

Underground Storage Tank Indemnification Fund: Actuarial Studies



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Today we will
review:


USTIF's Authority
to Conduct
Actuarial Analysis

RFQ Process to
Select an Actuary

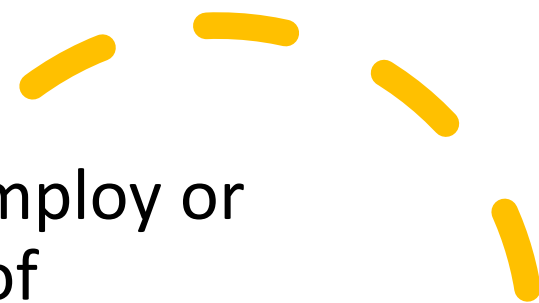
USTIF's Annual
Actuarial Report

Legislative Authority





Underground Storage Tank Indemnification Board Authority

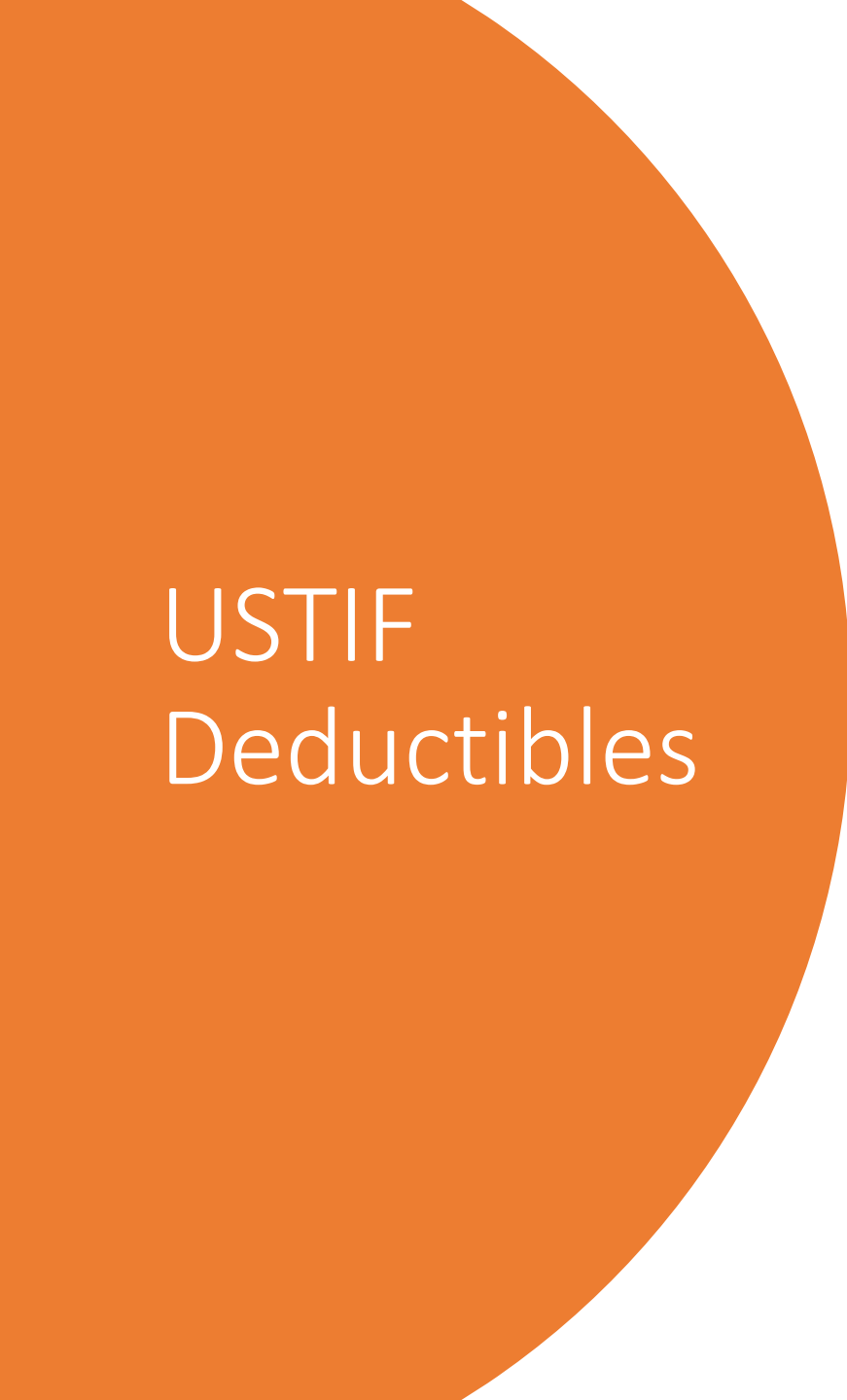


USTIB is authorized to “employ or contract for the services of attorneys, consultants and actuaries necessary to advise the board in establishing fees ... and deductible amounts....” 35 P.S. § 6021.705(a).


USTIF Financial Decisions Supported by Actuary Review

- Claim deductibles
- Throughput Fees
- Tank Registration Fees
- Capacity Fees
- Certified Company Fees
- Certified Company Activity Fees
- Availability of DEP Allocations
- Availability of USTIF Upgrade Loan Program



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USTIF Deductibles

- USTIB reviews the deductible to ensure that it is “actuarially sound and ... based on an estimate of the average cost of taking corrective action due to a sudden or nonsudden release from underground storage tanks in this Commonwealth.”
 - However, USTIB cannot “set a deductible in an amount lower than \$5,000 per tank per occurrence.”
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USTIF Throughput and Tank Registration Fees

Fees shall be set on an actuarial basis in order to provide an amount sufficient to pay outstanding and anticipated claims against the [USTIF] in a timely manner.

Fees shall also include an amount sufficient to meet all other financial requirements of the board.

Fees shall be adjusted as deemed necessary by the board, but no more than once a year.

The board shall annually evaluate the fee amount to determine if it is sufficient to meet the anticipated expenses of the fund and provide a copy of its evaluation to the Environmental Resources and Energy Committee of the Senate and the Conservation Committee of the House of Representatives.

The board shall analyze the claims experience of storage tanks to determine which types of underground tanks or tank configurations result in less frequent leaks

USTIF Capacity Fees

The owner or operator of an underground storage tank used to store heating oil, diesel fuel or other regulated substance as determined by the board shall pay a per gallon of tank capacity fee. The capacity fee shall be set on the same actuarial basis as is provided [for throughput and registration fees]....

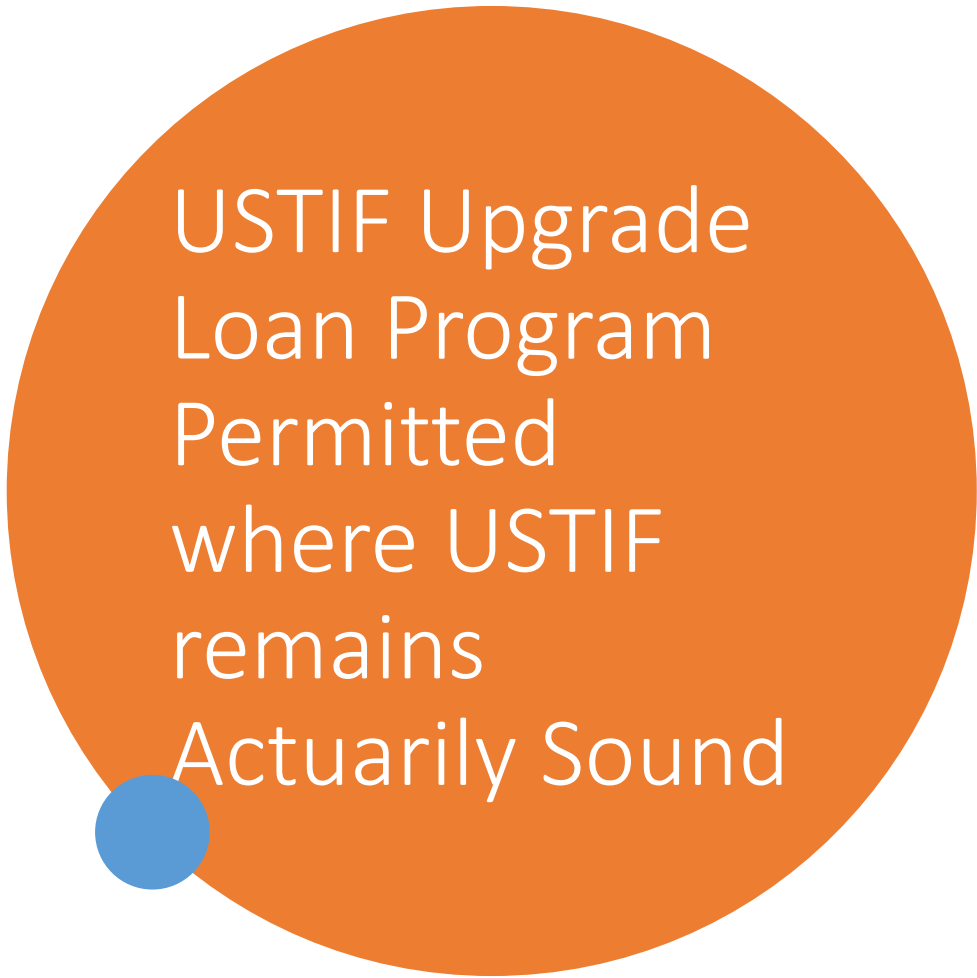
DEP Allocations are Permitted where USTIF remains Actuarially Sound



The board may allocate up to \$5,500,000 annually from the Underground Storage Tank Indemnification Fund for the Underground Storage Tank Environmental Cleanup Program to be used by the Department of Environmental Protection for corrective action caused by a catastrophic release providing the allocation does not impede the fund's actuarial soundness and ability to pay claims.




The board may allocate up to \$350,000 annually from the Underground Storage Tank Indemnification Fund for the Underground Storage Tank Pollution Prevention Program as long as the allocation does not impede the actuarial soundness of the fund's ability to pay claims.



USTIF Upgrade
Loan Program
Permitted
where USTIF
remains
Actuarially Sound

The board is hereby authorized to establish a loan program for owners of regulated underground storage tanks as a method of investing fund moneys, provided that such a program does not interfere with the actuarial soundness of the fund required by section 705(d)(1).

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Regulatory Authority to Set Fees Based on an Actuarial Review

§ 977.12. Owner and operator fees.

(a) Annual fees. The Board may charge fees established in this section, based on an annual actuarial review.

§ 977.19. Certified company fees.

(a) Annual fees. The Board will charge fees established in this section, based on an annual actuarial review.

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RFQ Process

Request for Quote for Consulting Services

The Commonwealth maintains a list of preapproved suppliers to provide consulting services, including actuarial services

Where an agency requires actuarial services, the agency puts out a Request for Quote to the pre-approved contractors

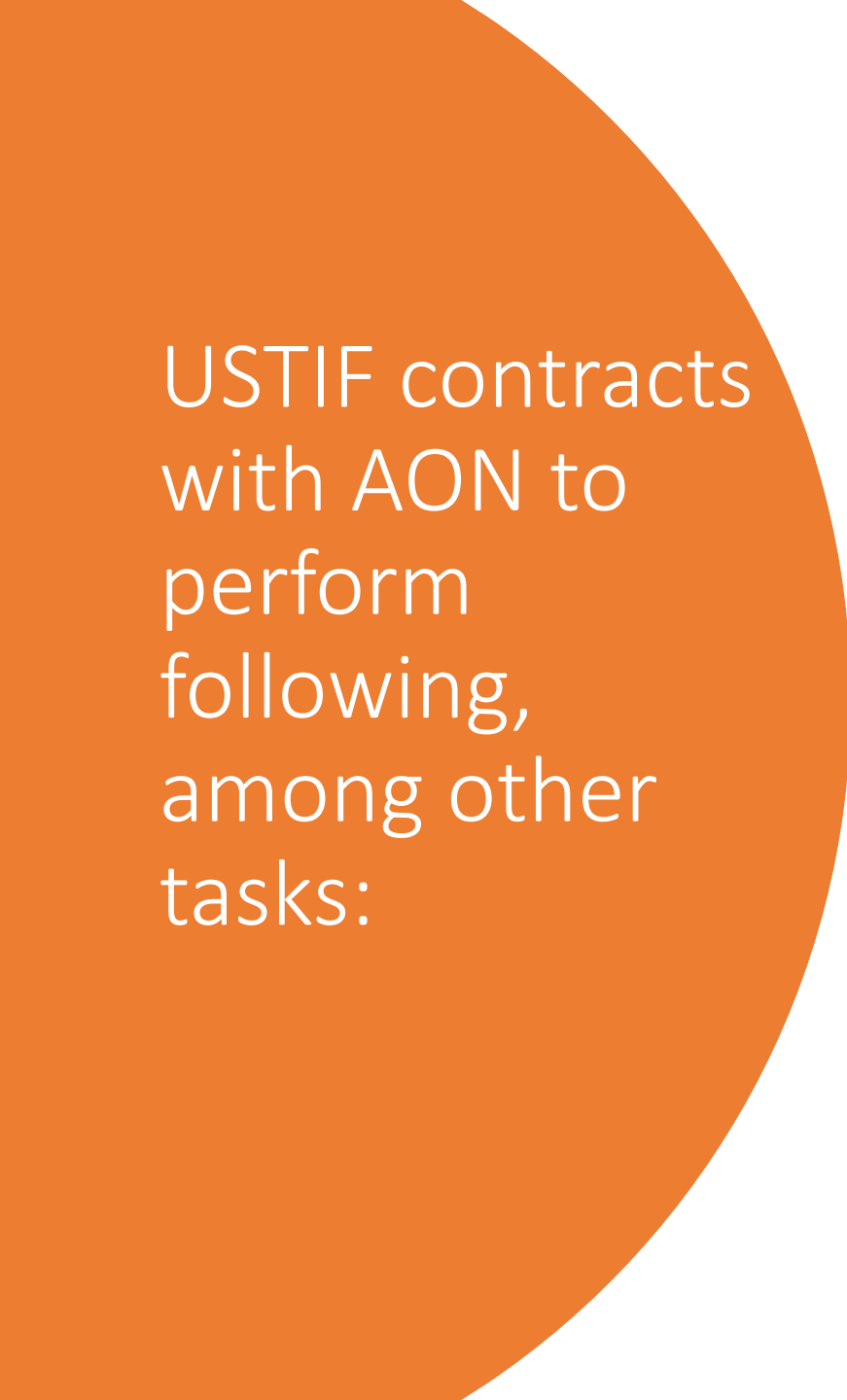
Contractors then can submit a quote, which is reviewed by a scoring committee for contracts valued above \$50,000

Following scoring, the winning contractor enters into a contract with the agency

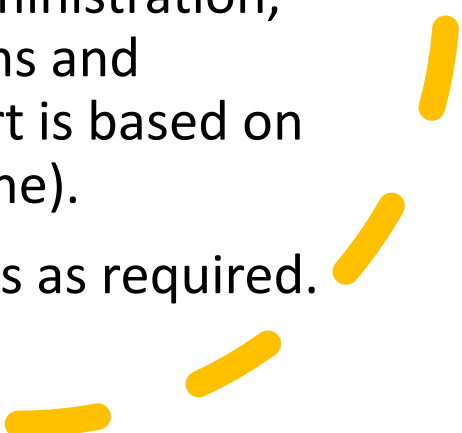
USTIF's Actuary

USTIF contracts with an actuarial firm to conduct an annual review to set its fees and determine its actuarial liabilities, among other services.

USTIF's current actuary is Aon Global Risk Consulting, which began its most recent contract period in July of 2024.

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USTIF contracts
with AON to
perform
following,
among other
tasks:

- Determine the financial status of the USTIF in accordance with actuarial standards. This requires the selected Offeror, among other things, to: (a) estimate outstanding liabilities as of a given date, (b) value assets as of a given date, (c) analyze and discuss liabilities and assets from a cash flow perspective, and (d) project and discuss the immediate and future (one through twenty years) status of the USTIF
 - Recommend fees for both USTIF and TIIP based on Board requirements and present their reports and recommendations to the Board.
 - Prepare a cash flow report with claim, administration, investment income, and outstanding claims and administrative estimates. Cash flow report is based on the Commonwealth's fiscal year (July – June).
 - Estimate reserves for GAAP audit purposes as required.
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USTIF's Annual Actuarial Analysis



Pennsylvania Insurance Department Bureau of Special Funds

Actuarial Analysis for the Underground Storage Tank Indemnification
Fund and the Tank Installers Indemnification Program

Evaluated as of June 30, 2023

Issue Date – November 27, 2023



Data Reviewed for USTIF

Paid and incurred loss triangles valued as of the end of the fiscal year

Paid ALAE triangles valued as of the end of the fiscal year

Open, closed and reported claim count triangles valued as of the end of the fiscal year

Detailed listing of fixed price contracts

Detailed claims listing underlying the triangles and valued as of the end of the fiscal year

Fee history and number of registered tanks by year

Financial Statements as of the end of the fiscal year

Investment performance review report as of the end of the fiscal year

Expected future ICF consulting costs

Detailed listing of claims with Post Remedial Care (PRC) requirements valued as of the end of the fiscal year

Data Reviewed for TIIP



Detailed listing of all TIIP claims valued as of the end of the fiscal year



Historical fee revenue by fiscal year



Number of installations, major modifications & tank removals/closures by year




Number of certified companies



Projected Unallocated Loss Adjustment Expense (ULAE)



USTIF Fee Analysis



On September 29, 2003, USTIB established a fee setting objective that requires having positive Cash and Invested Assets for a projection period of at least five years.

Pennsylvania Insurance Department / Bureau of Special Funds
USTIF Loss Fund

USTIF Loss Fund Experience at 6/30/2023
Income Statement (Under Current Fee Structure)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Fiscal Year Beginning:	7/1/23	7/1/24	7/1/25	7/1/26	7/1/27	7/1/28	7/1/29	7/1/30	7/1/31	7/1/32	
Capacity Fee Revenue	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	
Throughput Fee Revenue	48,700,000	47,969,500	47,249,958	46,541,208	45,843,090	45,155,444	44,478,112	43,810,940	43,153,776	42,506,470	
Subtotal	54,300,000	53,569,500	52,849,958	52,141,208	51,443,090	50,755,444	50,078,112	49,410,940	48,753,776	48,106,470	
Incurred Losses & ALAE	(36,274,308)	(36,999,795)	(37,739,790)	(38,494,586)	(39,264,478)	(40,049,768)	(40,850,763)	(41,667,778)	(42,501,134)	(43,351,156)	
Claim Administration	(4,250,000)	(4,420,000)	(4,596,800)	(4,780,672)	(4,971,899)	(5,170,775)	(5,377,606)	(5,592,710)	(5,816,418)	(6,049,075)	
Other Expenses*	(1,750,000)	(1,820,000)	(1,892,800)	(1,968,512)	(2,047,252)	(2,129,143)	(2,214,308)	(2,302,881)	(2,394,996)	(2,490,796)	
Subtotal	(42,274,308)	(43,239,795)	(44,229,390)	(45,243,770)	(46,283,629)	(47,349,685)	(48,442,677)	(49,563,369)	(50,712,548)	(51,891,027)	
Underwriting Income	12,025,692	10,329,705	8,620,567	6,897,438	5,159,461	3,405,759	1,635,435	(152,429)	(1,958,772)	(3,784,558)	
DEP Assistance	(10,090,000)	(10,182,700)	(10,278,181)	(10,376,526)	(10,477,822)	(10,582,157)	(10,689,622)	(10,800,310)	(10,914,320)	(11,031,749)	
Investment Income	18,884,778	19,892,769	20,861,386	21,785,915	22,653,523	23,451,066	24,188,651	24,874,700	25,515,881	26,140,810	
Total Income	20,820,470	20,039,774	19,203,772	18,306,827	17,335,161	16,274,668	15,134,464	13,921,961	12,642,790	11,324,503	
Fiscal Year Beginning:	7/1/33	7/1/34	7/1/35	7/1/36	7/1/37	7/1/38	7/1/39	7/1/40	7/1/41	7/1/42	Total
Capacity Fee Revenue	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	5,600,000	112,000,000
Throughput Fee Revenue	41,868,873	41,240,839	40,622,227	40,012,893	39,412,700	38,821,510	38,239,187	37,665,599	37,100,615	36,544,106	846,937,046
Subtotal	47,468,873	46,840,839	46,222,227	45,612,893	45,012,700	44,421,510	43,839,187	43,265,599	42,700,615	42,144,106	958,937,046
Incurred Losses & ALAE	(44,218,180)	(45,102,543)	(46,004,594)	(46,924,686)	(47,863,180)	(48,820,443)	(49,796,852)	(50,792,789)	(51,808,645)	(52,844,818)	(881,370,286)
Claim Administration	(6,291,038)	(6,542,680)	(6,804,387)	(7,076,562)	(7,359,625)	(7,654,010)	(7,960,170)	(8,278,577)	(8,609,720)	(8,954,109)	(126,556,834)
Other Expenses*	(2,590,427)	(2,694,045)	(2,801,806)	(2,913,879)	(3,030,434)	(3,151,651)	(3,277,717)	(3,408,826)	(3,545,179)	(3,686,986)	(52,111,638)
Subtotal	(53,099,645)	(54,339,267)	(55,610,787)	(56,915,127)	(58,253,238)	(59,626,104)	(61,034,740)	(62,480,192)	(63,963,544)	(65,485,913)	(1,060,038,757)
Underwriting Income	(5,630,773)	(7,498,428)	(9,388,560)	(11,302,233)	(13,240,538)	(15,204,595)	(17,195,553)	(19,214,593)	(21,262,929)	(23,341,807)	(101,101,711)
DEP Assistance	(11,152,702)	(11,277,283)	(11,405,601)	(11,537,769)	(11,673,902)	(11,814,119)	(11,958,543)	(12,107,299)	(12,260,518)	(12,418,334)	(223,029,457)
Investment Income	26,744,182	27,309,507	27,838,684	28,317,776	28,740,826	29,104,822	29,400,287	29,622,305	29,767,228	29,830,575	514,925,671
Total Income	9,960,708	8,533,796	7,044,522	5,477,774	3,826,386	2,086,108	246,191	(1,699,587)	(3,756,220)	(5,929,566)	190,794,503

Note - Other Expenses includes professional service fees, expenses associated with Insurance Department Personnel and other charges

USTIF's Actuarial Liability

- Part of the actuary's analysis is to determine the actuarial liability for the purposes of financial reporting
- The actuarial liability is calculated on a fiscal year basis and prorated over the year for financial reporting purposes



Estimated Unpaid Loss and ALAE at 6/30/2023			
Report Year Beginning 1/1:	Estimated Ultimate Loss and ALAE	Paid Loss and ALAE	Estimated Total Outstanding as of 6/30/2023
1994	\$18,490,000	\$17,666,263	\$823,737
1995	\$52,170,000	\$49,955,696	\$2,214,304
1996	\$66,890,000	\$63,898,084	\$2,991,916
1997	\$79,220,000	\$76,159,025	\$3,060,975
1998	\$111,320,000	\$106,398,304	\$4,921,696
1999	\$137,420,000	\$129,713,455	\$7,706,545
2000	\$78,300,000	\$73,994,510	\$4,305,490
2001	\$94,400,000	\$88,167,292	\$6,232,708
2002	\$74,420,000	\$69,144,427	\$5,275,573
2003	\$49,200,000	\$45,353,512	\$3,846,488
2004	\$65,310,000	\$59,981,567	\$5,328,433
2005	\$49,570,000	\$44,956,872	\$4,613,128
2006	\$36,120,000	\$32,339,377	\$3,780,623
2007	\$40,140,000	\$35,400,767	\$4,739,233
2008	\$36,670,000	\$32,237,500	\$4,432,500
2009	\$38,160,000	\$32,904,872	\$5,255,128
2010	\$30,075,000	\$25,157,139	\$4,917,861
2011	\$33,040,000	\$27,320,478	\$5,719,522
2012	\$22,960,000	\$17,830,629	\$5,129,371
2013	\$26,780,000	\$20,153,384	\$6,626,616
2014	\$29,800,000	\$21,972,752	\$7,827,248
2015	\$29,740,000	\$21,324,037	\$8,415,963
2016	\$27,789,351	\$17,328,471	\$10,460,880
2017	\$28,913,684	\$16,549,755	\$12,363,930
2018	\$32,236,127	\$16,591,136	\$15,644,991
2019	\$34,129,881	\$15,947,228	\$18,182,653
2020	\$34,786,711	\$13,858,416	\$20,928,296
2021	\$30,795,200	\$7,179,621	\$23,615,579
2022	\$35,600,000	\$3,341,146	\$32,258,854
1/1 - 6/30/2023	\$17,150,000	\$338,560	\$16,811,440
Total	\$1,441,595,955	\$1,183,164,274	\$258,431,681

Pennsylvania Insurance Department / Bureau of Special Funds
USTIF Loss Fund

USTIF Loss Fund Experience at 6/30/2023

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
as of:	6/30/23	6/30/24	6/30/25	6/30/26	6/30/27	6/30/28	6/30/29	6/30/30	6/30/31	6/30/32	6/30/33
Cash & Invested Assets	417,443,475	440,764,768	463,251,058	484,783,056	505,265,761	524,211,000	541,509,672	557,730,135	572,686,792	586,868,258	601,086,311
Total Assets	417,443,475	440,764,768	463,251,058	484,783,056	505,265,761	524,211,000	541,509,672	557,730,135	572,686,792	586,868,258	601,086,311
Loss Outstanding	258,431,681	260,882,505	263,279,020	265,557,246	267,683,124	269,243,202	270,217,206	271,253,205	272,237,900	273,726,576	276,570,127
Other Liabilities	16,990,733	19,522,057	19,557,148	19,595,770	19,636,592	19,696,698	19,758,409	19,791,664	19,830,739	19,845,561	19,822,842
Total Liabilities	275,422,414	280,404,562	282,836,168	285,153,016	287,319,716	288,939,900	289,975,615	291,044,869	292,068,639	293,572,137	296,392,969
Undiscounted Surplus / (Deficit)	142,021,061	160,360,207	180,414,890	199,630,040	217,946,045	235,271,100	251,534,057	266,685,266	280,618,153	293,296,121	304,693,342
Discount in Loss Outstanding (4.5%)	64,591,304	64,454,953	64,376,207	64,364,983	64,433,926	64,606,295	64,916,325	65,385,904	66,025,758	66,837,397	67,790,905
Discounted Surplus (Deficit)	206,612,365	224,815,159	244,791,097	263,995,022	282,379,971	299,877,395	316,450,381	332,071,170	346,643,911	360,133,518	372,484,247
as of:		6/30/34	6/30/35	6/30/36	6/30/37	6/30/38	6/30/39	6/30/40	6/30/41	6/30/42	6/30/43
Cash & Invested Assets		614,288,192	626,777,162	638,336,350	648,549,256	657,561,626	665,090,856	670,988,851	675,180,334	677,574,783	678,059,115
Total Assets		614,288,192	626,777,162	638,336,350	648,549,256	657,561,626	665,090,856	670,988,851	675,180,334	677,574,783	678,059,115
Loss Outstanding		279,761,300	283,666,474	288,131,140	292,816,273	297,952,256	303,345,379	308,947,182	314,788,252	320,888,920	327,252,819
Other Liabilities		19,846,215	19,853,882	19,869,297	19,900,780	19,922,724	19,954,229	19,988,777	20,022,827	20,056,859	20,091,641
Total Liabilities		299,607,515	303,520,355	308,000,437	312,717,053	317,874,980	323,299,608	328,935,959	334,811,079	340,945,779	347,344,460
Undiscounted Surplus / (Deficit)		314,680,677	323,256,807	330,335,913	335,832,204	339,686,646	341,791,248	342,052,892	340,389,255	336,629,003	330,714,655
Discount in Loss Outstanding (4.5%)		68,858,162	70,024,622	71,270,269	72,585,332	73,962,270	75,392,362	76,872,067	78,398,198	79,966,370	81,571,552
Discounted Surplus (Deficit)		383,538,839	393,281,428	401,606,182	408,417,536	413,648,916	417,183,611	418,924,959	418,767,453	416,595,374	412,286,207

Supplemental Schedule – Statement of Actuarial Claims Liability

Underground Storage Tank indemnification Fund
Statement of Actuarial Claims Liability
(Unaudited)
As of June 30

	2024	2023
Actuarial liability for estimated unpaid claims	\$ (260,882,505)	\$ (293,747,640)
Funds Balance restricted for Underground Storage Tank Indemnification	442,712,669	400,452,742
Fund Balance Available (Unavailable) for Future Claims	<u><u>\$ 181,830,164</u></u>	<u><u>\$ 106,705,102</u></u>

The Statement of Actuarial Claims Liability provides a segregated presentation of the balances from the actuarial report associated with the Incurred But Not Reported (IBNR) claims and the fund balance for Underground Storage Tank Indemnification available to meet these future claims payment obligations.

The USTIF provides claim payments to owners and operators of USTs who have incurred liability caused by leaks from USTs. The USTIF covers reasonable and necessary costs for corrective actions to clean up contamination from leaking tanks. It also covers claims for bodily injury and property damage that occur as a result of the release.

The fund balance for Underground Storage Tank Indemnification for future claims is \$181.8 million as of June 30, 2024. The fund balance restricted for Underground Storage Tank Indemnification is \$442.7 million as of June 30, 2024 and based on the actuarial analysis as of June 30, 2023 (report issue date November 27, 2023), the estimated unpaid loss was \$260.9 million for June 30, 2024.

Actuarial Presentation to the Board



Each December, the actuary presents its actuarial report to the Board.



The actuarial report includes a recommendation of whether to change fee rates or keep them the same.



The Board discusses and votes on to accept the actuary's recommendation.

Conclusion



Today we
reviewed:

USTIF's Authority
to Conduct
Actuarial Analysis

RFQ Process to
Select an Actuary

USTIF's Annual
Actuarial Report



Questions

Contact USTIF

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