Underground Storage Tank System Cleanup Advisory Board

The Report

March 1, 2013

EXECUTIVE SUMMARY

In 1988, Michigan created the Michigan Underground Storage Tank Financial Assurance Fund (MUSTFA) to assist owners and operators of petroleum underground storage tanks (USTs) with meeting the U.S. Environmental Protection Agency's (EPA) financial assurance requirements. MUSTFA was funded by a 7/8 cent per gallon environmental regulatory fee (the fee) on all refined petroleum sold or imported into the State.

In 1995, the MUSTFA program was repealed, however collection of the fee continued. In 2004, authority to continue to collect the fee was extended. MUSTFA was renamed the Refined Petroleum Fund (RPF) and a Temporary Reimbursement Program (TRP) was created to provide temporary assistance to owners and operators to conduct corrective action at locations which were being funded by the MUSTFA program at the time the MUSTFA program was repealed. Of the $45 million appropriated for the TRP, approximately $29 million was paid to reimburse owners and operators for corrective action costs at 554 sites.

The fee has generated approximately $50 million annually since its inception in 1989. However, since 2005, $850 million has been appropriated for uses outside of the original intent of the program.

In 2012, significant reforms to the Part 213 program were adopted. As part of this reform package, an underground storage tank system cleanup advisory board (Advisory Board) was created to make recommendations to the Department of Environmental Quality (DEQ) and the Legislature on the development of a cleanup program, funded from the RPF, to assist owners and operators in financing corrective action required under Part 213.

The Advisory Board strongly recommends that all of the annual RPF revenue be restored to fund the State's UST programs to: (1) Provide financial responsibility for owners and operators to address future releases; (2) Fund a reimbursement program to provide assistance to qualified owners and operators undertaking corrective action to address known historical releases; and (3) Conduct corrective action to mitigate imminent and substantial threats to public health or the environment at LUST sites where no liable or viable owner or operator is identified or able to undertake corrective actions (otherwise known as "orphan sites").

The Advisory Board has concluded that establishing a financial responsibility program with RPF revenue is the preferred way in which to meet the goal of a predictable and reliable method of protecting public health and the environment from UST releases. Given the significant reduction and improvement in the UST population, the recent reforms which are expected to reduce corrective action costs, and the 25 years of "lessons learned" experience, such a program is viable within current RPF revenue levels.

CONTENTS

	Page
Executive Summary	i
Contents	ii
Report Details	1
Enacting Legislation	1
Participants and Meetings	1
Background	2
Michigan's Response	2
1995 Amendment	2
2012 Amendments	3
Significant Events/Milestones	4
Options and Findings	6
Options Reviewed	6
Tax Credits	6
TRP Model	6
Sale of Revenue Stream	6
Group Insurance Purchase	6
Other State Programs	6
Findings	7
Appropriations from the Fund Unrelated to Tank Cleanup	8
Recommendation	9
Action Items	10
Administrative and Legal Support	10
Legislation	10
Appendixes & Acronyms	a

Appendix A: UST and Piping Construction Analysis
Petroleum USTs and Facilities

Appendix B: *EPA Study on the Effectiveness of UST Insurance as a Financial Responsibility (FR) Mechanism*
EPA-50-10-R-11-005 (December 2011);

Report to Michigan DEQ Advisory Board
Gander Consulting Group, LLC
(January 14, 2013)

Appendix C: Refined Petroleum Fund Appropriations FY 2005-2013

REPORT DETAILS

ENACTING LEGISLATION

The Advisory Board was created by Public Act 113 of 2012. MCL 324.21506a (5).

> (5) *The Department of Environmental Quality shall establish an underground storage tank system cleanup advisory board consisting of owners and operators of underground storage tank systems and other persons with knowledge and expertise in corrective actions associated with releases from underground storage tank systems and the financing of those corrective actions. Not later than March 1, 2013, the underground storage tank system cleanup advisory board shall submit a report to the department and the legislature that recommends a cleanup program, funded with money from the fund, that would assist owners and operators in financing corrective actions required under part 213.*

PARTICIPANTS AND MEETINGS

Director Wyant appointed nine members to the Advisory Board which held its first meeting in October of 2012. In total, seven meetings of the Advisory Board were held.

Members of the Advisory Board:

Name	Company	City
Peter Bosanic	PM Environmental	Lansing
James Clift	Michigan Environmental Council	Lansing
Michael Evans	Atlas Oil Company	Taylor
John Griffin	American Petroleum Institute of Michigan	Lansing
Mark Griffin	Michigan Petroleum Association	Lansing
Craig Hoppen	J & H Oil Company	Wyoming
Clifford Knaggs	Knaggs, Harter, Brake & Schneider, P.C.	Lansing
Bill Schedel, Jr.	Marathon Petroleum	Findlay, Ohio
Edward Weglarz	Associated Food & Petroleum Dealers	W. Bloomfield

The Advisory Board was supported by the following DEQ staff members:

Name	DEQ Division	City
Chris Christensen	Remediation and Redevelopment	Grand Rapids
Anne Couture	Executive Office	Lansing
Amy Epkey	Administration	Lansing
Jim Kasprzak	Administration	Lansing
Anastasia Lundy	Remediation and Redevelopment	Lansing
JoAnn Merrick	Remediation and Redevelopment	Lansing
Bob Reisner	Remediation and Redevelopment	Lansing
Robert Wagner	Remediation and Redevelopment	Lansing
Dan Yordanich	Remediation and Redevelopment	Lansing

BACKGROUND

On November 8, 1984, President Reagan signed the hazardous and solid waste disposal amendments to the Resource Conservation and Recovery Act (RCRA) which added a new subtitle I to the federal hazardous waste statutes. The amendments required the EPA to develop comprehensive regulations to prevent, detect and correct releases from certain USTs. The amendments also encouraged states to develop, with EPA approval, their own UST regulatory programs, so long as they were no less stringent than the federal standards.

In response to the federal statutes, the EPA promulgated a regulatory scheme which addressed several areas, including UST design, operating requirements, upgrade and construction requirements, reporting and recording keeping requirements, as well as financial responsibility requirements and the requirement for each state to designate a state agency to implement the federal UST regulations. The regulations also address liable parties' responsibilities to respond to releases or leaks from USTs.

MICHIGAN'S RESPONSE

The Michigan Leaking Underground Storage Tank Act (LUST), 1988 PA 478 (MCL 299.831, *et seq.*) was enacted in response to the EPA regulations. Under the 1988 LUST Act, owners and operators were strictly liable to perform corrective actions to address contamination emanating from USTs and for damages to third parties or natural resources without regard to fault. Responsible parties were required to undertake corrective action under the supervision of the Department of Natural Resources (DNR) and to submit a detailed corrective action plan to the DNR for review and approval. Contaminated sites were required to be remediated to Michigan DEQ generic criterion without regard to site specific risk posed to public health, safety, welfare or the environment.

The Michigan Underground Storage Tank Financial Assurance Act (MUSTFA) was also enacted as 1988 PA 518. (MCL 299.801, *et seq.*). This statute was enacted to assist tank owners in meeting the EPA financial responsibility requirements and reimbursement for corrective action and third party claims.

1995 AMENDMENTS

Shortly after codification of Michigan's environmental laws into the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, work began to remedy several shortcomings identified in the LUST and MUSTFA programs during the six year implementation experience.

To improve the LUST program 1995 PA 25 and 1996 PA 116 were enacted which accomplished the following:

- Adopted Part 201's causation based liability scheme, including the Baseline Environmental Assessment liability protection.

- Adopted the American Society for Testing and Materials (ASTM) Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites E1739-95 (RBCA) which effectively moved from a performance based standard to a risk based clean-up standard.

- Established a "Certified Professional" (CP) and "Qualified Consultant" (QC) program whereby only DEQ certified individuals and firms perform corrective action at LUST sites in Michigan.

- Changed from a program requiring prior DEQ approval of work, to an owner/operator implemented corrective action program through the CPs and QCs, monitored by the MDEQ through an "audit" program.

2012 AMENDMENTS

Starting in 2010, in an effort to address an unacceptable low rate of LUST site closures, the Legislature undertook comprehensive reforms to the Part 213 and Part 215 program. This resulted in a six-bill package, enacted as PA 108, 109, 110, 111, 112 and 113 of 2012. The reforms:

- Separated the Part 213 program from the Part 201 program.

- Adopted additional and updated Risk-Based Corrective Action standards for conducting corrective action at LUST sites developed by the American Society for Testing and Materials (ASTM).

- Adopted best practice standards as developed by the Interstate Technology Regulatory Council (ITRC).

- Promote risk based evaluations and reliable risk management practices.

- Improved the selective audit program.

- Provided certain liability protection for persons who did not cause a release so as to foster redevelopment of impacted properties.

- Eliminated the requirement for DEQ to certify professionals (CPs) and firms (QCs) while retaining the educational and experience standards necessary to perform corrective action at LUST sites.

- Created the Advisory Board charged to recommend a cleanup program, funded with money from the Refined Petroleum Fund, to assist owners and operators in financing corrective actions required under Part 213.

These comprehensive reforms are currently being implemented by the Department with input from stakeholders. Once fully implemented, it is expected that there will be a significant increase in the closure of LUST sites, at a lower cost, while continuing to protect public health and the environment.

SIGNIFICANT EVENTS/MILESTONES

- **1988:** Michigan Underground Storage Tank Financial Assurance Act (MUSTFA) was enacted to pay eligible owners and operators corrective action costs and to meet the federal financial assurance requirements. 1988 PA 518.

- **1989:** Public Act 152 adopted to establish the funding mechanism. An environmental regulatory of 7/8 cents per gallon on refined petroleum products is assessed as of August 1, 1989.

- **1990:** MUSTFA begins accepting claims for reimbursement of corrective action costs and requests for indemnification.

- **1992:** Treasurer determines that fund revenues will not be sufficient to pay expected expenditures from the fund. Fund administrator gives notice to owners/operators that claims would not be accepted after 90 day period.

- **1993:** Sunset on collection of the fee extended so that revenues will be sufficient to pay expected expenditures. 1993 PA 1. Fund administrator continues to accept claims for corrective action costs and requests for indemnification.

- **1995:** Treasurer again determines that fund revenues will not be sufficient to pay expected expenditures.

- **1996:** 1995 PA 269 becomes effective. PA 269 halted acceptance of claims for corrective action costs and requests for indemnification and established the MUSTFA Authority to issue bonds and other evidence of debt to generate funds to pay claims filed as of June 29, 1995. Debt is to be paid with revenues generated from regulatory fee. Includes the following provision:

  Notwithstanding any other provision of this part, the department of treasury shall stop collecting regulatory fees under this part when it has received sufficient revenues to pay in full all obligations listed in section 21506(4).

- **2003:** As of May 1, 2003 Treasury collects fees in excess of $1.4 Million more than necessary to pay in full all obligations listed in section 21506(4). Treasury continues to collect the fee in violation of the above provision.

- **April 2003:** Treasurer meets with staff to discuss MUSTFA. All agree that as of July/August there would be sufficient revenue to pay all obligations listed in section 21506(4).

- **June 2003:** Treasurer is told there was sufficient revenue to pay all obligations, "notwithstanding June collections". Collection of the fee continues contrary to legislative intent.

- **2004:** Treasury continues to collect the fee. As of July 2004, Treasury had collected over $80 Million in excess of what is necessary to pay in full all obligations listed in section 21506(4).

- **2004:** Legislature passes PA 390 of 2004 which retroactively extended the requirement to impose and collect the regulatory fee and the obligation to pay the fee so that it shall not be considered to have ceased at any time since the date the requirement and obligation were originally enacted into law. PA 390 of 2004 also created the Refined Petroleum Fund (RPF) and Temporary Reimbursement Program (TRP). By the end of the program, the TRP had reimbursed owner/operators approximately $29.6 million at 554 sites that were undergoing cleanup when the program stopped making payments in 1995.

- **2005:** Legislature begins diverting RPF funds to unrelated programs, a practice which continues today.

- **2010:** Legislature continues to appropriate over $3,000,000 per year from underground storage cleanup to fund pump calibration inspections. After spending well in excess of over $10,000,000, it is noted that pump calibration compliance has risen from approximately 98% to 99%.

- **2010:** Legislature continues to express its intent to make the RPF whole for third year in a row.

- **2010:** Legislation is passed that extended the sunset of the fee from 2010 to 2012.

- **2012:** Legislation is passed that reforms Part 213 and Part 215 and creates the Underground Storage Tank System Cleanup Advisory Board. The RPF sunset was extended to December 31, 2015.

- **2013:** Advisory Board presents its report to the Legislature and the Department.

OPTIONS AND FINDINGS

Options Reviewed

At its first meeting the Advisory Board developed five (5) options to review as possible program designs.

1. **Tax Credits**: The Advisory Board looked at various ways the owner/operator could be offered tax credits or refunds equal to the state wide average insurance premium for private pollution insurance for USTs. It was decided that this model may not gain widespread support and may not satisfy the financial responsibility required by the EPA.

2. **TRP Model**: The Advisory Board reviewed the previous Temporary Reimbursement Program. This program was funded at $45 million and reimbursed approximately $29.6 million dollars as a matching fund program for those sites where corrective action has commenced before the MUSTFA program was shut down in 1995. While this program did give an incentive for more work to be done with the resultant increase in closures, it was very limited in scope. This program may be a model to address a specific population of LUST sites.

3. **Sale of Revenue Stream**: The Advisory Board explored whether it was feasible to use a portion of the RPF revenue stream to fund necessary corrective action using a private firm(s). There was not an entity found that could accomplish this task.

4. **Group Insurance Purchase**: The Advisory Board examined the potential of using RPF funds to purchase private insurance for the UST population. It was determined that while this may be possible, given different goals of private insurance and a cleanup program focused on addressing environmental risk, this approach was not the best way to meet the legislative intent of Parts 213 and 215.

5. **Other State Programs**: The Advisory Board looked at successful programs nationwide and focused on the programs in Washington, Iowa, Minnesota, Virginia, Indiana, Wisconsin, Illinois and Ohio. It appears that Ohio has a very successful model that could serve as a framework for a similar program in Michigan.

FINDINGS

There are 7,079 locations in Michigan with 18,777 registered USTs. Of those, approximately 95% are currently in use. About 5% are currently designated "temporarily out-of-service".

Approximately 62% of the tanks are considered "low risk" based on age and type of construction. See **Appendix A**. Of the remaining 38%, the age of the tanks and their construction suggests that at some point in the near future (5-10 years) these tanks should be replaced. This equates to approximately 6,800 of the 18,777 tanks.

Over the past decade, the cost of cleanups in Michigan has exceeded the national average. However, the 2012 Part 213 amendments, new DEQ/RRD policies, and other efforts are expected to result in more cost-effective cleanups.

When the program started in the late 1980s it is believed that Michigan had in excess of 100,000 registered storage tanks. As illustrated in Appendix A, starting in 1991 that number had declined to just over 72,000 tanks and by 2012 it has decreased to 18,777. **Approximately 70,000 tanks have been closed, and where necessary, corrective action has been completed or is in progress.**

The LUST program has been extremely effective in identifying and addressing environmental risk by removing at risk USTs and performing corrective action. As a result, the current UST population is approximately one fifth ($1/5^{th}$) of 1990 levels and consists of upgraded tanks, piping, spill/overfill and leak detection systems. Thus, a program funded through the RPF would have significantly reduced exposure as compared to the original MUSTFA program.

While private insurance is an acceptable method to meet the State and Federal financial responsibility requirements, it is not the best method to meet the goal of providing predictable, reliable protection for public health and the environment as a result of releases from USTs. (See, *EPA Study on the Effectiveness of UST Insurance as a Financial Responsibility (FR) Mechanism*, EPA-50-10-R-11-005 (December 2011); Gander Consulting Group, LLC, *Report to Michigan DEQ Advisory Board*, (January 14, 2013) attached as **Appendix B**).

APPROPRIATIONS FROM THE FUND UNRELATED TO TANK CLEANUP

During the economic downturn, the Administration and the Legislature tapped into the Refined Petroleum Fund to meet other budget shortfalls. The following represents the Executive Budget Recommendation from the Refined Petroleum Fund for FY 2014.

Uses other than to address contamination for leaking underground storage tanks include:

Department of Agricultural and Rural Development Weights and Measures	$4,132,360	
Department of Treasury Debt Service for 1988/1998 Bonds Unrelated to USTs .	$3,014,500	
Department of Environmental Quality Division Other Remediation Program . . . . . . (Including: Air Quality Program, $3,551,500)	$5,648,700	
Sub-Total non-cleanup related appropriation		$12,795,560

Remediation and Redevelopment Division related expenses:

Overhead . . . . . . (Including: Information Technology, $1,696,300)	$3,241,200	
Staffing	$8,075,400	
Orphan Site Cleanups	$26,643,227	
Sub-Total cleanup related		$37,959,827
Total Recommended Appropriation		$50,755,387*

*Note, these numbers reflect adjustments based on actual anticipated revenue availability.

RPF revenue has been diverted from its intended purpose over the past 10 plus years to fund, for example, air quality programs, Department of Agriculture programs and debt service for bonds unrelated to USTs. However, recent appropriations have demonstrated an effort to re-focus the use of RPF revenue back to its intended purpose.

In the FY 2013 Executive Budget, the Governor recommended a $10.0 million reduction in the appropriation of RPF revenue for debt service on environmental bonds in the Department of Treasury budget, and a corresponding increase of $10.0 million in the appropriation of Refined Petroleum Fund revenue in the DEQ budget. The Legislature concurred in this recommendation in enacting the FY 2013 appropriations for state departments.

In the FY 2014, the Governor also recommends an additional $2.5 million reduction in the appropriation of RPF revenue for debt service on environmental bonds in the Department of Treasury budget, and a corresponding increase of $2.5 million in the appropriation of RPF revenue for the DEQ budget.

The current and projected use of RPF revenue is set forth in the attached **Appendix C**.

As such, the Advisory Board is encouraged by these changes. However, it should be noted that of the approximately $50 million the RPF generates annually, currently none of it is available to provide assistance to current owners of service stations which have historic contamination onsite requiring corrective action.

In the 17 years since 1995, and the repeal of the MUSTFA program, owners and operators of USTs have paid approximately $850 million dollars into the fund, and other than the $29.6 million from the TRP, have not had the ability to access these funds.

RECOMMENDATION

The Advisory Board strongly recommends that all of the annual RPF revenue be restored to fund the State's UST programs to: (1) Provide financial responsibility for owners and operators to address future releases; (2) Fund a reimbursement program to provide assistance to qualified owners and operators undertaking corrective action to address historical releases; and (3) Conduct corrective action to mitigate imminent and substantial threats to public health or the environment at LUST sites where no liable or viable owner or operator is identified or unable to conduct necessary corrective actions (otherwise known as "orphan sites"). The Advisory Board has concluded that establishing a financial responsibility program with RPF revenue is the preferred way in which to meet the goal of a predictable and reliable method of protecting public health and the environment from UST releases. Given the significant reduction and improvement in the UST population over the past 20 years, the recent reforms in Part 213 and DEQ policy, which are expected to reduce corrective action costs, and the 25 years of "lessons learned" experience, such a program is viable within current RPF revenue levels.

Such a program may include the following components:

- Elimination of the regulatory fee sunset.

- Creation of a quasi-public body corporate to administer the financial responsibility program and to protect the revenue stream from future diversion.

- Restoration of all the RPF revenue for: (1) Financial responsibility for owners and operators to address future releases; (2) a reimbursement program to provide assistance to qualified owners and operators undertaking corrective action to address historical releases; (3) corrective action to mitigate imminent and substantial threats to public health or the environment at LUST sites where no liable or viable owner or operator is

identified or able to undertake corrective actions (otherwise known as "orphan sites"); and (4) reasonable administrative costs related thereto.

- Annual allocation of a substantial percentage of RPF revenue to the financial assurance program.
- Reasonable eligibility and pre-release certification requirements for owners and operators.
- Due process rights for participants.
- Participant deductible or co-pay requirements.
- Retain the authority to issue bonds or notes as defined under Part 215.
- A reasonable cap on administrative expenses.

ACTION ITEMS

Administrative and Legislative Support: For this program to succeed, support of the goals from the Administration, the Department and Stakeholders will be needed. This program will take time to develop, but could be ready for legislative action in 2013.

Legislation: Legislation will need to be passed to create and administer this program. This will take a concerted effort to ensure all of the moving parts are kept together. The Advisory Board looks forward to working with the Legislature beyond the completion of The Report to ensure success in this endeavor. The Advisory Board has developed an excellent working relationship with the DEQ and they share a belief that the recommendation is the best alternative for the citizens of Michigan to safeguard the environment regarding leaking underground storage tank sites.

APPENDIXES & ACRONYMS

Advisory Board	Underground Storage Tank System Cleanup Advisory Board
ASTM	American Society for Testing and Materials
CP	Certified Professional
DEQ	Department of Environmental Quality
DNR	Department of Natural Resources
EPA	United States Environmental Protection Agency
ITRC	Interstate Technology Regulatory Council
LUST	Leaking Underground Storage Tank
MUSTFA	Michigan Underground Storage Tank Financial Assurance Fund
NREPA	Natural Resources and Environmental Protection Act
PA	Public Act
QC	Qualified Consultant
RBCA	Risk Based Corrective Action
RCRA	Resource Conservation and Recovery Act
RPF	Refined Petroleum Fund
RRD	Remediation and Redevelopment Division
TRP	Temporary Reimbursement Program
UST	Underground Storage Tank

Appendix A: UST and Piping Construction Analysis
Petroleum USTs and Facilities

Appendix B: *EPA Study on the Effectiveness of UST Insurance as a Financial Responsibility (FR) Mechanism*
EPA-50-10-R-11-005 (December 2011);

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Appendix C: Refined Petroleum Fund Appropriations
FY 2005-2013

Appendix

A

UNDERGROUND STORAGE TANK AND PIPING CONSTRUCTION ANALYSIS

The information contained in this analysis is based on a January 25, 2013, query of the Michigan Department of Environmental Quality's (MDEQ) Storage Tank Information Database.

DISCLAIMER: The information compiled and contained herein is subject to the accuracy of the information database and the interpretation of "risk" by staff of the MDEQ.

The query identified the following information:

- 7,079 Registered Facilities either have underground storage tanks (USTs) in either "In-Use" or "Temporarily Out-of-Service" status.
  - 6,751 Facilities where there are 17,911 USTs that are in "In-Use" status.
  - 389 Facilities where there are 866 USTs that are in "Temporarily Out-of-Service" status.
- 7,079 Registered Facilities either have UST piping systems in either "In-Use" or "Temporarily Out-of-Service" status.
  - 6,751 Facilities with 17,911 piping systems that are in "In-Use" status.
  - 389 Facilities with 867 piping systems that are in "Temporarily Out-of-Service" status.

Total Registered Tanks

		TANK AGE (Years)					
		Unknown	**0 – 15**	**15 – 30**	**30 +**	**TOTAL**	**(%)**
TANK CONSTRUCTION (18,777 Tanks)	**Unknown**	128	35	35	89	287	**1.5**
	High Risk[1]	224	85	4,457	2,002	6,768	**36.0**
	Low Risk[2]	193	3,854	6,863	812	11,722	**62.4**
	TOTAL	545	3,974	11,355	2,903	**18777**	
	(%)	**2.9**	**21.2**	**60.5**	**15.5**		

In-Use Tanks

		TANK AGE (Years)				
		Unknown	**0 – 15**	**15 – 30**	**30 +**	**TOTAL**
TANK CONSTRUCTION (17,911 Tanks)	**Unknown**	29	29	31	29	118
	High Risk	156	84	4,293	1,737	6,270
	Low Risk	186	3,804	6,749	784	11,523
	TOTAL	371	3,917	11,073	2,550	**17,911**

[1] **High Risk Tanks:** Single Walled, Asphalt Coated or Bare Steel; STi-P3 (Single Wall), Cathodically Protected; Single Walled, Lined Interior; Concrete

[2] **Low Risk Tanks:** Fiberglass Reinforced Plastic; Double Walled Tanks; Composite Tanks (Steel w/Fiberglass, Single & Double Wall); STi-P3 (Double Wall)

Temporarily Out-of-Service (TOS) Tanks

	TOS TANK AGE (Years)					
		Unknown	0 – 15	15 – 30	30 +	TOTAL
TANK CONSTRUCTION (866 Tanks)	Unknown	99	6	4	60	169
	High Risk	68	1	164	265	498
	Low Risk	7	50	114	28	199
	TOTAL	174	57	282	353	**866**

Total Piping Systems

	PIPING AGE (Years)						
		Unknown	0 – 15	15 – 30	30 +	TOTAL	(%)
PIPING CONSTRUCTION (18,778 Total)	Unknown	148	61	101	160	470	**2.5**
	High Risk[3]	113	143	1,214	871	2,341	**12.5**
	Low Risk[4]	284	3,771	10,041	1,871	15,967	**85.0**
	TOTAL	545	3,975	11,356	2,902	**18,778**	
	(%)	**2.9**	**21.2**	**60.5**	**15.5**		

In-Service Piping Systems

	PIPING AGE (Years)					
		Unknown	0 – 15	15 – 30	30 +	TOTAL
PIPING CONSTRUCTION (17,911 Total)	Unknown	36	55	98	71	260
	High Risk	58	140	1,136	670	2,004
	Low Risk	277	3,723	9,839	1,808	15,647
	TOTAL	371	3,918	11,073	2,549	**17,911**

TOS Piping Systems

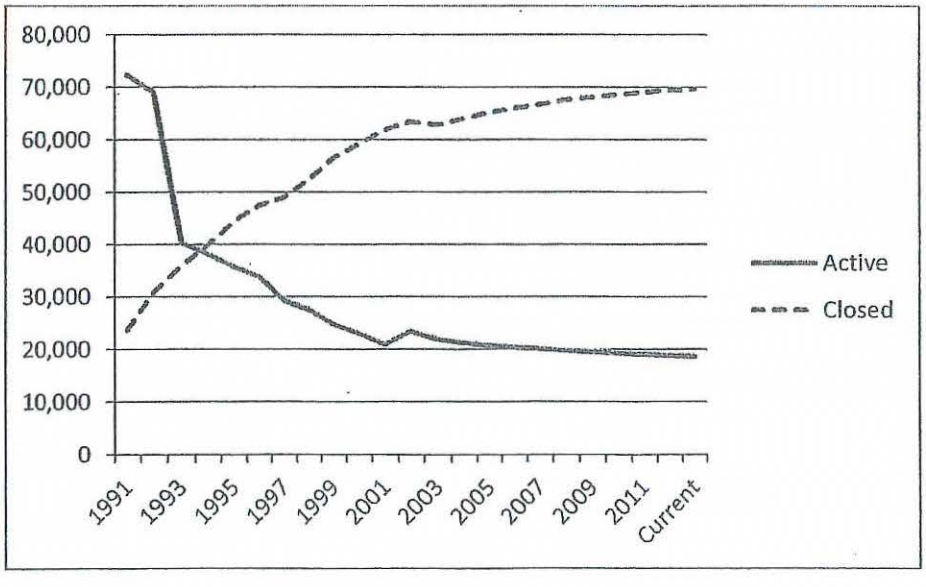
	TOS PIPING AGE (Years)					
		Unknown	0 – 15	15 – 30	30 +	TOTAL
PIPING CONSTRUCTION (867 Total)	Unknown	112	6	3	89	210
	High Risk	55	3	78	201	337
	Low Risk	7	48	202	63	320
	TOTAL	174	57	283	353	**867**

[3] **High Risk Piping:** Bare Steel; Galvanized Steel; Black Pipe; Cathodically Protected Bare Steel, Galvanized Steel, or Black Pipe

[4] **Low Risk Piping:** Fiberglass Reinforced Plastic; Aboveground Piping; Flexible Piping; Double Walled Piping; Secondarily Contained Piping

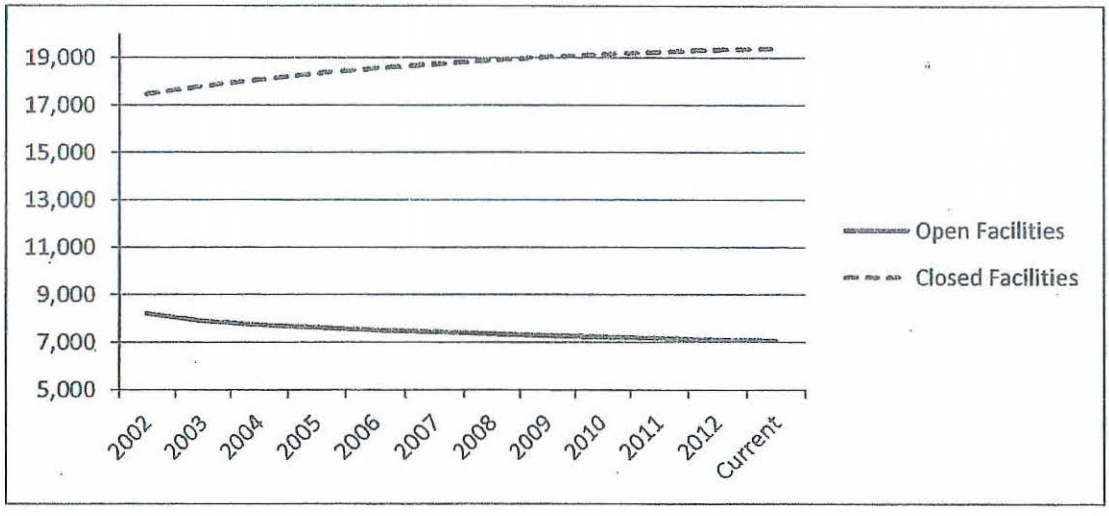
Petroleum Underground Storage Tanks

End of FY	Active	Closed	Total
1991	72,275	23,690	95,965
1992	69,133	30,792	99,925
1993	40,317	35,960	76,277
1994	38,235	39,848	78,083
1995	35,804	44,395	80,199
1996	33,880	47,451	81,331
1997	29,282	48,955	78,237
1998	27,648	52,335	79,983
1999	24,805	56,534	81,339
2000	23,067	59,082	82,149
2001	20,910	61,918	82,828
2002	23,433	63,421	86,854
2003	21,862	62,839	84,701
2004	21,246	64,008	85,254
2005	20,730	65,137	85,867
2006	20,420	65,955	86,375
2007	20,155	66,719	86,874
2008	19,797	67,528	87,325
2009	19,529	68,059	87,588
2010	19,273	68,555	87,828
2011	19,051	68,948	87,999
2012	18,807	69,426	88,233
Current	18,664	69,648	88,312



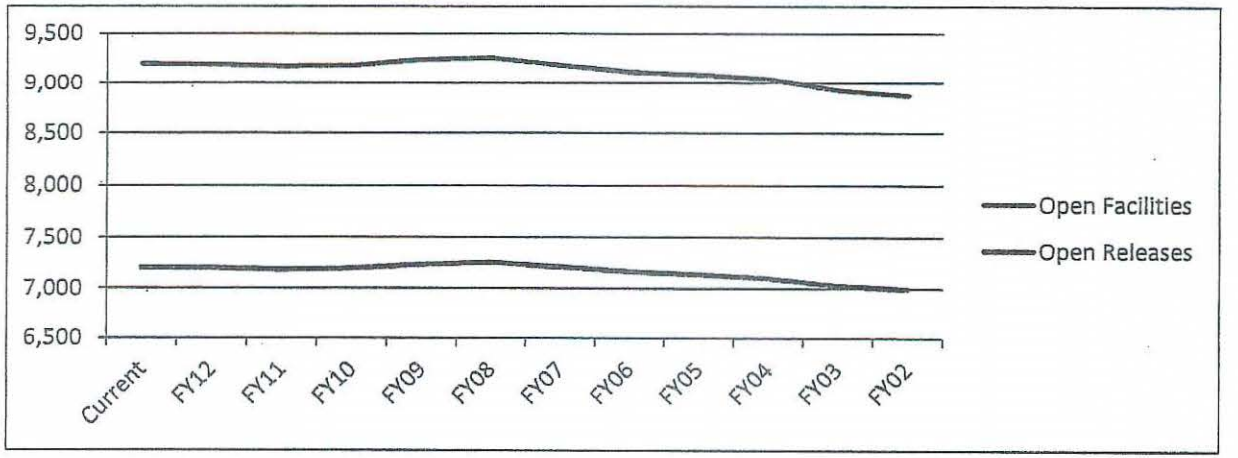
Underground Storage Tank Facilities

End of FY	Active	Closed	Total
2002	8,216	17,466	25,682
2003	7,897	17,787	25,684
2004	7,746	18,068	25,814
2005	7,632	18,338	25,970
2006	7,516	18,546	26,062
2007	7,452	18,713	26,165
2008	7,368	18,887	26,255
2009	7,292	19,027	26,319
2010	7,233	19,142	26,375
2011	7,184	19,232	26,416
2012	7,120	19,341	26,461
Current	7,090	19,390	26,480



Leaking Underground Storage Tanks

Year	Current	FY12	FY11	FY10	FY09	FY08	FY07	FY06	FY05	FY04	FY03	FY02
Open Facilities	7,202	7,199	7,184	7,194	7,231	7,254	7,211	7,169	7,138	7,103	7,030	6,993
Open Petroleum Release	9,200	9,192	9,176	9,181	9,240	9,260	9,183	9,117	9,087	9,043	8,923	8,866
Open Hazardous Release	31	30	30	29	29	29	29	31	33	31	35	35
Class 1	1,282	1,294	1,332	1,358	1,432	1,460	1,468	1,482	1,497	1,506	1,472	1,365
Class 2	1,584	1,599	1,620	1,532	1,472	1,437	1,407	1,273	1,177	1,062	963	908
Class 3	2,374	2,365	2,369	2,356	2,375	2,417	2,391	2,406	2,376	2,318	2,257	2,192
Class 4	999	979	927	929	910	905	919	902	976	979	1,031	1,113
Not Classified	2,995	2,988	2,963	3,040	3,085	3,076	3,035	3,088	3,097	3,211	3,242	3,367
From 1998 Compliant	1,752	1,730	1,667	1,597	1,543	1,474	1,358	1,236	1,077	910	639	405



Appendix

B

EPA Study On The Effectiveness Of UST Insurance As A Financial Responsibility (FR) Mechanism

U.S. Environmental Protection Agency
Office of Underground Storage Tanks
Washington, D.C.
www.epa.gov/oust
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Contents

Overview 1

Purpose Of Financial Responsibility (FR) And Uniqueness Of Insurance As A FR Mechanism 3

UST Insurance Policy Analysis 5

Mandatory Provisions Required Of UST Pollution Insurance Policies 6
Compliance Of UST Pollution Insurance Policies With Mandated Provisions 7
Potentially Problematic Policy Language Issues 7

Data Collection Efforts 13

UST Pollution Insurance Carriers 13
State Insurance Commissioners 14
Michigan Department Of Natural Resources And Environment Survey 15
Litigation And Anecdotes From Owners And Operators 16

Conclusions And Potential Next Steps 19

Educating Owners And Operators About UST Pollution Insurance 20
Additional Data Collection Efforts 21
Revising Existing Federal UST FR Regulation 21

Appendices A-D

Overview

One of the core missions of the U.S. Environmental Protection Agency (EPA) Office of Underground Storage Tanks is to ensure adequate funding is available to promptly clean up releases from underground storage tanks (USTs). Under 40 CFR 280 Subpart H, UST owners and operators must demonstrate adequate financial responsibility (FR) to clean up releases and compensate third parties for any injuries or damages associated with releases. The list of available financial mechanisms that may be used to meet the FR regulation is described at 40 CFR 280.95 through 280.107 (e.g., financial test, guarantee, insurance, letter of credit, trust fund, surety bond, or state fund). Currently, UST owners and operators primarily use insurance or state funds as their FR mechanism.

In recent years, EPA has become aware of instances where state regulators and individual owners and operators raised concerns about UST insurance as a FR mechanism. Anecdotal information claimed that insurance provided less than full reimbursement or payment for remediation expenses or third-party damages associated with releases from regulated USTs. Possible reasons that were suggested include, but were not limited to:

- Failure of the owner and operator to properly ensure compliance with the federal FR regulation or terms of the UST insurance policy (e.g., premature cancellation of policy; failure to obtain complete coverage);
- Failure of the insurance carrier to fulfill contractual obligations (e.g., inappropriately denying claims); and
- Coverage gaps of the insurance policy despite being compliant with the federal FR regulation (e.g., discovered release predates retroactive date).

In part to investigate the prevalence of the above instances, EPA undertook a study to assess the effectiveness of UST insurance as a FR mechanism. More broadly, EPA examined whether the current UST insurance structure provides owners and operators with the financial assurance EPA originally intended. For this study, EPA reviewed a sample of insurance policies for compliance and other potential areas of concern and attempted to garner information regarding the current state of UST insurance.[1] Data collection efforts included discussions with insurance companies, a search to obtain UST insurance claims data, and a review of litigation and owner and operator anecdotes involving UST insurance.[2]

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[1] EPA conducted this study with contractor support provided by Skeo Solutions and Gänder Consulting Group, LLC.

[2] EPA thanks all participants who contributed their time and effort to this study. We appreciate everyone's input and willingness to help us learn more about UST insurance as we look for ways to improve FR for USTs.

This document describes the results of this study and is organized into four major parts:

- Background on EPA's purpose for requiring UST owners and operators to maintain FR, as well as the difference between insurance and other allowable FR mechanisms; this provides an important basis for considering the study's results;
- Results of the UST insurance policy analysis;
- Results of the data collection effort;
- Conclusion and potential next steps.

Purpose Of FR And Uniqueness Of Insurance As A FR Mechanism

The federal UST regulation requires UST owners and operators to investigate and confirm all suspected releases. For confirmed releases, owners and operators are required to comply with 40 CFR 280 Subpart F (Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances). The intent of the federal UST FR regulation at 40 CFR 280 Subpart H is to ensure owners and operators are readily able to cover first-party remediation expenses and third-party bodily injury and property damage claims, regardless of how, when, or why releases occurred. At the same time, when EPA originally promulgated the federal UST FR regulation, we recognized the limited availability of FR mechanisms and the difficulty some UST owners and operators may have in complying with the regulation.[3] We supported the expansion of the existing FR mechanisms at the time and development of new ones to achieve maximum compliance by UST owners and operators. As a result, EPA allows the use of a variety of mechanisms for owners and operators to demonstrate financial responsibility, including a financial test of self-insurance, a corporate guarantee, insurance, surety bond, letter of credit, trust fund, state-required mechanisms, or a state fund.

In considering the specific FR requirements for UST insurance, EPA preserved flexibility in policy specifications by allowing insurers to develop acceptable policies and avoid unnecessarily constricting the availability of insurance.[4] Consequently, the resulting language describing the requirements that UST insurance policies must meet to be acceptable is minimal (see 40 CFR 280.97). Besides specifying certain mandatory provisions (see next section), the federal FR regulation generally allows insurers the flexibility to issue policies that conform to industry market practices.

Not surprisingly then, what has evolved over time and exists today is an assortment of UST insurance policies purchased by owners and operators which, depending on a lengthy set of circumstances and contingencies, *may* cover remediation and third-party expenses arising out of releases from regulated USTs. As a result, it could be possible to conclude that UST pollution insurance is not effective in all cases as a FR mechanism because:

- it does not always respond to and finance each and every release from an insured UST;
- it does not respond on a no-fault basis;
- a release does not automatically prompt the availability of unrestricted insurance carrier funds to remediate the site or cover third-party damages resulting from the release.

[3] See 53 FR 43324.

[4] See 53 FR 43348.

However, it is important to understand that insurance is a financing mechanism, not a financial guarantee, between two parties (i.e., the insurance carrier and the insured owner or operator). Insurance policies are contracts; a claim qualifies as an insured loss and payable by the policy only if the contracting parties' have met their respective contractual obligations and all of the policy's terms and conditions have been fulfilled.[5] Insurance carriers have an obligation to ensure that reimbursements are reasonable and consistent with the terms of the policies.[6] For this reason, it may be an unrealistic ideal to expect insurance to provide full comprehensive coverage for an UST release under any circumstance.

Instead, given the existing regulatory framework and the contractual nature of insurance, are there specific aspects about UST insurance policies that prevent UST insurance from being more effective as a FR mechanism?

[5] Insurance is one of only two allowable FR mechanisms where non-owners or non-operators (i.e., the insurance carriers) weigh in heavily to determine when and whether the mechanism responds. The other FR mechanism where a non-owner or non-operator plays a major role in determining when and whether the mechanism responds is the state fund.

[6] Practically, relying on pollution insurance to finance UST cleanups and third-party damages means that someone, other than the owner or owner, plays a predominant role in determining and controlling whether and when funds will be provided by the insurance policy and which expenses will be reimbursed.

UST Insurance Policy Analysis

As a first step in examining the effectiveness of UST insurance, EPA obtained and analyzed a sample of UST insurance policies issued to and used by UST owners and operators to comply with the federal UST FR regulation. In conducting this analysis, EPA wanted to determine whether noncompliance with the federal UST FR regulation could be a factor influencing the effectiveness of insurance as a FR mechanism. EPA also wanted to identify areas of concern regarding insurance policy language that could result in coverage gaps and may delay or complicate the ability of owners and operators to recover costs from insurers.

The 25 policies analyzed were issued by 12 different carriers between the years 2000 and 2009 to owners and operators domiciled in seven states. All of the policies are claims-made policies.[7] The analysis focused on policy language that is most relevant to complying with the federal UST FR regulation. As such, certain policy language was not addressed in an in-depth manner, or at all. For example, the absence or presence of a worker's compensation exclusion in the policies was not addressed, since it is widely accepted that UST pollution insurance is not designed to respond to these losses. Furthermore, our analysis of the policies focused on pollution exposures presented by UST systems and the use of those policies as a way to comply with the federal UST FR regulation.[8]

The following section presents the UST insurance policy analysis results in three parts:

- EPA's mandated requirements for UST pollution insurance policies;
- How the 25 policies compared with the mandated requirements;
- Review of policy language that complies with the federal UST FR regulation, but may still pose coverage and claim challenges for UST owners and operators.

[7] Most UST insurance policies today are claims-made insurance policies. Claims-made insurance policies provide coverage that depends on both the time of the occurrence and the date of filing or receipt of the claim. These policies often include a retroactive date that is the point in time when coverage first begins. The policy provides coverage for occurrences that happen after the retroactive date for which a claim is filed within the policy period and any extended reporting period. In contrast, occurrence-based insurance policies provide coverage for any occurrence during the policy period, regardless of when it is discovered and when the insurer is notified.

[8] The policies were not designed to respond to non-storage tank pollution incidents or exposures such as losses arising out of asbestos or lead.

Mandatory Provisions Required Of UST Pollution Insurance Policies[9]

In developing the federal UST FR regulation, EPA wanted to allow flexibility for owners and operators as well as financial assurance providers (e.g., banks, insurance carriers, states), yet also ensure that the demonstrated FR would be consistent with Subtitle I of the Solid Waste Disposal Act (SWDA) and provide a sufficient degree of assurance. In balancing these goals, EPA identified certain provisions as necessary and determined that others could be left open for the marketplace to decide.

The federal UST FR regulation stipulates that insurance for USTs must cover corrective action and third party compensation (both on-site and off-site) from sudden and non-sudden accidental releases arising from the operation of petroleum USTs. Furthermore, insurance policies used to meet the federal UST FR regulation must exclude legal defense costs from the required amount of coverage, provide first-dollar coverage,[10] and provide a six-month extended reporting period for claims-made policies. The federal UST FR regulation also requires each insurance policy include an endorsement or certificate that states the amount of coverage provided, the purposes for which the coverage is available, and five other conditions that become part of the policy.[11] Finally, the insurance policy must also provide a minimum amount of coverage, which is determined by the amount of gallons handled on a monthly basis and total number of USTs owned.[12]

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[9] For a more detailed description on the mandatory requirements for using insurance as a FR mechanism, see Chapter 5 of *EPA Financial Responsibility for Underground Storage Tanks: A Reference Manual* (EPA-510-B-00-003, January 2000).

[10] First-dollar coverage means the insurance carrier pays any deductible to the provider of corrective action or a damaged third-party, with a right of reimbursement by the insured for any payment made by the carrier. This ensures that disputes between the carrier and the insured about who is responsible for paying amounts within deductible limits will not interfere with the prompt performance of corrective action measures or with third-party compensation.

[11] Specifically, the five conditions are: the insurance carrier is not relieved of its obligations under the policy if the insured becomes bankrupt or insolvent; the insurance carrier must provide first-dollar coverage; the insured will provide a signed duplicate original of the policy and all endorsements when requested by the implementing agency; cancellation or termination of the policy by the carrier will be effective only 60 days after receipt of written notice by the insured, except for cancellation for nonpayment of premium or misrepresentation by the insured, in which case the cancellation will be effective a minimum of 10 days after receipt of written notice by the insured; and the insurance policy has to provide a six-month extended reporting period after the effective date of cancellation or nonrenewal of the policy.

[12] For per-release limits: petroleum marketing facilities that handle an average of more than 10,000 gallons of petroleum per month, based on annual throughput for the previous calendar year, must carry no less than $1 million of coverage per release; all other owners and operators of petroleum USTs must carry no less than $500,000 of coverage per release. For annual aggregate amounts: owners and operators with 1 to 100 petroleum USTs must carry no less than $1 million of coverage on an annual aggregate basis; owners and operators with 101 or more petroleum USTs must carry no less than $2 million of coverage on an annual aggregate basis.

Compliance Of UST Pollution Insurance Policies With Mandated Provisions

The analysis indicates that the policies generally complied with a majority of the federal UST FR regulations applicable to UST pollution insurance policies. All 25 policies complied with the scope of coverage requirements; they provide for corrective action and third party compensation (both on-site and off-site) from sudden and non-sudden accidental releases. All appeared to comply with the minimum amounts of coverage required by the regulation, meaning all 25 provided no less than $1 million of coverage on a per release or claim basis and $1 million of coverage on an annual aggregate basis.[13] All of the policies also mandated first-dollar coverage. Of the 25 policies, 18 included the EPA standard endorsement or certificate. Of the policies, 22 provided the required six-month extended reporting period through policy language, special endorsement, or an EPA endorsement or certificate. The remaining three policies did not automatically provide the mandatory six-month extended reporting period, but offered the opportunity to purchase an extended reporting period of up to three years in exchange for additional premium. In two cases, this option was not available if the policy was cancelled by the carrier due to nonpayment of premium.

Potentially Problematic Policy Language Issues

The terms and conditions in the 25 UST insurance policies are typical of insurance policies in general and UST pollution insurance policies specifically. In that sense, the policies reflect EPA's intent for policies to develop and conform to industry practices. The extensiveness and technical nature of the resulting policy language, though, means that the degree to which a policy responds varies not only by policy, but by the conditions surrounding an UST release, and how and when an owner and operator responds to the release. It is impossible to address every circumstance under which UST pollution insurance policy language may result in coverage gaps or delays in claim payment. The discussion below highlights certain insurance policy terms and conditions that appear in some, most, or all of the 25 insurance policies analyzed. Any one, several, or all of them may serve to hinder or adversely impact the extent to which coverage is provided for losses arising out of a release from a regulated UST.

Please note that the policy language discussed below does not necessarily place the policies out of compliance with the UST insurance requirement in the federal FR regulation. It may, however, result in gaps in coverage provided to owners and operators, and may delay or complicate the ability of the owner and operator to recover costs from the insurer.

[13] This analysis presumes owners and operators purchased insurance limits according to the quantifiable criteria of monthly throughput and number of tanks owned and operated. (This information was not reviewed as part of this study.)

Coverage For Temporarily Out Of Service Tanks

For this study, the phrase temporarily out of service (TOS) tanks means USTs that are not operating or are not in use, and incorporates temporarily closed tanks that meet the requirements of 40 CFR 280.70. They may be empty or dormant and are not yet permanently closed. Dormant tanks still contain product, but the system to which they are attached is not running and no product throughput is occurring on a regular basis. According to the federal UST FR regulation in 40 CFR 280.113, owners and operators are required to maintain FR until after the tank has been permanently closed (or until after corrective action has been completed and the tank has been permanently closed according to 40 CFR 280 Subpart G). Owners and operators of TOS tanks are required to demonstrate FR for these tanks.

Over time, EPA received anecdotal information about the inability of UST owners and operators to continue UST pollution insurance with their current carrier for TOS tanks and the unwillingness of different UST pollution insurance carriers to insure TOS tanks. Insurance carriers declining to insure TOS tanks suggest that to do so is disingenuous because empty TOS tanks contain no regulated substances and cannot experience a release that can be confirmed.

That may be true in theory; however, TOS tanks are not always empty; they may have leaked prior to attaining TOS status. This then requires the owner or operator prove the release occurred after the policy inception or retroactive date, but before the tank attained TOS status, and report the release before the end of the policy period. Finally, there is the possibility that, though emptied, residual fuel may leak out of the TOS tank after it attains this status.

Our analysis of the 25 insurance policies indicates that while UST pollution insurance policies typically do not specifically define, describe, or discuss coverage for TOS tanks, insurance coverage is often based, among other things, on whether an UST is in use or operating. Generally, insurance carriers varied significantly. Some were willing to insure, or continue to insure, TOS tanks under certain circumstances. Others immediately ceased covering tank systems no longer in use or operating. Still others declined to renew or issue new policies to insure TOS tanks.

Of the 25 policies analyzed, three of 12 insurance carriers terminate coverage for losses or releases emanating from TOS tanks after attaining TOS status through the application of:

- The policies' insuring agreement;
- The policies' definitions for abandonment, abandoned, and policy period; and
- A policy exclusion.[14]

The remaining policies do not specifically exclude, through a policy term or condition, coverage for losses arising out of a release emanating from a TOS tank after it has attained TOS status.

[14] See Appendix A for excerpts and a discussion of the policy language from these three carriers.

On the other hand, of these remaining policies, nine contain an exclusion or definition which precludes coverage for losses associated with tanks that have been abandoned. The term abandoned is not defined in the policies.

Retroactive Dates

A retroactive date is the date after which losses may occur and be covered under an in-force claims-made insurance policy. It may be older than or the same as the policy's effective date; an UST pollution insurance policy may have different retroactive dates for different tanks. It is the earliest date a confirmed release can occur for coverage to be provided under the insurance policy.

The retroactive date applicable to a claims-made insurance policy is extremely critical to defining the time period in which the carrier will consider responding to releases from regulated USTs. With the change of one number, for example, from 199<u>9</u> to 199<u>4</u>, the carrier adds five UST operating years of exposure (i.e., risk to loss) to its portfolio. Ideally, the retroactive date should stretch back to the original installation date of the UST since an UST begins to present pollution exposure risk at the time of installation. Thereafter, the likelihood of a release occurring varies with time (though typically increases) and may be impacted by changes to the tank system and ongoing cleanup activity.

Sixteen of the 25 insurance policies provided the insured USTs' installation dates. The oldest of these was 1961. The retroactive date for this particular policy was August 2, 2002, and the policy's effective date was August 2, 2009. This means a coverage gap exists between 1961 and August 2, 2002; if a release commenced prior to August 2, 2002, there would be no coverage for this release under this insurance policy.[15] In another case, tanks were installed in 1988 and the policy's retroactive date and effective date were both March 15, 2004. The coverage gap is the time period from 1988 to March 15, 2004 (i.e., the policy would provide no coverage for any losses arising out of releases that began prior to March 15, 2004).

Status Of UST System At Time Of Release

The UST from which the release emanates must qualify for coverage *at the time of the release*. Even though qualified and accepted by the carrier at the policy inception, the status of an UST must be qualified and acceptable per the policy language at the time a release occurs in order for coverage to apply. Below are two examples of policy language pertaining to the status of a tank.

Tank Removal Notification Requirement

Eight of the 25 policies issued by one insurance carrier include a condition which states:

[15] It should be noted that under the federal UST regulation, the UST owner and operator is ultimately the responsibility party for remediating any confirmed release. In this instance, the owner and operator would still be liable to comply with the requirements of Subpart F for confirmed releases that commenced prior to August 2002 despite being unable to be covered for these releases under their current insurance policy.

> "Notice of Voluntary Scheduled Storage Tank System Removal or Replacements – You shall provide notice to us of your intention to perform a voluntary 'scheduled storage tanks system' removal or replacement at least forty-eight (48) hours prior to the voluntary 'scheduled storage tanks system' removal or replacement. Notice shall be provided consistent with CLAIM NOTIFICATIONS (Section VI.), Notice of Potential Claim."

The use of the word shall makes this notification requirement absolute; no allowance is afforded for an owner's or operator's judgment in terms of whether and when to notify the carrier of the removal or replacement activity. Since releases are commonly discovered at the time of tank removal, insurance carriers often want the opportunity to be present at the time of removal to observe the situation and take action as necessary. Absent an owner or operator complying with this notification requirement, coverage for losses associated with contamination discovered or occurring during the course of the removal or replacement of an UST system can be jeopardized or eliminated.

Noncompliance Exclusion

For UST owners and operators using insurance, the federal UST FR regulation requires that UST pollution insurance policies cover corrective action costs and liability losses associated with accidental releases. Non-compliance with environmental laws does not necessarily result in an intentional release.

However, 22 of the 25 policies contain an exclusion which serves to preclude coverage for losses based upon, arising out of, or attributable to failure to comply with environmental laws. Appendix B provides three examples of this exclusion. Three policies do not contain a form of the exclusion discussed above, but they do contain a policy condition that mandates the insured comply with certain local, state, and federal laws regarding reporting and cleaning up releases. Failure to comply with these conditions can serve to reduce or negate coverage for claims.

Claim Notification Requirements

Each policy contains language requiring the insured provide notice of an actual or potential claim. The purpose of this requirement is obvious; carriers can respond to claims only if they are aware of them. The obligation to report the claim is also absolute. If the obligation is not fulfilled in the manner required by the policy, coverage may be reduced or denied. Of particular note is the timeframe for when a claim or potential claim is required to be filed.

The analyzed policies all reference a period of time within which a claim or potential claim must be reported. Following is a representative sample of the time-based notification requirements:

- Immediate written notice;
- In writing, as soon as possible;

- Written or oral notice as soon as possible;
- As soon as possible, but no later than 30 days after receipt of [a third party] claim by the insured;
- Provide in writing as soon as reasonably possible;
- As soon as reasonably possible after any insured becomes aware of a claim or potential claim;
- As soon as practicable.

The words and phrases immediate, as soon as possible, as soon as reasonably possible, and as soon as practicable are not defined by the policies. They are open to interpretation, which may or may not be established by case or state law. Failure to report claims or potential claims in the timeframe required may certainly serve to reduce or entirely exclude coverage for an UST pollution loss.

Policy Definitions

Each of the 25 insurance policies reviewed contain a section providing definitions for various words and phrases used throughout the policy. We did not review every definition of every policy, but the following highlights how definitions for the same term can sometimes be radically different and vary the scope of coverage provided for UST releases from policy to policy. Determining the best definition is not easy, since the answer depends on jurisdictional case law, or an owner's or operator's experience or claim. Appendix C provides additional definition examples for the terms below, which are excerpted from the 25 policies.

Pollution Conditions And Releases

In general, all 25 policies provide coverage for corrective action costs and third-party liability losses arising out of pollution conditions or releases emanating from a scheduled UST. However, the scope of the definition for the terms pollution conditions and releases can be very specific as to what is covered. For example, a policy may specify a release must be investigated and confirmed by a storage tank system tightness test or site check in order to be considered a corrective action cost. In other words, policies that only include confirmed releases as part of their corrective action costs do not cover the costs of investigating suspected releases, such as tank testing, soil sampling, and other expenses, to confirm if the insured tank is leaking. (See also below.)

Clean Up Or Corrective Action Costs

The scope of coverage provided for "clean up" or "corrective action" costs can vary from a broad definition, such as "…expenses for removal, remediation or neutralization of contaminants, irritants or pollutants," to a much more limiting and wordy definition, such as:

> "…response, abatement, investigative, and removal actions resulting from a CONFIRMED RELEASE as legally required by subpart F of the federal underground storage tank regulations, 40 CFR 280.60…or as legally required by other applicable federal regulations…; or the response abatement, investigative and removal actions pursuant to a written order from the IMPLEMENTING AGENCY or if there is an applicable statute or regulation established by the federal, state or local governmental authorities which require the cleanup or corrective action and with prior written approval of the Company, of REGULATED SUBSTANCES in soil or groundwater due to a confirmed release..."

The longer definition above specifically excludes any costs the owner and operator may have incurred to confirm a potential release, such as tank testing or soil sampling, while the broader definition may provide coverage for those costs. An owner or operator filing a claim to recover the costs of these expenses would be denied under the longer policy definition.

Coverage For Property Damage Liability Claims

The federal UST FR regulation generally defers to applicable state law and standard insurance industry practices on the definition for the term property damage. The only exception is exclusions for property damage cannot include corrective action associated with releases from tanks covered by the policy. Our analysis of the 25 policies reveals that the primary differences between the definitions for property damage focus on the inclusion of: diminished third-party property value; loss of use due to being evacuated or the inability to use or access the property; natural resource damage; or reduction in fair market value.

Data Collection Efforts

Analyzing UST insurance policies helped EPA identify certain policy terms and conditions that could present coverage and claim challenges for UST owners and operators. But EPA also wanted to assess whether denial of claims by insurance carriers is a widespread concern. EPA heard anecdotes typically claiming that UST insurance does not respond nor provide financing for UST cleanup expenses or third-party liability claims. EPA attempted to gather quantitative and qualitative data from various sources in order to provide insight into the extent to which submitted insurance policy claims covered costs associated with releases from regulated USTs (e.g., how much is paid as a percentage of the entire claim submitted and which expenses are reimbursed). As described below, our attempts to obtain substantive empirical information related to UST insurance claims proved difficult.

UST Pollution Insurance Carriers

EPA held teleconferences and meetings with four major insurance carriers that offer UST insurance to owners and operators: ACE, Chartis, Great American Casulty, and Zurich. These four carriers underwrite a large portion of UST pollution insurance sold nationwide. The objectives of these discussions were to inform the insurance carriers about EPA's study and obtain their feedback and insight on UST insurance.

When discussing claims payment, the insurance carriers acknowledged that the nature of insurance dictates that UST pollution insurance policies do not cover every release. Insurance is a financing mechanism, not a financial guarantee. As part of that difference, insurance is not intended to respond to all losses, only losses that are unforeseen or unexpected and happen by chance or by accident. As such, no coverage will be provided for remediation expenses associated with contamination which existed prior to the policy's effective or retroactive date (whichever is earlier).

In fact, according to the insurance carriers, one of the primary reasons a submitted claim may be denied is that the contamination existed prior to the policy's effective or retroactive date, or the insured knew or should have known about the contamination. Even in those cases, the carriers point out that partial payment may be made if the owner and operator can demonstrate that a portion of the contamination was associated with a new release which then co-mingled with old contamination. The insurance carriers mentioned two other common reasons for claim payment denial: late claim reporting and filing by the insured, and a release emanating from an UST not scheduled on the policy.

While the insurance carriers offered reasons a claim payment may be denied, they also generally maintained they are willing and obligated to reimburse owners and operators, either in full or in part, if claims are substantiated. They said it is rare for claim payments to be denied in full. They expect a certain percent of total UST premiums received will be used to cover UST claim

payments. Furthermore, the insurance carriers pointed out that since they incur administrative costs as long as claims stay open, they try to work with owners and operators to address contamination as quickly as possible.

Two insurance carriers provided limited quantitative information that addressed questions regarding UST premiums and claim payments. Based on their information, it appears carriers are not denying a significant percentage of claims submitted by their policyholders, and the costs of paying these claims do not exceed the premiums they receive (although one suggested costs have increased in recent years). However, none of the carriers submitted actual data to EPA for analysis.

All of the insurance carriers agreed owners and operators need to better understand the terms and conditions of their UST pollution insurance policies and to view their insurance policy as more than a simple requisite purchase for meeting the federal UST FR regulation. For example, owners and operators may select newer retroactive dates, even though they or their agents may not understand how dates can impact coverage. (Some owners and operators elect a newer retroactive date because the premium is lower than for a policy with an older retroactive date.) Investigations conducted after a claim is filed sometimes reveal owners and operators did not comply with federal UST regulations, such as notifying the appropriate implementing agency about the release or properly maintaining equipment, which may also impact coverage. One carrier noted they observed owners and operators try to clean up a release on their own until costs skyrocket. By then, the release has already been discovered, and it is usually too late to file a claim to report the release.

State Insurance Commissioners

As mentioned above, none of the four insurance carriers provided EPA with data about their UST premiums or claims. Without this information, it is difficult for EPA to assess the frequency of claims filed and whether there are any notable trends (e.g., whether UST claims costs are increasing or UST claim denials are rising). Other than directly from the insurance industry, the next potential source for obtaining UST claims data is state insurance commissioner offices to whom admitted insurance companies must provide data about the insurance they underwrite each year.

With contractor assistance, EPA informed Wisconsin's Office of the Commissioner of Insurance (OCI) regarding our effort to assess UST insurance as a FR mechanism. In November 2010, Wisconsin OCI issued an UST insurance survey to eight companies licensed to sell insurance in Wisconsin. The same information that was directly requested from the four insurance carriers above was posed as questions in the survey (e.g., provide the number of submitted claims seeking payment; of the number of submitted claims, how many were denied and for what reasons).

Despite OCI's willingness to assist EPA, the survey results were disappointing. Of those eight companies, only three are domiciled in Wisconsin and thus compelled to respond to the survey; the remaining five did not respond. Two of the respondents reported zero earnings from UST pollution insurance premiums, suggesting they do not offer UST insurance. The remaining respondent indicated it received one claim in 2009, which it denied because the release occurred prior to the policy retroactive date.

While OCI's survey was unable to offer useful insight on the frequency and outcomes of UST insurance claims, EPA believes state insurance commissioner offices can be a valuable conduit for requesting data from insurance carriers related to UST insurance.

***Michigan Department Of Natural Resources And Environment* Survey (2009)**

Given the challenges EPA experienced in obtaining empirical data, this report includes Michigan's Department of Natural Resources and Environment (DNRE) attempt to assess how well insurance works as a FR mechanism in Michigan. While the low response rate to the DNRE survey is not statistically significant, this survey is one of the few examples that provides aggregate information on how UST insurance is being used by owners and operators and their experiences when submitting claims.

In 2009, DNRE mailed an UST pollution insurance survey to members of three associations: Associated Petroleum Industries of Michigan; Michigan Petroleum Association/Michigan Association of Convenience Stores, Inc.; and Service Station Dealers Association. The survey asked questions regarding an owner's or operator's UST insurance, such as:

- Name of UST pollution insurance provider;
- Ease with which UST pollution insurance could be obtained;
- Whether owners and operators perceived the insurance was affordable;
- How the carrier responded to releases (covered, denied, promptly, slowly, etc.); and
- Reasons the claim was denied.

Out of 556 surveys sent, DNRE received 62 anonymous responses – 43 of which indicated the respondent met the federal UST FR regulation by purchasing insurance. Of those indicating they had submitted claims to their carriers (approximately half of those carrying insurance):

- Ten indicated the claim was paid in full;
- Seven indicated the claim was denied in full; and
- Three indicated the claim was partially denied.

The bases for denials included:

- Release discovered outside of the policy period;
- Release was co-mingled with an ineligible release;

- Claim submitted too late; and
- Owner or operator was in noncompliance with regulations.

As mentioned earlier, the low response rate of the Michigan survey means these results cannot be used to generalize the experience of owners and operators in other states or nationwide. However, it provides an example of the type of quantitative information EPA was unable to obtain through insurance carriers or Wisconsin's OCI survey, but would be valuable to EPA in our assessment of UST insurance.

Litigation And Anecdotes From Owners And Operators

The final aspect of EPA's study involved reviewing litigation related to UST insurance and summarizing owner's and operator's experiences with UST insurance. The limited results of data collection efforts discussed above do not suggest that excessive claim denial by insurance carriers is a systemic issue. However, EPA recognizes that on a case-by-case basis, there are owners and operators who believe their insurance carriers are wrongly denying coverage. In fact, EPA undertook this study in part to investigate and quantify the extent of these occurrences. The litigation cases and anecdotal accounts below document the difficulties individual owners and operators have encountered when trying to recover costs through their UST insurance policies.

Review of Litigation

EPA reviewed litigation to see what issues and aspects of UST insurance may inhibit its effectiveness as a FR mechanism. Appendix D provides a list of litigation reviewed by this study.[16,17]

Based on the review, several important findings emerged. The time frame between when an UST pollution insurance policy is issued, when a claim is initiated, and when the litigation concludes can be vast. The time periods associated with these cases range from three to eight years. Discussions with a few owners and operators indicate remediation activities may or may not proceed while coverage is in dispute. Deciding to pursue remedial activities is typically a function of several items, such as: the extent of the contamination; owner's and operator's financial ability to pay for remediation expenses; and degree to which regulatory enforcement agencies are involved or aware of the situation.

The court cases also reveal the challenges an owner or operator faces when claims for costs presumed to be covered are suddenly disputed. The cases hinge on contractual terms and factual disputes. Proving the source of contamination, determining the age of the release, and providing

[16] This review only represents a limited selection of litigation and is not meant to be a comprehensive listing. Note also that in seven cases, litigation was dismissed prior to the court's final decision. They are included because of the issues raised during the proceedings.

[17] Appendix D also provides a list of additional court cases that may be of interest to the reader related to UST financial responsibility and UST insurance. These were not reviewed as part of this study.

evidence that a confirmed release occurred are only several examples of topics that can be contested in court.

The federal UST regulation states owners and operators are responsible for and must remediate contamination. However, if remediation begins without a carrier's approval, reimbursement from the carrier may not be forthcoming.[18] Unless carriers approve expenses in advance, they might not reimburse owners and operators who use their own resources to conduct remediation and prevent further contamination. Finally, owners and operators who do not pursue remediation during disputes may eventually suffer financially because they failed to mitigate the damage and face more extensive contamination and regulatory enforcement consequences.

Anecdotes

EPA contacted several owners and operators to discuss their experiences with filing UST pollution insurance carrier claims. Two cases are summarized here. One case involves a first- and third-party claim that began in 2005. As of fall 2010, remediation at the site was ongoing and costs exceeded $1 million. The owner filed with the state fund early in the process and was reimbursed for a large portion of his remediation expenses. In 2006, the owner submitted documentation to his carrier, seeking coverage for the remaining balance. The owner has not received any attentive response from the carrier since then. In another case, onsite contamination is not being remediated due to an ongoing dispute between the owner and the insurance carrier regarding the age of contamination discovered at the site in early 2010. The insurance carrier believes the contamination is old (pre-2000) and offered to pay 35 percent of the remediation expenses, though a previous site assessment in 2000 indicated no contamination at the time. The owner believes he will have to hire an environmental consultant and legal counsel to respond to the carrier's position.

Attorneys who practice in three states (WI, MI and FL) and represent owners and operators in UST pollution insurance litigation also provided their perspective on UST insurance as a FR mechanism. All agreed there is a minimal amount of UST pollution insurance-specific case law available to categorically suggest UST insurance is ineffective as a FR mechanism. However, based on their experience, they believe the time involved with litigation and the numerous reasons for a claim to be disputed hamper the ability of UST insurance to provide adequate and prompt FR for owners and operators.

[18] The possibility of remediating a site even without litigation, but before an insurance carrier accepts or denies coverage, presents a double-edged sword for owners and operators. Most UST insurance policies contain language that precludes or reduces coverage: for expenses or charges incurred by the insured for goods supplied by the insured or services performed by the insured's staff or employees, if such costs, charges, and expenses are incurred without the carrier's prior written consent; for voluntarily making payments, assuming obligations, or incurring expenses without providing notice to, and receiving consent from, the carrier; or to the extent the insured fails to mitigate, minimize, or avoid damages.

These are a couple of examples EPA has heard over the years describing the hardships individual owners and operators face when attempting to recover costs from their insurance carriers. The summation of these accounts may hint at an undercurrent of widespread owner and operator discontent with UST insurance. Indeed, several years prior to this study, EPA approached the Petroleum Marketers Association of America (PMAA) to explore this notion and determine whether individual state association members were encountering UST insurance problems. After two years of examination, PMAA concluded it could not draw meaningful conclusions or identify national trends of concern from its insurance-related survey of state UST programs and conversations with state executives.

Conclusions And Potential Next Steps

In conducting this study, EPA set out to explore the effectiveness of UST insurance as a FR mechanism and, more broadly, to get a sense of how UST insurance is working under the existing regulatory framework. The study findings are inconclusive as to whether UST insurance is effective as a FR mechanism.

On one hand, the analysis of UST insurance policy language revealed certain definitions, terms, and conditions that could pose coverage and claim challenges for UST owners and operators. Furthermore, the litigation review suggests UST pollution insurance policies do not always respond in a timely manner to provide financing for remediating releases from regulated USTs.

Yet under the existing regulatory framework, the insurance policies we analyzed are in compliance with the federal UST FR regulation, despite the potentially problematic insurance policy language. In fact, the policies purchased by owners and operators generally complied with the federal UST FR regulation. Despite our failure to obtain aggregate claims submission and payment data and based on discussions with insurance carriers and the limited information from Michigan's DNRE survey, it does not appear that insurance carriers are excessively or dismissively denying claim payments. Nonetheless, EPA is aware of individual circumstances where owners and operators feel their insurance carriers are inappropriately denying coverage. While the list of contested issues can be extensive, the contractual nature of insurance policies legitimately allows insurance carriers, as one of the contractual parties, to pursue legal means to ensure that policyholders (i.e., owners and operators) meet their policies' obligations before agreeing to pay.

Moreover, even though this study identified several issues that may hinder the effectiveness of UST insurance policies to provide prompt financing of releases, it is still unclear the extent to which UST insurance as a FR mechanism has led to unremediated releases or stalled remediation.[19] Thus far, EPA has been unsuccessful in obtaining data on backlog sites or abandoned contaminated sites where insurance was the FR mechanism at the time of the confirmed release and why UST insurance did not provide coverage (e.g., the owner or operator did not file a claim within the appropriate policy period or the UST release was not covered by the most recent policy). Conversely, EPA also has insufficient data indicating whether confirmed releases have been successfully remediated at sites where UST insurance is used as a FR mechanism, regardless of whether the insurance policy was used by the owner or operator.

Nevertheless, EPA acknowledges this study identified certain aspects of UST insurance that may be at odds with EPA's ideal of how and when a FR mechanism should respond to releases. EPA

[19] The 14 state databases analyzed in EPA's *The National LUST Cleanup Backlog: A Study Of Opportunities* suggest that, in general, the age of releases of privately financed cleanups are slightly younger than the age of releases of state funded cleanups. However, while three states in that study tracked the specific type of private FR mechanism associated with a confirmed release, further analyses could not be performed due to data gaps. (EPA's study is available at: www.epa.gov/oust/cat/backlog.html)

presents several ideas below to foster a robust discussion of next steps. In considering whether to pursue any of the ideas, EPA will strongly weigh a number of factors, including the effect of implementation on the availability and affordability of UST insurance to owners and operators. Any change that broadens the scope required of an UST insurance policy will likely adversely impact the affordability of UST insurance, assuming the change would reduce the reasons for which coverage of a release is reduced or denied.

Educating Owners And Operators About UST Pollution Insurance

Insurance policies are generally difficult for policyholders to read and understand. Despite renewing and paying premiums on them every year, it is likely that very few people or companies closely examine the language in their insurance policies until they find themselves in need of the coverage under the policies.

Without outside assistance, it may be difficult for individual UST owners and operators to make operational decisions and insurance selections that may enhance the likelihood that coverage will be provided under their UST insurance policies if a release occurs. Possible strategies include educating owners and operators about: UST insurance; compliance with FR insurance requirements; specific policy provisions to which they should pay particular attention; and recommended practices that may reduce the chance of complications when filing claims with their insurance carriers (e.g., reporting releases as early as possible, or conducting a site assessment prior to temporarily closing their UST systems). Insurance carriers contacted for this study generally supported the idea of better education for UST owners and operators on issues such as early leak detection and operator training to enhance proper maintenance and compliance.

Improved education could include:

- Educational seminars for owners and operators about UST pollution insurance. These could be offered through state or national associations to which many owners and operators belong. The sessions could be provided through in person group settings, webinars, and online classes;
- Educational materials on EPA's website for owners and operators. Educational materials could also be distributed through petroleum marketer and convenience store associations in states where UST insurance is relied upon to meet the federal UST FR regulation;
- An online resource for owners and operators (and staff) to access UST pollution insurance information. Resource examples include: articles discussing UST pollution insurance provisions to be aware of; implications of buying insurance based solely on price; historical court cases highlighting challenges UST insurance policies may present as an avenue to obtain coverage for releases; checklist to compare UST pollution insurance quotes and coverage; and webinars.

Additional Data Collection Efforts

EPA attempted to obtain aggregate UST insurance claims data to assess the frequency of claims filed, reasons behind claim denials, and extent of these claim payment costs. As discussed above, our efforts provided only limited results. Furthermore, EPA was unable to collect or locate consistent data that tracks whether the FR mechanism in place at the time of a confirmed release at a site or facility was insurance, and if so, whether the release was successfully cleaned up, regardless of whether insurance coverage was triggered or not. In other words, if a confirmed release is reported at a site and UST insurance is the FR mechanism in place, was the site subsequently reported as a cleanup completed? For those cases where the cleanup is incomplete or the site is abandoned and insurance was the FR mechanism in place at the time of the confirmed release, it would be informative to find out if an insurance claim was filed during the policy period and whether subsequent steps occurred. Without such information, it is difficult for EPA to fully evaluate the effectiveness of UST insurance.

As a potential next step, EPA would like to work with interested parties to identify additional sources of information that could provide more insight into the above issues. EPA would also be glad to work with interested parties who would like to share, provide, or develop data that could further assist EPA in its evaluation.

Revising Existing Federal UST FR Regulation

Our analysis revealed UST insurance policy language that, while permitted under the federal UST FR regulation, may limit coverage provided by UST insurance. One way to remove or restrict use of this policy language is to amend the current regulation and place additional requirements on the use of UST insurance as a FR mechanism. However, given the resources involved in developing a new regulation, EPA would need concrete evidence that issues related to UST insurance are significantly contributing to unremediated UST sites before pursuing this approach. Nevertheless, we present below for discussion purposes several potential revisions to the current regulation. These are examples and this is not an exhaustive list.

Set Limits On Retroactive Dates

Barring unusual circumstances and all other things being equal, an owner or operator should strive to purchase the oldest retroactive date possible. Replacing a retroactive date on an UST insurance policy with a more recent retroactive date results in an insurance coverage gap. Reasons the retroactive date may change from policy to policy include:

- An owner or operator does not understand the purpose and meaning of a retroactive date;
- Insurance carriers provide a premium discount for accepting a newer retroactive date;
- Insurance agents or brokers selling UST policies:
    - Do not understand the purpose and meaning of a retroactive date;

- Have no legal duty to advise an owner or operator about the most appropriate (i.e., in the best interest of an owner or operator) policy terms and conditions; and
- Have no legal duty to ensure an owner's or operator's UST insurance policy is structured to provide the broadest possible coverage.

Possible revision: Require owners and operators have UST pollution insurance policies that:

- Use and carry forward the oldest retroactive date noted on an owner's or operator's current UST policy associated with each tank system; or
- Use a retroactive date that coincides with an UST's original installation or equipment upgrade date; or
- Use a retroactive date that coincides with the first year a site operated USTs.

Require Purchase Of Site-Based Pollution Insurance

UST insurance policies provide UST-system specific (i.e., tank specific) coverage, and covered releases must emanate from a tank system scheduled on the policy. The burden of proving the policy provides coverage for a release rests with an owner or operator. Thereafter, the insurance carrier may apply other policy terms, conditions, and exclusions in support of denying coverage for the claim. An owner or operator then must refute the insurance carrier's position with evidence and documentation acceptable to the carrier in order to receive coverage.

As seen from past litigation, if an owner or operator does not list a tank or UST system on the policy and it is determined the release emanated from that unscheduled tank or UST system, the policy will not provide coverage. Additionally, if an owner or operator can only prove the site has been contaminated by a regulated substance but cannot prove the source of the contamination, the policy may not provide coverage.

Possible revision: Require UST insurance provide for site-based coverage. These policies go by a variety of names, such as commercial pollution legal liability and premises pollution liability. Despite use of the term liability in the title, which infers it may only respond to third-party claims, these policies provide both first- and third-party coverage. This coverage is currently available from the private insurance industry, but demand is low relative to the amount of general liability or auto liability insurance purchased by commercial insurance consumers and compared to UST owners and operators who currently rely on UST-specific pollution insurance to meet the federal UST FR regulation.

Mandate Site Contamination Testing Before Temporary Closure

Most UST pollution insurance policies cover releases from operating UST systems. As discussed earlier, several policies specifically eliminate coverage for releases from TOS USTs after TOS status is attained. Additionally, releases associated with a formerly operating UST but discovered and reported after it attains TOS status will not be covered by many UST pollution insurance policies, because the policy period for that TOS tank ceased the day it attained this status.

Possible revision: Amend the federal UST regulation to mandate that UST sites scheduled for temporary closure (per the requirements at 40 CFR 280.70) be tested for contamination prior to the tank transitioning to temporarily closed status. At a minimum, soil samples should be collected from the UST site, including around spill buckets and fill area and analyzed for contamination. Insurance coverage is more likely to be triggered if contamination is discovered and reported to the insurance carrier before the tank transitions to temporarily closed status. Alternatively, as part of the suggested education efforts, owners and operators could be encouraged to conduct a site assessment prior to temporarily closing their UST systems.

Remove Requirement For Empty Temporarily Closed Tanks To Be Insured

Many current UST pollution insurance policies preclude or cease to provide coverage for TOS tanks as of the date tanks attain this status. At least one carrier, who agrees to list TOS tanks on its UST policy, mandates that the insured understands and agrees the policy will cover an associated loss upfront, but will seek reimbursement for such payment from the insured.

Possible revision: Amend the federal UST FR regulation and remove the requirement that empty temporarily closed tanks be insured, as long as tests for contamination are done prior to attaining this status. Similar to the possible revision above, insurance coverage is more likely to be triggered if contamination is discovered and reported to the insurance carrier before the tank transitions to temporarily closed status.

Conclusion

EPA presents these ideas as possible ways to resolve some of the UST pollution insurance issues identified in this study. By featuring them in this paper, EPA is not implying we will implement them. In particular, EPA reiterates that in order to pursue federal UST FR regulation revisions, EPA needs solid evidence that the use of UST insurance is a significant contributing factor to the lack of or stalled remediation at UST sites. A critical consideration is the impact of any potential change on the availability and affordability of UST insurance to owners and operators. Most of these ideas will likely lead to higher premiums for owners and operators; some may even result in the refusal or reluctance of insurance carriers to offer UST insurance products.

Through this study, EPA seeks to advance the discussion about the viability of insurance as an UST FR mechanism. As next steps, EPA will work with owners and operators, state and tribal regulators, insurance carriers, and other stakeholders to examine possible improvements to the UST FR program through the ideas presented above or through other suggestions.

Appendix A

Policy Language Related To Temporary Out Of Service (TOS) Tanks

The following are excerpts from insurance policies of three insurance carriers. These provide examples of language that may result in the elimination of insurance coverage for TOS tanks.

- Insurance Carrier 1:

"II. DEFINITIONS

A. "Abandonment" or "abandoned" means the discontinuance of operation of a "scheduled storage tank system" without performing and completing any required closure of the "scheduled storage tank system" pursuant to state, local or municipal law, regulation, order or agency direction.

M. "Policy period" means the period set forth in the Declarations, or any shorter period arising:

1. from cancellation or termination of this policy by us or you; or

2. with respect to specific "scheduled storage tank system(s)" designated in the Declarations:

a. the deletion of such "scheduled storage tank system(s)" from this policy by us upon your request; or

b. the sale, leasing to others, giving away, "abandonment", or relinquishing of operational control, of such "scheduled storage tank system(s)" by you."

"IV. EXCLUSIONS

This insurance does not apply to "claim(s)", "cleanup costs" or "loss(es)" based upon or arising out of:

E. any "release" from a "scheduled storage tank system" which commences after the "scheduled storage tank system" or the "scheduled location" is sold, leased, given away, "abandoned", or operational control has been relinquished by the "insured";"

Based on the wording above, the insurance carrier offering this policy may not be providing coverage for releases emanating from TOS tanks. USTs falling into these categories may be considered abandoned per the policy definition because they are not in operation, and losses commencing after a tank is abandoned are excluded under Exclusion E. Furthermore, the definition of policy period takes into consideration an UST's status and states the policy period

for an UST concludes when it attains the status of a TOS tank (which in this case falls under the definition of abandoned).

- Insurance Carrier 2:

"II. EXCLUSIONS

This insurance does not apply to "claim", "corrective action", "suit" or costs to investigate, contest, defend or appeal arising from:

8. Abandonment. Any "confirmed release" commencing after the date any "scheduled storage tank system(s)" is sold, "abandoned", given away, leased, subleased or ceases to be operational by or otherwise under the control of the insured."

"XI. DEFINITIONS

1. "Abandonment" or "abandoned" means the discontinuance or operation of a "scheduled storage tank system" without performing and completing any required closure of the "scheduled storage tank system" pursuant to any "implementing agency" order or direction.

14. "Policy period" means the period set forth in the Declarations, or any shorter period arising as a result of:

a. Cancellation of this policy; or

b. With respect to specific "scheduled storage tank system(s)" listed by applicable endorsement to the policy:

i. the deletion of such "scheduled storage tank system(s)" from this policy by us; or

ii. the sale, leasing to others, giving away, or "abandonment" of such "scheduled storage tank system(s)"."

Similar to the policy excerpt from insurance carrier 1, the language of this policy may result in the loss of coverage for tanks in TOS status. Exclusion 8 precludes coverage for losses commencing after a scheduled storage tank system is abandoned (the discontinuance of operation without performing and completing any required closure) or ceases to be operated by the insured. This coverage position is underscored by the application of the policy's definition of policy period, which stipulates coverage ceases once a tank becomes abandoned.

- Insurance Carrier 3:

  "VI. EXCLUSIONS

  This policy does not apply to:

  J. Any "claim" based on or arising out of a "release" commencing after the date of any "scheduled facility" and/or "storage tank system" is sold, abandoned, given away, leased, subleased or ceases to be operated by or otherwise under the control of the insured."

The exclusion language in this policy precludes the coverage for losses associated with TOS tanks after the operating tank transitions to TOS status (i.e., ceases to be operated by the insured).

Appendix B

Policy Language Related To Noncompliance Exclusion

The following are three examples of noncompliance exclusions, presented in the order of most to least favorable for the insured:

- Example 1:
  "This insurance does not apply to "claims", "clean-up costs" or "losses" based on or arising out of…the intentional, willful or deliberate non-compliance with any statute, regulation ordinance, administrative complaint, notice of violation, notice letter, executive order or instruction of any governmental agency or body by or at the direction of an "insured", except that this exclusion will not apply to an "insured" who did not commit, participate in, or have knowledge of any the acts described."

- Example 2:
  "This policy does not apply to …Bodily Injury, Property Damage or Corrective Action costs arising out of an incident which results from or is directly or indirectly attributable to failure to comply with any applicable statute, regulation, ordinance, directive, or order relating to the protection of the environment and promulgated by any governmental body, provided that failure to comply is a willful or deliberate act or omission of: the insured, or you or any of your members, managers, partners or 'executive officers'."

These two exclusions apply based on the intention of the insured. The exclusion applies only if the failure to comply is intentional, willful, or deliberate. While this is an important distinction, the exclusion does not offer an innocent until proven guilty proposition. Instead, a claim adjuster must only suggest the behavior was intentional or deliberate. At that point, the insured must prove otherwise. This can be an extremely difficult objective for the insured owner or operator to meet.

A more restrictive version of this exclusion was added to another policy which already contained the second exclusion quoted above. This additional exclusion, issued by the same carrier for a more recent policy period, states:

- Example 3:
  "Regulatory Compliance Exclusion Endorsement - …this exclusion is added to the Exclusions section of the Policy. This insurance does not apply to claims, corrective action costs, or legal defense expenses arising out of or related to: Regulatory compliance - A storage tank incident involving a covered AST or UST that was not in compliance with all applicable laws and regulations prior to a storage tank incident."

Two points are noteworthy. The third exclusion applies regardless of the presence or absence of the insured's intent to not comply with environmental laws. The exclusion has a broad reach in that it considers all applicable environmental laws in determining whether the exclusion applies. For example, if an UST system is required to comply with 23 environmental laws and only complies with 22, and non-compliance with the 23rd law contributes to or causes the release, this exclusion would likely serve to exclude coverage for some, if not all, of the loss.

Appendix C

Examples of Policy Definitions For Various Words And Terms

- Pollution Conditions/Releases

  a. Definition 1:
  Release of pollutants from an UST or AGST that is shown on the schedule of insured tanks in the Declarations page.

  b. Definition 2:
  "Release" means spilling, leaking, emitting, discharging, escaping or leeching of one or more regulated substances from a storage tank system into groundwater, surface water, surface or subsurface soils or the atmosphere.

  c. Definition 3:
  "Confirmed Release" means a release [spilling, leaking, emitting, discharging, escaping or leaching] that has been investigated and confirmed by or on behalf of the insured by performing a storage tank system tightness test or site check in accordance with 40 CFR 280.52 or other applicable state reg. or statute.

  d. Definition 4:
  "Release" means discharge, dispersal, release, or escape of any solid, liquid, gaseous or thermal irritant, contaminant or pollutant, including smoke, vapor soot, fumes, acids, alkalis, chemicals and waste from a scheduled storage tank system into groundwater, surface water, or surface or subsurface soils, which release has been investigated and confirmed by utilizing a system tightness check, site check or other procedure approved the Federal EPA.

  e. Definition 5:
  "Release" means continuous or repeated emission, discharge, release or escape of petroleum from UST into or upon land, atmosphere or watercourse or body of water provided that these conditions result in Corrective Action Costs, Bodily Injury or Property Damage.

- Cleanup Or Corrective Action Costs

  a. Definition 1:
  "Expenses for removal, remediation or neutralization of contaminants, irritants or pollutants."

b. Definition 2:
"Necessary expenses incurred in the investigation, removal, remediation, neutralization or immobilization of contaminated soil, surface water, groundwater, or other contamination; and for a claim under Coverage A. [first party cleanup] the legal fees and costs to represent the insured before any federal, state or local regulatory agency provided such fees and costs are reasonable and necessary and incurred with our written consent; however, any costs incurred by the insured to confirm the existence of a release under Coverage A. shall not be considered cleanup costs."

c. Definition 3:
"Reasonable and necessary expenses incurred in response to a confirmed 'UST incident' [spilling, leaking, emitting, discharging, escaping, leaching or disposing of petroleum from UST tank into groundwater, surface water or subsurface soils from an insured tank] for corrective action as specified by EPA."

d. Definition 4:
"Response, abatement, investigative, and removal actions resulting from a confirmed release as legally required by subpart F of the federal UST regulations, 40 CFR 280.60…or as legally required by other applicable federal regulations or EPA; or the response abatement, investigative and removal actions pursuant to a written order the implementing agency or if there is an applicable statue or regulation established by federal state, or local governmental authorities which require the cleanup or corrective action and with prior written approval of company, of regulated substances in soil or groundwater due to a confirmed release."

- Coverage For Property Damage Liability Claims

a. Definition 1:
Physical injury to or destruction of tangible property, excluding all resulting loss of use of that property.

b. Definition 2:
Physical injury to or destruction of tangible property of parties other than the insured, including resulting loss of use.

c. Definition 3:
Physical injury to or destruction of tangible property not owned, rented, or otherwise occupied by any insured, including the resulting loss of use thereof; loss of use of tangible property not owned, rented, or otherwise occupied by any insured that has not been physically injured or destroyed; diminished third-party property value.

d. Definition 4:
   Physical injury to or destruction of or contamination of tangible property, including loss of use; loss of use of tangible property that is not physically injured, destroyed or contaminated but has been evacuated, withdrawn from use or rendered inaccessible because of an environmental incident.

e. Definition 5:
   Physical injury to or destruction of tangible property, including the resulting loss of use thereof; loss of use of tangible property that has not been physically injured or destroyed; cleanup costs; and natural resource damage.

f. Definition 6:
   Physical injury to or destruction of tangible property, including loss of use thereof; and the reduction in the fair market value of real or personal property not owned, leased or otherwise under the control of any insured.

Appendix D

List Of UST Insurance Litigation Reviewed For Study

- First Coast Energy LLP v. Mid-Continent Cas. Co., No. 162006-CA-001738 (Dist. Florida 2010), appeal docketed No. 1D10-5740 (Fl. App. Oct. 28, 2010)
- Mid-Continent Cas. Co. v. L.B. King Oil & Tires, 552 F. Supp. 2d 1309 (N.D. Fla. 2008)
- ABO Petroleum, Inc. v. Colony Ins. Co., No. 2:04-cv-72090, 2005 WL 1050220 (E.D. Mich. Apr. 19, 2005)*
- Chambliss, Ltd. v. Commerce & Indus. Ins. Co., No. 06-61202-CIV, 2007 WL 3047144 (S.D. Fla. Oct. 18, 2007)*
- The Alan Corp. v. Int'l Specialty Lines Ins. Co., 22 F.3d 339 (1st Cir. 1994)
- Cain Petro., Inc. v. Zurich American Ins. Co.,197 P.3d 596 (Or. App. 2008)
- The Pantry, Inc. v. Amer. Safety Indemnity Ins. Co., No. 1:07-cv-00661 (M.D.N.C. 2007)*
- Kelly Fuels, Inc. v. Zurich Amer. Ins. Co., No. 2:07-cv-12454 (E.D. Mich. 2007)*
- Marathon Flint Oil Co. v. Zurich Amer. Ins. Co., No. 4:09-cv-14981 (E. D. Mich. 2009)
- Lakeview Oil , Inc. v. Zurich Amer. Ins. Co. (3P Claim), No. 2:05-cv-74219S (E.D. Mich. 2005)*
- Param Petroleum Corp. v. Commerce & Industry Ins. Co., 686 A.2d 377 (N.J. App. 1997)
- DTI of Saginaw, Inc. v. Zurich Amer. Ins. Co., No. 2:08-cv-10202 (E.D. Mich. 2008)*
- John R. McKenzie Jobber, Inc. v. Mid-Continent Cas. Co., No. 8:07-cv-00214-JSM-MAP (M.D. Fla 2007)*

* Litigation was dismissed (either by the court or voluntarily by the parties) prior to the court's final decision. They are included here because of the issues raised during the proceedings.

Other Court Cases Related to UST FR and UST Insurance

- Peabody Essex Museum, Inc. v. U.S. Fire Ins. Co., 623 F. Supp. 2d 98 (D. Mass. 2009)
- Mears Transp. Group, Inc. v. Zurich Am. Ins. Co., 660 F. Supp. 2d 1297 (M.D. Fla. 2009)
- Boston Gas Co. v. Century Indem. Co., 588 F.3d 20 (1st Cir. 2009)
- M & M Holdings, Inc. v. State Auto Prop. & Cas. Ins. Co., No. 06-4031-SAC, 2007 WL 1531843 (D. Kan. May 25, 2007)
- D/H Oil & Gas Co. v. Commerce & Indus. Ins. Co., No. 3:04-CV-448-RV/MD, 2005 WL 1153332 (N.D. Fla. May 9, 2005)
- Zurich American Ins. Co. v. Whittier Properties, Inc., 356 F.3d 1132 (9th Cir. 2004)
- In re Virgin Petroleum-Princess, Inc., No. RCRA-02-2002-7501, 2003 WL 22245382 (ALJ Sep. 10, 2003)
- Boerman v. American Empire Surplus Lines Ins. Co., 50 Fed. Appx. 248 (6th Cir. 2002)
- In the matter of: U.S. Army, Ft. Wainwright Cent. Heating & Power Plant, No. CAA-10-99-0121, 2001 WL 789532 (ALJ Jul. 3, 2001)
- Aetna Cas. & Sur. Co. v. Dow Chem. Co., 28 F. Supp. 2d 440 (E.D. Mich. 1998)
- In re B & R Oil Co., Inc., No. RUST-007-91 (ALJ Sep. 4, 1997) aff'd, 8 E.A.D. 39 (EAB 1998)
- In the matter of: Goodman Oil Co., No. RCRA-10-2000-113, 2001 WL 1663166 (ALJ Aug. 22, 2001)
- In re Virgin Petroleum-Princess, Inc., No. RCRA-02-2002-7501, 2003 WL 22245382 (ALJ Sep. 10, 2003)

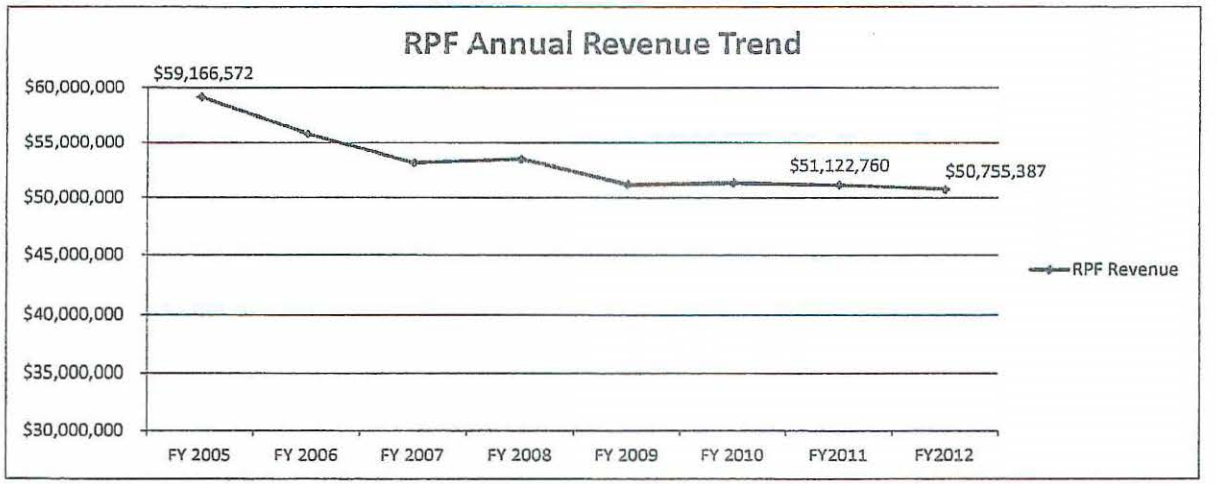
Appendix

C

Refined Petroleum Fund
Appropriations FY 2005 - FY 2013

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	*Proj FY 2015 3% incr*
DEQ											
Executive direction	$ 210,600	$ 218,500	$ 221,600	$ 221,600	$ 300,000	$ 400,000	$ 399,200	$ 414,500	$ 568,900	$ 580,900	*$ 598,327*
Central operations	1,260,600	1,713,600	1,953,200	1,327,100	1,192,000	643,900	748,500	594,500	575,700	$ 412,300	*$ 424,669*
Human res optimization user charges			3,100	4,100							
Internal Audit Services					40,000						
Accounting service center								163,600	171,600	$ 176,900	*$ 182,207*
Information technology services & projects			813,100	684,900	704,300	1,414,500	1,217,800	1,187,700	1,941,500	$ 1,696,300	*$ 1,747,189*
Building occupancy charges	1,770,000	1,910,300	1,478,900	465,600	818,600	563,500	352,800	331,500	173,900	123,800	*173,900*
Rent - privately owned property	605,000	605,000	224,800	216,100	306,100	664,600	789,600	789,600	789,600	866,600	*789,600*
Environmental Investigations						253,900	290,000	291,600	393,100	$ 377,600	*$ 388,928*
Contam site invest, cleanup & revitalization	4,200,000	4,319,000	4,600,700	5,790,900	5,813,500	5,932,700	7,263,300	7,602,800	7,861,500	$ 8,075,400	*$ 8,317,662*
Emergency cleanup actions				1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	*1,000,000*
Refined petroleum product cleanup program		57,000,000	22,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	30,000,000	32,500,000	*$ 32,500,000*
DMB Reduction Transfer to EPF		(42,000,000)	(22,000,000)								
Refined petroleum initial program		45,000,000									
DMB Reduction Transfer to EPF		(6,000,000)									
Air quality programs	2,975,000	2,652,000	2,664,000	2,850,700	2,864,800	2,873,300	3,026,400	3,163,200	3,368,500	$ 3,551,500	*$ 3,658,045*
Underground storage tank program					821,900	1,001,100	525,700	543,200	568,900	$ -	*$ -*
Aboveground storage tank program					175,000	403,400	424,500	446,000	457,000	$ -	*$ -*
Surface Water				103,000	103,600	105,300	109,700	113,300	120,700	$ 123,400	*$ 127,102*
Fish contaminant monitoring	316,100	316,100	316,100	316,100	316,100	316,100	316,100	316,100	316,100	$ 316,100	*$ 325,583*
Drinking water and environmental health	500,000	509,600	524,100	540,100	543,000	552,000	576,900	601,100	646,900	$ 664,500	*$ 684,435*
Grants to counties-air pollution	83,700	83,700	83,700	83,700	83,700	83,700	83,700	83,700	83,700	-	*-*
Total DEQ	$ 11,921,000	$ 66,327,800	$ 12,883,300	$ 33,603,900	$ 35,082,600	$ 36,208,000	$ 37,124,200	$ 37,642,400	$ 49,037,600	$ 50,465,300	*$ 50,917,647*
Agriculture											
Management services		221,500	218,025	239,800	50,400	54,700	57,800	57,800	58,700	*$ 60,461*	*58,700*
Rent and building occupancy charges		114,000	114,000	114,000	114,000	114,000	257,200	257,200	261,600	*$ 269,448*	*261,600*
Laboratory services			137,900	227,500	231,800	284,800	405,000	405,000	430,100	*$ 443,003*	*430,100*
Consumer protection program	3,000,000	2,855,600	2,763,511	2,939,100	2,942,800	3,001,400	3,150,900	3,150,900	3,261,600	*$ 3,359,448*	*3,261,600*
Total Agriculture	$ 3,000,000	$ 3,191,100	$ 3,233,436	$ 3,520,400	$ 3,339,000	$ 3,454,900	$ 3,870,900	$ 3,870,900	$ 4,012,000	$ 4,132,360	*$ 4,012,000*
Treasury - Debt Service											
Quality of life bond	20,341,000	20,341,000	20,341,000	20,341,000	15,514,500	15,514,500	15,514,500	15,514,500	5,514,500	3,014,500	*3,014,500*
Clean michigan initiative	3,573,500	3,573,500	3,573,500	3,573,500							
Total Treasury	$ 23,914,500	$ 23,914,500	$ 23,914,500	$ 23,914,500	$ 15,514,500	$ 15,514,500	$ 15,514,500	$ 15,514,500	$ 5,514,500	$ 3,014,500	*$ 3,014,500*
From DMB Transfer			70,000,000								
Total Debt Service	$ 23,914,500	$ 23,914,500	$ 93,914,500	$ 23,914,500	$ 15,514,500	$ 15,514,500	$ 15,514,500	$ 15,514,500	$ 5,514,500	$ 3,014,500	*$ 3,014,500*
Grand Total	$ 38,835,500	$ 93,433,400	$ 110,031,236	$ 61,038,800	$ 53,936,100	$ 55,177,400	$ 56,509,600	$ 57,027,800	$ 58,564,100	$ 57,612,160	*$ 57,944,147*
Annual RPF Fee Revenue	59,166,572	55,783,962	53,114,167	53,465,485	51,150,010	51,321,471	51,122,761	50,755,387	*50,755,387*	*50,755,387*	*50,755,387*
Annual Revenue vs. Annual Appropriations	20,331,072	(37,649,438)	(56,917,069)	(7,573,315)	(2,786,090)	(3,855,929)	(5,386,839)	(6,272,413)	(7,808,713)	(6,856,773)	*(7,188,760)*

NOTE: Numbers in ITALICS are projections.

Refined Petroleum Fund (0563)
Monthly Fee Revenue Collections

	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY2011	FY2012
October	$ 5,682,789	$ 3,920,948	$ 4,502,448	$ 5,331,450	$ 4,389,121	$ 4,403,648	$ 4,330,431	$ 4,462,803
November	4,707,189	5,606,692	4,936,906	4,643,718	3,640,971	4,208,690	4,499,259	3,687,311
December	4,256,909	4,033,014	2,963,430	4,102,792	5,126,302	4,392,924	4,295,784	4,966,344
January	4,389,128	3,746,191	5,577,059	4,210,766	4,327,894	4,116,371	3,975,936	3,924,014
February	3,744,550	4,676,167	4,178,261	4,227,594	2,828,074	2,240,066	2,719,145	3,945,749
March	6,403,398	5,263,057	4,565,330	3,827,528	5,165,733	5,411,742	5,455,533	4,007,035
April	4,615,276	3,554,998	3,682,058	4,187,148	4,111,128	3,902,513	4,059,152	3,868,290
May	3,552,030	5,150,080	5,080,227	4,478,159	4,196,796	3,469,620	3,682,759	4,414,307
June	6,316,199	5,243,618	4,708,181	4,400,072	4,307,596	5,534,242	4,554,630	4,234,620
July	4,986,282	4,541,898	4,386,026	4,224,328	4,291,134	4,144,276	4,691,274	3,808,604
August	5,334,281	5,196,288	4,852,618	4,152,179	4,472,839	5,052,299	4,720,676	5,314,188
September	5,178,541	4,851,011	3,681,623	5,679,751	4,292,422	4,445,080	4,138,180	4,122,122
Total	$ 59,166,572	$ 55,783,962	$ 53,114,167	$ 53,465,485	$ 51,150,010	$ 51,321,471	$ 51,122,760	$ 50,755,387