**Present**

Earl Fordham, Executive Director/Chair

Cheri Kennedy, Compact Admin

Jeffrey Eckerd, Hawaii

Brian English, Idaho

Young Ha, Alaska

Ken Niles, Oregon

Rusty Lundberg, Utah

Carter Anderson, Montana

Kyle Wendtland, Wyoming

Lilia Lopez, Compact Counsel

**Audience and Presenters**

Mike Ault, General Manager, US Ecology

Theresa Howell, Washington Department of Ecology

Vern Rogers, Energy*Solutions*

Leonard Slosky, Executive Director, Rocky Mountain Compact

**Opening**

Cheri Kennedy, Northwest Interstate Compact (NWIC) Staff, briefed the members at 8:45 am on travel reimbursement paperwork.

Earl Fordham, Executive Direct and Compact Chair, convened the meeting at 9:00 am with introductions.

The committee unanimously approved the meeting minutes from May 9 held in Anchorage, Alaska with motion to approve by Ken Niles and second the motion by Jeffrey Eckerd. No discussion was motioned.

**Party State Reports**

**Washington**

Earl Fordham will be returning as NWIC Executive Director and will remain Chair due to Kristen’s promotion as Supervisor of Waste Management. This transition will occur within the next month or so. Kristen will remain as the Alternate Executive Director. Kristen wasn’t able to make the meeting as she’s attending a seminar hosted by NRC on Lessons Learned for Uranium Recovery. Earl noted several new attendees and asked Leonard to talk about how the Compact came to be and where they’ll be going in the next 5-10 years. Earl will speak more on Harborview and the response and cleanup that will be going on very soon during Washington Activities Overview.

**Hawaii**

Jeffrey Eckard had nothing new to report. Jeff expressed concern on flooding and lava flows. If Hawaii was hit by a nuclear attack, where would waste go? Accident scenario. Hawaii would ask for assistance from NWIC with disposal and how to proceed.

**Idaho**

Brian English stated he would provide the Idaho update during his presentation.

**Alaska**

Young Ha reported their state is in a similar boat as Oregon. Alaska radiation regulation used to have disposal exemption levels based on a table that used to be in our DOH and Social Services regulation. In Alaska, the radiation isn’t enforced by one Department but several since we do not have a dedicated radiation program. Our Solid Waste Program mainly deals with disposal by burial. The radiation regulation was repealed in 2009 and amended in 2015. The 2015 amendment inadvertently set up a situation where there is no *de minimis* level set as part of the definition for radioactive materials, thus prohibiting disposal of any material with radioactivity in Alaska. Basically, if you take a reading and you have a value, it must be shipped out of state regardless of level. However, the Alaska Statute directs our Department to allow discharge of some level of radioactive materials, with appropriate standards and safeguards to protect public health and safety, rather than to institute a complete ban. We are currently looking into revising our regulation provide an exemption.

**Oregon**

Ken Niles reported they are still getting inquiries from different businesses of disposal of low concentration of radioactive waste within our state because their rules are about 25 years old and the threshold is a lot higher than what they’ve seen elsewhere. It was not the intent of our Legislature when they additionally passed these rules to allow for or encourage the disposal of low concentration radioactive waste. Regretfully they’re probably going to begin their role in the next few months and will most likely have a very broad rule making advisory committee. They will contact every industry within Oregon that potentially has been impacted by a rule change. There are some businesses that have been doing some things for a lot of years that could be adversely impacted if we’re not aware of exactly what they’re doing. Ken said their radiation tech and Services of Oregon has some of the rules to progress with an advisory council. Earl asked if this will occur in their agency or the radiation group. Ken stated it was their radiation tech and services of Oregon Health has a little bit of the rules Energy Facilities Council which is an advisory body within their agency. The plan is to do a joint agency rule making. Earl mentioned it will be interesting to see the progress as the radiation group has done the same in Washington. Ken brought up the NRC ways and how they gave that back as part their battles with DOE. Ken stated they have several things going on as far as litigation with DOE. One is Ecology doing a low regulatory concern for waste in US Ecology Site B and they had a major explosion back in November. There was a drum event that happened at I&L last April that as we are meeting so is the Nuclear Safety Board on the drum event.

**Utah**

Rusty Lundberg stated he would provide the Utah update during his presentation.

**Montana**

Carter Anderson reported radiation is not a hot quality in Montana so they’re learning what other states are doing on their sites. Carter stated radiation is spread out in Montana on who does what so their trying to coordinate and learn what they should be doing. He’s trying to learn and coordinate on what should be done.

**Wyoming**

Kyle Wendtland reported Wyoming stood up the Agreement State status with the NRC in October 1 of last year although it was a very limited adjust to their recovery operations but as a result of that, they now having a CHP on staff and soon to have a second with possibly a third in the next three years. With that, they’re moving with some of this responsibility from the prior group to the group Kyle oversees. Kyle expressed interest in seeing where this goes as they’re still trying to sort things out. Kyle stated they have staff in Utah at the same time of our meeting as to why he’s attending the Compact meeting today. Earl stated he was glad to see the Uranium mining and milling states are taking advantage of the ACL. We already had this date picked for several months when Steve McCoy decided to schedule on the same day. Kristen Schwab is attending the meeting in Salt Lake City and will hopefully bring back good news.

**US Ecology Activities Overview**

Mike Ault, General Manager of US Ecology Richland, provided an overview on the US Ecology Washington LLRW Site. US Ecology is the leading North American provider of Environmental Services with five hazard/non-hazard landfills, one radioactive waste landfill (Class A, B, C), 22 treatment and recycling facilities, rail-accessible facilities and infrastructure, 24 Field Service Centers and Retail Satellites, and over 4,000 customers covering diverse mix of industries and segments. Their Coast to Coast Disposal Network is located near Industrial Centers in the West, Northeast, Midwest and Gulf Regions, broad range of permits and acceptance criteria, infrastructure to support high volume transfer and rail and truck access. Mike reported their license expired in December and they’re under timely renewal. They’re working through some of the changes in the license that they would like to see along with the State of Washington. The license is good for 5 years.

The facility accepts Compact Class A/B/C Class LLRW from with the NWIC and Rocky Mountain (RM) Compact, NARM and Radium sources nationwide, and exempt waste nationwide. US Ecology has a lease from the State of Washington to operate a LLRW site and rate-regulated by WA Utility and Transportation Commission. Operations will cease in 2056 to allow for closure activities to occur before termination of the lease in 2063. The site has three active disposal trenches, Trench 12, Class A – unstable, Trench 18, Class A – unstable and Trench 19, Class A/B/C – stable. Types of waste accepted are, NW & RM compact Class A/B/C LLRW, NARM Waste Nationwide (includes Radium sources), and Exempt Waste nationwide. The 2018 disposal volumes for 2018 were LLRW 13,369.86 ft3; NARM 1,915.60 ft3; Exempt 0.00 ft3 for a total of 15, 285.46 ft3 in April 2018. The site has ample capacity to last through the operational life of the lease (2056). The 2019 Disposal Volumes through April were LLRW 6, 001.70 ft3; NARM 1,935.00 ft3; Exempt 0.00 ft3 for a total of 7,936.70 ft3.

**WA State Department of Ecology Overview**

Theresa Howell gave an overview on the MTCA Investigation at US Ecology. Her primary focus is on chemical historical contamination that went to soil and groundwater from previous disposal operations of Ecology and not the ongoing work. Ecology is the operator of the program and WDOH holds the license. An investigation began in the late 1990’s when hazardous (non-radioactive) chemicals were detected above state cleanup limits in groundwater and soil gas samples. Remedial investigation sampling was conducted on 213 soil samples, 98 groundwater sampling (8 consecutive quarters), 366 samples (2008-2009) and 47 samples (2012) of vadose zone soil gas sampling (8 consecutive quarters). In 2008-2010, there was 60% (206 of 344) of soil vapor samples that had detectable Trichloroethene (TCE). The maximum detected TCE in groundwater was 29.3ug/L. Federal MCL (DWS) is 5ug/L. To meet NRC closure requirements based on modeling forecasts, WDOH required that a cover be placed over the older closed trenches

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In 2010, the Yakama Nation and Heart of America sued to stop the cover based on a position that delaying work until a MTCA decision was made would be more appropriate, and that the 2004 SEPA EIS did not compare the cancer risk from MTCA-regulated constituents for placement of the cover.

In 2015, legislature required a consultant study already underway be subject to a proviso. The consultant ran the WDOH model using the Yakama Nation risk exposure factors and determined the WODH model overestimated risks posed by the site. Based on this analysis, the state agreed to delay the cover pending determination of how health and cancel risks will be addressed via the MTCA process. A 2017 budget request included expanding investigations, modeling and remedial alternatives development requested by the Yakama Nation. Consultants will be used to generate these cost estimates and follow-on field work.

In December 2017, Ecology issued a request for proposal to contractors, in support of the budget provision. It was withdrawn at the request of the Yakama Nation. The Yakama Nation is requesting more active participation, and the state has been working with them since 2017 to establish this participation. US Ecology’s technical challenges: any future drilling through trenches increases radiation protection, waste management for drill cuttings; Conceptual site model uncertain: volatile chemical transport, characterization hot spots vs source location. The features and benefits of a 2-year soil vapor extraction (SVE) treatability test: relatively inexpensive to install and operate; eliminates drilling through trenches, managing waste and wells are relatively shallow; treatability test plan is quick and inexpensive to design and implement, doesn’t require a MTCA Cleanup Action Plan, doesn’t require a State Environmental Policy Act evaluation; builds on prior characterization data, SVE zone (depth and lateral) is much larger than prior soil sampling effort, SVE may characterize trenches without direct drilling, SVE can be operated in zones (turning vapor wells on/off) for characterization.

In summary; the investigation path forward is to contact with Yakama Nation for participation, write treatability test plans, run treatability test every 2 years, evaluate additional data needs, collect additional data as needed, update FS based on t. test data, other data EIS supplement in parallel and write a Cleanup Action Plan for comment.

**Utah Activities Overview**

Rusty Lundberg reported Ty Howard as the new Division Director, NRC IMPEP follow-up, and the Clive Facility. Rusty reported the Legislation House Bill 220 for Commercial Waste Fee Amendments modified provisions relating to the disposal of radioactive waste. Bill 220 retains Class B and C prohibition, but clarifies that classification determined at time of acceptance. It allows licensees to request the Division Director to authorize, on a specific basis, alternate requirements for waste classification and characteristics for land disposal. It establishes provision for the Director to evaluate waste characteristics, disposal site, and disposal methods if there is no reasonable assurance of compliance with: Performance objectives, dose limits or other applicable requirements set by rule by the Waste Management and Radiation Control Board that govern the type of issues addressed in 10 CFR, Part 61, Subpart C, and performance objectives. Class B and Class prohibition does not apply to requests from licensee for specific waste classification. The Bill requires no notification to chairs of specifically designated legislative committees, within five business days of Director’s finding and authorization of a waste classification on a specific basis, it sets effective date of Director’s finding to be 90 days following authorization, and imposes tax on concentrated DU and waste authorized by Director. The bill directs the Director to require certain actions related to concentrated depleted uranium, such as; require an approved performance assessment for more than one metric ton of concentrated depleted uranium, require, pursuant to an agreement acceptable to the Director, the DOE to accept.

The next full NRC - IMPEP will be September 9-13, 2019. Update on Clive updated Generator site access permits to Generator and/or broker are issued annually. On license renewal, the Division has recently issued license amendment 25 and continues to work on license renewal. Ongoing oversight and activities are incoming shipments, containerized waste, waste classification verifications, waste management operations and site monitoring program, final cover construction for a portion of LLRW cell and rehabilitating clay borrow pits. Evaluation of performance assessments are depleted uranium. Division contractor submitted their final review and safety evaluation report. The Division is in the process of reviewing it. The 11e(2) by product material is very low volume. The Division is still reviewing Energy*Solutions* request for changes and is working with the Facility to gather data by performing destructive testing of the Cover Test Cell. The permit amendment is under review. The Clive mixed waste is ready for renewal. The Division has been working with EPA Region 8 on revising the Research, Development and Demonstration (RD&D) Permit to resolve the treatment in the cell issue.

**Rocky Mountain Compact Overview**

Leonard Slosky provided an update on the Rocky Mountain Compact. Leonard gave a brief informative overview of the history of the Compacts. Leonard said there are several things that were raised that they were involved in that is different than others Compact who regulate NORM/TENORM based on how their stature is structured. Leonard said they have been struggling on how to get their hands around the throws of NORM/TENORM from oil and gas operations.

The Compact has been issuing import/export permits and addressing NORM/TENORM issues. The Rocky Mountain Compact regulates NORM/TENORM and believes there is waste moving in and out of the compact without authorization from Wyoming and Nebraska and verbal knowledge of movement from New Mexico and Texas and visa-versa. It’s been a big challenge. There was an effort to try and educate the oil and gas industry of the permit requirements, though it did not appear to be successful in increasing the number of import/export permit applications. The compact is exploring the use of pre-enforcement actions. They don’t know how to get the point across other than sending warning letters to facilities saying, “we believe you’re doing something wrong”. The reason they haven’t made much progress on this is all three states have new Governors and two of their board members retired so they didn’t think it was a good idea to cause a major crisis during the auction campaign or without a board member present in some of the states. There is still one vacancy. Jennifer Opila is the new Board Member for Colorado and Vice Chair by default. Greg Lovato from Nevada continues to the chair.

**Washington Activities Overview**

Earl reported on May 2, 2019 there was a contractor to NSA that came in to remove one of the three seasonal radiators that was at the University of Washington (UW) Research and Training Center. During the decommissioning of the first radiator, they believe but are not exactly sure as Earl hasn’t seen the video, but they nicked the capsule and ended up with Cesium contamination on the loading area where they were working, various F-fluent HEPA filters and on building in-takes several hundred feet away. It’s been a very busy initially with 13 people contaminated, six were internally. Everyone was decontaminated except the individuals who received internal contamination. They now have Cesium burdens. The highest internal dose would be the individuals from International Isotopes, who did the work, with 75 mrem. The event is still being investigated and the Department of Energy (DOE) has their Accident board on-site and will be completing their onsite work this week. Earl is on Randy Erickson’s speed call list and frequently passing information as he’s trying to keep the NRC off the event. Initially, contamination was found on all seven floors of the Research and Training Center. The levels found were not exorbitantly high. You could survey a floor and find nothing, but if you had booties on as you were surveying and get to the end of the hallway and surveyed your booties, you’d find radiation. Your deconning issues were surveying with no high levels but an accumulation effect as you were moving down the hallways. Surveys have been done on the upper floors on the RNTC building. Researchers are in the building pulling stuff out and surveying via trained Radiation Protection staff. The source is still onsite and that is as far information that can be given for security reasons. Earl stated they’re hoping in a couple weeks the contamination will be gone but the actual investigation will be several ongoing months to years. It was asked if the building was unoccupied and Earl confirmed, “Yes”. Earl spoke about the USS Enterprise, the first Nuclear carrier in the Navy’s fleet. It had eight reactors. Earl said the Navy procurement office called him wanting to talk about the rate case was developed which went back to the early 1990’s. Earl talked about how he was approached with a business arrangement between Rocky Mountain Compact and us and the SW Compact to look at specifically what was the past arrangement.

**Energy*Solutions* Activities Overview**

Vern Rogers, Director of Regulatory Affairs, Energy*Solution*, provided a facility overview of the Clive Facility including the company’s focus on industrial and radiological safety, license and permit statuses, sealed source and large component disposal, facility capacity, disposal volumes and depleted uranium. In 2017, Energy*Solutions* was awarded the VPP Star for Industrial Safety. The Facility received multiple safety awards: VPP Star in 2017, Behavior Based/HPI, between 2004 and 2009 had over 3.5 million work hours without a lost time injury, the Utah Safety Council Award of Merit for 2006 – 2009, 2012-2013, 2015-2018, the Utah Safety Council Perfect Record Award, 2011-2013, 2015-2017, the Utah Safety Council 1 Million Man Hour Award 2013 and 2016, the Utah Safety Council Award of Honor 2017, the National Safety Council Perfect Record Award 2005-2008, 2010, 2015 and 2017, the National Safety Council Million Man Hour Award 2006, 2008, 2013 and 2017. For Radiological Safety, ALARA – the average radiation worker individual TEDE was 41 mrem/year, the highest general public fence-line CEDE 0.26 mrem/year and highest general public effluent exposure dose 0.29 mrem/year.

The Clive Disposal Facility has over 30 years of proven experience treating and disposing of radioactive waste. Unique bulk and containerized waste facilities for Radioactive Material Licenses (LLRW & 11e(2)), RCRA Permit (treatment & disposal of MW), TSCA Permit (PCB waste streams), SNM Exemption (concentration-based limits), long-term federal and commercial contracts, over 11 miles of onsite rail for efficient and cost-effective waste handling and long-term federal and commercial contracts.

The Clive waste acceptance capability is Class A LLRW and NORM: soil, resin, filters, operational waste and large components; radioactive liquids: two 10,000 gallon tanks to process real-time and ability to process up to 20,000 gallons per week; Mixed waste (radioactive and RCRA Hazardous); MW Treatment, Stabilization, amalgamation, thermal desorption, stray wash, microencapsulation, solidification, lead shielding, lead acid batteries, solvent contaminated waste; PCB/Radioactive Waste; Large Component Logistics; UCNI and export controlled waste; other hazardous substances (e.g., asbestos, beryllium). The Clive’s operating capacity is over 115 million cubic feet of licensed capacity remaining (30-40 years of capacity remaining), unload 60 railcars and 30 trucks shipments per day, shred 1,500 tons per day, place 50,000 CF per day and 20 M gallons evaporation pond storage.

Due to concerns with U.S. NRC’s evaluation, the Radiation Control Board preemptively passed rules restricting Depleted Uranium Disposal for Utah to one metric ton until a performance assessment evaluating the impact of significant quantities of Depleted Uranium is approved according to Utah Administrative Rule R313-25-9, (5)(a). The Governor’s requirements for Depleted Uranium Disposal in Utah is DOE agrees, in a legally-binding manner, to become the long-term government custodial agency; the NRC makes a final determination as to its classification of Depleted Uranium and clarify the Utah prohibition on the disposal of Classes B and C Waste.

**Idaho Activities Overview**

Brian English reported 2018 was not a good year for Idaho. There were two major events at two different sites both of which dealt with hazardous and radioactive waste. The first event occurred April 11 at the **Arpin** Closure Radioactive Waste Management Complex on INL. About 10:30pm the fire alarms went off and INL Fire Department responded and entered the building and was lucky no one was injured or killed because they didn’t know what they were getting into. When they entered the building, the continuous air monitors were not alarming and plugged causing function failure. They went into the building with firefighting gear instead of Rad gear. They didn’t have the respirators on at first. There was a misplaced waste drum on the floor with beryllium labels on it with no lid spraying like a volcano almost to the ceiling roughly 30 feet in the air. The firemen tried to extinguish the problem and it met-laxed and stirred; which made the situation worse. They didn’t have the Rad Tech’s there as they needed, so when they decided to back out of the building, they buried it out before another one of the four drums went. No one was injured. One of the four drums was a cloth art-structure and launched hitting the ceiling and went through the first layer of the ceiling and slid down along the wall onto the floor. It took them about a month to locate the drum. It took about one week before they did a robotic entry into the building and are still in the process of recovering. Couple of things learned from this event; it was mixed waste, it was characterized, and they had a couple of incidences where they fell short. Since April of last year, they should get the majority of the stuff cleaned. The significant concern is if you have a closed building with air monitors inside, have a flashing light outside that goes off if it’s plugged or not operating in some way. It’s much safer.

**Compact Updates**

Earl stated there was issues facing the Compact and perhaps the biggest one is the LLRW Forum which is the National Body that Compacts and many of the States are part of that help us out on National type issues. We are right in the middle of doing a search for a new Executive Director. We thought we had a couple lined up. Dan Shrum was interviewed and turned the position down. Steve Harrison, Office Director for the State of Virginia, was also approached and interviewed and turned the position down. Our current Executive Director, Todd Lovinger is scheduled to leave at the end of June, so we’re in the final process of bringing in Joe Clinger to be the interim Executive Director as the search continues for a permanent Executive Director. Disused Source Program Update is a Grant from the Department of Energy and if you recall several years ago a report was produced and got wider acclaimed as to how to handle Disheson Radioactive sources. The report was drafted and reviewed by Gary Robertson who was the go-around Director in Washington for a while. The current drive behind the Dishes program is to establish with the confidence of Radiation intro. Program Directors use to run a recycle program. A lot of these sources are not at the end of life but are large under the Cap 1 or 2. Left over from last year, the WCS Status is trying to get the Legislature and Governor to change the rules. Texas meets every other year. It’s presumed it’s done this year. David Carlson was CEO and came to one of the reform meeting and said they were losing several million dollars a month. They were just bought out by others.

**Transfer of Northwest Compact Activities**

Earl touched base on this earlier this morning. When Mike Gardner retired several years ago, Ecology said we don’t have anyone that knows about the Compact. Earl has since been selected as the Executive Director and Chair. It’s been a couple years trying to move the rules and statures over to the Department of Health.

**Update on Legal Issues**

Lilia Lopez spoke about LLRW and Part 61 update. She mentioned Earl would be giving an update. There’s been questions with respect to the US Ecology Facility in Idaho taking LLRW under the Part 61 Regulations intensify 20.2 that allows this by application and whether or not the Compact can exercise the decision area with respect to the waste and there shouldn’t be any reason they can’t. Lilia said she’s been reviewing this and the **Tenth/Ten (?)** Circuit Case Energy Solutions.

**NRC Update**

Earl provided stated Part 61 hasn’t had any change in the last year. There is a staff requirements memo out for them to do an update based on what the vote was back in 2016/2017. We’ve been waiting for the rewrite of Part 61. For those who are not familiar with Part 61, is the regulations concerning disposal of LLRW. When you hear us talk about concentration limits where there would be Class A/B/C, typically there hasn’t been any site that’s gone through establishing their own waste classification, so everybody is using waste tables of tendency Part 61.55 and whether those actually change or not or performance specs change, we’ve all written comments many years ago, we’ve all seen the results and the mission has actually said “we accept to these things you need to change regulations to reflect what we’ve gotten comments on and we wait”.

**Round Table Discussions**

There were no round table discussions.

**Public Comment**

There were no public comments.

**Closing**

Earl Fordham thanked the attendees and adjourned the meeting.