



State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WASTE MANAGEMENT
AND RADIATION CONTROL

Douglas J. Hansen
Director

A meeting of the Waste Management and Radiation Control Board has been scheduled for October 13, 2022, at 1:30 pm at the Utah Department of Environmental Quality, (Multi-Agency State Office Building) Conference Room #1015, 195 North 1950 West, SLC.

Board members and interested persons may participate electronically/telephonically.
Join via the Internet: meet.google.com/gad-sxsd-uvs
Join via the Phone: (US) +1 978-593-3748 PIN: 902 672 356#

AGENDA

- I. Call to Order and Roll Call.
- II. Public Comments on Agenda Items.
- III. Declarations of Conflict of Interest.
- IV. Approval of the meeting minutes for the September 8, 2022, Board meeting Tab 1
(Board Action Item).
- V. Petroleum Storage Tanks Update Tab 2
- VI. FY2022 Petroleum Storage Tank Fund Actuarial Summary (Information Item)..... Tab 3
- VII. Low-Level Radioactive Waste Tab 4
 - A. EnergySolutions request for a site-specific treatment variance from the Hazardous Waste Management Rules. EnergySolutions seeks authorization to receive and macroencapsulate ash contaminated with dioxins and furans **(Board Action Item).**
- VIII. Annual Open Meetings, Conflicts, Ethics and Records Training (Information Item).
(Training provided virtually by Raymond Wixom, Assistant Attorney General, Office of Utah Attorney General)
- IX. Director’s Report.
- X. Other Business.
 - A. Miscellaneous Information Items.
 - B. Scheduling of next Board meeting (November 10, 2022).
- XI. Adjourn.

In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Larene Wyss, Office of Human Resources at (801) 536-4284, Telecommunications Relay Service 711, or by email at “lwyss@utah.gov”.

DSHW-2022-024208

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Waste Management and Radiation Control Board Meeting
Utah Department of Environmental Quality
Multi-Agency State Office Building (Conf. Room #1015)
195 North 1950 West, SLC
September 8, 2022
1:30 p.m.

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

Board Members Participating Virtually: Kim Shelley and Danielle Endres

Board Members Absent/Excused: Richard Codell and Scott Wardle

UDEQ Staff Members Participating at Anchor Location:

Brent Everett, Doug Hansen, Tom Ball, Therron Blatter, Arlene Lovato, Brad Maulding, Elisa Smith, David Wilson

Others Attending at Anchor Location: Chris Root, Brian Milar

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

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 August 11, 2022 Board meeting (Board Action Item).

It was moved by Nathan Rich and seconded by Shane Whitney and UNANIMOUSLY CARRIED to approve the August 11, 2022 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) Fund at the end of July 2022, was \$26,750,775.00. The preliminary estimate of the cash balance of the PST Fund for the end of August 2022, and the end of the fiscal year is \$27,693,250.00. The DERR continues to watch the balance of the PST Fund closely to ensure sufficient cash is available to cover qualified claims for releases.

The DERR has provided documentation to the company that conducts the annual actuarial report on the PST Fund. They will make projections regarding the health of the PST Fund. The report will be provided to the Board when it is available. There were no comments or questions.

VI. Petroleum Storage Tanks Rules.

A. Proposed Nonsubstantive changes to R311-203 and R311-206 (Information Item).

Therron Blatter, PST Branch Manager for the DERR, informed the Board that the DERR is proposing nonsubstantive changes to R311, the Petroleum Storage Tank (PST) rules.

The changes, to fix issues found following the completion of the updated PST rules that were recently passed, are:

- R311-203-5(10)(c) incorrectly references R311-203-5(2). It should be R311-203-5(1) “Tank tightness testing”.
- R311-206-3(1)(g) incorrectly references R311-200-1(2)(b) for “as-built drawing”. It should be R311-200-1(2)(d).
- R311-206-3(1)(g) incorrectly references R311-200-1(2)(rr) for “site plat”. It should be R311-200-1(2)(ccc).
- R311-206-6(2)(b) fixed an incorrect reference. Subsection 19-6-15(2) should be 19-6-415(2).

While these nonsubstantive changes do not require public comment or formal Board approval, the DERR recognizes the Board’s rulemaking authority and feels it is appropriate to seek the Board’s concurrence before filing. Dennis Riding asked for confirmation that only references are being changed. No opposition to moving forward was expressed.

VII. Administrative Rules.

A. **Approval to proceed with formal rulemaking and 30-day public comment period on proposed rule changes to Utah Administrative Code R313-19-100 of the Radiation Control Rules, to incorporate federal regulatory changes requested by the Nuclear Regulatory Commission to maintain the compatibility of Utah radiation control rules with the federal regulations (Board Action Item).**

Tom Ball, Planning and Technical Support Section Manager of the Division of Waste Management and Radiation Control, reviewed the request for the Board’s approval to proceed with formal rulemaking and 30-day public comment on proposed changes to Utah Administrative Code R313-19-100 of the radiation control rules to incorporate changes requested by the Nuclear Regulatory Commission (NRC) to maintain the compatibility of Utah radiation control rules with the federal regulations.

The Division received a comment from the NRC in July of this year indicating that they had discovered an incompatibility in our rules. Section R313-19-100 incorporates by reference 10 CFR 71.19(a) and (b) into R313-19-100. [Mr. Ball informed the Board that a typo was included in the Board’s packet: listing citation as 10 CFR 71.97(a) and (b); the correct citation is 10 CFR 71.19(a) and (b)].

The NRC stated that 10 CFR Part 71.19 is designated as Compatibility Category NRC, which means that rule belongs to the NRC and Agreement States cannot adopt it. The change removes the incorporation by reference of 10 CFR 71.19(a) and (b) from R313-19-100.

This change does not add or remove any requirements for any regulated entity, because it is still a federal regulation and any entity that is regulated by that would have to comply with that rule whether it is in the State rule or just in the federal regulations.

Mr. Ball informed the Board that this matter requires Board action and the Director recommends the Board authorize initiating the formal rulemaking process by filing the proposed rule changes with the Office of Administrative Rules for publication in the October 1, 2022, edition of the *Utah State Bulletin* and conducting a 30-day public comment period beginning October 1, 2022 and ending on October 31, 2022.

Danielle Endres asked for clarification as the proposed rule changes appear to be removing the numbers/citations only and asked if any other rule changes, i.e., actual changes to rule language is being proposed.

Mr. Ball reiterated that the proposed rule changes require removing only the numbers/citations, as these rules are incorporated by reference, therefore, no language changes to the rules are required.

Dennis Riding asked if the rule change could be accomplished as a “nonsubstantive” rule change.

Mr. Ball clarified that because a rule reference is being removed, the change is considered substantive rather than nonsubstantive and is therefore necessary to go through the formal rulemaking process.

It was moved by Vern Rogers and seconded by Steve McIff and UNANIMOUSLY CARRIED to approve proceeding with formal rulemaking by publishing in the October 1, 2022 edition of the Utah State Bulletin and conducting a 30-day public comment period beginning October 1 to October 31, 2022 on the proposed rule changes to Utah Administrative Code R313-19-100 of the Radiation Control Rules, to incorporate federal regulatory changes requested by the Nuclear Regulatory Commission to maintain the compatibility of Utah radiation control rules with the federal regulations.

B. Approval to proceed with formal rulemaking and 30-day public comment period on proposed rule changes to Utah Administrative Code R315-101 of the Hazardous Waste Rules amending the rule to include the most up-to-date methods and procedures being used by industry to conduct cleanups of contaminated sites and risk assessments based on EPA guidance (Board Action Item).

Tom Ball, Planning and Technical Support Section Manager of the Division of Waste Management and Radiation Control, reviewed the request for the Board’s approval to proceed with formal rulemaking and 30-day public comment on proposed changes to Utah Administrative Code R315-101 of the hazardous waste rules.

Mr. Ball reminded the Board that this matter was brought to them almost a year ago (November 2021). In that interim period, Division staff has worked extensively with stakeholders to make sure their concerns have been addressed in the rulemaking. A 45-day comment period was initiated last time and comments were received from the stakeholders. Division staff have worked closely with them to make sure their comments have been addressed and the rule has been prepared to go back to the Office of Administrative Rules and go out for public comment again.

Mr. Ball recapped to the Board that the current rule contains limited information and is not clear in its requirements resulting in confusion and inconsistent interpretations of the rule for the regulated entities. The revised rule establishes information requirements to support risk-based cleanup and closure standards. It also provides for continued management of sites for which risk-based clean closure standards are not met and provides some consistency and interpretation of requirements needed to conduct risk assessments, i.e., clarifying things and making it clearer for the regulated community as to what is expected when they are conducting risk assessments, risk-based closures, etc.

Mr. Ball informed the Board that this matter requires Board action and the Director recommends the Board authorize initiating the formal rulemaking process by filing this rule with the Office of Administrative Rules for publication in the October 1, 2022, *Utah State Bulletin* and conducting a 30-day public comment period from October 1 to October 31, 2022.

Danielle Endres asked for a brief description of the major feedback received from the stakeholders that resulted in the additional proposed rule changes. Mr. Ball stated that after reviewing the comments received after the last public comment period, extensive changes were not made. The changes made were primarily for clarification and reorganization of the rule to make them easier for stakeholders to follow.

Mark Franc questioned that after going through a 45-day public comment period and having received additional comments, does the Division feel that all the comments have been addressed/resolved. Mr. Ball stated that he feels that all the comments have been addressed. Mr. Ball apprised the Board that an informal comment period was also held with some interested stakeholders to make sure they understood why some of their comments to the rules were not changed; as well as address all other concerns they had.

Mr. Franc asked a procedure question, as the proposed rules have already completed a 45-day public comment period; what is the need to go back out for an additional 30-day public comment period?

Mr. Ball informed the Board that when a rule is published and a public comment period is initiated, an agency is granted 120 days to set an effective date, if that timeframe is not met an agency is required to go back out for another formal rulemaking process.

It was moved by Mark Franc and seconded by Dennis Riding and UNANIMOUSLY CARRIED to approve proceeding with formal rulemaking by publishing in the October 1, 2022 edition of the Utah State Bulletin and conducting a 30-day public comment period beginning October 1 to October 31, 2022 on the proposed rule changes to Utah Administrative Code R315-101 of the Hazardous Waste Rules amending the rule to include the most up-to-date methods and procedures being used by industry to conduct cleanups of contaminated sites and risk assessments based on EPA guidance.

VIII. Director's Report.

Director Hansen expressed gratitude to all previous and current Board members for their willing to serve as the Division realizes the time and dedication it requires. Director Hansen informed the Board that during this past month, Board members Mark Franc, Dennis Riding, and Steve McIff, had the opportunity to attend a Senate Confirmation Hearing to answer the committees' questions regarding their applications for reappointment. Director Hansen informed the Board that the Division has received confirmation letters approving their reappointments.

Director Everett echoed Director Hansen's appreciation to the Board for their service and congratulated the three Board members on their reappointments.

Director Hansen mentioned that although early, nothing has been presented regarding potential legislation for the upcoming legislative session. Director Hansen informed the Board that he would be appreciative if Board members inform him if they receive any information regarding potential legislation and he in turn will keep the Board informed if the Division receives any updates on potential legislation.

IX. Other Business.

A. Miscellaneous Information Items.

Steve McIff informed the Board that his friends/family are aware he serves on a Board that addresses environmental issues. They recently questioned him as to what the Board was going to do concerning a news story they watched regarding milk being dumped in Beaver County. He informed them that this particular matter is not under this Board's jurisdiction (not in our realm); but felt it was nice to be approached by friends/family expressing concern with environmental issues and wanted to share the story with the Board.

Mark Franc commented on his recent good experience with the confirmation process for his reappointment, as he was appreciative of the opportunity to go before the committee and have them ask questions and show some interest, i.e., recognizing the importance of the Board.

Mr. Franc stated he has been on this Board for several years and it was his first chance to go before that committee and have them ask questions. The committee showed their appreciation, recognizing what the Board does as well as expressed to him that they take the appointments to these seats seriously. He also mentioned that it was kind of cool to go before the Senate and be confirmed. Mr. Franc stated he is not sure why the procedure has changed, but felt it was a good experience and wanted to share it.

B. Scheduling of next Board meeting (October 13, 2022).

The next meeting is scheduled for October 13, 2022 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 1:50 p.m.

DRAFT

PST STATISTICAL SUMMARY
September 1, 2021 -- August 31, 2022

PROGRAM													
	September	October	November	December	January	February	March	April	May	June	July	August	(+/-) OR Total
Regulated Tanks	4,128	4,136	4,142	4,136	4,132	4,150	4,157	4,178	4,176	4,182	4,178	4,188	60
Tanks with Certificate of Compliance	4,050	4,052	4,060	4,049	4,048	4,059	4,061	4,057	4,057	4,071	4,061	4,065	15
Tanks without COC	78	84	82	87	84	91	96	121	119	111	117	123	45
Cumulative Facilities with Registered A Operators	1,291	1,288	1,284	1,288	1,287	1,285	1,284	1,288	1,286	1,286	1,288	1,285	97.94%
Cumulative Facilities with Registered B Operators	1,292	1,289	1,285	1,288	1,288	1,285	1,285	1,289	1,287	1,287	1,289	1,287	98.09%
New LUST Sites	8	5	7	2	10	12	9	7	6	7	9	11	93
Closed LUST Sites	9	4	6	1	2	13	13	14	13	9	2	12	98
Cumulative Closed LUST Sites	5390	5397	5398	5399	5405	5419	5431	5447	5454	5455	5463	5474	84
FINANCIAL													
	September	October	November	December	January	February	March	April	May	June	July	August	(+/-)
Tanks on PST Fund	2,649	2,642	2,646	2,635	2,629	2,631	2,628	2,619	2,609	2,613	2,651	2,655	6
PST Claims (Cumulative)	702	702	702	702	703	704	705	706	705	710	710	711	9
Equity Balance	-\$4,033,695	-\$3,921,878	-\$2,867,569	-\$2,900,167	-\$2,363,604	-\$1,761,847	-\$1,826,879	-\$1,634,540	-\$986,270	-\$639,953	-\$646,753	-\$295,722	\$3,737,973
Cash Balance	\$23,363,833	\$23,475,650	\$24,529,959	\$24,497,361	\$25,033,924	\$25,635,681	\$25,570,649	\$25,762,988	\$26,411,258	\$26,757,575	\$26,750,775	\$27,693,250	\$4,329,417
Loans	0	0	0	0	0	0	0	0	1	0	0	1	1
Cumulative Loans	121	121	121	121	121	121	121	121	122	122	122	123	2
Cumulative Amount	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,738,367	\$4,740,989	\$4,740,989	\$4,740,989	\$5,040,989	\$302,622
Defaults/Amount	2	2	0	0	0	0	0	0	0	0	0	1	-1
	September	October	November	December	January	February	March	April	May	June	July	August	TOTAL
Speed Memos	78	100	77	61	41	50	76	59	78	65	32	47	764
Compliance Letters	21	8	21	16	11	18	16	15	9	6	8	8	157
Notice of Intent to Revoke	0	2	0	1	1	0	2	0	0	0	0	0	6
Orders	0	0	0	1	1	0	2	2	0	0	0	0	6



Taylor & Mulder
Property and Casualty Consulting Actuaries

Utah Petroleum Storage Tank Fund

**Loss and Loss Adjustment Expense
Reserve Analysis
As of June 30, 2022**

September 2022

Executive Summary

Purpose and Scope

Taylor & Mulder, Incorporated (“T&M”) was requested by the Utah Petroleum Storage Tank Fund (“PST Fund”) to conduct an actuarial review of the PST Fund's loss and loss adjustment expenses reserves as of June 30, 2022. This report contains our summary, conclusions and recommendations along with a description of the analysis underlying our conclusions.

Specifically, T&M was asked to conduct an actuarial analysis to include within its scope the following tasks:

1. Provide the PST Fund Actuarial Report as of June 30, 2022 by September 30, 2022.
2. Project the future of the PST Fund’s cash balance along with a ten-year projection, every year as of June 30, beginning in 2022.
3. Calculate the liability for open unsettled claims regarding the next ten fiscal years, every year as of June 30, beginning in 2022.

This report presents the results of those analyses.

In accordance with the requirements of the Actuarial Standards of Practice in making statements of actuarial opinion, we provide the following statements:

I, Daniel W. Lupton, am an Officer and Consulting Actuary in the firm of Taylor & Mulder, Inc. I am a Fellow of the Casualty Actuarial Society in good standing and qualified to issue a Statement of Actuarial Opinion. I am also a Member of the American Academy of Actuaries.

Conclusions

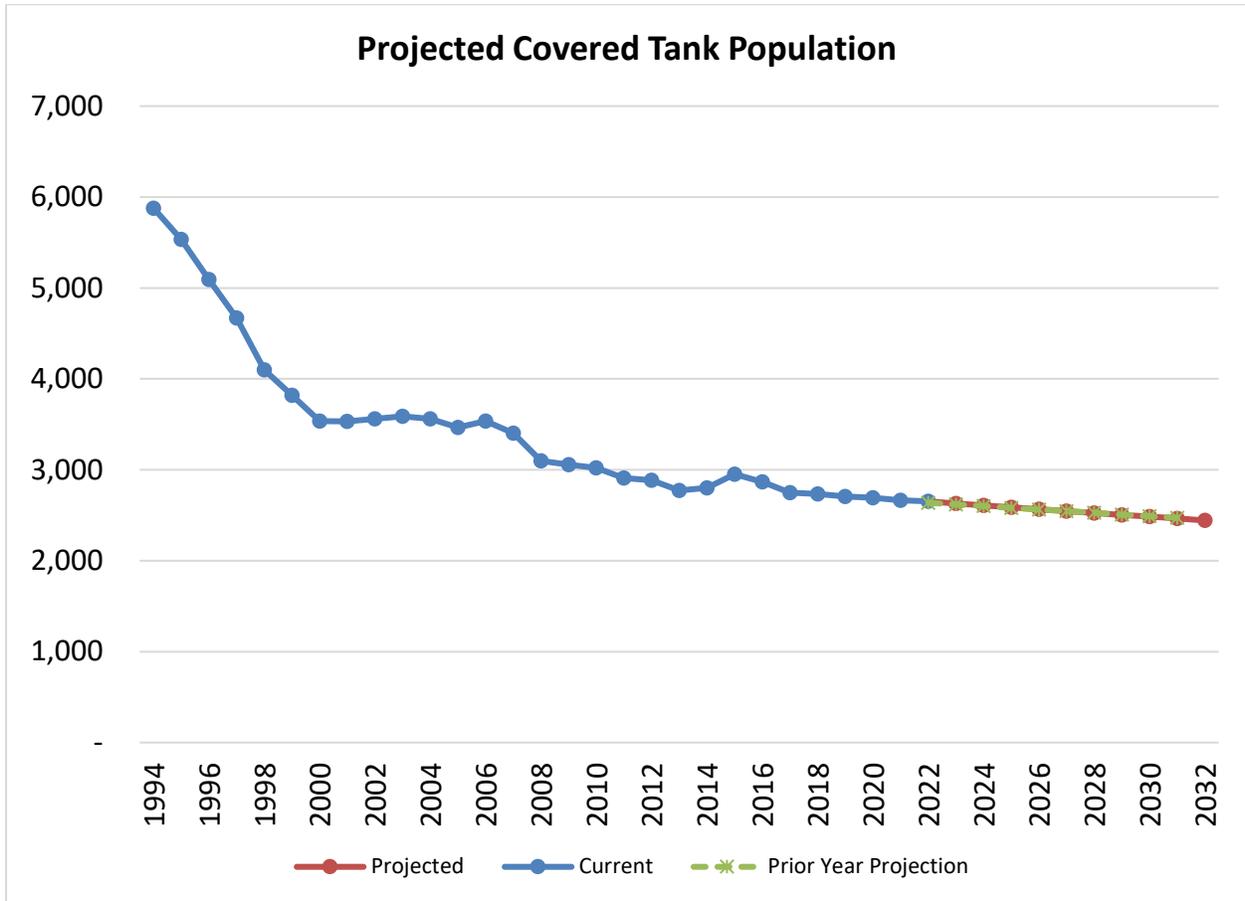
Based on our analysis, we estimate that the total unpaid claim liability as of June 30, 2022 is \$28,171,650 on an undiscounted basis and \$27,241,570 on a discounted basis.

The following chart shows the projected fund balance, outstanding liability, and projected equity balance for the current year and each of the next ten years:

Utah Petroleum Storage Tank Fund Loss and Loss Adjustment Expense Reserve Analysis As of June 30, 2022			
Fiscal Year	Fund Balance	Outstanding Liability	Equity Balance
2022	26,785,786	28,171,650	(1,385,864)
2023	28,830,905	26,836,361	1,994,544
2024	31,281,064	25,912,606	5,368,458
2025	33,971,472	25,239,043	8,732,428
2026	36,214,539	24,145,130	12,069,408
2027	38,441,631	23,089,485	15,352,146
2028	40,796,514	22,212,895	18,583,619
2029	43,281,320	21,515,728	21,765,592
2030	45,903,759	20,998,476	24,905,283
2031	48,617,511	20,610,612	28,006,899
2032	51,355,874	20,291,793	31,064,081

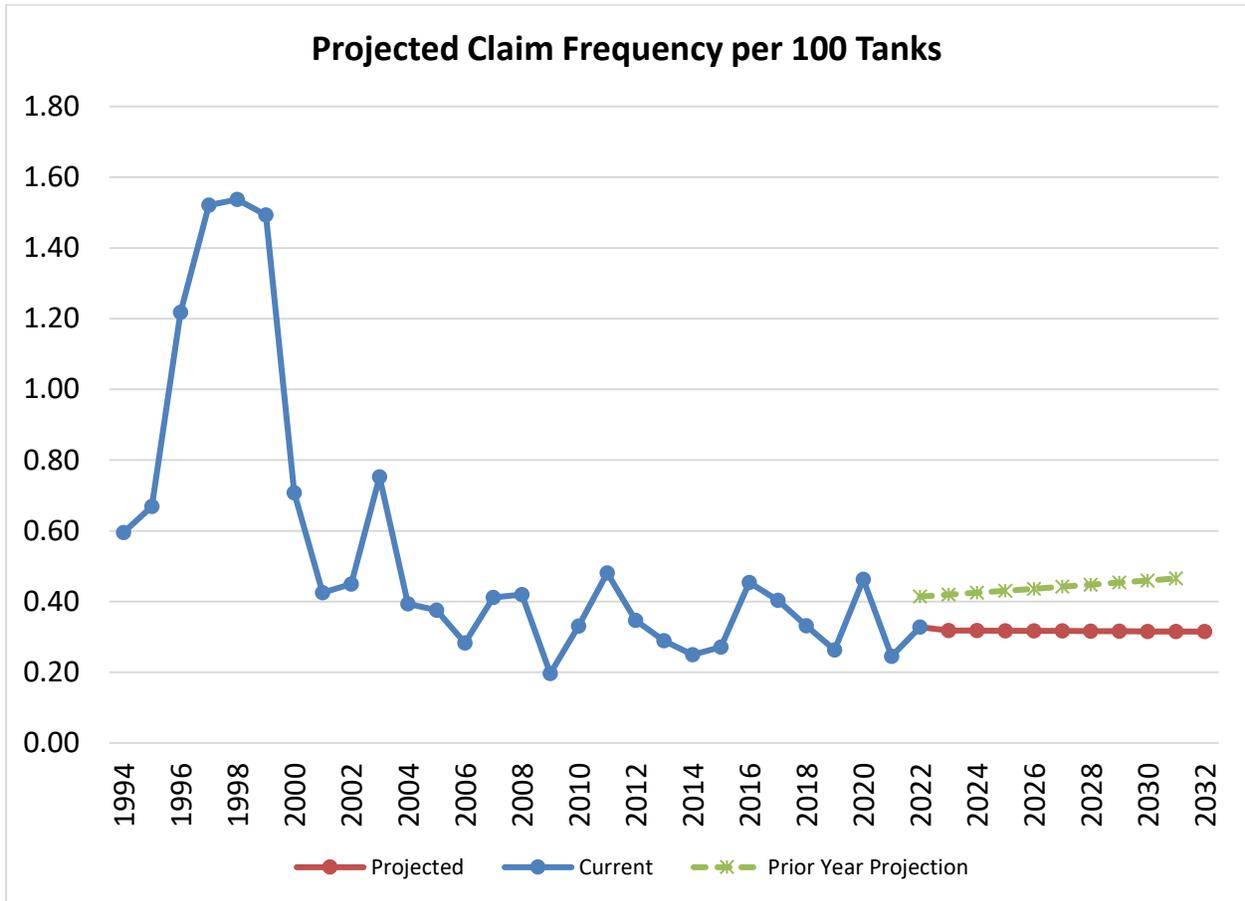
Notably, the projected equity balance is expected to be positive by 2023. This is considerably earlier than previous projections and is due in part to favorable experience and higher-than-anticipated revenues. However, it is important to note that ten-year projections have a higher uncertainty than shorter projections. As payment and reporting patterns continue to develop in the future, these projections will change accordingly. As a result, decisions based on longer-term projections should be considered carefully.

These projections are consistent with long-term coverage and claim trends for the fund. The following chart shows the covered tank population from 1994 through 2022, along with projections through 2032:



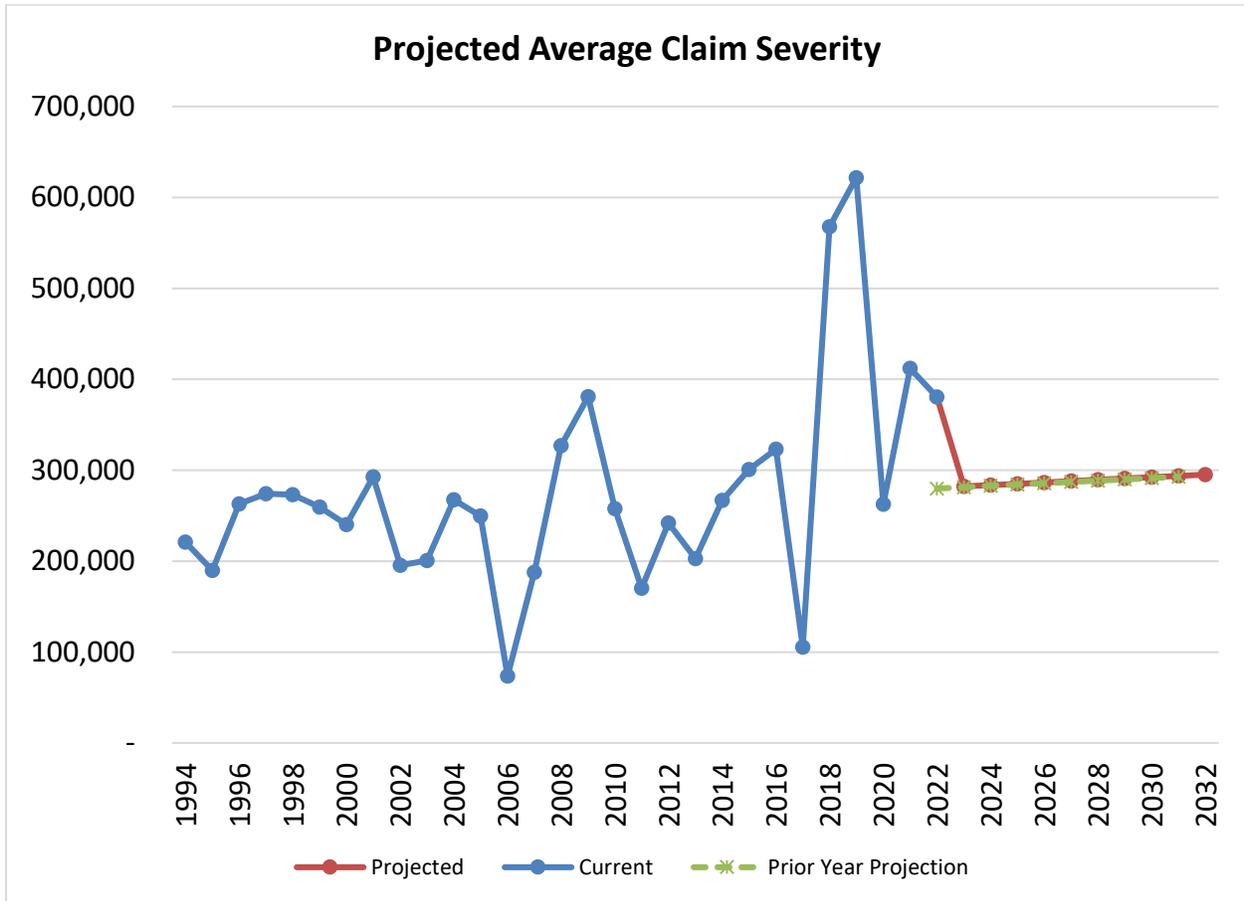
The fund has experienced fairly consistent declines in the number of covered tanks since the early 2000s. All else equal, the projected modest declines in covered tank population in the future are anticipated to correlate with declining outstanding liabilities (though also modest declines in revenues). As shown in the graph, covered tank population projections are roughly the same as projections as of June 30, 2021.

The frequency of claims per 100 covered tanks has also mostly stabilized since the mid-2000s, with some normal volatility around 0.35 to 0.45 claims per 100 covered tanks:



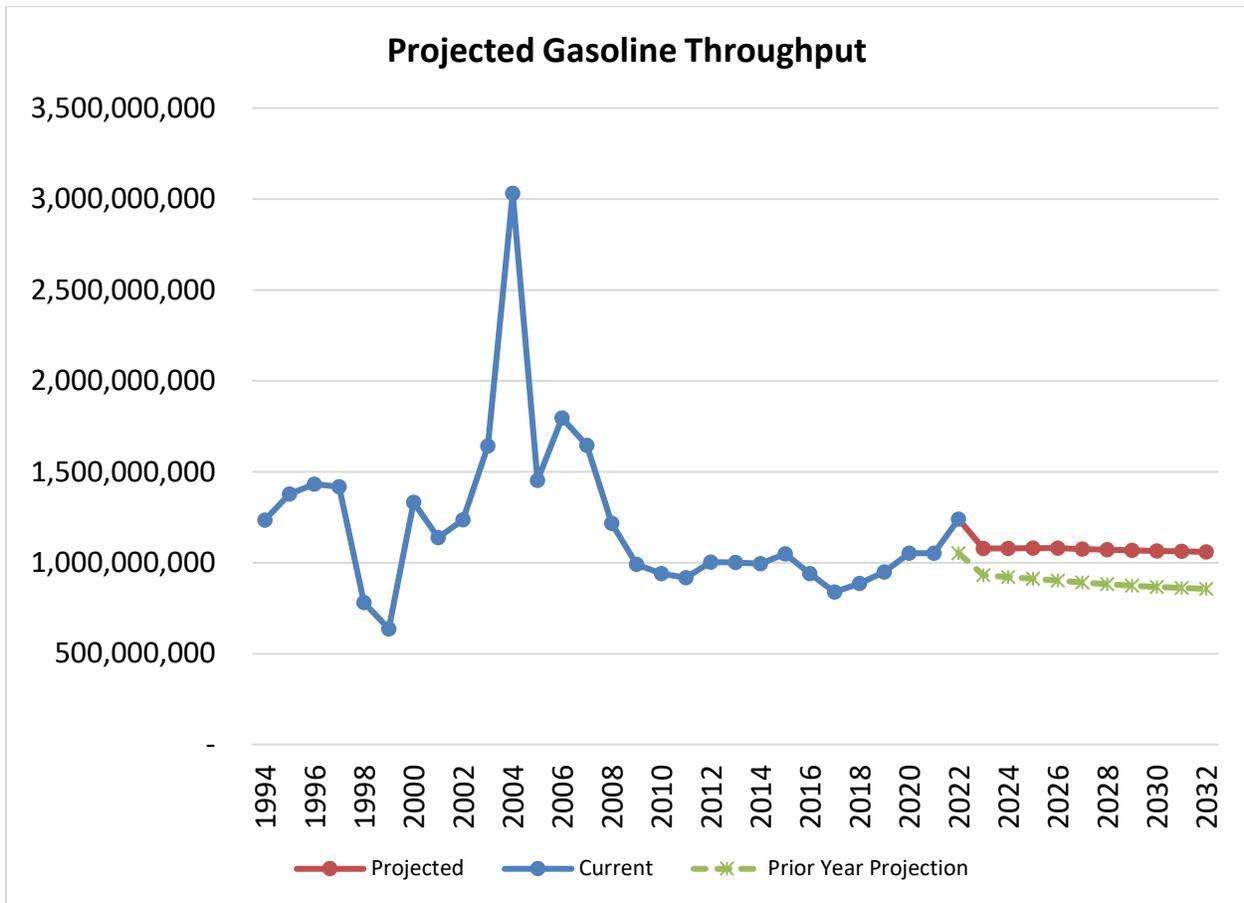
We project that trend will continue, with a flat trend through 2032.

Offsetting these trends in declining coverage and stable claim frequencies is a trend of increasing claim severities (i.e., cost per covered release):



Claim severities have experienced significant volatility over time, but this is largely a result of ordinary variation arising from relatively low claim counts. Over the next ten years, we anticipate average remediation costs will increase from roughly \$282,287 to roughly \$295,247 per covered release. However, we anticipate that some of the projection years will be much higher or much lower than our actual projections, consistent with the historic volatility.

Surcharge revenue was projected based on USEIA projected transit-sector energy use over the next 10 years. The following chart shows the projected gasoline throughput over time based on this benchmark:



This modest downward trend projection is consistent with expected reductions in fuel usage arising from more stringent fuel standards and alternative-energy vehicles. Note that projected gasoline throughput has increased slightly relative to projections as of June 30, 2021. This is due to higher-than-expected throughput in 2022, which suggested that 2021 projections were too conservative.

Background

The PST Fund was established in 1989 by the Utah State Legislature. The PST Fund provides an alternative to private insurance or self-insurance for meeting federal financial assurance requirements. The PST Fund covers eligible expenses up to a coverage limit of \$2 million, subject to a \$10,000 deductible.

Revenue to the tank fund is provided through several sources:

- Petroleum storage tank fees of \$450 per tank per year for tanks with an annual throughput of less than 70,000 gallons and \$150 per tank per year for tanks with an annual throughput exceeding 70,000 gallons.
- UST installation company permit fees
- Per-gallon surcharge on gasoline sales of \$0.0065 per gallon.

The following is a list of key dates and legislative items affecting the fund since it was established:

- Fall 1995: RBCA Tier I was introduced. This defined what constitutes contamination and reduced the number of sites and cost of cleanups.
- July 1, 1997: Up to this date, Fund participation was mandatory for all tank owners. Subsequent to July 1, 1997, participation for private tanks was on a voluntary basis (though state-owned tanks are still required to participate in the Fund.)
- Spring 1998: RBCA Tier II was implemented, allowing the Fund to remediate sites to a standard that differs according to anticipated future use of the site.
- January 1, 2007: HB 271 modifies the voluntary nature of Fund coverage for private tanks. Following January 1, 2007, owner/operators are required to insure all of their tanks or none of them through the fund (i.e., to prevent adverse selection, owners/operators are not able to selectively insure their tanks through the program.)
- May 11, 2010: Prior to this date, the Fund provided up to \$1 million of coverage per leak for the sum of investigation costs, remediation costs, and third-party liabilities. Pursuant to HB 120, subsequent to May 11, 2010 the Fund provides coverage of up to \$2 million per release for these expenses.
- July 1, 2014: Pursuant to HB 138, the Fund is allowed to offer 0% interest loans to tank owners and operators for tank upgrades. In addition, HB 138 allowed an increase in the per gallon tax to the current rate of \$0.0065 per gallon and authorized a risk-based rebate system for environmental assurance fees, among other effects of this bill.
- July 1, 2021: Pursuant to SB 40, aboveground petroleum storage tanks will be required to have financial assurance by July 1, 2023. The Division anticipates that many of these tanks will utilize the PST Fund as their financial assurance mechanism. Because the fund has very little data regarding AST claims, the 2022 report does explicitly account for potential additional claims coming from aboveground tanks. SB 40 also raised the PST Fund ceiling at which the collection of the per gallon environmental assurance fee decreases to 1/4 cent per gallon from \$30 million to \$50 million.
- September 13, 2021: The PST Fund released the “Cost Guidelines for Utah Underground Storage Tank Sites” document, which specifies updated rules for PST Fund reimbursement. This document establishes labor rates and not-to-exceed costs or hours for certain tasks. It is anticipated that this will assist with appropriate pricing for contractors and that it will lead to a cost savings in some instances.

WASTE MANAGEMENT AND RADIATION CONTROL BOARD

Executive Summary

REQUEST FOR A SITE-SPECIFIC TREATMENT VARIANCE

EnergySolutions, LLC

October 13, 2022

<p>What is the issue before the Board?</p>	<p>On July 20, 2022, EnergySolutions, LLC submitted a request to the Director of the Division of Waste Management and Radiation Control for a one-time site-specific treatment variance from the Utah Hazardous Waste Management Rules. EnergySolutions seeks authorization to receive and microencapsulate approximately 20 tons of ash contaminated with dioxins and furans as UHCs for treatment and disposal.</p>
<p>What is the historical background or context for this issue?</p>	<p>EnergySolutions requests approval to receive ash from incinerator and metal recycling processes that contains dibenzo-p-dioxin and dibenzofuran UHCs above their respective treatment standards denoted with the Universal Treatment Standards (UTS) in R315-268-48. All other required treatment standards associated with the waste will be met prior to disposal.</p> <p>Requiring the waste to meet the dioxin and furan treatment standards is inappropriate based on the processes that generate the waste. Because of the waste generation processes, all the ash waste contains dioxins and furans; however, in accordance with regulations, only a portion of the waste needs to be treated for those contaminants. The generator has previously analyzed each container of ash for metals contamination. If metals were below the toxicity characteristic concentrations described in 40 CFR 261.24 (R315-261-24), the waste would be shipped to the Clive facility as Low-Level Radioactive Waste (LLRW) and disposed in the Class A Embankment. If metals were above the Toxicity Characteristic concentrations, then the waste would need treated for those metals as well as all UHCs, including dioxins and furans. It is inappropriate to require treatment of dioxin and furan contaminants in instances where characteristic metals are found in the waste when treatment is not required if metals are below characteristic concentrations in the waste.</p> <p>Furthermore, the stabilized ash was re-incinerated in an attempt to reduce the concentration of dioxins and furans in the ash. Re-incineration resulted in very little reduction in the concentrations. It is inappropriate to require this additional incineration in order to attempt to meet the standards.</p> <p>EnergySolutions previously requested this variance in June 2021 for approximately 18 tons of dioxan furan waste.</p> <p>Final disposal of the waste will occur in the Mixed Waste Disposal Cell at the EnergySolutions Mixed Waste Facility.</p>

	A notice for public comment was published in the <i>Salt Lake Tribune</i> on August 7, 2022, and the <i>Deseret News</i> and the <i>Tooele County Transcript Bulletin</i> on August 10, 2022. The comment period began August 11, 2022 and ended September 9, 2022.
What is the governing statutory or regulatory citation?	Variances are provided for in 19-6-111 of the Utah Solid and Hazardous Waste Act. This is a one-time, site-specific variance from an applicable treatment standard as allowed by R315-268.44 of the Utah Administrative Code.
Is Board action required?	Yes. This is an action item before the Board. The variance request was presented to the Board as an informational item on August 11, 2022.
What is the Division/Director's recommendation?	The Director recommends approval of this variance request. The Director's recommendation is based on the following findings: the proposed alternative treatment method meets the regulatory basis for a variance and will be as safe to human health and the environment as the required method.
Where can more information be obtained?	For technical questions, please contact Tyler Hegburg at (801) 536-4271. For legal questions, please contact Bret Randall at (801) 536-0284. EnergySolutions request for a variance, dated July 20, 2022, is included in the Board packet.

DSHW-2022-024182 Attachment:
DSHW-2022-021742

July 20, 2022

CD-2022-131

Mr. Doug Hansen
Director
Division of Waste Management and Radiation Control
195 North 1950 West
Salt Lake City, UT 84114-4880

Subject: EPA ID Number UTD982598898 – Request for a Site-Specific Treatment
Variance for Ash with Dioxin/Furan Contamination

Dear Mr. Hansen,

EnergySolutions hereby requests a variance from Utah Administrative Code (UAC) R315-268-40(a)(3) for an incinerator ash waste that meets all treatment standards except those for dioxins and furans as Underlying Hazardous Constituents (UHCs). This request is submitted in accordance with the requirements of UAC R315-260-19.

The regulatory requirement authorizing this request is found in UAC R315-268-44 which allows a site-specific variance from an applicable treatment standard provided that the following condition is met:

UAC R315-268-44268.44(h)(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible.

EnergySolutions requests approval to receive ash from incinerator and metal recycling processes that contains dibenzo-p-dioxin and dibenzofuran UHCs above their respective treatment standards denoted with the Universal Treatment Standards (UTS) in R315-268-48. All other required treatment standards associated with the waste will be met prior to disposal.

Requiring the waste to meet the dioxin and furan treatment standards is inappropriate based on the processes that generate the waste. Because of the waste generation processes, all of the ash waste contains dioxins and furans; however, in accordance with regulations, only a portion of the waste needs to be treated for those contaminants. The generator has previously analyzed each container of ash for metals contamination. If metals were below the toxicity characteristic concentrations described in 40 CFR 261.24 (R315-261-24), the waste would be shipped to the Clive facility as Low-Level Radioactive Waste (LLRW) and disposed in the Class A Embankment. If metals were above the Toxicity Characteristic concentrations, then the waste would need treated for those metals as well as all UHCs, including dioxins and furans. It is inappropriate to require treatment of dioxin and furan contaminants in instances where characteristic metals are found in the waste when treatment is not required if metals are below characteristic concentrations in the waste.

Furthermore, prior to receiving this variance, the stabilized ash was re-incinerated in an attempt to reduce the concentration of dioxins and furans in the ash. Re-incineration results in very little



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July 20, 2022
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intrinsic value. It is inappropriate to require this additional incineration in order to attempt to meet the standards.

EnergySolutions proposes to confirm the waste meets all required treatment standards with the exception of the dioxin and furan UHC standards and then to macroencapsulate the residue in MACRO Vaults using requirements approved in the state-issued Part B Permit. This will provide additional isolation of the waste from the environment (relative to direct disposal in the Class A Embankment) and will avoid unnecessary additional incineration of the waste.

EnergySolutions requested this same variance for this generator in letters dated June 27, 2018 (CD18-0120), August 23, 2019 (CD19-0179) and June 16, 2021 (CD-2021-072). The previous requests were approved by the Waste Management and Radiation Control Board on September 13, 2018, November 14, 2019, and September 9, 2021 respectively. Over the previous year this variance was in effect, the EnergySolutions Clive facility received approximately 18 tons (three shipments) of this ash for treatment. EnergySolutions forecasts similar amounts of this waste over the next year.

This variance is being requested for approximately 20 tons of ash that will contain elevated concentrations of dioxins and furans.

EnergySolutions requests that a variance be granted to macroencapsulate ash waste that meets all required treatment standards except those for dioxin and furan UHCs.

The name, phone number, and address of the person who should be contacted to notify EnergySolutions of decisions by the Director is:

Mr. Vern Rogers
Director of Regulatory Affairs
EnergySolutions LLC
299 South Main Street, Suite 1700
Salt Lake City, UT 84111
(801) 649-2000

Should there be any questions to this request, please contact me at (801) 649-2043.

Sincerely,

Steve D. Gurr
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Steve D. Gurr
Environmental Engineer

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.