

# Meeting of the Northwest Interstate Compact on Low-Level Radioactive Waste Management

June 18, 2013

Red Lion Hotel  
Boise, Idaho

## Present:

Marlena Brewer, Alaska  
Jeffery Eckerd, Hawaii  
Brian Monson, Idaho  
Roy Kemp, Montana  
Ken Niles, Oregon  
Rusty Lundberg, Utah  
Larry Goldstein, Washington  
Mike Garner, Executive Director  
Kristin Mitchell, Compact Council  
Lois Dahmen, Compact Staff

Mr. Larry Goldstein, Compact Chair, convened the meeting at 9:00 a.m. The committee then unanimously approved the 2012 meeting minutes.

## Party State Reports

Ms. Marlena Brewer, Alaska's new committee representative, stated she has an interest in learning about the activities of the compact and is very interested in topics related to TENORM and abandoned uranium mines.

Mr. Brian Monson, Idaho's representative, reported AREVA is working to secure financing for construction of its uranium enrichment facility near Idaho Falls. However, AREVA is no longer providing projections on the start of construction or a proposed starting date for the facility. Idaho remains very interested in the construction of the facility, as it would bring additional jobs to the state.

Mr. Roy Kemp, Montana's representative, reported the development of the Bakken oil field in northeastern Montana and the Dakotas has generated interest in hazardous waste being disposed in landfills. Montana plans to permit three private landfills that accept "special waste" with unique handling, transportation, and disposal requirements. Mr. Kemp reported these permits do not address low-level radioactive waste (LLRW) or the jurisdiction of the Nuclear Regulatory Commission.

Mr. Ken Niles, Oregon's representative, reported that only spent fuel in dry cask storage remains at the decommissioned Trojan nuclear utility plant in Oregon. The Blue Ribbon Commission recommendations and a new federal strategy moved some spent fuel from decommissioned facilities like Trojan higher up the list for disposition. The U.S. Department of Energy (USDOE) will conduct a site assessment visit at the Trojan facility in mid-July. The visit will include a review of the transportation infrastructure around the decommissioned nuclear utility. USDOE intends to open a monitored interim spent fuel storage facility by 2021.

Mr. Jeff Eckerd, Hawaii's new committee representative, stated Hawaii has nothing new to report.

Mr. Goldstein reported that Mr. Carl Anderson, Wyoming's committee representative has retired. Wyoming has not yet named a replacement for Mr. Anderson.

## **US Ecology Activities Overview**

Mr. Joe Weismann, US Ecology, Inc. Vice President of Radiological Programs, reported the Richland commercial disposal facility received a little over 20,360 cubic feet of LLRW, 2,700 cubic feet of NARM, and 364 cubic feet of Exempt waste for a total of approximately 23,500 cubic feet in 2012.

US Ecology expects similar volumes in 2013. The 2013 volume through May is 8,400 cubic feet, but the company expects an increase in waste volumes during the 3<sup>rd</sup> and 4<sup>th</sup> quarters, primarily from Energy Northwest waste shipments.

The Richland facility received approximately 22,000 cubic feet in 2010, 43,000 cubic feet in 2011, and 23,500 cubic feet in 2012. The volume spike in 2011 resulted from waste shipments received from Dawn Mining Company. Dawn Mining Company now ships this waste stream to a uranium mill located in Utah for uranium recovery.

Mr. Weismann reported the annual volumes of NARM and Exempt waste remain consistent. Some of the NARM and Exempt waste streams that had previously been disposed at the Richland facility are now being shipped to the company's Grandview, ID facility for disposal.

Mr. Weismann reported the Washington Utilities & Transportation Commission (WUTC) regulates US Ecology disposal rates and provides the company with an annual revenue requirement. The revenue requirement for 2013 is 5.6 million dollars. The company has collected 2.3 million dollars of its annual revenue requirement through May. The company anticipates it will collect the remaining 3.3 million dollars during the second half of 2013 as the company anticipates increased waste shipments from Energy Northwest.

The WUTC conducts a review of US Ecology's rate structure every six years. The next review is scheduled for 2013, but US Ecology has petitioned the WUTC to extend the current rate structure for an additional six years. Eighty percent of compact generators responded to a questionnaire circulated by US Ecology regarding the continuance of the current rate structure. Sixty-seven percent, including the three largest generators, agreed with extending the current rate structure. Thirteen percent had no opinion, and 20% did not respond. Mr. Weismann stated that generators support the continued use of existing rate structure, as it provides budgeting stability. The WUTC is currently examining US Ecology's request.

Mr. Weismann indicated a number of cost components make up the disposal cost for those disposing of LLRW at the Richland facility. The site availability fee is dependent on the volume and dose rate of a shipment and this fee increases with higher dose rates and higher volumes. There is a volume charge of \$94.70 per cubic foot; a minimum container charge of \$62.20; and a shipment charge of \$11,700. A sliding scale exposure surcharge exists for very high dose rates.

US Ecology submitted its license renewal application for operation of the Richland facility to the Washington State Department of Health (DOH) in December of 2010. Currently, US Ecology operates the facility under its previous license that is in timely renewal. Once DOH completes its review, US Ecology does not anticipate there will be any significant changes to its license. US Ecology expects the license renewal to be issued in the third quarter of 2014.

US Ecology conducted a review of administrative changes of its Facility Standards Manual (FSM). The review examined management of radiological programs and prescriptive employee descriptions. The revised FSM increases flexibility, and eliminates the need for actions such as a license amendment following personnel changes. US Ecology evaluated all of the previous procedures and eliminated forty procedures that are no longer needed.

US Ecology submitted draft C of the Conceptual Site Model (CSM) to the Washington State Department of Ecology (Ecology) on April 15, 2013, and received comments from Ecology on May 2, 2013. The CSM identifies all of the contaminants, the transport pathways, and the fate and transport of the identified contaminants. The company submitted Draft D of the CSM on May 16, 2013, and anticipates receiving Ecology's comments by June 20, 2013.

US Ecology is negotiating with DOH to move approximately 500,000 cubic yards of soil from the United States Department of Energy's (USDOE) Environmental Restoration Disposal Facility to the US Ecology facility. The clean, excavated soil will provide interstitial surcharge over the trenches to compress existing void spaces and reduce future subsidence. This soil may also be used in construction of the first phase of the final cover.

US Ecology and DOH negotiated placement of three new ground water monitoring wells on the US Ecology site. The new monitoring wells help provide a detailed look at the groundwater profile of the site. US Ecology projects that installation of the new wells, one up gradient and two down gradient, will be completed by the end of 2013.

### **Overview of Utah Activities**

Mr. Lundberg reported Utah's Division of Radiation Control (DRC) has conducted a review of agency responsibilities in order to increase public confidence in the regulatory oversight of EnergySolutions' commercial disposal facility in Clive, Utah. The department values transparency when interacting with the public and licensees. To increase department efficiencies the DRC applies LEAN Six Sigma policies. DRC improvements focus on processing license actions and providing complete documents in a timely manner.

Mr. Lundberg reported representatives from DRC, the Clive facility (EnergySolutions), and other facilities are currently working together to create a fully integrated, GIS based website. This will allow the public to go a map of Utah, click on a given site in the state, and gain useful information. Individuals can now either subscribe to a list serve or go directly to the website to access information on proposed actions at a given facility.

Mr. Lundberg reported that Utah's flat annual fee brings consistency and greater accountability to DRC. This also allows the DRC to compare revenues with expenditures for specific areas of responsibility.

Mr. Lundberg reported that an important issue associated with the Clive facility involves long-term stewardship. Long-term stewardship follows site closure and the 100-year institutional control period.

It is difficult to project the Perpetual Care funds needed to ensure long-term stewardship. To ensure adequate funding, the DRC is required to update projections regarding long-term stewardship and financial assurance requirements every five years. DRC submitted its initial report to the legislature in 2006 and submitted its first follow-up report in September 2011. The report raises the legislature's awareness of the long-term stewardship funding requirements.

Mr. Lundberg reported that Utah's Legislative General Auditor's office conducted a performance audit that addressed DRC's interactions and oversight of EnergySolutions' Clive facility. The report focused on eight recommendations for the agency. The audit looked at pre-disposal activities versus post-disposal activities. Long-term aspects of the site include stability and protection of health and safety.

The audit examined the loading of cells and how to address potential issues. A major concern, related to pre-disposal aspects, was DRC's capability to independently verify and analyze incoming shipments to ensure any given shipment meets the waste acceptance criteria for the facility. To accomplish this DRC will conduct a more independent review of incoming shipments.

Mr. Lundberg reported that Utah's legislature passed HB 124 to address items included in the audit. Explicit language requires exclusive use of DRC fees for the administration Utah's radiation control programs. The bill grants fully vested, explicit rule making authority to Utah's Radiation Control Board. The bill reduced the number of the representatives on the Radiation Control Board from thirteen to nine. The Governor appoints the Radiation Control members, who are then subject to confirmation by the Senate. The bill increases the maximum civil penalty at the Clive facility from \$5,000 to \$10,000 per violation.

HB 124 also requires generators, brokers (including processors) that want to ship LLRW to the Clive facility to provide DRC with reasonable access to their facility prior to the issuance of the required Generator Site Access Permit. This will assist DRC in ensuring that incoming LLRW shipments to the Clive facility meet all of Utah's requirements.

HB 124 established set review periods for the DRC relating to LLRW applications and licensing. The DRC now categorizes different licensing actions into the following categories.

- Category I include administrative actions easily accomplished with no agency scrutiny or public comment required.
- Category II requires more scrutiny and public involvement.
- Category III includes specific review periods for license renewals, new applications, and closure plans.

Mr. Lundberg reported that DRC granted EnergySolutions a one-year variance that allows sealed sources collected under the Conference of Radiation Control Program Directors Source Collection & Threat Reduction program to be disposed at the Clive facility. The one-year variance will begin after EnergySolutions receives the initial shipment of sealed sources.

The DRC authorized EnergySolutions to consolidate two active land disposal embankments, Class A and Class A north, into a single embankment, Class A West.

Mr. Lundberg reported that Energy Solutions recently moved from a public entity to a private one, with Energy Capital Partners holding the majority interest.

Mr. Lundberg reported on EnergySolutions' joint venture with Studsvik involving SempraSafe blended waste. DRC previously authorized EnergySolutions to accept 40,000 cubic feet of SempraSafe waste annually. Following a review of EnergySolutions performance assessment, DRC will determine if future annual shipments can exceed the current limit of 40,000 cubic feet per year.

Mr. Lundberg reported that the DRC is reviewing EnergySolutions' performance assessment on the disposal of large quantities of depleted uranium (DU). The DRC issued a Request for Proposals (RFP) last year that will provide technical assistance with the review of the performance assessment. The responses to the RFP have been evaluated and scored and DRC will award a contract once the review is completed.

Mr. Lundberg reported that EnergySolutions submitted a license renewal application for the 11e.(2) cell in 2012. EnergySolutions also submitted a license application renewal for its LLRW activities including mixed waste and the groundwater permits required for these activities.

Mr. Lundberg reported DRC recently evaluated the Nuclear Regulatory Commission's (NRC) proposed amendments to 10 CFR Part 61. Comments submitted by DRC emphasize the need to maintain the evaluation of incoming shipments to ensure Class B/C LLRW is not provided access to the Clive facility. In a letter to the NRC, Utah's Governor emphasized the need to preserve the waste classification tables.

### **Energy Solutions Overview**

Mr. Dan Shrum, Senior Vice President of Regulatory Affairs reported EnergySolutions' facility at Clive, Utah has accumulated 945,000 person-hours without a lost-time accident since the facility's last lost-time accident in November 2010. Prior to November 2010, the facility had accumulated 3.5 million person-hours since its last lost-time accident and won the National Safety Council Award for three years.

Mr. Shrum stated Energy Solutions maintains processing facilities in South Carolina, Utah, and Tennessee. The company also owns rail cars, high integrity containers, and casks used for the transport of LLRW. Energy Solutions also operates a disposal facility in Barnwell, South Carolina.

The Clive facility disposes of bulk and containerized Class A LLRW, as well as large component items such as steam generators, reactors, and pressure vessels. The Clive facility provides mixed waste treatment including macro encapsulation, stabilization, liquid solidification, and thermal desorption. Thermal desorption is similar to a large still in that it separates the radioactive and hazardous components. The company then disposes of the radioactive component and treats the hazardous component prior to disposal in the mixed waste cell.

Mr. Shrum reported that on March 22, 2012 the DRC sent a letter to its Generator Site Access Permittees. (Note - This letter stated it has come to DRC's attention that some Generator Site Access Permittees have been describing LLRW processed in an incinerator or other thermally treated processes as residual LLRW. The letter went on to state, "For homogeneous mixtures of waste, such as incinerator ash, provide the waste description applicable to the mixture and the volume of waste attributed to each generator").

Mr. Shrum reported that EnergySolutions' 2008 license renewal allows the Clive facility to dispose of DU. However, a moratorium on DU disposal began in 2010. Energy Solutions subsequently submitted a performance assessment on June 1, 2011, supporting the company's assertion that DU can be safely disposed at the Clive facility. Following the completion of DRC's review of the performance assessment, if approved, the Clive facility could begin receiving large quantities of DU for disposal.

Mr. Shrum reported in late 2012 Energy Solutions received authorization from DRC to combine the Class A facility and the Class A north facility into the new Class A west cell. This gives the facility about 124 million cubic feet of remaining capacity and based on the average annual volume should provide 25-30 years of LLRW disposal capacity. Mr. Shrum reported that ES constructed and completed new sumps, 11A and 11B, required for expansion of its mixed waste disposal cell.

Energy Solutions received conditional approval from DRC to dispose of up to 40,000 cubic feet per year of SempraSafe blended resins from Studsvik. Energy Solutions has submitted a performance assessment to DRC that addresses the disposal of the SempraSafe blended resins from Studsvik. The Clive facility has received 21 shipments of blended resins through June 1, 2013.

Mr. Shrum reported EnergySolutions requested a variance that would allow the company to accept sealed sources. EnergySolutions worked with the DRC to gain an exemption that allows the Clive facility to receive sealed sources for a one-year period. The exemption provides access to sealed sources classified as Class A LLRW before encapsulation. Access is limited to those sources collected as part of SCATR's sealed source roundup. The variance provides access to sources containing radioisotopes with a half-life equal to or less than Cesium 137. The company anticipates receipt of the first shipment of sealed sources in the near future.

Mr. Shrum reported the American Recovery and Reinvestment Act resulted in the Clive facility receiving elevated waste volumes from USDOE in 2009-2010. The volume dropped significantly in 2012, primarily due to the U.S. Department of Energy's on-site disposal program.

### **Washington Overview**

Mr. Larry Goldstein reported on recent public disclosure litigation. In May 2012, the Yakima District Court heard oral arguments in the public disclosure case. Ecology received a petition to disclose all records related to the decision to begin cover construction on the fill trenches at the disposal facility. Ecology found and provided approximately 3,300 emails and attachments, and missed five. Ecology lost the decision, received a fine of \$5,000, and incurred \$50,000 in litigation costs.

Mr. Goldstein reported on litigation filed in May of 2012 by the Yakama Nation and Heart of America Northwest challenging construction of a cover over the fill trenches as a Model Toxics and Control Act (MTCA) interim action. The plaintiffs alleged cover construction would violate the State Environmental Protection Act and numerous other state and federal laws.

Unrelated to the litigation, Ecology withdrew the proposed interim action and DOH withdrew its approval to proceed with construction of the cover. The state informed the court that cover construction would not begin until the MTCA investigation was completed and the final Cleanup Action Plan is completed.

Despite this information, the court honored the petitioners' request and heard oral arguments. The decision allows the petitioners to re-file should the agencies take action. The court granted an amendment to the initial complaint to enjoin Ecology and DOH. At the end of 2011, the court encouraged all parties to enter into mediation, with the burden on the plaintiffs to identify a judicial mediator and begin mediation. This has not occurred to date.

The continuing MTCA investigation concerns DOH, specifically regarding violating the dose limit and future radiological contamination of groundwater. To avoid exceeding the dose limit, cover construction must begin by 2015, in conjunction with remedial activities. The Secretary of Health and the Director of Ecology revisited the decision to delay cover construction and decided the two projects should move forward in parallel. Tremendous cooperation between DOH & Ecology will be required to complete the investigation, remediation, and cover construction.

## US Ecology MTCA Investigation

Ms. Robin Varljen, Ecology's Project Coordinator for the MTCA investigation at the Richland, Washington commercial disposal facility stated she is here to provide an overview of the status of the investigation. Control of the area in which the Richland commercial disposal facility is located on the Hanford Reservation will occur in perpetuity. US Ecology is the site operator and DOH regulates the operation of the facility. Under MTCA, Ecology is responsible for overseeing the remediation of hazardous contaminants at the facility.

Ecology completed its initial assessment of the site, determined the hazard assessment, and ranking. The highest risk sites receive a "1" and the lowest risk sites receive a "5." The US Ecology site received a score of "5," the lowest risk, but the inclusion of subsequent groundwater data may change the ranking to a "3." Ms. Varljen reported that any required interim or emergency actions could occur at any time during the investigation and clean up.

Ms. Varljen stated the scope for the MTCA cleanup includes the pre-1995 trench area, the resin tank area, ground water, and any location where hazardous substances are identified, including off-site leaks. The Remedial Investigation and Feasibility Study stages include public involvement. Ecology also distributes a draft Cleanup Action Plan for public comment. The final Cleanup Action Plan addresses the public comments received, and then site cleanup begins. Controls include financial assurance, institutional controls, and periodic monitoring and reviews for any waste left on site. Typically, non-complex sites require 11.7 to 12 years to complete the cleanup process. The complexity of the Richland site may require a longer timeframe.

Ms. Varljen reported extensive remedial investigation sampling has been conducted at the facility. Over eight consecutive quarters, US Ecology collected a total of 213 soil samples, 98 ground water samples, and 366 vadose zone samples. As part of an addendum to the remedial investigation, US Ecology conducted an additional 47 vadose zone samples in December of 2012.

Ms. Varljen reported on the risk indicator data of identified hazardous substances. The method B values represent the proposed cleanup levels, adjusted down based on the hazard quotient that cannot exceed "1." The final cleanup standards in the action plan also will address practicality and background values. The monitored risks include Tetrachloroethylene (PCE), Trichloroethylene (TCE), and chloroform.

Ms. Varljen reported that PCE results analyzed from samples collected between 2008-2010 reveal a maximum detected value of 17,000 parts per billion (ppb). This exceeds the proposed clean up level of 1.4 ppb. The PCE contamination centers near the west side of the site, below the trenches, and continues off site. The analysis of samples collected in 2012 indicates a maximum detected value of 9,400 ppb of PCE from samples collected from vapor monitoring wells T53 & T54. Current data, resembles data from 2008-2010, and remains consistent with the trench and the trench bottom.

Ms. Varljen reported a maximum detected value of 1,800,000 ppb of TCE from samples collected in 2008-2010. This exceeds the proposed Cleanup level of 0.069 ppb. A maximum detected value of TCE found in 2012 samples on the east side of the trenches was 430,000 ppb. The TCE contamination, centering near trench nine and vapor well one, remains equal to the bottom of the trenches. The risk indicator and the 2012 data remain consistent.

Ms. Varljen stated chloroform was included in the risk indicator data. The max detected value from 2008-2010 of 160,000 ppb exceeds the proposed cleanup level of .023 ppb. The chloroform centers near vapor well one and remains consistent to the trench bottom. The 2012 data reveals a maximum detected value of 73,000 ppb and again centers near vapor well one.

Ms. Varljen reported on the four hazardous substances found in the groundwater and their proposed clean up levels. These substances include hexavalent chromium (HC), TCE, chloroform, and vanadium. The hazard quotient calculation includes all substances but Vanadium as samples analysis showed it is below background levels. The hazard quotient represents a ratio related indicator of the likelihood of a non-cancer related health risk. The hazard quotient combines risk indicators from hazardous substances across the site and cannot exceed "1." Cleanup levels decrease in correlation to the hazard quotient.

Ms. Varljen reported the HC groundwater data shows US Ecology's upgradient wells 9A and 13 remain above background levels. US Ecology claims no responsibility for the elevated HC levels in upgradient wells, citing off-site impacts. Groundwater movement and high HC values found in monitoring wells 3 and 5 show that US Ecology does make a contribution. Risk indicator data shows HC in 100% of the samples, with a maximum concentration of 100 micrograms (mcg) per liter. The USDOE HC plume centers above a well that remains dry or the soil stratum location prevents sampling. USDOE, the lead entity, will investigate the HC plume in the 2016-2017 timeframe.

Ms. Varljen reported the maximum detected value of TCE in ground water samples is 29.3 mcg per liter. This exceeds the proposed clean up level required to meet federal drinking water standards of 1.6 mcg per liter. Recent sample data shows an increase of TCE in monitoring well five, and a decrease in monitoring well three.

Ms. Varljen reported the maximum detected value of 23.3 mcg per liter of Chloroform from groundwater samples remains below the federal maximum contaminant level (MCL) of 80 mcg per liter. These values remain above the cleanup level of 1.2 micrograms per liter. The 2012 data for chloroform includes US Ecology's annual environmental monitoring data that shows increases in well five, and decreases in well three.

Ms. Varljen reported data gaps exist for the chemical waste inventories at the facility. US Ecology retains a very good inventory data for radionuclides disposed at the facility. Trench contents remain extremely difficult to determine because there was no requirement to track initial hazardous waste disposal. The extent of lateral, horizontal, and off site contamination remains unknown. A data gap exists from 90' to 300' below the ground surface. Available data examines contamination levels in the soil profile and vadose zone data down to 90' below ground surface.

Ms. Varljen reported that Ecology envisions a dual track remedy working with US Ecology to develop a solution, which includes additional investigation to address off site contamination. US Ecology is responsible for drafting the Focused Feasibility Study. Ecology is responsible for drafting the Cleanup Action Plan. In this case, the Remedial Investigation, the Focused Feasibility Study, and the draft Cleanup Action Plan will be distributed simultaneously for public comment.

The draft Cleanup Action Plan will include cleanup decisions, cleanup levels, and the point of compliance. After receiving public comments, Ecology will develop the Cleanup Action Plan to include an engineered design for cleanup that will be integrated with the DOH cover design.



The Final Cleanup Action Plan incorporates and addresses a second round of public comments. US Ecology will submit the draft Focused Feasibility Study in September of 2013, and this study should be finalized in January 2014. A sixty-day public comment period follows the completed Remedial Investigation/Focus Feasibility Study. The public comment period for the draft Cleanup Action Plan will run from April to July 2014.

Once finalized, implementation of plans could start between March and November of 2015. Potential delays include public concerns over the Remedial Investigation/Focused Feasibility Study, the draft Cleanup Action Plan, any potential litigation, and re-engineering the cover design. Ecology and DOH will attempt to integrate possible clean up options with an improved cover design.

### **Low-Level Waste Forum's Disused Sources Working Group**

Mr. Leonard Slosky, Executive Director, Rocky Mountain Compact, stated he served as the Chair of the Low-Level Waste Forum's (Forum) Disused Sources Working Group (DSWG). Mr. Slosky reported that the National Nuclear Security Administration (NNSA) asked the Forum to form a working group to look at the management and disposal of disused sources from a security perspective. The process included information gathering, meeting with stakeholders, regulatory agencies, manufacturers, suppliers, and disposal site operators.

Mr. Slosky reported that NNSA's Off-Site Recovery Program (OSRP) maintains a voluntary database that includes an inventory of 20-30,000 disused sources.

Mr. Slosky reported one finding shows a lack of internalizing the cost of possessing sealed sources. In certain cases, the disposal cost for a source may exceed its acquisition cost. The current system does not encourage people to promptly reuse, recycle, or dispose of disused sources. Such actions would address health and safety as well as national security concerns.

Mr. Slosky stated the NRC's National Source Tracking System monitors an estimated 80,000 Category I and Category II sources that are specifically licensed. The DSWG believes proposed improvements to NRC's regulatory system can better address the security risks posed by disused sources. The NRC's financial assurance requirements do not apply to most licensees who possess sealed sources. Certain sources considered a national security threat, if aggregated, do not even require a specific license and therefore are not tracked.

Mr. Slosky reported the availability of Type B transport containers needed for the transport of higher activity sources is limited and the cost to use these containers is very high. The NRC must certify each new Type B container prior to deployment for use. Private sector awareness of the demand for Type B containers may increase manufacturing in the future.

Mr. Slosky reported the options of recycling or reusing disused sources remains inadequate. The DSWG believes improvement opportunities exist in this area.

Mr. Slosky reported that the DSWG found some licensees lack adequate technical understanding to properly package and arrange for disused source disposal. The Conference of Radiation Control Program Directors Source Collection & Threat Reduction program assists licensees in this area as well as subsidizing transportation and disposal costs.

The DSWG explored examples of state programs that provide incentive to dispose of disused sources promptly. These include state policies that go beyond NRC requirements. Oregon assesses an annual fee on sources and Illinois maintains an aggressive financial assurance program for sealed sources. These programs create financial incentive to properly dispose, recycle, or reuse disused sources no longer needed by the licensee.

Mr. Slosky stated the DSWG believes the responsibility to properly manage and store disused sources should remain with the licensee who has benefited economically from the use of the source(s). The DSWG considered many different approaches including whether there should be a national program that would pick up and dispose of disused sources for licensees. However, the DSWG is currently leaning toward holding the licensees of the sources responsible for reuse, recycle, or disposal of their disused sources. The DSWG expects to issue a report with findings and recommendations by fall of 2013.

## **National and Regional Issues**

### **2012 RadWaste Summit Meeting**

Mr. Garner reported he served as the moderator for a panel of state representatives that discussed NRC's revision of its Branch Technical Position on Concentration Averaging and Encapsulation (BTP-CA) as well as their proposed changes to 10 CFR Part 61. The panel consisted of representatives from each sited state.

### **Commercial Low-Level Radioactive Waste Overview**

Mr. Garner stated the following overview of regulations related to LLRW management and disposal will assist the new committee members representing Alaska and Hawaii.

Congress enacted the Low-Level Radioactive Waste Act in 1980 and amended the Act in 1985, replacing it with the Low-Level Radioactive Waste Policy Amendments Act of 1985. These laws made states responsible for developing LLRW disposal capacity and provided incentives for the development of interstate compacts to manage LLRW on a regional basis. The incentive provided for the formation of interstate compacts was an exemption to the commerce clause. This allowed sited interstate compacts, if they so choose, to deny access to out-of-region LLRW for disposal at commercial facilities located within their region on January 1, 1993. The Northwest Compact exercised its authority to deny access to out-of-region LLRW on this date.

Mr. Garner reported that since January 1, 1993, the Richland, Washington commercial LLRW disposal facility has only accepted Class A, B, and C LLRW from the member states of the Northwest and Rocky Mountain compacts. A contract with the Rocky Mountain Compact allows generators from its three member states to ship LLRW to the Richland facility. There is a cap on the annual volume that Rocky Mountain Compact generators can ship to the Richland facility. In 1993, 6,000 cubic feet was provided access, and it increases by three percent annually. Any unused capacity from the previous two years is carried forward in calculating the volume cap for the upcoming calendar year.

The Northwest Compact does not deny access to out-of-region NARM and Exempt waste and such waste from states throughout the country may be disposed at the Richland facility.

The Washington State Utilities & Transportation Commission (WUTC) regulates LLRW disposal rates at the Richland, WA facility. The WUTC provides US Ecology with an annual revenue requirement, which includes the cost to operate the facility plus a twenty-nine percent profit. The state of Washington does not want the Richland facility to again become a national repository for LLRW. To ensure this does not occur, the sublease issued in 2005 includes a clause allowing the state to terminate the sublease should interstate compacts lose their authority to deny access to out-of-region LLRW.

Mr. Garner reported the Northwest Compact's Third Amended Resolution and Order provides access to out-of-region LLRW for disposal at EnergySolutions' Clive, Utah disposal facility. The original resolution provided access to low activity, large volume LLRW. Over the years, this has changed and the Clive facility can now accept most Class A LLRW. In accordance with compact statutes, adoption of such an arrangement requires an affirmative vote of 2/3 of the compact committee members, including the affirmative vote of the committee member from the state in which the affected facility is located.

To ensure access does not impact the economic viability of out-of-region disposal facilities, the Third Amended Resolution and Order requires authorization from the state/compact in which the LLRW is generated prior to shipment to the Clive facility.

Mr. Garner reported there are four commercial disposal facilities located in the U.S.

- The Richland, WA facility accepts Class A, B, and C LLRW from its eight member states and the three member states of the Rocky Mountain Compact.
- The Clive, UT facility accepts Class A LLRW from out-of-region states/compacts (the facility accepts the majority of Class A generated within the U.S.).
- The Barnwell SC facility accepts Class A, B, and C LLRW from the three member states of the Atlantic Compact.
- The Andrews County, Texas facility accepts Class A, B, and C LLRW from the two member states of the Texas Compact, and the Texas Compact Commission also provides for importation of out-of-region LLRW for disposal.

#### **Puget Sound Naval Shipyard Disposal Contract**

Mr. Garner reported attorneys representing the Puget Sound Naval Shipyard contacted him concerning an upcoming contract for LLRW disposal. The attorneys stated Waste Control Specialists; the operator of the commercial facility located in Andrews County, Texas had submitted a request to bid on the contract. The attorneys stated Puget Sound Naval Shipyard had historically awarded the contract to US Ecology via a sole-source contract and wished to do so again.

Mr. Garner reported that following a series of discussions with Mr. Rod Baltzer, President, Waste Control Specialists, the company withdrew its request to bid on the Puget Sound Naval Shipyard waste contract.

## **Import License/Export License Applications and Amendments**

Mr. Garner reported receiving the following import/export license applications since the last committee meeting:

1. The first involves an amendment sought by Perma-Fix, IW012 and XW008, involving containers used to ship Canadian LLRW to Perma-Fix for treatment and processing. The amendment addresses how the company will treat these shipping containers once emptied. The company had previously agreed to return these containers to its Canadian customers. Now, when feasible, PFNW wants to re-use, recycle, or decontaminate shipping containers from Canada. The request stated the company understands that none of the containers that are not reused, recycled, or decontaminated will be eligible for disposal at the Clive facility.
2. The second involves a license application from Perma-Fix Northwest, IW031 and XW019. These applications would allow Perma-Fix Northwest to import LLRW from the Laguna Verde nuclear utility in Mexico for volume reduction processing. Following processing, Perma-Fix Northwest will return the processed LLRW and any non-conforming materials to the Laguna Verde nuclear utility. Perma-Fix Northwest does not anticipate there will be any activity associated with these license applications prior to fall 2013.
3. The third involves an export license application submitted by Energy Solutions, XW020. This export license is needed to return 1,178 pounds of processed Class A LLRW to Pickering Station in Canada. A new export license was required, as the company's previous export license, XW017, had expired.

## **NRC's BTP on Concentration Averaging and Encapsulation (BTP-CA)**

Mr. Garner reported NRC has stated it plans to issue the final revision of its BTP – CA by the end of 2013. The revision improves clarity and updates NRC's position on waste blending and sealed source security. The BTP-CA increases the curies allowed for disposal of cesium 137 from 30 curies to 130 curies and cobalt 60 from 700 curies to no limit. The "Alternate Methods" section of the revised BTP-CA may allow for disposal of higher activity LLRW sources if a facility's Site Specific Performance Assessment supports that such a source can be safely disposed at the facility.

## **NRC's Branch Technical Position on the Import of Non-U.S. Origin Sources (BTP-Non-U.S. Origin)**

Mr. Garner reported submitting comments containing concerns to the NRC regarding its BTP-Non-U.S. Origin. The concerns relate to 10 CFR Part 110.2, exemptions 1 and 6. Exemption 1 allows sources manufactured in the U.S. – then sold to a foreign entity for use within a foreign country – to be returned to the U.S. manufacturer following their useful life.

The Northwest Compact would regard this as foreign waste unless once returned the source is reused or material from the source can be removed and used in the manufacture of a new source. Exemption 6 provides for the import of foreign sources for recycle purposes. The compact's position for sources imported for recycle purposes is the same.

## **Update on Revisions to 10 CFR Part 61**

Mr. Garner stated NRC plans to issue a draft rulemaking with proposed changes to 10 CFR Part 61 by July 2013. NRC has stated there will be a public comment period in the fall of 2013, and the rulemaking is scheduled to be issued in 2014. The primary change involves a requirement for a site specific performance assessment for LLRW disposal facilities. This assessment can then be used in addition to the waste classification tables to identify LLRW, including depleted uranium, that a given facility can safely accept for disposal. Once adopted by NRC, Agreement States must adopt these regulations

## **Richland, Washington Public Meeting**

Mr. Garner reported the Washington State Departments of Ecology and Health held a public meeting in Richland, Washington in February 2013 to provide the public with an overview of NRC's proposed changes to the BTP-CA and its 10 CFR Part 61 rulemaking. Mr. Christopher McKenney, Chief, NRC's Performance Branch provided overviews on these topics.

Unfortunately, attendance at the meeting was very poor. Mr. Garner stated there appears to be a lack of understanding on the public's part that once NRC adopts the amendments or rulemaking there is little opportunity left to address concerns raised by the public. The primary purpose of the meeting was to give the public the opportunity to provide comments and concerns to NRC, so NRC could then consider the comments and concerns prior to adopting its changes.

## **NRC Examining Manifest Requirements for the Phantom Four Radioisotopes**

Mr. Garner reported on NRC's review of the manifest reporting requirements for the "phantom four" radioisotopes, Tritium, Carbon 14, Technetium 99, and Iodine 129. Appendix G of 10 CFR 20 requires the manifest to contain the activity level of these four radioisotopes for waste shipments. Currently, in many cases, the detection equipment is not sensitive enough to detect the actual activity of these radioisotopes. These radioisotopes are presently manifested at lowest detectable activity level of the equipment. This results in over reporting the activity of these radioisotopes and could result in disposal facilities closing prematurely.

## **Other Issues**

Mr. Garner reported the Site Use Permit system administered by the Washington State Department of Ecology transferred to the Department of Health (DOH) on July 1, 2012. The technical background held by DOH offers the best knowledge to evaluate incoming permits.

Mr. Garner reported the annual Site Use Permit revenue at \$175,848 to date for 2013. This is the first significant decline in revenue from the \$225,000 to \$250,000 that has been collected historically. The decline in revenue results from a decline in the annual volume of waste disposed by generators who then pay less for a Site Use Permit. Ecology and DOH will evaluate figures and this could result in an increase to the Site Use Permit base fee of 10-15 percent.

The NWIC submitted a request to the Texas Compact Commission that would require authorization from the Northwest Compact prior to import and disposal of waste generated within the Northwest Compact at the Andrews County, TX commercial facility. The Texas Compact Commission rejected the request.

Mr. Garner explained that the Northwest Compact's Third Amended Resolution and Order contains language to help ensure limited impact on the economic viability of any out-of-region disposal facilities. It does so by requiring the authorization from the state/compact in which LLRW is generated prior to shipment to the Clive, Utah facility for disposal.

Language proposed by the Texas legislature encourages member state generators to export Class A LLRW for disposal at the Clive, UT facility. Mr. Garner stated he would continue to examine possible actions to prevent the shipment of in-region LLRW to the Andrews County facility.

The committee decided to hold its next meeting in Richland, Washington in May/June 2014. The meeting then adjourned.