving the soils. A separate borrow site needs to be identified for the upper layer of the cover as ERDF soils lack the fine material required to ensure proper evapotranspiration. It will be a challenge for Ecology to work within budget cycle and complete the relocation of the soils by 2010.

The agencies continue efforts to develop an estimate of the total cost for closing the filled trenches. The agency has \$23 million in the budget for closure. An additional \$1 million per year is deposited into the fund as reimbursement with interest has begun for the \$13.5 million borrowed from the fund. The total cost estimate is required to determine if sufficient funds are will be available for planned closure activities.

Mr. Goldstein reported that USDOE is preparing an extensive Tank Closure/Waste Management Environmental Impact Statement. The analysis contained within the document will support decisions for the next phase of the Hanford cleanup. Major areas include the treatment of 53 million gallons of high-level radioactive mixed waste, tank closure, and the cleanup of contaminated soils adjacent to the liquid waste tanks. Ecology anticipates this EIS will contain a more accurate inventory of the site's mixed waste than the previous Environmental Impact Statement (EIS), which underestimated waste inventories. The new EIS is due out in the spring of 2009.

In May 2008, the U.S. Ninth Circuit court upheld the District Court decision, invalidating the Cleanup Priority Act. In August 2008, the state decided not to appeal the decision to the Supreme Court.

Low-Level Radioactive Waste Forum Meeting

Mr. Sinclair reported on a number of issues discussed at the Low-Level Radioactive Waste meeting held on September 11-12, 2008 in Annapolis, Maryland.

- USDOE reported a significant drop in the volume of waste being shipped offsite for disposal as many of the large volume cleanups are completed.
- The Texas Commission on Environmental Quality issued a draft license for the Waste Control Specialists facility on August 12, 2008. The site will consist of independent compact and USDOE facilities. If everything goes well the site could open in 2010-2011. Texas is moving forward with establishment of a compact commission.
- Decommissioning of the Zion nuclear power plant in Illinois has begun. Power plants are responsible for decommissioning, but one of the proposals in this case is to transfer the license for the facility to the clean-up contractor, EnergySolutions. The parties submitted a proposal to NRC, but a decision for EnergySolutions to take over the license has been put on hold until the markets stabilize. The deadline for this decision is December 2009.
- Mr. Sinclair reported with the Barnwell facility closing to out-of-region waste there is a push to change NRC guidance to allow for greater flexibility in the classification of waste. An example is blending which allows higher and lower classes of low-level waste be mixed with the final mixture becoming Class A waste. NRC has traditionally held the position this type of activity is not acceptable, but in light of the lack of disposal access, this concept could gain traction. NRC's Branch Technical Paper addresses situations that allows generators to use concentration averaging. Certain parties are seeking an expansion of exemptions that allow blending higher

activity waste within lower activity waste. Other parties are questioning if the current classification system continues to make sense. Some believe existing international standards make sense for the U.S., specifically the risks associated with handling radioactive waste or material. Mr. Sinclair stated Utah has sent a clear message that it is against practices that would allow higher activity wastes to be disposed at the Clive facility.

- The agreement enabling USDOE to dispose of mixed wastes at the Nevada test site ends in November 2010. Negotiations are underway to extend the agreement, but there is no certainty the parties will reach an agreement.
- NRC Commissioner Jaczko offered five suggestions on how to move forward with low-level waste management. The Commissioner stated that the first four focused on increased public involvement as policy decisions and public involvement go hand in hand. The Commissioner also recommended exploring the use of RCRA C facilities for low-level waste disposal. One example of this is Clean Harbors in Colorado and its acceptance of NORM material. Is it a good policy to allow disposal of low-level radioactive wastes at facilities developed for hazardous waste disposal?

Rad-Waste Summit Meeting

Mr. Niles reported on issues discussed at the Rad-Waste Summit meeting held in Las Vegas, Nevada at the beginning of September 2008.

Mr. Niles reported there were significant discussions on Class B/C waste disposal now that the Barnwell disposal facility has closed to out-of-region waste. How are organizations that generate Class B/C waste going to manage these waste streams? What alternatives, if any, exist? Does the lack of a disposal pathway create a national security issue?

Mr. Niles summarized a number of presentations from the meeting that would be of interest to the committee members.

- Mr. Rob Anderson, representing Nuclear Energy Institute, does not see a need to change the Policy Amendments Act as the compact system is not broken. It is unlikely that new disposal capacity is developed until decommissioning of the current fleet of reactors begins.
- Mr. John Winston, Chair of the Council of Radiation Protection Program Directors, recommended that compacts with operating disposal facilities be offered incentives to accept Class B/C waste for disposal. Mr. Winston proposed regional storage sites for Class B/C waste and felt the Policy Amendments Act should be revisited.
- Mr. Leonard Slosky, Executive Director of the Rocky Mountain Compact, voiced support for maintaining the compact system. Should states lose the ability to control the flow of waste to disposal sites located in their states, they may choose to close the sites.
- Mr. Al Pasternak, representing the CalRad Forum, recommended that compacts with operating sites accept problematic Class B/C waste. USDOE could help solve the B/C waste issue by accepting these wastes at their facilities. USDOE has initiated a National Environmental Policy Act review process to identify a disposal pathway for Greater Than Class C (GTCC) waste. USDOE is looking at deep geological disposal, enhanced near surface disposal, and

intermediate borehole disposal for GTCC waste. Mr. Pasternak suggested Class B/C wastes could be disposed at such a facility.

- A Studsvik representative, a waste treatment/processing company, reported on their THOR process, a thermal treatment process. The characteristics of the waste change during the process and Studsvik is willing to become owner/generator of waste following treatment.
- A U.S. Army Corps of Engineers representative presented materials on the Safety-Lite Corporation site located in Pennsylvania. This was a lead battery manufacturing and recycling operation that also manufactured self-illuminating watches, instrument dials, smoke detectors, exit signs, etc. The cleanup of the Safety-Lite site produced about 1,900 cubic feet of radioactive waste that has no disposal pathway. Safety-Lite is considering making an emergency request to the Northwest Compact for disposal of the cleanup waste.

U.S. Nuclear Regulatory Commission Presentation on Waste Blending

Mr. Jim Kennedy, NRC Senior Project Manager, reported the loss of access to the Barnwell facility for disposal of Class B/C waste elevates interest in blending. The Nuclear Energy Institute and the Electric Power Research Institute have conducted studies on concentration averaging and blending during the previous two years. Recently, NRC has received proposals seeking authorization to blend wastes on a larger scale than requested in the past.

EnergySolutions' Bear Creek facility in Tennessee has a proposal pending to blend ion-exchange resins from power plants throughout the country. Under the proposal these resins would be blended at the Bear Creek facility and shipped to the Clive facility for disposal. Alaron has a proposal pending to blend the ash, ion exchange resins, and soils.

Mr. Kennedy stated that blending is the mixing of lower and higher concentration of waste into a homogeneous final waste form. Blending does not include mixing untainted material with waste and it does not involve the release of the final mixture into the environment. Blended materials require disposal at a licensed facility.

Mr. Kennedy stated blending is different from concentration averaging. Concentration averaging is the geometrical averaging of different radioactivity concentrations such as those found on a piece of irradiated hardware. There are safety considerations taken into account for blending that focus on the inadvertent intruder scenario. NRC designs its regulations to protect intruders. These protections include the depth at which different classes of wastes are buried and engineered barriers.

Mr. Kennedy reported some parties argue against ever diluting waste. The state of Texas requires the concentration of the waste to be determined at the time it is generated, as well as the protective measures required for the waste. NRC looks at waste in its final form. Examples of materials that can be blended together are ash, ion-exchange resins, and soils. NRC's guidance on concentration averaging requires that when batches of waste are mixed the batches must be within a factor of 10 of the average concentration of the final mixture. The NRC provides exceptions for worker exposure and operational efficiencies. Concentration averaging should not be used to reduce the class of the waste.

Mr. Kennedy stated that in light of the loss of access to the Barnwell facility, those that support blending argue that disposal is safer than storage. There are those that are against blending and those that support the concept.

In response to a question from Mr. Sinclair, Mr. Kennedy stated that power plants throughout the country generate roughly 85,000 cubic feet of resins annually. Class A waste makes up ninety percent of the annual resin production.

Waste Attribution Issues

Mr. Garner reported two pending import license applications require responses.

1. IW024 is a request from AREVA that would allow one drum of waste from France to be imported. The waste resulted from refurbishment of a reactor coolant pump that was contaminated through use at the DC Power Plant in Michigan. Similar applications have been approved in the past. Unless instructed otherwise by the committee, the response will indicate the Northwest Compact has no issue with the application.
2. IW025 is an application submitted by Eastern Technologies, Inc. located in Ashford, Alabama. This involves importing contaminated poly vinyl alcohol protective clothing from the Angara 1 Nuclear Power Plant located in Brazil. Eastern Technologies will dissolve the PVA clothing and the residue will become Eastern Technologies waste. The waste residues are then shipped to another waste processor for further processing. The waste is then shipped to the Clive facility for disposal. Re-attributing waste following processing is contrary to the intent of the committee's Clarifying Resolution. Unless instructed otherwise by the committee, the response to the NRC will state that the Northwest Compact will not provide access for disposal of these waste residues.

Mr. Garner reported the committee became aware of the reattribution of waste allowed by the state of Tennessee at its May meeting. Re-attribution compromises the ability of the NW Compact to exercise its exclusionary authority effectively. The committee formed a work group to communicate its concerns to a work group formed by the Southeast Compact, and to attempt to identify how these concerns could best be addressed.

The working group communicated its concerns to the working group formed by the Southeast Compact. The working group determined that the September 5, 2008; email response of Ms. Kathryn Haynes, Executive Director of the Southeast Compact, is a good starting point. The Southeast Compact was not comfortable forbidding the export of foreign waste or foreign waste re-characterized as domestic waste. They did feel comfortable reinforcing with their generators that the requirements of the state or compact to which the wastes are exported must be met, and failure to do so could jeopardize access to the region.

Mr. Garner stated for this approach to work there must a worksheet accompanying incinerator ash shipments that details the generators whose waste was incinerated resulting in the ash shipment. Without such a list, there is no way to identify if these shipments meet the requirements of the committee's Third Amended Resolution and Order. Mr. Tye Rogers, Vice President of EnergySolutions, originally recommended this approach. A copy of the proposed Generator Certification Worksheet was provided to Mr. Rogers for review. Mr. Garner indicated Mr. Rogers got back to him and indicated that EnergySolutions will not be represented at the meeting and the generator worksheet is still under review. Without this worksheet the agreement reached with the Southeast Compact will not work.

Ms. Kathryn Haynes, Executive Director of the Southeast Compact, reported that although the Southeast Compact does not have a regional facility, our commission is very mindful of the responsibilities that go along with having such a facility. The Southeast Compact recognizes the importance of exclusionary authority provided to interstate compacts. The Southeast Compact views access to facilities in the Northwest Compact region as a privilege. The Southeast Compact respects that the host state and Northwest Compact have the authority to control what goes into their facilities.

The statutes of the Southeast Compact give our commissioners the authority to prohibit the export of waste from our region for the purpose of management. Our compact exercised this authority when South Carolina served as host-state to the compact. Shortly after South Carolina withdrew from the Southeast Compact in 1995, our commissioner amended the export policy lifting that prohibition. The current policy states:

The Commission allows the export of low-level radioactive waste until such time as another regional facility is developed.

This policy is intentionally broad so it does not have to be changed every time another state or compact adopted a new requirement. The Southeast Compact does not have a regional facility and currently, there are no plans to develop one. The Southeast Compact commission is not inclined to restrict export without good reason as to do so may be in conflict with interstate commerce. The Southeast Compact believes decisions regarding the acceptance of waste should be made by the receiving state or compact. This is why our working group does not believe it would be proper to forbid the export of foreign waste. Our working group will take this issue to our commission and suggest amending the blanket statement so it reads:

Generators exporting waste may be subject to specific restrictions and or requirements of the receiving state or compact.

Our work group believes the commissioners will approve this change. The change will then be distributed to all of our generators. It will include a very strong message stating generators must comply with the requirements of the receiving state or compact, and failure to do so could jeopardize access.

Mr. Niles recommended to Ms. Haynes that the Southeast Compact replace “may be subject to” with “are subject to”.

Mr. Niles asked Mr. Sinclair and Mr. Garner if EnergySolutions can be required to provide the Generator Certification Worksheet? Mr. Sinclair stated he isn't sure Utah could require this. Mr. Garner stated the Northwest Compact committee has authority to deny access to waste originating at the Bear Creek facility should EnergySolutions choose not to supply the worksheet.

The committee requested that Mr. Garner write a letter to EnergySolutions requesting that this worksheet be provided for all incinerator ash shipments.

Other Business

Mr. Garner reported that a representative from EnergySolutions' Bear Creek facility reported contamination identified in the ash following incineration of Northwest Compact waste. As required, the refractory chamber was cleaned out prior to incinerating Northwest Compact waste. Analysis of the resulting incinerator ash showed contamination with radioisotopes not found in the Northwest

Compact waste. Mr. Garner discussed this issue with a representative of the Washington State Department of Health, who agreed this waste could be shipped to the Richland facility. Mr. Garner notified Bear Creek personnel and thanked them for reporting this issue.

Pending Litigation

Mr. Mike Tribble, Compact Counsel, reported EnergySolutions filed a Declaratory Judgment suit based on their opinion that the Northwest Compact has no authority over their Clive facility. EnergySolutions claims that a facility must be designated as a regional facility by the compact. Because the Clive, Utah facility was not designated as a regional facility by the Northwest Compact, EnergySolutions claims its facility is not subject to the compact's exclusionary authority. EnergySolutions is also claiming that any use of the Northwest Compact's exclusionary authority in regard to foreign waste is in violation of the constitution.

EnergySolutions filed a motion for Summary Judgment on Count 1, related to their arguments that the Clive facility is not designated as a regional disposal facility and therefore, the compact's exclusionary authority does not apply to its disposal facility.

The state of Utah and the Rocky Mountain Compact are now co-defendants in this case. On October 21, all three parties filed their briefs in response to the EnergySolutions motion for Summary Judgment. Mr. Tribble stated it is counsel's position that it is irrelevant whether the Clive facility meets the definition of a regional facility under federal law because the Northwest Compact statutes were authorized by Congress and are federal law. Under its plain meaning, the compact has exclusionary authority over all low-level waste disposal facilities located within member states of the Northwest Compact. If the court deems it necessary to determine the issue of whether or not the Clive facility fits the definition of a regional facility, we have argued clearly it necessarily does. We also filed a cross motion on the same count.

EnergySolutions has 30 days to file a response to our cross motion and then we will have 10 days after receiving their response to file our response. A trial is scheduled on this litigation in September 2009.

Public Comment

Mr. Christopher Thomas, HEAL Utah, voiced concern that liability issues could arise from the practice of re-attributing low-level waste.

The committee determined it would meet in Seattle in May 2009. Mr. Goldstein adjourned the meeting.