



## **Appalachian States Low-Level Radioactive Waste Commission**

### **DRAFT MEETING MINUTES**

**November 5, 2021**

#### **CALL TO ORDER**

Mr. Allard called the meeting to order at 10:00 a.m.

#### **INTRODUCTION AND ROLL CALL**

Mr. Janati conducted the roll call and the members introduced themselves. The attendees are listed below:

#### **Members and Alternates**

- David Allard, Member from Pennsylvania
- Edward Hammerberg, Alternate Member from Maryland
- Kaley Laleker, Member from Maryland
- Clifford Mitchell, Member from Maryland
- Tera Patton, Member from West Virginia
- Richard Roman, Alternate Member from Pennsylvania
- Albert Romanosky, Alternate Member from Maryland
- Matthew Smith, Alternate Member from West Virginia
- Matthew Higgins, Alternate Member from Delaware
- Molly Magarick, Member from Delaware
- Robert Brinsfield, Alternate Member from Delaware

#### **Commission Staff**

- Rich Janati, Administrator, PA DEP
- Timothy Anderson, Esquire, Troutman Pepper

#### **Others Present**

- Steve Acker, Staff Member, PA DEP
- Michelle Foster, Staff Member, PA DEP
- Molly Adams, Staff Member, PA DEP
- Stephanie Banning, Staff Member, PA DEP
- Dan Schrum, LLW Forum



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### **ADOPTION OR MODIFICATION OF THE AGENDA**

There were no modifications to the proposed meeting agenda.

### **APPROVAL OF THE MINUTES OF THE PREVIOUS MEETING**

Mr. Allard asked if any member had modifications or changes to the minutes of the November 6, 2020 annual meeting. There were no comments and the Commission voted to approve the minutes unanimously.

### **REPORT OF THE CHAIRMAN AND EXECUTIVE DIRECTOR**

#### **Review of Treasurer's Report for FY 2020-21**

Mr. Janati discussed the Treasurer's Report, which is a statement of revenues and expenditures for the Commission's Operating Fund during fiscal year (FY) 2020-2021. This fund is being invested by the Pennsylvania Treasury Department under the INVEST Program. Interest from the Operating Fund during this FY was \$50. Actual expenses for this period totaled \$23,934 which is less than the budgeted amount of \$32,500 by \$8,116. The main reason for being under the budgeted amount significantly is that both, the Commission's annual meeting and the Low-Level Waste Forum (LLW Forum) meetings were held virtually. The Commission's expenditures exceeded its revenues by about \$23,884. Mr. Janati stated that at the current level of expenditures, the Commission will run out of money in the Operating Fund by next year.

### **STATUS OF COMMERCIAL LLRW DISPOSAL FACILITIES AND RECENT DEVELOPMENTS**

Mr. Janati provided an update on the status of commercial LLRW disposal facilities and recent national developments involving management and disposal of low-level radioactive waste (LLRW).

There are currently four (4) commercial LLRW disposal facilities in the United States. These facilities are Barnwell in South Carolina; the EnergySolutions facility in Clive, Utah; Richland in Washington; and the Waste Control Specialists (WCS) facility in Texas.

1. The Barnwell facility accepts all classes of LLRW from the three members of the Atlantic Compact (Connecticut, New Jersey, and South Carolina). As of July 1, 2008, this facility no longer accepts LLRW from outside the Atlantic Compact.
2. The EnergySolutions Clive facility accepts Class A waste from all states except those in the Northwest and Rocky Mountain Compacts. The facility also provides for disposal of bulk waste and large components such as steam generators from the nuclear power plants. This facility is not a regional facility and is regulated by the State of Utah. The Utah Department



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of Environmental Quality is currently conducting a regulatory review for disposal of large quantities of depleted uranium and Class A radioactive sealed sources at this facility.

3. The Richland facility is a regional facility and accepts all classes of LLRW but only from the Northwest and Rocky Mountain Compacts.
4. The WCS facility is a regional facility for the Texas Compact (Texas and Vermont) and accepts all classes of LLRW from both commercial and federal facilities. In April 2012, the Texas Commission on Environmental Quality (TCEQ) authorized WCS to accept waste and begin disposal activities. Additionally, the Texas Compact Commission has established rules for the importation and exportation of LLRW into and out of the Texas region. The annual limit on radioactivity for out-of-compact waste is 275,000 Ci, but there is no annual limit on volume for out-of-compact waste. The TCEQ granted an increase in the total capacity of the Compact Waste Facility (CWF) from 2.3 million cubic feet (ft<sup>3</sup>) to 9 million ft<sup>3</sup>. Additionally, disposal of large quantities of depleted uranium and Greater-Than-Class C (GTCC) waste is being considered by WCS.

Mr. Janati stated that the Texas Compact Commission (TCC) has prepared a contingency plan for the disposal and management of LLRW should there be a disruption of the normal operation of the CWF. The TCC has indicated that they can meet within 72 hours advance notice, if necessary, should the facility close. The TCC has the authority to suspend all existing import agreements; not consider any new import requests; and issue export permits to in-compact generators to ship LLRW to other disposal facilities.

Mr. Janati stated that if the CWF is no longer available to the Appalachian Compact, the generators in the compact would have to store higher concentration LLRW (Class B and C wastes) onsite. We did a survey of all the generators several years ago when the South Carolina facility was closing to our generators. They indicated that they would be able to store waste onsite for at least five years. He said we will continue to ship waste to the EnergySolutions facility in Utah. The higher concentration of waste such as primary resin from the nuclear power plants can be blended down to Class A waste for shipment to the Clive facility in Utah. The department also issued a waste minimization guidance document. This document is published on the department's website. It provides guidance to our generators, particularly the smaller ones, for minimizing the generation of LLRW.

The TCC's contingency plan considers several options and contains some recommendations. One option is to ask the state of Texas to operate the facility, but the state indicated they are not prepared or have the capability to operate this facility. The other option is for the TCC and other stakeholders including the generators of LLRW to seek a new operator, a new company, to operate the facility. The TCC encourages the users of the CWF to regularly



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dispose of their Class B and C wastes as soon as reasonably practical. They have also asked the LLRW generators to ensure they have adequate storage capacity onsite.

Mr. Janati stated that the TCC has formed a capacity committee to gather information and develop metrics for the TCC to ensure appropriate data will be available for future decisions relative to approval of the imports and to ensure future economic stability of the CWF.

In response to a question raised by a Commission member regarding export of LLRW to other countries for storage, Mr. Allard responded that the U.S. Nuclear Regulatory Commission (NRC) is responsible for regulating the export of radioactive materials.

### **Update on Commercial LLRW Disposal Facilities**

Mr. Janati provided the 2020 LLRW statistics for the commercial disposal facilities in the United States. During calendar 2020, WCS accepted about 31,000 cubic feet (ft<sup>3</sup>) of waste and the activity level was about 24,000 curies (Ci). They only disposed of 3% of total volume but the activity was about 60% because they are accepting higher concentration of LLRW or Class B, and Class C wastes. The Barnwell facility accepted about 31,000 ft<sup>3</sup> or 3% of the total volume and the activity level was 640 Ci. The Clive facility in Utah accepted about 930,000 ft<sup>3</sup> which is about 92% of the total waste by volume. Finally, the Richland facility generated about 15,000 ft<sup>3</sup> which is about 1.5% in volume and the activity was 9,000 Ci. In 2020, the Commercial disposal facilities accepted just over 1,000,000 ft<sup>3</sup> of waste for disposal. The activity of the waste was about 40,323 Ci.

### **INFORMATION ON LLRW DISPOSAL FOR THE APPALACHIAN COMPACT**

Mr. Janati discussed the waste disposal information for calendar year 2020. The Appalachian Compact disposed of about 395, 889 ft<sup>3</sup> of waste. About 145,545 ft<sup>3</sup> of the total amount of waste is LLRW and about 250, 344 ft<sup>3</sup> of it is TENORM waste. TENORM is Technologically Enhanced Naturally Occurring Radioactive Material. It is mainly from conventional and unconventional development of oil and gas production. The oil and gas industry generates a lot of TENORM, which is lower activity and very small radioactivity but very high in volume. When you look at the total amount disposed, Pennsylvania was the largest generator. Typically, Pennsylvania generates the largest amount of waste, and it is why we are designated as the host state for the Appalachian Compact

The largest generator of LLRW by volume in 2020 was the industry category. They generated about 103,942 ft<sup>3</sup> of waste. The second largest by volume is the nuclear power plants. They generated about 28,597 ft<sup>3</sup>. The Appalachian Compact currently has ten operating nuclear power plants, eight in Pennsylvania and two in Maryland. We also have TMI-1 and TMI-2 and both units are shut down. TMI-2 will be going through decommissioning in a few years, and they'll



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be generating a considerable amount of low-activity high volume waste. The third highest generator of LLRW in the Compact is the government category, which is mainly naval support activities.

Mr. Janati provided a brief discussion of waste disposal trends in the Compact for the period of 2000 through 2020. From 2016 through 2020, the volumes have been increasing drastically. This is due to generation of TENORM. There are several major developments since 2000. The Barnwell disposal facility in South Carolina closed in July of 2008 to all out-of-Atlantic Compact generators. The activity level of waste has decreased significantly because prior to the closure of Barnwell to our generators, the nuclear power plants sent considerable amount of irradiated components or reactor components for disposal at Barnwell. Mr. Janati said for almost five years, our generators stored higher concentration of wastes (Class B and C wastes) onsite. We did not start sending waste to WCS in Texas until 2014. In years 2016-2020 the volume of waste increased significantly due to the significant amount of low-activity high-volume waste shipments. During 2000-2020, our Compact generated about 1,818,876 Ci of LLRW. Beginning in 2014 and through 2020, the reported activity also included Class B waste that was shipped to the WCS facility in Texas. Mr. Janati said the Appalachian Compact has made only one or two shipments of irradiated reactor components to the WCS facility so far. Additionally, due to blending of certain Class A waste with Class B waste, the volume of Class B waste that would have been disposed at the WCS facility has diminished significantly. There has been a reduction in Class C waste in storage since control blades are now being replaced less frequently and due to improved packaging efficiency.

Mr. Janati presented a pie chart showing that in 2020, about 68% of the compact's LLRW by volume was disposed at the WCS facility in Texas and about 32% by volume was disposed at the EnergySolutions Clive facility in Utah. In comparison, about 82% of the compact's LLRW by activity was disposed at the Clive facility, and about 18% by activity was disposed at the WCS facility.

Mr. Janati said we are keeping track of TENORM, but we will report it separately from LLRW because in our compact TENORM is not considered LLRW by definition. The other reason to separate it is because if Pennsylvania should ever acquire a disposal facility, it would not be accepting TENORM waste for disposal. Finally, there is a provision in our compact act that states the compact commission should designate another state as the host state, if it generates LLRW (not TENORM) more than 25% of Pennsylvania's waste by volume or activity over a three-year period.

Mr. Anderson stated that in 2005 the Energy Act was amended to include two additional classes of waste as byproduct material. These two categories of byproduct material were excluded from the definition of LLRW. He said the Commission passed a resolution in 2007 to adopt the revised federal definition of LLRW. He also stated that TENORM is not LLRW under federal



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definition of LLRW and the compact is not legally required to track and dispose of it at the regional facility. Mr. Allard stated that although TENORM has a very low activity, but it has a half-life of 1600 years and requires long-term control.

### **UNFINISHED BUSINESS**

#### **Correspondence to DOE re Surcharge Funds**

Mr. Anderson stated that a second letter informing DOE of the Commission's intent to spend the income from the surcharge funds on the annual budget of the Commission had been sent. He said we waited to send the second letter until the new DOE Secretary was approved by the Congress. He explained that this letter was a little clearer and upfront compared to the first letter. The letter points out that we have no intention of spending surcharge funds, but to utilize the revenue from the fund for the Commission's routine activities. He said we have not yet received a response to the Commission's second letter from DOE. Mr. Allard said the Commission should stick with the letter for funding of Commission's work. Mr. Anderson stated that under this scenario, there would be an annual transfer of the income from the surcharge funds to the unrestricted funds of the Commission.

Mr. Hammerberg said there are federal regulations for what somebody can do with interest accrued on grant funds that have been awarded. Mr. Anderson said the regulations Mr. Hammerberg is referring to are in 2 CFR Part 200. Mr. Anderson said the word grant is used and that he believes the grant is the key word. He also added that the word grant is not defined but grant agreement is defined and the implication is that there is no grant unless there is a grant agreement. He pointed out that the Commission has no agreement as far as our understanding about the use of this money and how it would fall under the statutes. Mr. Anderson said he believes our position is strong and that this section of the CFR does not govern interest on the surcharge money. Mr. Janati said another reason that supports our position is that the surcharge money is the LLRW generator money. Mr. Anderson said the funds were deposited into an escrow and are not the property of the United States. He said the DOE Secretary acted as the trustee for such funds.

#### **Discussion of Proposed Changes to the Bylaws**

Mr. Anderson said the bylaws need to be amended to allow for the holding of a virtual meeting in the event of a state of emergency or other condition that, in the opinion of the Chair, would make an in-person meeting impractical and inadvisable, with the amendment stating that the decision to hold a meeting virtually is at the discretion of the Chair. He said we removed all references to four people being present at the place of the meeting rule. A motion was made to



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amend the bylaws and it passed. Mr. Anderson said the bylaws require that there has to be a place for the meeting in the county where the facility is, or if there is not, in the host state. Mr. Allard said this is one of the changes to the bylaws he wants to make for the next year's meeting. He also said he would like to see a change in the bylaws for hiring a part-time administrator, a paid position as a contractor, to assist the chair with Commission business.

### **Update on LLW Forum Activities**

Mr. Hammerberg provided an update on recent activities of the LLW Forum (Forum), an organization that the Commission is a member of. The Forum also includes as members other interstate LLRW Compacts, several independent states and federal agencies including NRC, EPA and DOE, LLRW generators, and industrial sectors such as the processors and the disposal facilities. It provides an opportunity for the members to interact and discuss topics of mutual interest.

He repeated some issues members had raised previously such as being dissatisfied with the lack of transparency within the Forum and the performance of the previous executive director. He said Forum had been facing budget deficits for several years and some compacts had either dropped out of the organization or threatened to do so.

He stated that the Forum hired Dan Shrum as the new executive director in the wake of the departure of the long-term executive director. He said Dan was formerly with EnergySolutions and he has many contacts in the field and with the regulators and compacts. He said the funding situation has improved under Dan's leadership. Dan has been doing a lot of outreach and staying involved with federal partners and with all compacts. He also said we are in the process of going through a strategic planning process, and we are trying to determine what activities the forum should be focused on this year. These activities are posted on their website. A mission statement and objectives are also listed

A hybrid-style meeting was held in October, so some in-person participation took place. He hopes more in-person meetings will be able to take place in the future. Mr. Hammerberg said in summary, the organization is moving in the right direction.



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### **NEW BUSINESS**

#### **Election of Officers**

The Commission voted unanimously to elect Dave Allard, Director, Bureau of Radiation Protection, Pennsylvania Department of Environmental Protection, as the chair and Kaley Laleker, Director, Land and Materials Administration, Maryland Department of the Environment, as the vice-chair of the Commission for another year.

Mr. Allard stated that Pennsylvania (PA) is facing an unfortunate situation as it relates to Commission membership. For 7 years now, we have not been able to get the Governor to nominate for Senate confirmation the four PA agency or department heads as well as their alternates to participate in the Commission as members. We are hopeful with the new Governor, that by spring of 2023 we will have a full Commission, with PA four agency heads and their respective alternates from PA. He said traditionally, one of the active department heads from PA serves as the chair of the Commission.

#### **Adoption of the Revised Approved Budget for FY 2021-22 and Proposed Budget for FY 2022-23**

Mr. Janati presented the revised budget for FY 2021-22 and the proposed budget for FY 2022-23. He said the cost of travel to attend meetings is set at \$5,000 now that in-person travel is taking place again. Mr. Janati stated that the cost of the audit is higher by about \$1,200. Mr. Janati stated he contacted other firms, but many don't want to deal with government audits. He recommends continuing with the same firm. He said the proposed budget for FY 2022-23 is very similar to the revised budget for FY 2021-22 except that the LLW Forum meeting sponsorship is zero dollars since the Forum no longer expects that the state and compact members host the meetings. The Commission voted unanimously to approve the proposed revised budget of \$31,200 for FY 2021-22 and the proposed budget of \$31,200 for FY 2022-23.

#### **2022 Annual Meeting**

The Commission passed a motion to accept October 28th, as the primary and November 4th as the secondary date for the 2022 annual meeting.

### **PUBLIC COMMENT**

There were no members of the public in attendance.





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**ADJOURNMENT**

Mr. Allard adjourned the meeting