

MEETING MINUTES APPROVED JUNE 12, 2025

Waste Management and Radiation Control Board Meeting Minutes
Utah Department of Environmental Quality
Multi-Agency State Office Building (Conf. Room #1015)
195 North 1950 West, SLC
May 8, 2025
1:30 p.m.

Board Members Participating at Anchor Location: Brett Mickelson (Chair), Dennis Riding (Vice-Chair), Mark Franc, Jeremy Hawk, Steve McIff, Nathan Rich, Vern Rogers, Shane Whitney

Board Members Participating Virtually: Richard Codell, Scott Wardle

Board Members Excused/Absent: Tim Davis, Danielle Endres

UDEQ Staff Members Participating at Anchor Location: Brent Everett, Doug Hansen, Morgan Atkinson, Inva Braha, Brandon Davis, Tyler Hegburg, Chris Howell, Larry Kellum, Arlene Lovato, Mike Pecorelli, Elisa Smith, Raymond Wixom

Others Attending at Anchor Location: Steve Gurr

Other UDEQ employees and interested members of the general public also participated either electronically or telephonically.

This meeting was recorded and an unedited audio of this meeting can be accessed at:
<https://www.utah.gov/pmn/files/1269287.MP3>

I. Call to Order and Roll Call.

Chairman Mickelson called the meeting to order at 1:30 pm. Roll call of Board members was conducted; see above.

II. Public Comments on Agenda Items – None.

III. Declarations of Conflict of Interest – None.

IV. Approval of the meeting minutes for the April 10, 2025, Board meeting (Board Action Item).

It was moved by Dennis Riding and seconded by Dr. Codell and UNANIMOUSLY CARRIED to approve the April 10, 2025, Board meeting minutes.

V. Petroleum Storage Tanks Update.

Brent Everett, Director of the Division of Environmental Response and Remediation (DERR), informed the Board that the cash balance of the Petroleum Storage Tank (PST) Enterprise Fund for the end of April 2025 was \$38,830,213.00. The DERR continues to monitor the balance of the PST Enterprise Fund closely to ensure sufficient cash is available to cover qualified claims for releases.

There were no comments or questions for Mr. Everett.

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VI. Low-Level Radioactive Waste.

A. **EnergySolutions' request for a site-specific treatment variance from the Utah Hazardous Waste Management Rules. EnergySolutions seeks authorization to receive an exemption from the treatment standards for uranium extraction process residues encased in cement for macroencapsulation (Information Item).**

Tyler Hegburg, Environmental Scientist, Low-Level Radioactive Section, Division of Waste Management and Radiation Control, introduced Steve Gurr, EnergySolutions representative, who presented this site-specific treatment variance request to the Board.

Mr. Gurr reviewed EnergySolutions' request for a variance. Mr. Gurr informed the Board that EnergySolutions is requesting an exemption from the treatment standards described in Utah Administrative Code R315-40(a)(2) for uranium extraction process residues encased in cement that retains several hazardous waste codes.

The waste generator is the Department of Energy, located in Oakridge, Tennessee. The waste material consists of cemented uranium process residuals. The waste is generated as part of uranium recovery processes at that generator's facility. The uranium content within the process residues is enriched, natural uranium. From a health and safety standpoint, the enrichment makes the waste more hazardous to employees managing the waste. Further, enriched material has increased security concerns and must be managed appropriately.

To ensure the enriched uranium concentration limits required for worker safety, security, and transportation of this waste are met, appropriate packaging procedures were created and are currently being utilized at the generator's facility. These packaging procedures include repackaging ~ 2 ½-gallon cans into 16-gallon drums and filling the void spaces with cement; formal treatment for the elevated metals concentrations is not performed during this process. The generator has assessed other options, including treatment for the hazardous constituents; however, additional processing introduced unacceptable hazards from a health and safety and security viewpoint.

EnergySolutions proposes to macroencapsulate the waste, thereby isolating the waste from potential leaching media. Macroencapsulation is a permitted process utilized at the Clive facility that significantly reduces the potential for migration (leaching) of the waste. Macroencapsulation requires less handling of the waste and creates a waste form for disposal that is protective of human health and the environment.

Macroencapsulation also adds a further level of security restricting access to the enriched uranium. This is the preferred method of stabilization as recommended by the Nuclear Regulatory Commission.

Mr. Gurr informed the Board that EnergySolutions has requested this same variance request seventeen times previously dating back to 2007. Since the last variance was approved in 2024, EnergySolutions has received approximately 1,684 cubic feet of this waste. This variance request is for approximately 2,000-cubic feet of cemented uranium extraction process residuals with a steady amount to continue through 2025.

Mark Franc asked how the waste is collected at the generator's facility and sent to EnergySolutions. Specifically, does the waste trickle in or is it collected all year and then brought in on one shipment. Mr. Gurr replied that the waste trickles at a rate of approximately once a month or once every other month as the generator accumulates it rather than being collected all year and then brought in as one shipment.

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B. EnergySolutions' request for a site-specific treatment variance from the Utah Hazardous Waste Management Rules. EnergySolutions seeks authorization to receive an exemption for the direct macroencapsulation treatment of lithium and lithium-ion batteries (Information Item).

Steve Gurr, EnergySolutions representative, reviewed EnergySolutions' request for a variance. Mr. Gurr informed the Board that EnergySolutions seeks authorization to receive an exemption for the direct macroencapsulation treatment of lithium and lithium-ion batteries.

Lithium and lithium-ion batteries typically exhibit the hazardous characteristics of ignitability (D001) and reactivity (D003). Regulations in Utah Admin. Code R315-268-40 require the removal of the characteristic codes prior to disposal. The U.S. Environmental Protection Agency has ruled that intact batteries are containers and not considered debris under the definition that would allow them to be normally macroencapsulated. In order for lithium batteries to meet the definition of debris, they would need to be shredded and mixed with chemicals to deactivate them, and then they could be macroencapsulated.

Mr. Gurr explained that for EnergySolutions to meet the regulatory standards, lithium and lithium-ion batteries would need to be shredded and mixed with chemicals to deactivate them or punctured (and then considered debris) to macroencapsulate them. Both activities (shredding and puncturing) severely agitate the waste and would expose the reactive portion of the waste to open air, which could cause an adverse reaction or explosion. Although this type of waste management is possible, it is inappropriate from a health and safety standpoint.

Mr. Gurr informed the Board that EnergySolutions has requested this same variance four times previously dating back to 2021. The waste quantities have remained similar over this time period, with EnergySolutions receiving roughly 800 pounds per year, and EnergySolutions anticipates receive similar waste volumes in the next 12 months under this current variance request.

Dr. Codell briefly addressed issues associated with contamination of these batteries including the batteries themselves as being hazardous and asked if the batteries are otherwise contaminated or is it just the batteries themselves. Mr. Gurr explained that the batteries they receive would be contaminated with some form of radioactivity and discussed the hazardous characteristics of ignitability (D001) and reactivity (D003) associated in treating the batteries to deactivate them. Mr. Gurr also briefly discussed other issues associated with deactivating the batteries, including the risk of potential fire and other hazards. Dr. Codell remarked that these kind of batteries then could not be disposed of at your local Home Depot's used battery collection box. Mr. Gurr replied that with the radioactive element attached to these batteries, the disposal is more complex.

Dr. Codell mentioned that since this is the fourth variance request dating back 2021, he previously also asked questions regarding whether the state of the charge in the batteries, which they may be still full or partially charged, could somehow cause degradation of the material in which they are in encapsulated in and questioned if any of the previous burials have been inspected for any kind of degradation. Mr. Gurr replied that EnergySolutions has not observed any degradation. Mr. Gurr noted that once the macro vaults are poured, it is difficult to be able to go in and see if any degradation has taken place. Mr. Gurr further commented that in most cases, the generator provides EnergySolutions with notes indicating whether the batteries are deactivated or not. Mr. Gurr confirmed that the batteries are shipped according to the Department of Transportation (DOT) requirements to ensure their safety.

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Dr. Codell commented on it and a brief discussion was held regarding the relevance of the 1993 Memo provided in the Board packet on this variance request. Dr. Codell stated that to the best of his knowledge, lithium batteries were not around and/or widely available in 1993 in any particular form other than maybe small button-size batteries, but certainly not the big ones that are used nowadays for powering big machines or cars, and asked about if the Memo is still relevant in terms that would still apply to the current situation with lithium batteries. Mr. Gurr replied that he believes the Memo is still applicable today and discussed his reasoning why it is still applicable including the research and study that originated with the Memo.

Mr. Franc followed up on discussion held on the previous variance agenda items regarding *EnergySolutions* receiving smaller amounts of waste received throughout the year, rather than one large shipment. Mr. Franc commented that he assumes the reasoning is because it is safer to have small amounts to be disposed as opposed to one large quantity for disposal, which could potentially have higher risks of reactivity or fire. Mr. Gurr agreed with Mr. Franc comments and informed the Board that *EnergySolutions* typically receives shipments with loads of debris that include probably less than 10 pounds of lithium batteries. Mr. Gurr also briefly discussed the differences in managing shipments and disposal of lead acid batteries versus lithium batteries.

VII. Director's Report.

Director Hansen discussed the 2025 Utah State Legislature passage of Senate Bill 159 regarding energy exploration and production waste facilities. Director Hansen informed the Board that Senate Bill 159 requires the Division of Waste Management and Radiation Control (Division) to update its rules concerning liners at these types of facilities.

Director Hansen informed the Board that another aspect of the Senate Bill 159 was the creation of a pathway (on-ramp) for these existing facilities to come under the Division's program. Director Hansen noted that as a condition of the transition, existing facilities wishing to obtain a Class 7 Permit, were required to have a temporary permit in place by May 7, 2025. Director Hansen stated that the Division's Solid Waste Section has been actively processing the 21 temporary permits received and has successfully issued all 21 temporary permits to meet the May 7, 2025 deadline. As a result, now all these types of facilities desiring to move from the Division of Oil, Gas and Mining oversight to the Division's oversight now have a path to do so.

Director Hansen also reviewed another condition of Senate Bill 159 which is that within the next five years, all these types of facilities that currently do not have a liner will be required to either close, upgrade to include a liner, or meet the geotechnical standards which are outlined in Senate Bill 159.

Director Hansen further remarked that the Division will continue to work closely with all the 21 facilities that the Division has issued the temporary permits to. Director Hansen stated that it is important to remember that the temporary permits issued are only valid for one year, and these facilities will need to apply for and have a regular permit in place within the next 12-month timeframe. Therefore, the Solid Waste Section staff will be significantly engaged throughout the coming year in assisting these 21 facilities with the completion of the full permitting process.

Director Hansen informed the Board that he has been asked to participate in an Interim Legislative Meeting that will be held on May 21, 2025. The reason for his attendance is because the Lead Acid Battery Act (Act) is scheduled to sunset and the Legislature will be considering the renewal of this Act during this meeting. Director Hansen explained that this Act is one of the Division's shorter Acts and the Division has very limited direct authority under this Act. Director Hansen noted that while the Act outlines the processes and expectations for managing lead acid batteries, the Division's involvement primarily serves as an outreach and educational opportunity, which will be the focus of his discussion at the meeting.

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Director Hansen provided an update regarding the Governor's focus on nuclear energy and commented that Board members may have seen in the recent news a lot of activity around this subject including potential new reactors in the state. Director Hansen stated that to date, the Division has not had a significant role in this subject because the Nuclear Regulatory Commission (NRC) handles all reactor licensing. Specifically, the NRC has not delegated the authority to license reactors to agreement states like Utah.

However, Director Hansen mentioned that he does anticipate the Division's role with nuclear energy will be expanding in the near future, potentially within the next year or even sooner, as the Division anticipates adding new employees to help engage with stakeholders and the NRC on this subject. Hence some of these activities the Division has not been involved in previously are likely to become part of the Division's responsibilities as the Division may be potentially looking to expand and take on these new tasks associated with nuclear energy, which he believes will be an exciting endeavor.

There were no comments or questions for Director Hansen.

VIII. Executive Director's Report – This Agenda Item was tabled.

IX. Other Business.

A. Miscellaneous Information Items.

Nathan Rich announced his upcoming retirement from Wasatch Integrated Waste Management, with his last official day of employment being June 30, 2025. Mr. Rich stated that after 26 years, he feels it is time to retire. In addition, Mr. Rich announced that he also be leaving his position on the Board and will be available through next month's Board meeting.

Mr. Rich expressed that it has been a pleasure serving alongside each of the Board members and that he has enjoyed the opportunity to provide a service and has been glad to have been part of the process.

Chairman Mickelson thanked Mr. Rich for not only for his dedicated service on the Board, but for also his many years in working in the solid waste industry and acknowledged Mr. Rich's role in being instrumental in keeping the solid waste industry on course and expressed that he will be personally and professionally missed.

B. Scheduling of next Board meeting (June 12, 2025).

The next meeting is scheduled for June 12, 2025, at the Utah Department of Environmental Quality, Multi-Agency State Office Building.

Interested parties can join via the Internet at: meet.google.com/gad-sxsd-uvs
Or by phone at (US) +1 978-593-3748 PIN: 902 672 356#

X. Adjourn.

The meeting adjourned at 1:55 p.m.