SOUTH DAKOTA
PETROLEUM RELEASE COMPENSATION BOARD MEETING
Conference Call Agenda – March 22, 2018
Foss Building, Matthew Training Center
Pierre, South Dakota

Live audio of the meeting and the full board packet can be found on the South Dakota Boards and Commissions Portal at: http://boardsandcommissions.sd.gov/Meetings.aspx?BoardID=73

Thursday, March 22, 2018 1:30 PM

I. Call to Order and Declare Quorum

II. Review and Approve/Disapprove Minutes of December 14, 2017 Board Meeting

III. Report on the Financial Status of the Fund

IV. 2018 Legislation
   A. HB 1044: Transfer of $1.3 million from PRCF to General Fund
   B. Senate Bill 183: Changes distribution percentages of Tank Inspection Fee and establishes minimum and maximum balances of the Fund at $2 Million and $6 Million, respectively

V. Actuarial Proposal

VI. Other Business

VII. Schedule Future Meetings

VIII. Adjourn

A limited number of phone lines are available for this call. Interested parties who wish to participate in the telephone conference call should contact DENR at 605.773.3769 before 3:00 p.m. CDT on Wednesday, March 21, 2018.

Interested parties may also participate at the following location:

Department of Environment and Natural Resources
Matthew Training Center
523 East Capitol Avenue
Pierre, South Dakota

Notice is given to individuals with disabilities that this meeting is being held in a physically accessible location. Please notify the Department of Environment and Natural Resources at 605.773.3769 at least 48 hours before the meeting if you have a disability for which special arrangements must be made.

MINUTES OF THE
SOUTH DAKOTA PETROLEUM RELEASE COMPENSATION
BOARD MEETING

December 14, 2017

The South Dakota Petroleum Release Compensation Board Meeting was called to order by Chairman Dennis Rowley at 1:30 P.M. on December 14, 2017, and was held in the Foss Building, Matthew Training Center. A quorum was declared with all board members present.

Members Present: David Kallemeyn, Rudy Gerstner, and Don Meyers. Dennis Rowley and Bert Olson participated via conference call.

Others Present: Alan Bakeberg, Dan Martin, Brett Schutte, John McVey, Doug Miller and James Feeney, DENR; Craig Eichstadt, Attorney General's Office; Dawna Leitzke, South Dakota Petroleum & Propane Marketers Association; Patrick Rounds, Petroleum Marketers Management Insurance and Travis Jordan, Division of Insurance.

Alan Bakeberg suggested that item III, Report on the Financial Status on the agenda be moved below item V, Update on Underground Storage Tank Operator Training.

Chairman Dennis Rowley requested a motion to approve or disapprove the minutes of the December 15, 2016, meeting. A motion was made by Rudy Gerstner to approve the minutes. Dave Kallemeyn seconded the motion. A roll call vote was taken, and the motion carried unanimously.

Chairman Rowley opened the annual insurance meeting and asked Craig Eichstadt to read SDCL 34A-13-48, the statute which requires the annual meeting.

Letters were sent in November to those in the industry that have expressed interest in the board's activities. A copy of the letter and mailing list was provided as a handout, along with a copy of last year's annual report. Written responses were received from Pat Rounds of Petroleum Marketers Management Insurance Company (PMMIC) and Eric Lehrer of Federated Insurance.

Dennis Rowley summarized the written responses from Federated and PMMIC, indicating that private insurance is available for petroleum tanks, and there is interest in working with the State of South Dakota to integrate private insurance with the Fund if the State were to stop providing coverage.

Pat Rounds of PMMIC spoke about the interest and availability of private insurance companies covering petroleum tanks in South Dakota. Pat suggested the Board consider having an actuarial study done of the liabilities of the program to help show if the current reserves are adequate to cover the known loses and to help quantify the number of and potential costs associated with leaking tanks that have not yet been reported. Discussion followed on the possible benefits of having an actuarial study completed.

Rudy Gerstner made a motion to have an actuarial study completed. Dave Kallemeyn seconded the motion. A roll call vote was taken, and the motion carried unanimously.

Dennis Rowley made a motion to have the study completed by June 2018. Bert Olson seconded the motion. Discussion followed. A roll call vote was taken, and the motion carried unanimously.

For purposes of the annual report to the Legislature, Rudy Gerstner made a motion to recommend that the PRCF continue the program under the same process that is presently in place. Dave Kallemeyn seconded the motion. A roll call vote was taken, and the motion carried unanimously.

Doug Miller and Dawna Leitzke gave the board an update on the UST owner/operator training that is provided under contract with the PRCF, and the need for ongoing training.

Alan Bakeberg reported on the financial status of the fund from the October 2017 fund statistics report. Jim Feeney explained the revenue and disbursement trends in the condition statement (see attached) to give the Board more detail on the finances of the Fund, and briefed the Board on the proposed transfer of $1.3 million from the Fund to help address the projected $33 million shortfall in the state's fiscal year 2018 budget.

Election of officers: Rudy Gerstner moved to have Dennis Rowley continue as the chairman. Motion was seconded by Don Myers. A roll call vote was taken, and the motion carried unanimously. Rudy Gerstner moved to have David Kallemeyn continue as the vice chairman. Motion was seconded by Don Myers. A roll call vote was taken. David Kallemeyn abstained, and the remaining Board Members voted in favor. Motion carried.

Jim Feeney and Alan Bakeberg briefed the board on the Environmental Protection Agency's Annual Soundness Review and approval of the PRCF for state fiscal year 2016. Discussion followed about the review and the effects of transfers out of the Fund have on EPA's review and approval.

The board set tentative future meeting dates of March 22, 2018, and June 21, 2018.

Don Myers moved to adjourn the meeting. Motion was seconded by David Kallemeyn. A roll call vote was taken, and the motion carried unanimously. Meeting was adjourned at 2:45 pm.

The meeting was digitally recorded and is available, along with the documents referenced above on the Boards and Commissions website at:

http://boardsandcommissions.sd.gov/Meetings.aspx?BoardID=73.

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Dennis Rowley, Chairman

South Dakota
Petroleum Release Compensation Fund
February 2018 Fund Statistics

PRCF
523 E Capitol Ave
Pierre SD 57501
(605) 773-3769
www.sd.gov/prcf

Total Tank Inspection Fee Revenue Collected in February 2018	$1,224,939
Amount of February 2018 Tank Inspection Fee Distributed to PRCF	$129,151
PRCF Balance (March 1, 2018)	$3,174,016
Average Payment Per Site - Regular Program Only	$51,387
Average Payment Per Site- Abandoned Tank Program	$3,407

Current Involvement - Regular Program **(Does not include Abandoned Tank Program Sites)**

Active Cases	28 Sites
Active/Monitoring Cases	20 Sites
Pending Cases (spill report not yet filed)	2 Sites
TOTAL	50 Sites

Past Involvement - Regular Program **(Does not include Abandoned Tank Program Sites)**

Closed-Active Cases	44 Sites
Closed-Inactive Cases (sites closed and all claims settled)	1,489 Sites
Closed-No Pymt Cases (sites opened, but closed without PRCF payment)	2,517 Sites
TOTAL	4,050 Sites

Abandoned Tank Removal Program

Total Applications (includes 265 applications that have been withdrawn)	3,483 Sites
Completed Sites (tanks removed)	3,203 Sites
Total Paid to Date	$10.9 million

Projected Future Obligations

Amount of Claims in Office Pending Review (1 claims)	$3,910
Cost Remaining for Sites that have Received at Least One PRCF Payment	$391,000
Projected Costs for Release Sites Where No Payment Has Yet Been Made	$1,600,000
Estimated Remaining Costs for Abandoned Tank Removal Program	$600,000

This Past Month's Activity

Claims Received During Month (3 pay requests)	$55,106
Claims Processed by Staff (2 pay requests)	$51,196
Avg. Days in Office for Claims Processed in Past Month	14 Days
Amount Paid Since Fund Began (4727 sites)	$89.2 million

Breakdown of Payments Made to Date

Type of Facility	No. of Sites Receiving Payments to Date	Cleanup Payments Made to Date
Abandoned Sites (Includes ATP Sites)	3,378	$18,597,009
Commercial, Co-op	150	$9,888,504
Commercial, Petroleum	620	$39,794,543
Commercial, End User	321	$11,377,174
Farmers	4	$65,977
Federal Government	9	$121,519
Local Government	151	$5,282,996
State Government	79	$3,792,140
Non-Profit	13	$285,117
Residential	2	$21,878
	4,727	$89,226,856

AN ACT

ENTITLED, An Act to revise the General Appropriations Act for fiscal year 2018.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF SOUTH DAKOTA:

Section 1. That section 2 of chapter 33 of the 2017 Session Laws be amended to read:

GOVERNOR'S OFFICE

(1) Office of the Governor

Operating Expenses, General Funds, delete "$445,067" and insert "$445,443"

(12) Lt. Governor

Operating Expenses, General Funds, delete "$13,268" and insert "$13,280"

Section 2. That section 3 of chapter 33 of the 2017 Session Laws be amended to read:

BUREAU OF FINANCE AND MANAGEMENT (BFM)

(1) Bureau of Finance and Management

Operating Expenses, General Funds, delete "$244,607" and insert "$245,374"

Operating Expenses, Other Funds, delete "$2,488,248" and insert "$2,526,830"

(5) Employee Compensation and Billing Pools

Personal Services, General Funds, delete "$420,113" and insert "$5,890,734"

Personal Services, Federal Funds, delete "$200,790" and insert "$2,288,312"

Personal Services, Other Funds, delete "$451,790" and insert "$4,189,953"

Operating Expenses, General Funds, delete "$218,911" and insert "$447,858"

Operating Expenses, Federal Funds, delete "$91,105" and insert "$189,614"

Operating Expenses, Other Funds, delete "$187,217" and insert "$366,385"

Section 3. That section 4 of chapter 33 of the 2017 Session Laws be amended to read:

BUREAU OF ADMINISTRATION (BOA)

(6) Obligation Recovery Center

twenty thousand dollars ($2,120,000) from the veterans home operating fund created by § 33A-4-24.

Section 29. That chapter 33 of the 2017 Session Laws be amended by adding thereto NEW SECTIONS to read:

[Section 40.] The state treasurer shall transfer to the attorney general other fund one hundred eighty-one thousand one hundred ninety-two dollars ($181,192) from the court automation fund.

[Section 41.] The state treasurer shall transfer to the state general fund one million three hundred thousand dollars ($1,300,000) from the petroleum release compensation fund.

[Section 42.] The state treasurer shall transfer to the state general fund seven hundred ninety-two thousand seven hundred twenty-nine dollars ($792,729) from the workforce education fund.

[Section 43.] The state treasurer shall transfer to the state general fund seven hundred fifty thousand dollars ($750,000) from the telecommunication fund for the deaf.

[Section 44.] The state treasurer shall transfer to the state general fund seven hundred fifty thousand dollars ($750,000) from the prescription drug plan fund.

[Section 45.] The state treasurer shall transfer to the state general fund five hundred thousand dollars ($500,000) from the technology fund of the Department of Education.

[Section 46.] The state treasurer shall transfer to the state general fund five hundred thousand dollars ($500,000) from the video lottery operating fund.

[Section 47.] The state treasurer shall transfer to the state general fund five hundred thousand dollars ($500,000) from the court automation fund.

[Section 48.] The state treasurer shall transfer to the state general fund four hundred eighty thousand seven hundred forty-three dollars ($480,743) from the private activities bond fund.

[Section 49.] The state treasurer shall transfer to the state general fund two hundred sixty-one thousand three hundred ninety-six dollars ($261,396) from the budgetary accounting fund.

[Section 50.] The state treasurer shall transfer to the state general fund three million eight

AN ACT

ENTITLED, An Act to provide funds to the precision agriculture fund by revising the allocation of petroleum release compensation and inspection fee revenues and online lottery revenues and to repeal the ethanol fuel fund.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF SOUTH DAKOTA:

Section 1. That § 34A-13-20 be amended to read:

34A-13-20. A petroleum release compensation and tank inspection fee is imposed upon any petroleum products upon which the fuel excise tax is imposed by §§ 10-47B-5 to 10-47B-10, inclusive, 10-47B-9.1, and 10-47B-13. None of the exemptions from fuel excise tax allowed in § 10-47B-19 apply to this fee. The parties required to pay the fuel excise tax pursuant to the provisions of §§ 10-47B-21 to 10-47B-26, inclusive, and 10-47B-29 and 10-47B-31 are liable for payment of the petroleum release and tank inspection fee. In cases where the fuel is exempt from the fuel excise tax under the provisions of subdivisions 10-47B-19(1), (3), and (5), the supplier shall pay the fee. Responsibility for payment of the fee ceases if the petroleum product is sold and delivered by a licensed exporter outside of the state. The amount of the fee imposed is twenty dollars per one thousand gallons of petroleum. The revenue collected pursuant to this section shall be distributed monthly in the following manner:

(1) In fiscal year 2019, fifty-five percent shall be deposited in the state capital construction fund, twenty-five percent shall be deposited in the ethanol fuel fund, and twenty percent shall be deposited in the petroleum release compensation fund;

(2) In fiscal year 2020, sixty percent shall be deposited in the state capital construction fund, twenty percent shall be deposited in the ethanol fuel fund, nineteen percent shall be deposited in the petroleum release compensation fund, and one percent shall be deposited in the ethanol infrastructure incentive fund as created in § 10-47B-164.1;

(3) In fiscal year 2021, sixty-six percent shall be deposited in the state capital construction fund, fifteen percent shall be deposited in the ethanol fuel fund, eighteen percent shall be deposited in the petroleum release compensation fund, and one percent shall be deposited in the ethanol infrastructure incentive fund;

(4) In fiscal year 2022, seventy-two percent shall be deposited in the state capital construction fund, ten percent shall be deposited in the ethanol fuel fund, seventeen percent shall be deposited in the petroleum release compensation fund, and one percent shall be deposited in the ethanol infrastructure incentive fund; and

(5) Beginning in fiscal year 2023, eighty-one and one-half percent shall be deposited in the state capital construction fund, seventeen percent shall be deposited in the petroleum release compensation fund, and one and one-half percent shall be deposited in the ethanol infrastructure incentive fund.

Section 2. That chapter 34A-13 be amended by adding a NEW SECTION to read:

If the balance of the petroleum release compensation fund falls below two million dollars and has additional accounts payable that exceed projected monthly deposits pursuant to section 1 of this Act, a transfer shall be made from the state highway fund to the petroleum release compensation fund in an amount that brings the balance of the petroleum release compensation fund to five million dollars.

Any balance in the petroleum release compensation fund in excess of six million dollars, after any monthly deposit made pursuant to § 34A-13-20, shall be transferred to the state highway fund.

Section 3. That § 10-47B-164.1 be amended to read:

10-47B-164.1. There is hereby established the ethanol infrastructure incentive fund to receive funds pursuant to § 34A-13-20. Any money in the ethanol infrastructure incentive fund is continuously appropriated for the following purposes:

(1) To award incentive grants to motor fuel retail dealers as defined in § 10-47B-3 for the purpose of entering into contracts for the purchase or installation, or for the purchase and installation, of ethanol blender pumps and associated piping and storage systems and related equipment to be used at facilities operated by the motor fuel retail dealers for the sale of motor fuel to the public;

(2) To award incentive grants to motor fuel retail dealers as defined in § 10-47B-3 for the purpose of entering into contracts for the purchase, or the purchase, of pumps and pump equipment authorized to dispense gasoline containing up to and including eighty-five percent ethanol;

(3) To award incentive grants to encourage the purchase of flex fuel vehicles;

(4) To encourage the increased use of ethanol in South Dakota; and

(5) To otherwise encourage the installation of infrastructure related to sale and distribution of ethanol.

The Governor's Office of Economic Development shall establish, by rules promulgated pursuant to chapter 1-26, such regulations and procedures as are necessary to implement this section. For the purposes of this section, the term, ethanol blender pump, refers to a mechanism provided by the retail dealer for the dispensing at retail as defined in § 10-47B-3 of ethanol blend so that the end user may choose a particular grade of ethanol to gasoline to be dispensed. The Governor's Office of Economic Development may use up to five percent of any amount appropriated to the ethanol infrastructure incentive fund for administration of the fund or any incentive programs established by this section.

Section 4. That chapter 10-47B be amended by adding a NEW SECTION to read:

Any balance in the ethanol infrastructure incentive fund in excess of one million dollars, after the monthly deposit made pursuant to § 34A-13-20, shall be transferred to the state highway fund.

Section 5. That § 42-7A-24 be amended to read:

42-7A-24. Net proceeds from the sale of instant lottery tickets shall be transferred to the state general fund on an annual basis after July first each year. The commission shall maximize the net proceeds to the state from the sale of instant and on-line lottery tickets. In no event may yearly lottery expenses for the sale of lottery tickets, excluding expenditures from retained earnings, exceed the amount of combined net proceeds transferred to the state general fund and the state capital construction fund. Net machine income from video lottery games shall be directly deposited in the general fund upon receipt. Net proceeds are funds in the lottery operating fund which are not needed for the payment of prizes, lottery expenses, and total retained earnings up to one and one-half million dollars cash deemed necessary by the executive director and commission for replacement, maintenance, and upgrade of business systems, product development, legal, and operating contingencies of the lottery.

In fiscal year 2019, the commission shall transfer twenty-five percent of the net proceeds from the sale of on-line lottery tickets collected pursuant to § 42-7A-24 to the general fund and seventy-five percent of the net proceeds from the sale of on-line lottery tickets shall be transferred to the state capital construction fund created in § 5-27-1. In fiscal year 2020, the commission shall transfer thirty-five percent of the net proceeds from the sale of on-line lottery tickets collected pursuant to § 42-7A-24 to the general fund and sixty-five percent of the net proceeds from the sale of on-line lottery tickets shall be transferred to the state capital construction fund created in § 5-27-1. In fiscal year 2021, the commission shall transfer thirty-five percent of the net proceeds from the sale of on-line lottery tickets collected pursuant to § 42-7A-24 to the general fund and sixty-five percent of the net proceeds from the sale of on-line lottery tickets shall be transferred to the state capital construction fund created in § 5-27-1. In fiscal year 2022, the commission shall transfer fifty percent of the net proceeds from the sale of on-line lottery tickets collected pursuant to § 42-7A-24 to the general fund and fifty percent of the net proceeds from the sale of on-line lottery tickets shall be transferred to the state capital construction fund created in § 5-27-1. In fiscal year 2023 and each year thereafter, the commission shall transfer seventy percent of the net proceeds from the sale of on-line lottery tickets collected pursuant to § 42-7A-24 to the general fund and thirty percent of the net proceeds from the sale of on-line lottery tickets shall be transferred to the state capital construction fund created in § 5-27-1.

Section 6. That § 5-27-1 be amended to read:

5-27-1. There is hereby established within the state treasury the state capital construction fund into which shall be deposited the net proceeds to the state from the sale of on-line lottery tickets pursuant to § 42-7A-24, and such other revenues as the Legislature may designate. The fund shall be a participating fund and shall be credited for all interest earned on fund balances. Expenditures from the fund shall be made only upon approval by the Legislature.

Section 7. That § 5-27-4 be amended to read:

5-27-4. In fiscal year 2019, the Bureau of Finance and Management shall transfer each month twenty-one and one-half percent of the monthly state capital construction fund revenues from the state capital construction fund to the ethanol fuel fund. In fiscal year 2020, the Bureau of Finance and Management shall transfer each month fifteen percent of the monthly state capital construction fund revenues for the state capital construction fund to the ethanol fuel fund. In fiscal year 2021, the Bureau of Finance and Management shall transfer each month ten percent of the monthly state capital construction fund revenues for the state capital construction fund to the ethanol fuel fund. In fiscal year 2022, the Bureau of Finance and Management shall transfer each month five percent of the monthly state capital construction fund revenues for the state capital construction fund to the ethanol fuel fund.

Section 8. That § 5-27-5 be amended to read:

5-27-5. In fiscal year 2019, the Bureau of Finance and Management shall transfer each month fourteen and one-half percent of the monthly state capital construction fund revenues from the state capital construction fund to the state highway fund. In fiscal year 2020, the Bureau of Finance and Management shall transfer each month twenty-three percent of the monthly state capital construction fund revenues for the state capital construction fund to the state highway fund. In fiscal year 2021, the Bureau of Finance and Management shall transfer each month twenty-nine percent of the monthly state capital construction fund revenues for the state capital construction fund to the state highway fund. In fiscal year 2022, the Bureau of Finance and Management shall transfer each month thirty-four percent of the monthly state capital construction fund revenues for the state capital construction fund to the state highway fund. Beginning in fiscal year 2023 and each year thereafter, the Bureau of Finance and Management shall transfer each month thirty-six percent of the monthly state capital construction fund revenues from the state capital construction fund to the state highway fund.

Section 9. That § 5-27-6 be amended to read:

5-27-6. During fiscal year 2019, the Bureau of Finance and Management shall transfer each month sixty-four percent of the monthly state capital construction fund revenues from the state capital construction fund to the water and environment fund. In fiscal year 2020, the Bureau of Finance and Management shall transfer each month sixty-two percent of the monthly state capital construction fund revenues from the state capital construction fund to the water and environment fund. In fiscal year 2021, the Bureau of Finance and Management shall transfer each month sixty-one percent of the monthly state capital construction fund revenues from the state capital construction fund to the water and environment fund. In fiscal year 2022, the Bureau of Finance and Management shall transfer each month sixty-one percent of the monthly state capital construction fund revenues from the state capital construction fund to the water and environment fund. Beginning in fiscal year 2023 and each year thereafter, the Bureau of Finance and Management shall transfer each month sixty-four percent of the monthly state capital construction fund revenues from the state capital construction fund to the water and environment fund.

Section 10. That § 10-47B-162 to 10-47B-164, inclusive, be repealed.

Section 11. That §§ 10-47B-165 and 10-47B-166 be repealed.

Section 12. Sections 10 and 11 of this Act are effective on July 1, 2022.

Section 13. Pursuant to the General Appropriations Act, six hundred fifty thousand dollars will be annually transferred to the precision agriculture fund from the revenues generated by this Act until the first day of the fiscal year following a determination by the Board of Regents that the bonds financing the precision agriculture classroom and laboratory building are satisfied and paid in full.

SB183 Estimated PRCF Yearly Income Based Upon (Years 2012-2017) Average TI Fee

SFY	Tank Inpection Fees
2012	$ 15,253,371
2013	$ 16,682,757
2014	$ 15,979,448
2015	$ 16,566,767
2016	$ 16,536,737
2017	$ 16,481,056
AVG	**$ 16,250,023**

Petroleum Release Compensation and Inspection Fee

SFY	2018	2019	2020	2021	2022	2023->
Capital Construction Fund	39.4%	55.0%	60.0%	66.0%	72.0%	81.5%
Ethanol Fuel Fund (plus CCF transfer)	50.0%	25.0%	20.0%	15.0%	10.0%	0.0%
PRCF	10.7%	20.0%	19.0%	18.0%	17.0%	17.0%
Ethanol Infrastructure Incentive			1.0%	1.0%	1.0%	1.5%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Capital Construction Fund	$ 6,394,384	$ 8,937,512	$ 9,750,014	$ 10,725,015	$ 11,700,016	$ 13,243,768
Ethanol Fuel Fund (plus CCF transfer)	$ 8,125,011	$ 4,062,506	$ 3,250,005	$ 2,437,503	$ 1,625,002	$ -
PRCF	**$ 1,799,852**	**$ 3,250,005**	**$ 3,087,504**	**$ 2,925,004**	**$ 2,762,504**	**$ 2,762,504**
Ethanol Infrastructure Incentive	$ -	$ -	$ 162,500	$ 162,500	$ 162,500	$ 243,750
	$ 16,319,248	$ 16,250,023	$ 16,250,023	$ 16,250,023	$ 16,250,023	$ 16,250,023

Taylor & Mulder

Property and Casualty Consulting Actuaries

Taylor & Mulder, Inc.
Proposal to Provide Actuarial Services to the South Dakota Petroleum Release Compensation Fund

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March 8, 2018

Mr. Alan W. Bakeberg
Director of Engineering
South Dakota Department of Environment & Natural Resources
Petroleum Release Compensation Fund Program
Foss Building
523 E. Capitol Ave.
Pierre, SD 57501

Dear Alan,
Per our conversation, the attached proposal has been prepared to describe the typical scope of work for an actuarial study of a state-operated financial responsibility mechanism for underground and/or aboveground petroleum storage tanks, with particular reference to the needs of the Petroleum Release Compensation Fund (PRCF) as we understand them. Taylor & Mulder would be pleased to provide the actuarial services outlined in this proposal.

We would like to thank you for the opportunity to present our qualifications to the PRCF. Should you wish to discuss any items contained in this response, please do not hesitate to call me at (301) 956-9199.

Sincerely,

Daniel W. Lupton

Daniel W. Lupton, FCAS, MAAA, CSPA, MBA

Contents

Introduction

The following sections provide some information about our company, however for more information about Taylor & Mulder, we invite you to visit us on the web at **http://www.taylorandmulder.com**.

History of Taylor & Mulder

Taylor & Mulder, Inc. is a 100% woman-owned property & casualty actuarial consulting firm. We offer complete actuarial solutions, including loss and loss adjustment expense reserve analysis, cost and capital allocation, premium adequacy and rate analysis, and excess insurance or reinsurance analysis. We have offices outside of Washington, DC, as well as Minneapolis/Saint Paul, Jefferson City, and New York City.

Taylor & Mulder prides itself on the quality of its work. This commitment to quality informs our process, which has been developed since Taylor & Mulder was incorporated in 1998.

At Taylor & Mulder, each work product is different, and analyses are always undertaken with the utmost consideration of the client's needs and the data available. However, work products are prepared to be consistent with our high standards for:

1. Comprehensibility of deliverables
2. Accuracy of results
3. Appropriateness of findings and recommendations
4. Quality and consistency of data
5. Peer review

Our Actuaries

Our team of actuarial consultants assigned to this project includes:

Daniel Lupton, FCAS, MAAA, CSPA, MBA – Mr. Lupton, Vice President of Taylor & Mulder, will be responsible for the writing data request letters, asking questions about PRCF operational changes, clarifying the information received, and conducting the analysis. The final responsibility for sign off on the report will rest with Mr. Lupton. Mr. Lupton will be the project manager on this project.

Evelyn Toni Mulder, FCAS, MAAA, FCA – Ms. Mulder, Vice President of Taylor & Mulder, will peer review the analysis and assist in writing the report. The responsibility for the final thorough peer review will rest with Ms. Mulder. Ms. Mulder will be the peer reviewer on this report.

Bobby Jaegers – Mr. Jaegers will be responsible for inputting data, data manipulation, and advanced programming tasks. Mr. Jaegers will process information and structure it in a format conducive to analysis. He will program loss development factors and make the initial selection of factors, and program the cash flow analysis and discounting exhibits. Mr. Jaegers will be the consultant on this project.

Resumes for the actuaries assigned to this project may be found attached as **Appendix A**.

Recent Experience with Similar Projects

Taylor & Mulder has extensive recent experience with projects of similar nature and scope to the one requested by the PRCF. The following is a sampling of some of our other recent projects for environmental liabilities or for self-insurance funds that have similar scope:

Client: **Missouri Petroleum Storage Tank Insurance Fund**

Summary: Actuarial Reserve Study and Financial Projections

Details: Taylor & Mulder performs annual actuarial analyses for the Missouri Petroleum Storage Tank Insurance Fund ("the PSTIF"). This includes an analysis of self-insured liabilities pertaining to underground and aboveground petroleum storage tanks, including analysis of loss and loss adjustment expense reserve adequacy, reserving practices for the fund, underwriting practices, projection of loss and loss adjustment expenses, claim severity, and claim frequency, cash flow analysis, and special analysis of large loss claims.

This project began with a review of claims data from the PSTIF. This involved an analysis of potential errors in loss runs provided by the PSTIF, as well as an on-site visit, review of claims practices, discussions with PSTIF personnel, review of claim files, and general discussion about the management and direction of the fund and the particular needs of the PSTIF. Following this, we performed a detailed analysis, including review of the ultimate cost for both known and unknown claims by type (including UST losses, AST losses, and remedial claims at abandoned tank sites).

The project culminated with financial projections of the solvency position of the fund over the remaining lifetime of the fund, including projections of revenues expenses, based on a variety of scenarios. We analyzed over 10,000 unique scenarios and provided the PSTIF a customized report describing the likelihood of various financial outcomes. Following this, we presented the report to the PSTIF Board of Directors.

Client: **Iowa Comprehensive Petroleum Underground Storage Tank Fund**

Summary: Actuarial Reserve Study and Financial Projections

Details: The Iowa Comprehensive Petroleum Underground Storage Tank Fund ("the Fund") was established in Iowa to assist owners and operators of petroleum storage tanks in complying with federal EPA technical and financial responsibility regulations. Taylor & Mulder recently completed a project providing actuarial reserve estimates and financial projections to the Fund in anticipation of potential sunset of the Fund. This analysis included a review and opinion on the adequacy of current case reserves as well as current reserving practices. We were also asked to provide recommendations for improvements.

In addition, we were asked to project future claim liabilities, including providing an opinion on frequency and severity of a variety of claim types. We also provided an analysis of large losses, including the history of large losses (losses in excess of $250,000) in the state and the anticipated impact of large losses on the fund's future finances.

Centrally, this project required projections of the Fund's financial position in each of the next five fiscal years. This financial projection is used to assist the Fund's Board of Directors in making sound decisions regarding the potential sunset of the fund and future operations of the fund.

Client: **Washington Pollution Liability Insurance Agency**
Summary: Actuarial Reserve Study and Financial Projections
Details: The Washington Pollution Liability Insurance Agency ("PLIA") is somewhat unique among state funds by acting as a reinsurance mechanism for underground storage tank insurance providers in the state. Taylor & Mulder prepared an actuarial report for the PLIA that included reserve projections, tank demographic trend analyses, complete review of claims practices and risks to the fund, and a review of premiums charged by insurance companies in the state that make use of the PLIA's reinsurance mechanism.

Client: **Arizona Department of Environmental Quality**
Summary: Actuarial Reserve Study and Financial Projections
Details: Taylor & Mulder recently completed an actuarial study for underground storage tanks program of the Arizona Department of Environmental Quality ("the AZDEQ"). This study involved on performing a financial analysis of the department's underground storage tank corrective action program under a variety of proposed scenarios for the future run-off of liabilities or the future operation of the fund should it be restarted. This project included the construction of a model capable of projecting financial outcomes based on a variety of scenarios and inputs, including:

- Cleanup of petroleum spills to a variety of standards, either Tier 1 standards or alternative cleanup standards,
- Cleanup of a variety of sites identified over different timeframes,
- Costs associated with different approaches to baseline assessments, e.g. the cost of ten vertical borings per site versus two angle borings and four vertical borings, etc.,
- Cost of corrective actions associated with releases identified through baseline assessments,
- Cost of removal of USTs and costs associated with releases identified through removal; and,
- Application of deductibles of varying sizes to (a) corrective actions, (b) baseline assessments, and (c) removal of USTs.

This analysis was used to produce financial projections of administrative costs and losses associated with various options for operation of the AZDEQ fund in the future.

Following this project, we assisted the AZDEQ in analyzing the strategic and financial impact of various ways of structuring a future UST program in the state. This project culminated in assisting the AZDEQ in developing draft legislation for the future of the program. We continue to assist the AZDEQ with determining funding requirements for the new program and providing miscellaneous actuarial services as needed.

In addition to our work on underground petroleum storage tank insurance funds, we provide actuarial services to a large number of governmental clients for self-insured liabilities. Some examples include the following:

Client: **West Virginia Department of Environmental Quality Office of Special Reclamation**
Summary: Actuarial Reserve Study and Financial Projections
Details: Taylor & Mulder recently completed an actuarial study related to liabilities arising from mine reclamation in West Virginia. The purpose of this project was to perform an actuarial evaluation of fund assets and liabilities in both the near and long terms, including an analysis by geography and by type of mine (surface versus underground), an analysis of the rate of bond forfeitures that lead to mine reclamation liabilities, and projections of future coal production from different types of mines in West Virginia. In addition, we projected water and land reclamation liabilities separately.

Client: **Philadelphia Parking Authority**
Summary: Annual Loss Reserve Projection and Financial Projections
Details: The Philadelphia Parking Authority provides parking management and related services to the fifth largest city in the United States. The Authority self-insures its automobile liability, workers' compensation, and general liability exposures. Taylor & Mulder provides the Authority with annual evaluations that include: (a) analysis of loss and ALAE reserves net and gross of self-insured retentions, (b) confidence levels and actuarial high and low estimates of ultimate losses, and (c) discounting based on expected investment income.

Client: **Virginia Transit Liability Pool**
Summary: Annual Loss Reserve Projection and Rate Studies
Details: The Virginia Transit Liability Pool is a risk pool for publicly owned transit systems across the state of Virginia. Taylor & Mulder performs two annual studies for the Pool, including setting rates for individual pool members based on needed funding levels and member experience, and projected needed reserves, including at various statistical confidence levels.

Client: **United States Army Central Insurance Fund**
Summary: Annual Loss Reserve and Funding Analysis and Rate Study
Details: The United States Army self-insures buildings, contents, vehicles, fidelity bonding, money and securities, aircraft, cargo, workers' compensation, and tort coverages for approximately 29,000 employees across multiple continents. Taylor & Mulder performs annual evaluations for the Fund including recommended reserve levels, fund balances, and rates to be charged internally for each of the coverages.

Client: **Fairfax County, Virginia**
Summary: Annual Loss Reserve Projection and Financial Projections
Details: Fairfax County, Virginia is the most populous jurisdiction in the Commonwealth of Virginia, with a population of more than 1.1 million residents. The County self-insures its workers' compensation, automobile liability, general liability, public officials' liability,

and police professional liability exposures. Taylor & Mulder provides the County with an annual analysis of these lines of business that includes: (a) the development of financial requirements related to the maintenance of a stable reserve fund, (b) the estimation of unpaid loss and loss adjustment expenses, (c) estimation of such reserves on a nominal and discount basis, both at an expected value and at various confidence levels, (d) projection of prospective year losses and ALAE, and (e) an evaluation of the total funding requirements.

Client: **City of Hampton, Virginia, and Hampton City Schools**
Summary: Annual Loss Reserve Projection and Financial Projections
Details: The City of Hampton, Virginia has a population of approximately 137,000 residents, and is the home of the first free public school in America. Taylor & Mulder performs annual valuations of the City and School District's self-insurance program, which covers exposures for workers' compensation, general liability, automobile liability, public officials' liability and law enforcement liability. This ongoing study includes: (a) evaluation of loss experience, (b) projection of required reserve levels, including reserve estimates at 70%, 80%, and 90% confidence levels, (c) projection of claims cash flow for the next five fiscal years, (d) recommended funding guidelines for the next five years, and (e) recommendations concerning cost allocations and reserve funding contributions. All of these analyses are summarized in a detailed report that includes specific recommendations for the City and Schools separately.

Client: **City of Durham, North Carolina**
Summary: Annual Loss Reserve Projection and Cost Allocation Study
Details: The City of Durham, North Carolina has a population of approximately 250,000 residents. The City self-insures workers' compensation, general liability, and automobile liability coverages. Annually, Taylor & Mulder performs two studies for the City of Durham. These studies include an evaluation of reserve adequacy, projection of annual costs in future periods, and allocation of costs to departments or funds for budgeting purposes.

Work Plan

Typical Questions Answered by Actuarial Studies

Actuarial studies are most typically used to determine the outstanding claim-related liabilities to a program. As releases are reported, claims personnel will set up case reserves to cover the anticipated cost of remediation at various sites. Over time, amounts are paid out for remediation and case reserves are adjusted based on new information about each site. Therefore, once a site is completely remediated, the ultimate cost of remediation associated with that site may differ significantly from the originally anticipated cost of that claim when it was first reported.

The "ultimate" cost of a claim may be thought of as the final cost once a site is completely remediated and no further action is required. Therefore, for a currently open site, an *estimate* of the ultimate cost for that site can be thought of as containing three parts:

1. The current amount paid to date for remediations at the site,
2. The amount reserved for by claims staff to remediate the site (the "case reserve"),
3. The amount by which the case reserve is anticipated to change over time based on future information and based on patterns in how average claims tend to change over time (the "bulk reserve").

Actuarial studies estimate this third piece to give a more accurate assessment of the true amount required to remediate all currently open sites. In a way, it could be thought of as a meta-study of the patterns by which liabilities are incurred. Actuaries look at higher-level trends and risk factors for a site and program and use mathematical tools to estimate the true "final" cost of known claims based on several factors:

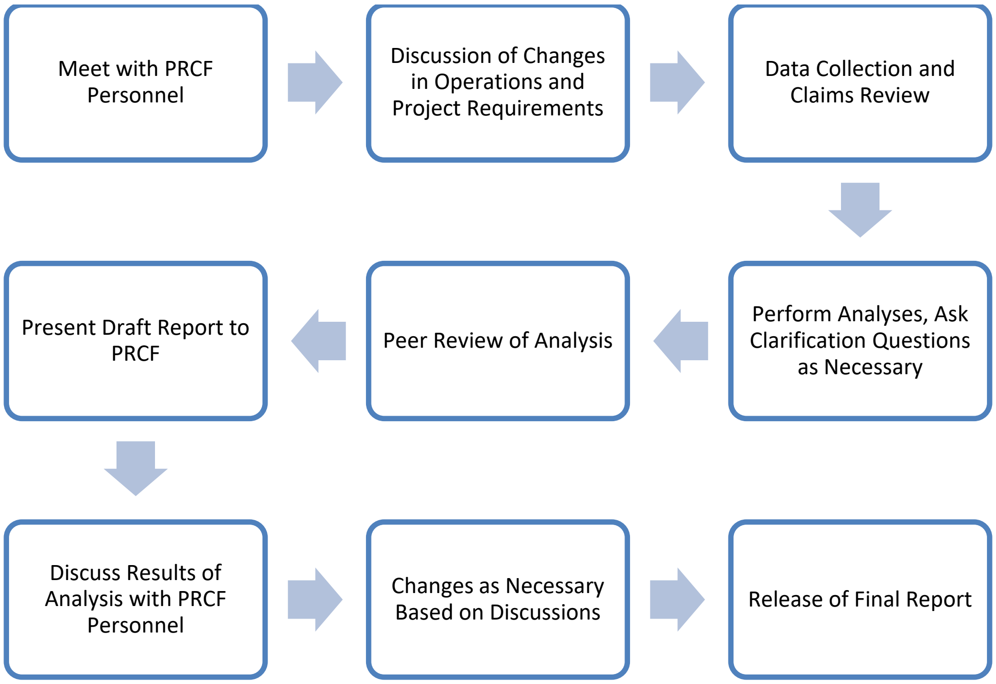
1. The amount that has been paid out on each claim
2. When each claim was reported
3. The amount that claims personnel have estimated each claim will cost at various points in time
4. Type of claim, or risk factors specific to individual claims
5. Changes in exposures (e.g., insured sites, types of sites, etc.) over time
6. Other factors as deemed appropriate

The typical final product in this case would be an estimate of the unpaid claim-related liability to the fund – the amount that we project will be required to remediate all open sites.

Through this process, we will also look at trends in the frequency of claim reports and the average cost of claims. We will provide charts and graphs detailing our analysis of these items. We will also develop cash flow projections, detailing the anticipated timing of future payments. Finally, we will project anticipated claims in future years, which can aid in the budgeting and planning process.

General Overview and Scope of Work

Taylor & Mulder has significant experience providing actuarial consulting services to underground storage tank fund clients. By way of describing how we will deliver our service, we outline the usual process by which we have conducted similar assignments in the past. The following flowchart diagrams the process used to perform the required work:



All work begins with discussions with PRCF. During this phase, we will collect basic information about the project, clarify PRCF's requirements (if any have changed), and discuss significant operational or environmental changes in the PRCF or in the state. Communication with PRCF is central to our work plan and will continue throughout the analysis process. As part of our commitment to quality of work product and excellent service, ***we provide unlimited telephone conversations with our consultants at no cost to our clients***. We want our clients to feel comfortable discussing their needs with us and understanding every step of the project that we are doing for them.

After this initial phase, we will perform the analysis according to the following six general steps:

1. Data collection and vetting, including the analysis, including identification of unique conditions and trends influencing patterns in the data and discussion of these observations with PRCF.
2. Reserve analysis and projection of losses through applying various actuarial methodologies. This analysis will include, but not necessarily be limited to:
    a. Projection of incurred loss and ALAE to expected ultimate values,
    b. Discounting of projected losses to present value,
    c. Financial projections for each period required by PRCF,
    d. Cash flow projections for each period required by PRCF,
    e. Determination of appropriate confidence intervals and actuarial high and low ranges for ultimate loss and ALAE,
    f. Analysis of large losses and changes in large loss patterns,
    g. Frequency and severity trend analysis,
    h. Analysis of anticipated and unanticipated contingencies, and
    i. Information and analysis required for compliance with applicable laws and accounting standards, including GASB 10 and GASB 30.

3. Reasonability checks and peer review by senior actuarial staff,
4. Development of draft reports and exhibits detailing our findings within the first 30 days of receipt of data,
5. Discussion and revision of drafts to produce a final report;
6. Release of final draft report, presentation of findings, and discussion with PRCF.

Each of these steps will be conducted in an environment of intense scrutiny and constant review for reasonability and accuracy. While step 3 formalizes the process of peer review, the same review will take place implicitly between each step of the work plan.

STEP 1: Data Collection and Vetting

Within the first three days of the start of the contract, we will convene with the risk management staff of PRCF and work with them to understand significant exposures or unique risks and issues that will affect loss trends in our analysis. This will include changes in underlying risks, shifts in exposure or changing trends, operational changes affecting claims handling, or legal issues that are expected to have an impact on future claims development. In typical projects, we might provide the client with a data request letter outlining our specific data requirements. Sometimes a formal letter is not necessary, in which case we would collect the data based on discussions with the PRCF and discuss additional data requirements (if any) with PRCF staff at that time.

Once we have thorough understanding of the data, we will begin analyzing and vetting the data to ensure its integrity and reasonability. Here we will address any unexpected patterns through further dialogue with PRCF or through research as needed.

When we are satisfied with the completeness of the data, we will organize it into the most usable form if it is not already in a readily usable form. Depending on the data available to us, we will then make a determination as to which actuarial methods we will employ in the ensuing analyses.

During this phase, we will also conduct field work as necessary, including claims audits and review of reserving practices and claims handling practices.

STEP 2: Reserve Analysis and Loss Projections

During this phase, we will employ several methods in order to best obtain projections of losses in the coming years. This will typically include the use of the paid and incurred loss development methods (also known as "chain-ladder" methods), and the paid and incurred Bornhuetter-Ferguson methods. If it is appropriate to do so, we will model different release sources (e.g., USTs versus ASTs, releases discovered due to tank closures versus releases discovered in other ways, etc.) separately to obtain a more accurate projection of losses. In addition to the methods listed, we may employ other methods as necessary.

The result of these analyses will be a series of estimates of expected ultimate losses. Having calculated these, we will then develop indications for required loss and ALAE reserves, including reserves for known claims (case reserves for specific claims, provisions for future development on known claims, or reopened claims) and unknown claims (IBNR). We will compare the results of the various projection methods and select or combine methods where appropriate to obtain the best projections of required reserves.

Based on these analyses, we will then perform stochastic "Monte Carlo" simulation to determine appropriate confidence intervals around our projections of ultimate losses. Typically, these simulations involve determining the underlying distributions of (a) the number of newly reported losses each year, and (b) the ultimate cost of each loss. Based on these probability functions, we will run 10,000 simulations and aggregate the results to determine the probability of losses at varying levels.

Having determined ultimate losses, we will be able to determine appropriate discounting of liabilities by applying loss payment patterns to ultimate losses to extrapolate the claims cash flow. This will enable a more accurate estimate of discounted liabilities than using typical industry payment patterns, which don't take into account the features of the specific exposures insured by PRCF. This analysis will also enable calculation of funding levels based on PRCF's requirements.

Through our analysis we will have developed information required for compliance with Government Accounting Standards Board standards, GASB #10 and GASB #30, relating to requirements for public entity risk pools and entities other than pools. We will work with PRCF to ensure that compliance with these standards is met.

It should be noted that our approach to analyzing the data, including the methods used to project ultimate losses, may change based on the changing needs of the client and based on the data itself. For instance, when modeling the likelihood and severity of petroleum releases, in some cases the availability of data and the requirements of the project have forced us to use generalized linear modeling to develop information pertaining to risk factors for petroleum releases rather than rely on traditional actuarial methods. Taylor & Mulder prides itself on its flexibility in providing for the particular needs of the client, and we will use the most appropriate analytical techniques based on the parameters of the project, the data, and the PRCF's goals.

STEP 3: Reasonability Checks / Peer Review

The report will undergo (1) our stringent peer review process and (2) reasonability checks to ensure logical consistency and accuracy. We will take this opportunity to revise any estimates if necessary. As stated previously, while this step will certainly be taken after ultimate losses and loss reserves have been estimated and risk margins determined, it will be taken at several intermediate steps along the way to ensure smooth progress and accurate analysis.

Reasonability checks will take the form of an analysis of the underlying data, assumptions underlying each intermediary step and method, and all conclusions regarding ultimate losses, indicated loss reserves, and risk margins. These checks may also include comparisons of ratios (such as loss ratios) to other book years and to industry data, taking into account rate increases, inflation, and market conditions. We will investigate the source of any ensuing discrepancies to ensure sound analysis.

STEP 4: Development of Draft Reports

We will write a narrative report and prepare exhibits for the report on behalf of PRCF within 3 weeks of receipt of data. We will submit a draft report to PRCF. Our report will include:

- A summary of findings, which would include a comparison of our calculations with those values carried in PRCF's reserves for loss and loss adjustment expense reserves,
- Our range of reasonable estimates of loss and loss adjustment expense reserves,
- Exhibits, including loss triangles that support our estimates of loss and loss adjustment expense reserves,
- An explanation of all methodologies we employ in evaluating and estimating ultimate values for losses and loss adjustment expense reserves.

STEP 5: Discussion and Revision

Following the draft report, we will receive comments from PRCF regarding our analysis. We will discuss those comments with PRCF and make changes to our analysis as needed. Following this process, we will prepare a final report to send to PRCF.

STEP 6: Final Report

Within three days of being notified by the Contract Administrator that the draft report and any revisions can be finalized, we will submit our final report to PRCF.

Following these steps, we will meet with the PRCF to present our findings.

Proposed Timeline

The following chart outlines a rough timeline for work to be performed. Taylor & Mulder prides itself on completing work on time and on a schedule convenient to our clients without compromising on quality.

	Day													
Activity	1	3	5	7	9	11	13	15	17	19	21	23	25	27
Meet with PRCF														
Collect Data														
Perform Analysis														
Peer Review														
Develop Draft Report														
Discuss Findings with PRCF														
Revise Draft as Needed														
Release Final Report														

Typically, our projects are able to move faster than the schedule outlined above if data is available and the client is available for some straightforward communication early in the process. We prefer to provide the client with as much time as possible to ask any questions they may have about our work and to ensure satisfaction with our deliverables.

Given that the proposed project would start with in-person meetings with PRCF personnel, the specific order of these events may be slightly shifted. For example, we may ask for initial data in advance of the first meeting so that we can ask questions about what we have observed and verify our understanding of data elements at that time.

Price Proposal

The proposed price for this project is **$18,950**. This includes all the items described in the scope of work, up to two trips (excluding travel expenses), and unlimited telephone conferences.

Out of pocket expenses would be additional and would be billed at cost with no markup. This would typically include necessary travel expenses, courier (FedEx) expenses, or report copying or binding fees.

Appendix A – Resumes

The following nine pages contain the resumes for our actuaries in the following order:

1. Daniel Lupton, FCAS, MAAA, CSPA, MBA
2. E. Toni Mulder, FCAS, MAAA, FCA
3. Bobby Jaegers

RESUME
Daniel W. Lupton, FCAS, MAAA, CSPA, MBA

Daniel Lupton is Vice President and Consulting Actuary at Taylor & Mulder, Inc. having attained the rank of Fellow of the Casualty Actuarial Society.

Experience

At Taylor & Mulder Inc., Mr. Lupton has specialized in statistical modeling, both in the creation and use of models and in the review of statistical models for insurance regulation. This work has included use or review of hierarchical Bayesian models, generalized linear models, bootstrap models, regression splines, and cluster analysis.

In addition, he has been involved in projects including stress testing for mortgage guaranty insurance, analyzing lifetime neurological birth injury claims, supporting expert witness testimony, performing data analysis for risk-focused financial examinations of insurance companies, analyzing liabilities of self-insured governments and municipalities. Mr. Lupton has particular experience with workers' compensation, automobile liability, and general liability lines of business, and has performed work in a wide range of lines including even more obscure lines such as aviation title insurance and libel and slander insurance.

This work has included reserve studies and cost allocation studies, development of confidence intervals through stochastic loss modeling, reviewing rate filings, generating pro-forma financials, assisting with GASB 10 and GASB 30 compliance, and forming opinions regarding risk transfer for excess insurance contracts.

Prior to working at Taylor & Mulder, Mr. Lupton worked for a Milliman, Inc., a major consulting firm, where he helped to perform analyses in such lines as workers' compensation, general liability, commercial auto liability, mortgage guaranty, medical professional liability, environmental liability, crop insurance, surety, and fiduciary insurance, among others. In this capacity he was responsible for aiding in data entry and analysis tasks, manipulation of large databases, creation of custom software to solve analysis tasks, and creation of client-oriented reports.

Education & Professionalism

- Chairperson, CAS Machine Learning Working Party, 2018 – Present
- Certified Specialist in Predictive Analytics, The Institutes of the CAS, 2017 – Present
- Member, CAS Ratemaking Committee, 2017 – Present
- Editorial Review Staff, Variance Actuarial Journal, 2014 – Present
- Member, Diversity Committee of the Casualty Actuarial Society, 2015 – 2017
- Member, Dynamic Risk Modeling Committee, 2015 – Present
- Fellow of the Casualty Actuarial Society, 2014
- Member, Membership Advisory Panel of the Casualty Actuarial Society, 2013 – Present
- Member of the American Academy of Actuaries, 2013
- MBA, University of Maryland Robert H. Smith School of Business, 2011
- BA with Comprehensive Honors, Mathematics and English, 2008

RESUME
Evelyn Toni Mulder, FCAS, MAAA, FCA

PROFESSIONAL DESIGNATIONS:

- Fellow of the Casualty Actuarial Society (FCAS)
- Fellow of the Conference of Consulting Actuaries (FCA)
- Member of the American Academy of Actuaries (MAAA)

EXPERIENCE:

Ms. Mulder has over 35 years' experience in the actuarial field, including 28 years as a consultant. As a consultant, Ms. Mulder has served over 75 insurance companies, 40 self-insured hospitals, federal, state, county, and local governmental agencies, and Fortune 500 companies. Services include reserving, pricing, funding studies, financial examination services for insurance departments, actuarial analysis for insurance department liquidations, managing captives, reinsurance, fronting arrangements, statutory and GAAP accounting, computer simulation modeling, forensics, claims analysis and marketing. She provides loss reserve opinions and rate filings for insurance companies and funding, reserving, GASB10 review, premium and rate determination and cost allocation studies for self-insurers. Her experience includes expert witness testimony for litigation and arbitration proceedings. Ms. Mulder specializes in long tail lines of business including workers' compensation, taxi cab liability, medical malpractice for hospital and physicians' and surgeons', governmental liability, general liability, products liability, commercial automobile liability, railroad liability and reinsurance.

EMPLOYMENT HISTORY:

Taylor & Mulder, Inc., Principal and Consulting Actuary, 1998 to present. Consulting to insurance companies in the U.S. and captive insurers in Bermuda. Services included reserving, pricing, funding studies, financial examination services for insurance departments, actuarial analysis for insurance department liquidations, managing captives, reinsurance, fronting arrangements, statutory and GAAP accounting, computer simulation modeling, forensics, claims analysis, operations of two Bermuda domiciled insurance companies, reserving, premium and rate determination and cost allocation studies for self-insurers. Her experience includes expert witness testimony for litigation and arbitration proceedings.

Ms. Mulder has testified as an expert and provided expert reports in disputes involving arbitration and litigation between insurance companies, reinsurers, claims adjusting firms and service providers. Ms. Mulder has testified on behalf of insurance companies and service providers. She specializes in forensics, calculating the effects of prior decision making and policies, and retrospective reserving issues.

William M. Mercer, Incorporated, Principal and Coordinating Partner, (Washington, DC) 1992 to 1997. Office head for the Washington DC office of the Risk, Finance and Insurance group. This group provided actuarial analyses for insurance companies, insurance Departments, self-insured corporations, Federal, State and County governmental agencies, railroads and hospitals. Services include pricing, reserving, funding studies, cost allocation, feasibility studies, GASB10, reinsurance evaluations, large risk analysis, captive feasibility studies, insurance company modeling, catastrophe modeling, litigation support and expert witness testimony, and mergers and acquisitions. She was project manager for a client where the firm designed, programmed and tested a hurricane model that she presented at a rate hearing before the Texas State Board of Insurance. Ms. Mulder also managed the project to calculate the property and liability costs for the Federal Government for the RTC for $18 billion in properties in numerous classification codes for properties located around the country. For one of her railroad clients, she estimated the cost of future railroad collisions.

Tillinghast/Towers Perrin, Vice President, (Vienna, Virginia) 1987 to 1988. Consulting actuary to insurers and self-insurers in the areas of pricing and reserving. Clients included insurance companies, self-insurers, Bermuda captives, hospitals, governments, and railroads.

Deloitte Haskins & Sells, Senior Manager (Washington, DC) 1982 to 1986. Provided consulting services to clients and audit support for 66 casualty insurance companies countrywide each year. Audit clients included Munich Reinsurance, Safeco, Gerling Global, Metropolitan Reinsurance, Metropolitan Property and Casualty, Motors Insurance Company and Armco. On a significant number of audit clients, she also provided loss reserve opinions. Self-Insured clients included governments and hospitals.

Edward H. Friend & Company, Chief Casualty Actuary and Assistant Vice President (Washington, DC) 1979 to 1982. Responsibilities included managing the casualty actuarial practice for a pension and employee benefits consulting firm. Clients included over 80% of the hospitals in DC and a number in West Virginia. Ms. Mulder prepared the actuarial reports for the hospitals for their risks of hospital and physicians' and surgeons' professional liability, and workers' compensation.

Chubb & Son Insurance Group, Assistant Actuary and Corporate Officer (Short Hills, New Jersey) 1976 to 1979. She was responsible for the commercial automobile and general liability divisions of the actuarial departments. This included working closely with the underwriters. Ms. Mulder was the liaison between the actuarial department, the underwriting department and the ISO committees for these lines of business.

Continental Insurance Company, Actuarial Assistant (New York, New York) 1971 to 1975. Ms. Mulder was responsible for preparing the rate filings for private passenger automobile and homeowners for approximately half of the state insurance departments in the country.

PROFESSIONAL ACTIVITIES:

- Casualty Actuarial Society Task Force on Reserving Principles – Assigned the task of Revising the 1988 Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves – 2001 to 2008
- Casualty Actuarial Society Committee on Reserves – 1997 to 2003
- Casualty Actuarial Society Committee on Online Services – 1997 to 2002
- Liaison to the Casualty Actuarial Society Committee on Online Services on behalf of the Casualty Actuarial Society Committee on Reserves – 1997 to 2002
- Liaison to the Casualty Actuarial Society Committee on Health and Managed Care Issues on behalf of the Casualty Actuarial Society Committee on Online Services – 2001 to 2002
- Liaison to the Casualty Actuarial Society Education Policy Committee on behalf of the Conference of Consulting Actuaries – 1999 to 2001
- Casualty Actuarial Society Committee on Valuation, Finance and Investments – 1997 to 2000

- American Academy of Actuaries Issues Committee Chair of Self-Insurance Issues – 1997 to 1999
- Joint Program Committee for the Casualty Loss Reserve Seminar – 1993 to 1998
- American Academy of Actuaries - Chairperson, Committee on Publications – 1993 to 1997
- Contingencies Magazine – The Journal of the American Academy of Actuaries – Chairperson, Editorial Advisory Board –1993 to 1997
- Contingencies Magazine – The Journal of the American Academy of Actuaries – Member, Editorial Advisory Board –1988 to 1993
- Casualty Actuarial Society – Advisory Committee to Forecast 2000 Representing the Casualty Actuarial Society – 1988 to1993
- The Actuarial Update (The American Academy of Actuary's Newsletter) Editor – 1989-93
- The Actuarial Review (The Casualty Actuarial Society's Newsletter) News Editor – 1988-92
- Casualty Actuarial Society External Communications Committee Chairman – 1987 to 1989
- Casualty Actuarial Society External Communications Committee Vice-Chairman – 1986-87
- Casualty Actuarial Society External Communications Committee – 1983-1986
- Casualty Actuarial Society Committee on Career Enhancements – 1982-1983

EDUCATION:

- BA in Mathematics from the State University of New York at Plattsburgh, 1971

RESUME
Bobby J. Jaegers

Bobby Jaegers is a consulting actuary at Taylor & Mulder, Inc. He has passed Casualty Actuarial Society exams P/1, FM/2, MFE/3F, S, 4/C, OC1, and has satisfied all VEE requirements.

EXPERIENCE

At Taylor & Mulder Inc., Mr. Jaegers has performed rate filing reviews, prepared rate filings for insurance clients, conducted reserve analyses, and designed statistical models for insurance companies, captive insurers and risk retention groups. His experience in designing models is translated into his detailed analysis of sophisticated, complex models presented in the review of rate filings for private passenger automobile and homeowners for the top personal lines writers in the country. Mr. Jaegers works on the review of rate filings on behalf of numerous insurance departments. Statistical modeling and rate filing reviews include all of the major lines of insurance such as worker's compensation, personal automobile, commercial automobile, homeowners, inland marine, property, dwelling fire, farmowners, motorcycle, recreation vehicles, personal liability, personal umbrella, equipment breakdown, professional liability insurance and earthquake, hurricane and other catastrophe models.

Mr. Jaegers is responsible for data compilation, manipulation and analyses for financial examinations of insurance companies on behalf of numerous insurance departments. His responsibilities include transforming and analyzing client data required for financial examinations. He works with advanced statistical models such as generalized linear models for insurance companies, captives, risk retention groups, government entities, self-insured clients and state insurance departments.

Prior to joining Taylor & Mulder, Inc., Mr. Jaegers worked for Shelter Insurance Companies, a midwestern property and casualty insurer, where he compiled rate filings and approved rate filings assembled by peers for lines including homeowners, private passenger automobile, commercial automobile, mobile-homeowners, dwelling fire, general liability, farmowners, boatowners, and inland marine. He was also responsible for manipulating databases and developing web-based software solutions to visualize actuarial analyses.

EDUCATION

- BS with Honors from Maryville University of St. Louis, 2012