

**State:** Pennsylvania **Filing Company:** Insurance Services Office, Inc.  
**TOI/Sub-TOI:** 04.0 Homeowners/04.0000 Homeowners Sub-TOI Combinations  
**Product Name:** HO-2015-RLA1  
**Project Name/Number:** Homeowners Advisory Prospective Loss Costs Revision/HO-2015-RLA1

## Filing at a Glance

Company: Insurance Services Office, Inc.  
Product Name: HO-2015-RLA1  
State: Pennsylvania  
TOI: 04.0 Homeowners  
Sub-TOI: 04.0000 Homeowners Sub-TOI Combinations  
Filing Type: Rate  
Date Submitted: 09/01/2015  
SERFF Tr Num: ISOF-130227558  
SERFF Status: Assigned  
State Tr Num:  
State Status: Received Review in Progress  
Co Tr Num: HO-2015-RLA1  
  
Effective Date: 04/01/2016  
Requested (New):  
Effective Date: 04/01/2016  
Requested (Renewal):  
Author(s): Stephen Clarke, Sheila Lemley, Arlene Byrd, Laura Panesso, Kandy Taccki, Peter Quirk, Beth Flynn, Victor Armooh, Lynn Knauf, Allison Roselle, Natanella Harsinay  
Reviewer(s): Xiaofeng Lu (primary), Michael McKenney  
Disposition Date:  
Disposition Status:  
Effective Date (New):  
Effective Date (Renewal):  
  
State Filing Description:

**State:** Pennsylvania **Filing Company:** Insurance Services Office, Inc.  
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## General Information

Project Name: Homeowners Advisory Prospective Loss Costs Status of Filing in Domicile: Not Filed  
 Revision  
 Project Number: HO-2015-RLA1 Domicile Status Comments:  
 Reference Organization: Reference Number:  
 Reference Title: Advisory Org. Circular:  
 Filing Status Changed: 09/02/2015  
 State Status Changed: 09/02/2015 Deemer Date:  
 Created By: Kandy Taccki Submitted By: Kandy Taccki  
 Corresponding Filing Tracking Number:

Filing Description:  
 Revision of Homeowners Advisory Prospective Loss Costs.

## Company and Contact

### Filing Contact Information

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 101 Burr Ridge Parkway 630-288-2025 [Phone]  
 Suite 300  
 Burr Ridge, IL 60527

### Filing Company Information

Insurance Services Office, Inc.	CoCode:	State of Domicile: New Jersey
545 Washington Boulevard	Group Code:	Company Type:
Jersey City, NJ 07310-1686	Group Name:	Advisory/Rating Organization
(201) 469-2207 ext. [Phone]	FEIN Number: 13-3131412	State ID Number:

## Filing Fees

Fee Required? No  
 Retaliatory? No  
 Fee Explanation:

## State Specific

\*Filing Fee Amount: N/A  
 \*Date Filing Fee Mailed: N/A  
 \*Filing Fee Check Number: N/A  
 \*Filing Fee Check Date: N/A  
 \*NAIC Number: N/A

SERFF Tracking #:

ISOF-130227558

State Tracking #:

Company Tracking #:

HO-2015-RLA1

State:

Pennsylvania

Filing Company:

Insurance Services Office, Inc.

TOI/Sub-TOI:

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Product Name:

HO-2015-RLA1

Project Name/Number:

Homeowners Advisory Prospective Loss Costs Revision/HO-2015-RLA1

## Correspondence Summary

### Filing Notes

Subject	Note Type	Created By	Created On	Date Submitted
Exhibits	Note To Reviewer	Kandy Taccki	09/01/2015	09/01/2015

**State:** Pennsylvania **Filing Company:** Insurance Services Office, Inc.  
**TOI/Sub-TOI:** 04.0 Homeowners/04.0000 Homeowners Sub-TOI Combinations  
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## Note To Reviewer

**Created By:**

Kandy Taccki on 09/01/2015 03:10 PM

**Last Edited By:**

Kandy Taccki

**Submitted On:**

09/01/2015 03:29 PM

**Subject:**

Exhibits

**Comments:**

Please see the attached worksheets, which supply supporting documentation.

**State:** Pennsylvania **Filing Company:** Insurance Services Office, Inc.

**TOI/Sub-TOI:** 04.0 Homeowners/04.0000 Homeowners Sub-TOI Combinations

**Product Name:** HO-2015-RLA1

**Project Name/Number:** Homeowners Advisory Prospective Loss Costs Revision/HO-2015-RLA1

**Attachment PA 3Q14 Exhibits.xlsx is not a PDF document and cannot be reproduced here.**

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State Tracking #:

Company Tracking #:

HO-2015-RLA1

**State:** Pennsylvania **Filing Company:** Insurance Services Office, Inc.  
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### Rate Information

Rate data applies to filing.

**Filing Method:**

**Rate Change Type:**

Increase

**Overall Percentage of Last Rate Revision:**

-2.400%

**Effective Date of Last Rate Revision:**

04/01/2015

**Filing Method of Last Filing:**

### Company Rate Information

Company Name:	Overall % Indicated Change:	Overall % Rate Impact:	Written Premium Change for this Program:	Number of Policy Holders Affected for this Program:	Written Premium for this Program:	Maximum % Change (where req'd):	Minimum % Change (where req'd):
Insurance Services Office, Inc.	6.900%	6.900%				%	%

**SERFF Tracking #:**

ISOF-130227558

**State Tracking #:****Company Tracking #:**

HO-2015-RLA1

**State:**

Pennsylvania

**Filing Company:**

Insurance Services Office, Inc.

**TOI/Sub-TOI:**

04.0 Homeowners/04.0000 Homeowners Sub-TOI Combinations

**Product Name:**

HO-2015-RLA1

**Project Name/Number:**

Homeowners Advisory Prospective Loss Costs Revision/HO-2015-RLA1

## Rate/Rule Schedule

Item No.	Schedule Item Status	Exhibit Name	Rule # or Page #	Rate Action	Previous State Filing Number	Attachments
1		Revised Loss Costs	See Attached	Replacement		HO-2015-RLA1-PA-Sect A-SCOPE OF REVISION.pdf



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INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

SECTION A – SCOPE OF REVISION

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PENNSYLVANIA  
HOMEOWNERS INSURANCE

STATEWIDE LOSS COST LEVEL CHANGES (A)

<u>FORM</u>	<u>AGGREGATE LOSS COSTS AT CURRENT LEVEL (B)</u>	<u>FILED LOSS COST LEVEL CHANGE</u>
Owners	\$ 389,560,715	+ 7.1%
Tenants	\$ 8,776,989	- 2.5%
Condominium Unit Owners	\$ 7,665,898	+ 7.1%
ALL FORMS	\$ 406,003,602	+ 6.9%

(A) For trend purposes, the period of use for this revision is assumed to begin on 4/1/2016.

(B) Year ended 9/30/2014 aggregate loss costs at current level based on ISO staff developed loss costs contained in the latest implemented filing.

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COST LEVEL CHANGES BY TERRITORY

<u>Territory</u>	<u>Owners</u>	<u>Tenants</u>	<u>Condominium Unit Owners</u>
04	+ 15.9%	- 6.6%	+ 2.4%
30	+ 4.8%	+ 3.4%	+ 13.1%
31	+ 13.7%	- 2.1%	+ 13.1%
32	+ 11.0%	- 10.7%	+ 9.2%
33	+ 5.3%	- 5.0%	+ 1.1%
34	+ 18.0%	- 5.0%	+ 14.1%
35	+ 7.0%	+ 12.2%	+ 6.2%
36	- 0.3%	+ 0.1%	+ 1.2%
37	- 0.1%	+ 6.8%	+ 4.0%
38	- 9.6%	- 2.5%	+ 8.0%
39	+ 6.0%	+ 2.3%	+ 9.4%
40	+ 8.9%	+ 8.9%	+ 5.3%
41	+ 14.1%	- 2.5%	+ 6.3%
42	+ 6.5%	- 0.2%	+ 10.4%
43	+ 4.7%	- 12.9%	+ 13.9%
44	+ 6.2%	+ 6.5%	+ 0.9%
45	+ 1.5%	+ 2.6%	+ 13.1%
46	+ 4.8%	+ 0.9%	+ 11.2%
47	+ 6.1%	+ 7.0%	+ 13.1%
48	+ 1.6%	- 1.1%	+ 8.3%
49	+ 7.3%	- 3.5%	+ 9.3%
Statewide	+ 7.1%	- 2.5%	+ 7.1%

PENNSYLVANIA  
HOMEOWNERS INSURANCE

PRESENT AND FILED BASE CLASS LOSS COSTS BY TERRITORY (A)

Territory Code	PRESENT			FILED			
	Owners Form 3 \$60,000 Base	Tenants \$20,000 Base	Condominium Unit Owners \$20,000 Base	Owners Form 3 \$60,000 Base	Tenants \$20,000 Base	Condominium Unit Owners \$20,000 Base	
	04	\$207.08	\$68.23	\$116.57	\$240.01	\$63.73	\$119.37
	30	111.46	49.02	40.28	116.81	50.69	45.56
31	96.64	39.83	24.32	109.88	38.99	27.51	
32	73.21	28.07	27.89	81.26	25.07	30.46	
33	95.23	33.65	35.08	100.28	31.97	35.47	
34	108.80	41.24	53.84	128.38	39.18	61.43	
35	94.68	37.71	36.05	101.31	42.31	38.29	
36	94.35	57.87	52.26	94.07	57.93	52.89	
37	94.29	28.87	46.72	94.20	30.83	48.59	
38	102.28	22.77	59.01	92.46	22.20	63.73	
39	94.15	33.88	46.19	99.80	34.66	50.53	
40	99.49	47.28	34.94	108.34	51.49	36.79	
41	88.02	40.91	37.52	100.43	39.89	39.88	
42	96.98	30.35	22.47	103.28	30.29	24.81	
43	101.80	42.31	37.71	106.58	36.85	42.95	
44	126.90	27.01	68.26	134.77	28.77	68.87	
45	110.26	35.52	76.68	111.91	36.44	86.73	
46	96.27	24.40	46.19	100.89	24.62	51.36	
47	127.90	31.99	54.11	135.70	34.23	61.20	
48	83.22	49.74	33.69	84.55	49.19	36.49	
49	108.29	34.30	33.40	116.20	33.10	36.51	

(A) Base Class is Protection Class 5, Frame Construction.

**PENNSYLVANIA  
HOMEOWNERS INSURANCE  
TERRITORY PAGES**

**1. TERRITORY DEFINITIONS** - (For all Coverages and Perils Other Than Earthquake).

**A. Cities**

City of	County of	Code
Allentown	Lehigh	30
Bethlehem	Lehigh and Northampton	30
Erie	Erie	36
Philadelphia	Philadelphia	04
Pittsburgh	Allegheny	34

**B. Other Than Cities**

County of	Code
Adams	33
Allegheny	35
Armstrong	43
Beaver	40
Bedford	49
Berks	32
Blair	49
Bradford	43
Bucks	44
Butler	43
Cambria	43
Cameron	43
Carbon	49
Centre	49
Chester	46
Clarion	43
Clearfield	43
Clinton	49
Columbia	49
Crawford	43
Cumberland	33
Dauphin	33
Delaware	47
Elk	43
Erie	37
Fayette	43

County of	Code
Forest	43
Franklin	33
Fulton	49
Greene	43
Huntingdon	49
Indiana	43
Jefferson	43
Juniata	49
Lackawanna	38
Lancaster	32
Lawrence	43
Lebanon	33
Lehigh	31
Luzerne	39
Lycoming	48
McKean	43
Mercer	43
Mifflin	49
Monroe	49
Montgomery	45
Montour	49
Northampton	31
Northumberland	49
Perry	49
Philadelphia	04
Pike	49
Potter	43
Schuylkill	49
Snyder	49
Somerset	43
Sullivan	43
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Westmoreland	42
Wyoming	43
York	33

SERFF Tracking #:

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HO-2015-RLA1

State: Pennsylvania

Filing Company:

Insurance Services Office, Inc.

TOI/Sub-TOI: 04.0 Homeowners/04.0000 Homeowners Sub-TOI Combinations

Product Name: HO-2015-RLA1

Project Name/Number: Homeowners Advisory Prospective Loss Costs Revision/HO-2015-RLA1

## Supporting Document Schedules

<b>Bypassed - Item:</b>	Authorization to File (PC)
<b>Bypass Reason:</b>	N/A
<b>Attachment(s):</b>	
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Satisfied - Item:</b>	Actuarial Explanatory Memorandum & Supporting Exhibits (PC)
<b>Comments:</b>	
<b>Attachment(s):</b>	HO-2015-RLA1-PA-EXECUTIVE SUMMARY.pdf HO-2015-RLA1-PA-TABLE OF CONTENTS.pdf HO-2015-RLA1-PA-Sect B-CALCULATION OF CHANGES.pdf HO-2015-RLA1-PA-Sect C-SUPPORTING MATERIAL.pdf HO-2015-RLA1-PA-Sect D-AIR HURRICANE COMPUTER MODEL.pdf HO-2015-RLA1-PA-Sect E-LOSS COSTS AND RATING INFORMATION.pdf
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Satisfied - Item:</b>	Cover Letter
<b>Comments:</b>	
<b>Attachment(s):</b>	HO-2015-RLA1-PA-Cover Letter.pdf
<b>Item Status:</b>	
<b>Status Date:</b>	



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PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COST LEVEL REVISION

EXECUTIVE SUMMARY

---

PURPOSE

This document:

- revises advisory prospective base class loss costs. These revised loss costs represent a +6.9% statewide change from the current loss costs.
- provides the analyses used to derive these advisory loss costs.
- revises miscellaneous loss costs.

---

DEFINITION  
OF THE ISO  
ADVISORY  
PROSPECTIVE  
LOSS COST

Advisory prospective loss costs in this document are that portion of a rate that does not include provisions for expenses (other than loss adjustment expenses) or profit, and are based on historical aggregate losses and loss adjustment expenses adjusted through development to their ultimate value as well as a model-generated hurricane loss provision, both projected through trending to a future point in time.

---

LOSS COST  
LEVEL  
CHANGES

The indicated and filed statewide advisory loss cost level changes are:

<u>Form</u>	<u>Indicated</u>	<u>Filed</u>
Owners	+7.1%	+7.1%
Tenants	-2.5%	-2.5%
Condominium Unit Owners	+7.1%	+7.1%
All Forms	+6.9%	+6.9%

Indicated and filed loss cost level changes are changes from the current loss costs.

Note that throughout this document, Policy Forms HO-2, 3, 5, and 8 are referred to as Owners, Policy Form HO-4 is referred to as Tenants, and Policy Form HO-6 is referred to as Condominium Unit Owners.

---

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COST LEVEL REVISION

EXECUTIVE SUMMARY

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INDICATED VS.  
FILED  
CHANGE

Indicated changes are based on standard ISO methodology. For all forms, the filed changes equal the indicated changes.

---

MISCELLANEOUS LOSS  
COSTS REVISIONS

We are revising certain advisory prospective loss costs for the miscellaneous classes and coverages not affected by this experience level review. We are revising the limited Water Back-Up and Sump Discharge or Overflow coverage loss costs based on recent analysis.

---

CATASTROPHE  
PROCEDURE

In order to improve the accuracy and reliability of our indicated prospective loss costs, we have developed and enhanced specialized catastrophe procedures in the calculation of property loss costs in hurricane-prone states. Our specialized procedures incorporate a state-of-the art tropical cyclone (hurricane) computer model, as developed by AIR Worldwide Corporation (AIR). AIR, a pioneer in the application of sophisticated computer modeling to the hurricane peril as well as other catastrophes, is owned by Verisk Analytics, Inc. This computer model can estimate hurricane losses more accurately and with greater geographic specificity than traditional experience-based techniques. It uses the meteorological database of approximately 100 years of hurricanes, a sophisticated wind field model, and engineering and insurance-based damage relationships to develop reliable estimates of expected hurricane losses.

See Section D for more information on the AIR model and ISO's Homeowners hurricane ratemaking procedures.

Historical loss experience (1960 to present), excluding hurricane losses accounted for by the model, continues to be used in ISO's traditional excess procedure to reflect other wind-and-water-related hazards.

---

HURRICANE  
MODEL

The indications developed in this document are based on the AIR Atlantic Tropical Cyclone Model - Version 14.0.1 as implemented in the Touchstone 1.5.2 software platform. Further details about the AIR model are discussed in Section D of this filing.

---

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COST LEVEL REVISION

EXECUTIVE SUMMARY

PRIOR ISO  
REVISIONS

The last revisions in this state were:

<u>Reference Document or Filing Designation</u>	HO-2014-RLA1	HO-2013-RLA1	HO-2012-RLA1
<u>Rate Level/Loss Costs</u>	Loss Costs	Loss Costs	Loss Costs
<u>Dates Implemented</u>	04/01/2015	04/01/2014	04/01/2013
<u>Changes Indicated</u>	- 2.4%	- 5.3%	+ 8.5%
<u>Filed</u>	- 2.4%	- 5.3%	+ 8.5%
<u>Implemented</u>	- 2.4%	- 5.3%	+ 8.5%

HISTORICAL  
SOURCE DATA

The data used in this revision is:

- Voluntary market experience of companies reporting to ISO, under the ISO Personal Lines Statistical Plan – Other than Automobile (PLSP-OTA).
- 5 Accident years ended 09/30/2014 for all Homeowners Forms.
- Modeled hurricane loss costs generated by a computer simulation that utilizes a meteorological database of approximately 100 years of hurricanes.
- Various external price index data from Xactware and the Bureau of Labor Statistics.

CHANGE IN  
METHODOLOGY

In order to better reflect each territory's latest loss experience in our filed loss costs, we are setting the filed relative change equal to the indicated relative change for each territory, except for cases where cutbacks are selected. In the past, except for cases where cutbacks were selected, the filed relative changes were rounded toward unity in 0.05 increments using increments of 0.075 as the rounding thresholds.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COST LEVEL REVISION

EXECUTIVE SUMMARY

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TERRITORIAL  
DISTRIBUTION

ISO has distributed the statewide changes by territory according to each territory's own experience. Modeled hurricane base class loss costs are included in the territory's total base class loss cost. The average change varies by territory ranging from -9.6% to +18.0% in Owners, -12.9% to +12.2% for Tenants, and +0.9% to +14.1% for Condominium Unit.

---

TREND AND  
OTHER  
ADJUSTMENTS

Loss Trend:

The loss costs that we are developing in this document will be used in a future period. In order for the historical experience to be an accurate representation of this future period, the application of "trend factors" is required.

A loss trend factor is a measure of the anticipated change in claim cost that is expected to occur between the historical time period represented in the actual loss experience and the time period during which future losses will be paid. In this document, loss trend factors based on the changes observed in countrywide external indices through the first quarter of 2015 have been used.

An adjustment ("trend from first dollar") is included to account for the fact that the countrywide consumer indices reflect no deductible and are on a "first dollar" basis, whereas ISO's loss experience is on a base deductible basis. In this state, the base deductible is \$500.

The annual rate of change in the loss trend factors described above are as follows:

<u>Form</u>	<u>Annual Loss Trend Factor</u>
Owners	+3.5%
Tenants	-0.2%
Condominium Unit Owners	-0.2%

In some instances, the historical consumer trend data will not be indicative of future trends. An analysis of historical pure premium trend indicates that the pure premiums are growing at a greater rate than the consumer indices. Therefore, we have supplemented the above trend factor for Condominium Unit Owners incurred losses with a loss trend adjustment factor of 0.5% (1.005).

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COST LEVEL REVISION

EXECUTIVE SUMMARY

TREND AND  
OTHER  
ADJUSTMENTS  
(Cont'd)

This produces a net annual loss trend for losses of:

<u>Form</u>	<u>Annual Loss Trend Factor</u>
Owners	+3.5%
Tenants	-0.2%
Condominium Unit Owners	+0.3%

The historical pure premiums used for the loss trend adjustment analysis are now year-ended by quarter and are based on incurred losses by accident date.

Premium Trend:

The amount of insurance purchased by insureds affects the cost of Homeowners insurance. As inflation affects the price of homes, insureds tend to buy higher amounts of insurance. As a result, premium revenue increases.

In order to reflect the increase in revenue, ISO uses a premium trend procedure, the effect of which is to reduce the indicated loss costs. The premium trend factors are based on trends in the amounts of coverage selected by insureds. Note that an analysis of recently reported data for the owners' forms indicates that the rate of growth in average policy limits has decreased relative to the average growth rate for the five-year historical time period underlying our loss cost level analysis. While this decreased growth rate is partially reflected in the average policy limits underlying the latter part of the historical time period, the overall growth for the historical time period exceeds the more-recently observed growth rate. In order to reflect this slowdown in the rate of growth, our premium trend procedure incorporates a tempering factor of 0.70. The annual trends in amount of insurance are:

<u>Form</u>	<u>Annual Premium Trend Factor</u>
Owners	+1.2%
Tenants	+0.2%
Condominium Unit Owners	+0.8%

Other Adjustments:

Standard actuarial procedures have been used in calculating the loss costs including the adjustment of incurred non-modeled losses to ultimate settlement level and the reflection of all loss adjustment expenses for both modeled hurricane and incurred non-modeled losses.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COST LEVEL REVISION

EXECUTIVE SUMMARY

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LARGEST  
COMPANIES IN  
ISO DATABASE

HOMEOWNERS (ASLOB 040)

1. Nationwide Mutual Insurance Company
2. Travelers Indemnity Company
3. United Services Automobile Association
4. General Insurance Company of America
5. Hartford Accident & Indemnity Company
6. Westfield Insurance Company
7. The Philadelphia Contributionship Insurance Company
8. Mutual Benefit Insurance Company
9. Amica Mutual Insurance Company
10. Selective Insurance Company of America

Insurers are listed in descending order based on the statewide premium volume as reported to ISO, for the five year period ending 09/30/2014 .

---

SIZE OF ISO  
DATABASE

The market share of all insurers reporting to ISO in this state as measured by written premium for the five year period ending 09/30/2014 is:

27.7%

---

COMPANY  
DECISION

We encourage each insurer to decide independently whether the judgments made and the procedures or data used by ISO in developing the loss costs contained herein are appropriate for its use. We have included within this document the information upon which ISO relied in order to enable companies to make such independent judgments.

The historical data underlying the enclosed material comes from companies reporting to Insurance Services Office, Inc. (ISO). Therefore, the ISO experience permits the establishment of a much broader statistical ratemaking database than could be employed by using any individual company's data. A broader database enhances the validity of ratemaking analysis derived therefrom. At the same time, however, an individual company may benefit from a comparison of its own experience to the aggregate ISO experience, and may reach valid conclusions with respect to the manner in which its own loss costs can be expected to differ from ISO's projections based on the aggregate data.

Some calculations included in this document involve areas of ISO staff judgment. Each company should carefully review and evaluate its own experience in order to determine whether the ISO selected loss costs are appropriate for its use.

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COST LEVEL REVISION

EXECUTIVE SUMMARY

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COMPANY  
DECISION  
(Cont'd)

This material has been developed by ISO staff. ISO staff has relied on information, and unique knowledge and expertise, provided by Xactware and AIR Worldwide Corporation (which are owned by Verisk Analytics, Inc.) for the derivation of the external loss trend and modeled hurricane loss costs used in this document.

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PENNSYLVANIA  
HOMEOWNERS INSURANCE

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PENNSYLVANIA  
HOMEOWNERS INSURANCE

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PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COST LEVEL REVISION

METHODOLOGY OVERVIEW

INTRODUCTION

Homeowners advisory prospective loss costs are determined by evaluating the adequacy of the current loss costs to pay for losses and loss adjustment expenses that will be incurred in the prospective (or future) period. This evaluation is done separately for Owners, Tenants, and Condominium Unit Owners.

DETERMINATION  
OF STATEWIDE  
LOSS COST  
INDICATION

The first step in this process is the determination of the statewide loss cost indication. In other words, what percentage changes on average must be made to the current loss costs in order to achieve adequacy for the prospective conditions? The percentage changes are presented on the exhibits labeled "Determination of Statewide Advisory Loss Cost Level Change".

DISTRIBUTION  
TO TERRITORIES

ISO then distributes the statewide loss cost indication to the individual territorial loss costs by comparing the relative loss experience including modeled hurricane losses by territory to the statewide average. Actual hurricane losses accounted for by the model have been replaced with modeled hurricane losses.

APPLICATION OF  
PERCENT CHANGES

The last step is the calculation of the ISO advisory prospective loss costs. This is achieved by applying the territory changes to the current loss costs.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES

OBJECTIVE	The objective of this procedure is to determine the indicated statewide advisory loss cost level change. This procedure answers the question: what percentage change must be made, on average, to the current loss costs in order for them to be adequate to cover indemnity losses and all loss adjustment expenses incurred during the prospective period in which the revised loss costs are assumed to be in effect?
DESCRIPTION	This procedure compares the developed and trended base class loss cost including a trended modeled hurricane base class loss cost with the current statewide average base class loss cost. Developed and trended non-modeled base class loss costs (hurricane losses accounted for by the model have been removed) are calculated for five years and a weighted average is determined. The five year weights vary from year to year, giving greater weight to the more recent experience. The weighted non-modeled base class loss cost is then credibility weighted with the expected base class loss cost. This credibility weighted base class loss cost is added to a trended modeled hurricane base class loss cost and then divided by the current statewide average base class loss cost to determine the indicated loss cost level change.
EXPERIENCE	The historical experience used in this review is the latest available data as reported under the ISO Personal Lines Statistical Plan - Other Than Automobile (PLSP-OTA). The data is aggregated on an accident year basis. Hurricane losses accounted for by the model have been removed from this experience.
MODELED HURRICANE BASE CLASS LOSS COSTS	A computerized model has been employed to generate hurricane base class loss costs used in this review. The model, developed by AIR-Worldwide Corporation, provides mean damage ratios, which when combined with the current amount of insurance, calculate the expected hurricane losses. These modeled hurricane losses are divided by earned house years to produce loss costs by territory which are then combined with the non-modeled experience loss costs to determine the total indicated loss costs. For further discussion of the catastrophe ratemaking procedure, please see Section D.

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HOMEOWNERS INSURANCE - OWNERS

CALCULATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGE

<u>Accident Year Ended</u>	(1) <u>Developed Incurred Non-Modeled Losses on a Common Deductible Level</u>	(2) <u>Trended Incurred Non-Modeled Losses and LAE Adjusted for Excess</u>	(3) <u>Classification and Coverage Factor</u>
09/30/2010	453,570,410	433,624,822	4.225
09/30/2011	491,248,837	494,093,909	4.274
09/30/2012	301,169,648	402,884,041	4.387
09/30/2013	287,891,692	409,353,757	4.490
09/30/2014	497,119,304	412,960,419	4.572

	(4) <u>Trended Classification and Coverage Factor</u>	(5) <u>Earned House Years</u>	(6) <u>Trended Non-Modeled Base Class Loss Cost</u>	(7) <u>Weights</u>
09/30/2010	4.594	810,166	116.51	0.10
09/30/2011	4.582	806,280	133.74	0.15
09/30/2012	4.645	805,453	107.68	0.20
09/30/2013	4.698	802,131	108.63	0.25
09/30/2014	4.733	776,783	112.32	0.30

(8)	Weighted Non-Modeled Base Class Loss Cost	=	114.10
(9)	Credibility ( 4,000,813 House Years )	=	1.00
(10)	Expected Non-Modeled Base Class Loss Cost	=	108.92
(11)	Credibility-Weighted Non-Modeled Base Class Loss Cost	=	114.10
(12)	Modeled Base Class Loss Cost	=	3.35
(13)	Total Base Class Loss Cost (11) + (12)	=	117.45
(14)	Current Base Class Loss Cost	=	109.70
(15)	Indicated Loss Cost Level Change (13) / (14)	=	1.071
(16)	Filed Loss Cost Level Change	=	1.071
			(or +7.1%)

\*Actual hurricane losses of \$55,049,024 in the year ending 9/30/2011 and \$122,701,562 in the year ending 9/30/2013 have been excluded.

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PENNSYLVANIA

HOMEOWNERS INSURANCE - TENANTS

CALCULATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGE

<u>Accident Year Ended</u>	(1) Developed Incurred Non-Modeled Losses on a Common <u>Deductible Level</u>	(2) Trended Incurred Non-Modeled <u>Losses and LAE</u>	(3) Classification and Coverage <u>Factor</u>
09/30/2010	5,799,751	6,713,364	1.843
09/30/2011	7,687,737	8,889,991	1.841
09/30/2012	6,955,621	7,924,397	1.834
09/30/2013	7,985,828	9,052,555	1.843
09/30/2014	7,626,534	8,671,360	1.847

	(4) Trended Classification and Coverage <u>Factor</u>	(5) Earned House Years <u>Years</u>	(6) Trended Non-Modeled Base Class <u>Loss Cost</u>	(7) <u>Weights</u>
09/30/2010	1.870	111,541	32.19	0.10
09/30/2011	1.856	116,320	41.18	0.15
09/30/2012	1.848	124,243	34.51	0.20
09/30/2013	1.856	127,126	38.37	0.25
09/30/2014	1.858	123,032	37.93	0.30

(8)	Weighted Non-Modeled Base Class Loss Cost	=	37.27
(9)	Credibility ( 602,262 House Years )	=	1.00
(10)	Expected Non-Modeled Base Class Loss Cost	=	38.01
(11)	Credibility-Weighted Non-Modeled Base Class Loss Cost	=	37.27
(12)	Modeled Base Class Loss Cost	=	0.39
(13)	Total Base Class Loss Cost (11) + (12)	=	37.66
(14)	Current Base Class Loss Cost	=	38.64
(15)	Indicated Loss Cost Level Change (13) / (14)	=	0.975
(16)	Filed Loss Cost Level Change	=	0.975
			(or -2.5%)

\*Actual hurricane losses of \$236,971 in the year ending 9/30/2011 and \$228,198 in the year ending 9/30/2013 have been excluded.

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA

HOMEOWNERS INSURANCE - CONDOMINIUM UNIT OWNERS

CALCULATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGE

<u>Accident Year Ended</u>	(1) Developed Incurred Non-Modeled Losses on a Common <u>Deductible Level</u>	(2) Trended Incurred Non-Modeled <u>Losses and LAE</u>	(3) Classification and Coverage <u>Factor</u>
09/30/2010	6,233,194	7,381,033	3.344
09/30/2011	6,580,128	7,784,178	3.342
09/30/2012	5,563,151	6,483,758	3.357
09/30/2013	6,859,993	7,955,189	3.405
09/30/2014	8,998,061	10,466,092	3.452

	(4) Trended Classification and Coverage <u>Factor</u>	(5) Earned House Years <u>Years</u>	(6) Trended Non-Modeled Base Class <u>Loss Cost</u>	(7) <u>Weights</u>
09/30/2010	3.536	34,387	60.70	0.10
09/30/2011	3.514	35,061	63.18	0.15
09/30/2012	3.509	35,376	52.23	0.20
09/30/2013	3.521	35,885	62.96	0.25
09/30/2014	3.535	35,336	83.79	0.30

(8)	Weighted Non-Modeled Base Class Loss Cost	=	66.87
(9)	Credibility ( 176,045 House Years )	=	0.90
(10)	Expected Non-Modeled Base Class Loss Cost	=	61.62
(11)	Credibility-Weighted Non-Modeled Base Class Loss Cost	=	66.35
(12)	Modeled Base Class Loss Cost	=	0.98
(13)	Total Base Class Loss Cost (11) + (12)	=	67.33
(14)	Current Base Class Loss Cost	=	62.86
(15)	Indicated Loss Cost Level Change (13) / (14)	=	1.071
(16)	Filed Loss Cost Level Change	=	1.071
			(or +7.1%)

\*Actual hurricane losses of \$527,440 in the year ending 9/30/2011 and \$519,147 in the year ending 9/30/2013 have been excluded.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES

COLUMN (1) DEVELOPED INCURRED NON-MODELED LOSSES ON A COMMON DEDUCTIBLE LEVEL

Reported incurred non-modeled losses are adjusted to a common \$500 Section I Deductible Level by Loss Elimination Ratios (LERs). (By the term "LER," applied to a loss occurring on a policy carrying a deductible of "\$D," we mean the ratio  $K = (\text{Loss amount reflecting a deductible of } \$500) / (\text{Loss amount reflecting a deductible of } \$D)$ . When D is greater than 500, K is greater than 1.00 and the "LER" is a measure of the additional loss amount that would be paid using the smaller \$500 deductible). Loss Elimination Ratios are applied in class detail for each deductible and form, based on the most recent ISO analysis of losses eliminated.

The incurred non-modeled losses shown reflect the LERs as well as loss development factors to bring the non-modeled losses to an "ultimate" settlement basis. The derivation of the loss development factors is found in Section C.

The incurred losses termed "non-modeled" have been adjusted to remove hurricane losses, which are accounted for by the hurricane model.

COLUMN (2) TRENDED INCURRED LOSSES AND LAE ADJUSTED FOR EXCESS (EXCESS APPLICABLE ONLY TO OWNERS)

The calculation for this column is:

$(\text{Column (1) - Adjusted Excess Losses}) \times \text{Excess Factor} \times \text{LAE} \times \text{Current Cost Factor} \times \text{Composite Loss Projection Factor}$

Since wind and water not accounted for by the model can cause large and unexpected losses, a "catastrophe" or an excess wind and water procedure is incorporated in the development of Owners loss costs. Excess losses, as calculated in Section C, are those losses which result from unusually severe wind and water activity. Hence, they are removed from the experience used in developing loss costs. The purpose of this procedure is to avoid shifts in loss costs (both upward and downward) which will result from reflecting large, unexpected losses only in the year in which they occur. In order to reflect the impact of excess wind and water losses on a long-term basis, the Column (1) losses excluding the Non-Modeled Excess Losses on a base Deductible Level are multiplied by the Excess Factor as derived in Section C.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES

COLUMN (2)  
(Cont'd)

Loss adjustment expenses are included by applying a factor of 1.145 to the incurred losses adjusted for excess. This factor is based on five years of countrywide experience as shown in Section C.

Trending is included to recognize the anticipated cost levels for the period that the new loss costs are assumed to be in effect. The Current Cost Factors account for loss trend as measured by the external index from a given accident year to the point in time corresponding to the midpoint of the latest available quarter of the Current Cost Index. A detailed derivation of these factors is shown in Section C in the "Development of Current Cost Factors and Loss Projection Factor" exhibit. The Composite Loss Projection Factor is derived and explained in Section C in the "Development of Composite Factor & Trend From First Dollar" exhibit. This factor projects losses from the midpoint of the latest quarter of trend to one year beyond the effective date.

For Tenants and Condominium Unit Owners, the Column (2) losses are calculated in the same manner except that the losses in these forms are not subject to the excess loss procedure.

COLUMN (3)

CLASSIFICATION AND COVERAGE FACTOR

The Classification and Coverage Factor (average rating factor) for each year is calculated in the following way:

The Aggregate Loss Cost at Current Level (i.e. the total volume generated by extending each house year by class and coverage by the current ISO loss costs) is divided by the earned house years to produce an average loss cost at current level.

The average loss cost at current level is then divided by the current base class loss costs (for Owners: Form 3, Frame Protection Class 5, \$60,000 Coverage A; for Tenants: Frame Protection Class 5, \$20,000 Coverage C; for Condominium Unit Owners: Frame Protection Class 5, \$5,000 Coverage A, \$20,000 Coverage C). This ratio is the Classification and Coverage Factor.

COLUMN (4)

TRENDED CLASSIFICATION AND COVERAGE FACTOR

The calculation for this column is:

Statewide Trended Loss Costs at Current Level (LCCL) = Sum of Territory LCCL  
x Statewide Current Amount Factor x Amount of Insurance Projection Factor

Trended C&Cs = Statewide Trended LCCL / (Sum of Territory House Years x  
Territory Base Class Loss Cost)

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES

COLUMN (4)  
(Cont'd)

The Classification and Coverage Factors have been trended (by virtue of using trended LCCL) to recognize the changes in revenue that accrue due to increases in amounts of insurance for the period that the new loss costs are assumed to be in effect. The Current Amount Factors measure the amount of insurance trend on the loss costs at current level from a given accident year to the point in time corresponding to the midpoint of the latest available quarter of the Current Cost Index. The Amount of Insurance Projection Factor reflects the full effect of amount of insurance trend since it projects loss costs at current level from the midpoint of the latest quarter of trend to six months beyond the effective date. The Amount of Insurance Projection Factor and Current Amount Factor are derived and explained in Section C on the "Development of Current Amount Factors and Amount of Insurance Projection Factor" exhibit.

COLUMN (6)

TRENDED BASE CLASS LOSS COST

The Trended Base Class Loss Cost = Column (2) / Column (4) / Column (5). Since the losses in Column (2) are generated by the experience of all classifications, it is necessary to transform them to a base class basis (see Column (3) explanation for definition of base class by form). This is accomplished by dividing them by the trended classification and coverage factors.

LINE (8)

WEIGHTED NON-MODELED BASE CLASS LOSS COST

The Weighted Non-Modeled Base Class Loss Costs (WLC) is derived by weighting the Trended Base Class Loss Costs in Column (6) on Column (7), which gives greater weight to the more recent experience. The Weighted Base Class Loss Cost, excluding credibility considerations, represents the amount expected to be needed to pay for losses and loss adjustment expense in the prospective period.

LINE (9)

CREDIBILITY

The standard for 100% credibility is a five-year total of 240,000 house years for Owners, 285,000 house years for Tenants, and 190,000 house years for Condominium Unit Owners. Partial credibility is determined by the "square root rule". (See Section C.) The selected minimum value for statewide credibility is 50%.

LINE (10)

EXPECTED NON-MODELED BASE CLASS LOSS COST

The Expected Non-Modeled Base Class Loss Cost (ELC) is the non-hurricane portion of the indicated Base Class Loss Cost from the prior loss cost level revision, trended from twelve months beyond the effective date of the current loss cost to twelve months beyond the effective date assumed in this document.

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HOMEOWNERS INSURANCE

DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES

LINE (11) CREDIBILITY-WEIGHTED BASE CLASS LOSS COST

The Credibility-Weighted Base Class Loss Cost (CWLC) is a weighted average of the WLC and the ELC.

$$\text{CWLC} = (\text{Credibility}) \times \text{WLC} + (1 - \text{Credibility}) \times \text{ELC}.$$

LINE (12) MODELED HURRICANE BASE CLASS LOSS COST

The model-generated hurricane loss cost on a statewide basis is derived in Section D. The losses have already been adjusted to a base deductible. However, they exclude loss adjustment expenses and must be trended and adjusted to a base class basis. Similarly as shown in the “Determination of Statewide Advisory Loss Cost Level Change” exhibits, loss adjustment expenses are included by applying a factor of 1.145 to the modeled hurricane loss cost. To reflect anticipated cost levels and changes in revenue that accrue due to increases in amount of insurance for the period that the new loss costs are assumed to be in effect, a current cost/amount factor is employed as in the “Determination of Statewide Advisory Loss Cost Level Change” exhibits. This factor trends the modeled hurricane loss cost to the midpoint of the latest available quarter of the Current Cost Index. To project the modeled hurricane loss costs from the midpoint of the latest quarter of trend to one year beyond the effective date for losses, and 6 months beyond for Amounts of Insurance, a Composite Loss Projection Factor and Amount of Insurance Projection Factor are applied.

The modeled hurricane loss cost is an average loss cost for all classes and must be converted to a base class basis by dividing by the latest year Classification and Coverage factor. The result of this calculation is a projected modeled hurricane base class loss cost.

LINE (13) TOTAL INDICATED BASE CLASS LOSS COST

The Total Indicated Base Class Loss Cost is the sum of the Projected Non-Modeled Base Class Loss Cost and the Modeled Hurricane Base Class Loss Cost. It represents the amount expected to be needed to pay for losses and loss adjustment expenses in the prospective period.

LINE (14) CURRENT BASE CLASS LOSS COST

The Current Base Class Loss Cost is the weighted average of the current territory base class loss costs using latest year house years as weights.

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DETERMINATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES

LINE (15)                    INDICATED LOSS COST LEVEL CHANGE

The total indicated base class loss cost shown is divided by the current base class loss cost to yield the indicated loss cost level change.

LINE (16)                    FILED LOSS COST LEVEL CHANGE

For all forms, the filed changes equal the indicated changes.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF ADVISORY LOSS COST LEVEL CHANGES BY TERRITORY

OBJECTIVE	The purpose of this procedure is to distribute the statewide advisory loss cost level change to each territory.
DESCRIPTION	This procedure compares individual territory combined non-modeled and model-generated experience to statewide combined non-modeled and model-generated experience. First, the five year experience non-modeled base class loss cost is calculated for each territory and statewide, and projected to the latest year loss cost level to be consistent with the modeled hurricane base class loss costs. The projected territory experience non-modeled base class loss cost is then credibility-weighted with the statewide (multiplied by the current non-modeled base class loss cost relativity) to produce a credibility-weighted experience non-modeled base class loss cost for each territory. This credibility-weighted experience non-modeled base class loss cost is then added to the modeled hurricane base class loss cost. This total base class loss cost is then divided by the statewide to produce a territory experience relativity. Next, this experience relativity for each territory is compared to the relativity to statewide of its current base class loss cost to produce indicated relative changes by territory.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF ADVISORY LOSS COST LEVEL CHANGES BY TERRITORY – OWNERS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
<u>Territory</u>	<u>Aggregate Loss Cost Volume at Current Level</u>	<u>Relativity to SW of Current Non-Modeled Base Class Loss Cost</u>	<u>Projected Experience Non-Modeled Base Class Loss Cost</u>	<u>Credibility</u>	<u>Credibility-Weighted Non-Modeled Base Class Loss Cost</u>	<u>Modeled Hurricane Base Class Loss Cost</u>	<u>Total Base Class Loss Cost (6) + (7)</u>	<u>Relativity of Territory (8) to SW (8)</u>	<u>Relativity to SW of Current Base Class Loss Cost</u>	<u>Indicated Relative Change (9) ÷ (10)</u>	<u>Filed Relative Loss Cost Change</u>	<u>Filed Base Class Loss Cost Change</u>
04	40,434,954	1.890	190.79	1.00	190.79	5.06	195.85	2.042	1.888	1.082	1.082	+15.9%
30	4,305,637	1.011	91.87	0.80	92.48	3.01	95.49	0.995	1.016	0.979	0.979	+4.8%
31	12,571,298	0.871	86.51	1.00	86.51	3.28	89.79	0.936	0.881	1.062	1.062	+13.7%
32	18,383,004	0.662	64.15	1.00	64.15	2.20	66.35	0.692	0.667	1.037	1.037	+11.0%
33	38,657,174	0.876	80.26	1.00	80.26	1.53	81.79	0.853	0.868	0.983	0.983	+5.3%
34	10,954,673	1.001	103.70	1.00	103.70	1.15	104.85	1.093	0.992	1.102	1.102	+18.0%
35	21,771,642	0.874	81.60	1.00	81.60	1.11	82.71	0.862	0.863	0.999	0.999	+7.0%
36	1,806,609	0.873	72.00	0.60	75.98	0.88	76.86	0.801	0.860	0.931	0.931	-0.3%
37	2,361,437	0.875	72.22	0.60	76.19	0.73	76.92	0.802	0.860	0.933	0.933	-0.1%
38	8,277,822	0.942	73.99	1.00	73.99	1.51	75.50	0.787	0.932	0.844	0.844	-9.6%
39	8,980,323	0.868	80.13	1.00	80.13	1.34	81.47	0.849	0.858	0.990	0.990	+6.0%
40	4,169,794	0.923	87.71	0.90	87.60	0.83	88.43	0.922	0.907	1.017	1.017	+8.9%
41	4,761,546	0.810	80.72	1.00	80.72	1.27	81.99	0.855	0.802	1.066	1.066	+14.1%
42	10,727,562	0.897	83.35	1.00	83.35	1.08	84.43	0.880	0.884	0.995	0.995	+6.5%
43	42,952,453	0.945	86.22	1.00	86.22	0.87	87.09	0.908	0.928	0.978	0.978	+4.7%
44	34,673,602	1.119	103.32	1.00	103.32	6.76	110.08	1.148	1.157	0.992	0.992	+6.2%
45	34,958,607	0.979	86.47	1.00	86.47	4.96	91.43	0.953	1.005	0.948	0.948	+1.5%
46	23,674,291	0.862	78.62	1.00	78.62	3.89	82.51	0.860	0.878	0.979	0.979	+4.8%
47	19,543,585	1.149	106.08	1.00	106.08	4.74	110.82	1.155	1.166	0.991	0.991	+6.1%
48	2,061,794	0.771	65.43	0.60	68.21	0.83	69.04	0.720	0.759	0.949	0.949	+1.6%
49	43,532,908	0.999	93.53	1.00	93.53	1.32	94.85	0.989	0.987	1.002	1.002	+7.3%
Statewide	389,560,715		93.87				95.93			1.0002	1.0002	+7.1%

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF ADVISORY LOSS COST LEVEL CHANGES BY TERRITORY –TENANTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
<u>Territory</u>	<u>Aggregate Loss Cost Volume at Current Level</u>	<u>Relativity to SW of Current Non-Modeled Base Class Loss Cost</u>	<u>Projected Experience Non-Modeled Base Class Loss Cost</u>	<u>Credibility</u>	<u>Credibility- Weighted Non-Modeled Base Class Loss Cost</u>	<u>Modeled Hurricane Base Class Loss Cost</u>	<u>Total Base Class Loss Cost (6) + (7)</u>	<u>Relativity of Territory (8) to SW (8)</u>	<u>Relativity to SW of Current Base Class Loss Cost</u>	<u>Indicated Relative Change (9) ÷ (10)</u>	<u>Filed Relative Loss Cost Change</u>	<u>Filed Base Class Loss Cost Change</u>
04	1,407,826	1.763	54.15	0.90	54.49	0.66	55.15	1.692	1.766	0.958	0.958	-6.6%
30	247,503	1.270	46.60	0.40	43.50	0.40	43.90	1.347	1.269	1.061	1.061	+3.4%
31	300,311	1.029	33.11	0.40	33.38	0.39	33.77	1.036	1.031	1.005	1.005	-2.1%
32	560,503	0.725	20.84	0.80	21.40	0.29	21.69	0.666	0.727	0.916	0.916	-10.7%
33	895,244	0.875	27.34	0.90	27.46	0.20	27.66	0.849	0.871	0.975	0.975	-5.0%
34	495,344	1.070	32.98	0.60	33.75	0.14	33.89	1.040	1.067	0.975	0.975	-5.0%
35	539,520	0.981	38.38	0.70	36.47	0.14	36.61	1.123	0.976	1.151	1.151	+12.2%
36	90,100	1.510	52.90	0.20	49.98	0.13	50.11	1.538	1.498	1.027	1.027	+0.1%
37	36,533	0.752	34.93	0.20	26.61	0.09	26.70	0.819	0.747	1.096	1.096	+6.8%
38	126,750	0.589	18.60	0.40	18.97	0.21	19.18	0.589	0.589	1.000	1.000	-2.5%
39	207,979	0.881	31.52	0.40	29.85	0.18	30.03	0.921	0.877	1.050	1.050	+2.3%
40	110,476	1.233	61.28	0.20	44.43	0.12	44.55	1.367	1.224	1.117	1.117	+8.9%
41	115,987	1.066	32.60	0.20	34.34	0.17	34.51	1.059	1.059	1.000	1.000	-2.5%
42	165,631	0.787	26.74	0.40	26.10	0.15	26.25	0.805	0.786	1.024	1.024	-0.2%
43	943,838	1.103	30.73	0.80	31.78	0.12	31.90	0.979	1.095	0.894	0.894	-12.9%
44	374,933	0.685	25.36	0.60	24.15	0.76	24.91	0.764	0.699	1.093	1.093	+6.5%
45	771,503	0.912	31.31	0.80	31.00	0.55	31.55	0.968	0.919	1.053	1.053	+2.6%
46	307,852	0.627	21.16	0.60	20.88	0.42	21.30	0.654	0.632	1.035	1.035	+0.9%
47	323,162	0.821	31.42	0.50	29.10	0.53	29.63	0.909	0.828	1.098	1.098	+7.0%
48	90,394	1.298	42.78	0.20	42.43	0.12	42.55	1.306	1.287	1.015	1.015	-1.1%
49	665,600	0.892	28.25	0.70	28.50	0.16	28.66	0.879	0.888	0.990	0.990	-3.5%
Statewide	8,776,989		32.62				32.59			1.0004	1.0004	-2.5%

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF ADVISORY LOSS COST LEVEL CHANGES BY TERRITORY – CONDOMINIUM UNIT OWNERS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
<u>Territory</u>	<u>Aggregate Loss Cost Volume at Current Level</u>	<u>Relativity to SW of Current Non-Modeled Base Class Loss Cost</u>	<u>Projected Experience Non-Modeled Base Class Loss Cost</u>	<u>Credibility</u>	<u>Credibility- Weighted Non-Modeled Base Class Loss Cost</u>	<u>Modeled Hurricane Base Class Loss Cost</u>	<u>Total Base Class Loss Cost (6) + (7)</u>	<u>Relativity of Territory (8) to SW (8)</u>	<u>Relativity to SW of Current Base Class Loss Cost</u>	<u>Indicated Relative Change (9) ÷ (10)</u>	<u>Filed Relative Loss Cost Change</u>	<u>Filed Base Class Loss Cost Change</u>
04	2,237,629	1.862	98.46	0.80	99.85	1.14	100.99	1.764	1.855	0.951	0.951	+2.4%
30	44,722	0.636	73.98	0.10	39.80	0.84	40.64	0.710	0.641	1.108	1.050	+13.1%
31	133,281	0.378	29.34	0.30	23.78	0.86	24.64	0.430	0.387	1.111	1.050	+13.1%
32	144,952	0.439	25.91	0.30	25.17	0.61	25.78	0.450	0.444	1.014	1.014	+9.2%
33	431,735	0.559	27.53	0.50	29.58	0.42	30.00	0.524	0.558	0.939	0.939	+1.1%
34	333,440	0.865	55.83	0.40	51.71	0.27	51.98	0.908	0.857	1.060	1.060	+14.1%
35	304,998	0.577	31.24	0.40	32.09	0.29	32.38	0.566	0.574	0.986	0.986	+6.2%
36	29,061	0.838	17.08	0.10	44.40	0.29	44.69	0.781	0.831	0.940	0.940	+1.2%
37	23,100	0.750	26.67	0.10	40.87	0.25	41.12	0.718	0.743	0.966	0.966	+4.0%
38	23,494	0.946	13.34	0.00	53.54	0.41	53.95	0.942	0.939	1.003	1.003	+8.0%
39	34,234	0.739	47.19	0.10	42.36	0.41	42.77	0.747	0.735	1.016	1.016	+9.4%
40	51,237	0.559	24.19	0.10	30.89	0.25	31.14	0.544	0.556	0.978	0.978	+5.3%
41	54,557	0.599	28.66	0.10	33.38	0.35	33.73	0.589	0.597	0.987	0.987	+6.3%
42	41,427	0.356	22.77	0.20	20.67	0.30	20.97	0.366	0.357	1.025	1.025	+10.4%
43	163,743	0.605	40.45	0.30	36.11	0.26	36.37	0.635	0.600	1.058	1.058	+13.9%
44	919,854	1.074	54.01	0.60	56.72	1.54	58.26	1.018	1.086	0.937	0.937	+0.9%
45	1,531,964	1.221	73.61	0.70	72.26	1.06	73.32	1.281	1.220	1.050	1.050	+13.1%
46	600,916	0.730	43.83	0.50	42.57	0.91	43.48	0.759	0.735	1.033	1.033	+11.2%
47	397,318	0.855	63.85	0.40	54.58	1.03	55.61	0.971	0.861	1.128	1.050	+13.1%
48	2,186	0.540	10.43	0.00	30.56	0.28	30.84	0.539	0.536	1.006	1.006	+8.3%
49	162,050	0.533	31.39	0.30	30.53	0.32	30.85	0.539	0.531	1.015	1.015	+9.3%
Statewide	7,665,898		56.60				57.25			1.0000	0.9946	+7.1%

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PENNSYLVANIA  
HOMEOWNERS INSURANCE

EXPERIENCE FOR DETERMINATION OF STATEWIDE TOTAL  
BASE CLASS LOSS COST – OWNERS

<u>Territory</u>	<u>Latest Year Earned House Years</u>	<u>Latest Year Classification and Coverage Factor</u>	<u>Total Base Class Loss Cost</u>
04	58,339	3.347	195.85
30	9,016	4.285	95.49
31	26,022	4.999	89.79
32	53,586	4.686	66.35
33	85,994	4.721	81.79
34	25,503	3.948	104.85
35	54,423	4.225	82.71
36	4,800	3.989	76.86
37	5,229	4.790	76.92
38	16,835	4.807	75.50
39	21,089	4.523	81.47
40	9,757	4.296	88.43
41	12,168	4.446	81.99
42	25,263	4.379	84.43
43	90,944	4.639	87.09
44	51,464	5.309	110.08
45	59,730	5.308	91.43
46	42,917	5.730	82.51
47	33,103	4.616	110.82
48	5,051	4.905	69.04
49	85,550	4.699	94.85
Statewide	776,783	4.572	

Statewide Total Base Class Loss Cost =

$$\sum_{i=04}^{49} [(Terr. Total Base Class Loss Cost)_i \times (Terr. Latest Yr. House Yrs.)_i \times (Terr. Latest Yr. C \& C Factor)_i]$$

---


$$[(Statewide Latest Year House Years) \times (Statewide Latest Year Class \& Coverage Factor)]$$

= \$95.93

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

EXPERIENCE FOR DETERMINATION OF STATEWIDE TOTAL  
BASE CLASS LOSS COST – TENANTS

<u>Territory</u>	<u>Latest Year Earned House Years</u>	<u>Latest Year Classification and Coverage Factor</u>	<u>Total Base Class Loss Cost</u>
04	13,556	1.522	55.15
30	3,234	1.561	43.90
31	4,045	1.864	33.77
32	10,091	1.979	21.69
33	13,908	1.913	27.66
34	8,244	1.457	33.89
35	7,820	1.830	36.61
36	963	1.617	50.11
37	623	2.031	26.70
38	2,599	2.142	19.18
39	2,902	2.115	30.03
40	1,262	1.852	44.55
41	1,412	2.008	34.51
42	2,834	1.926	26.25
43	10,399	2.145	31.90
44	6,792	2.044	24.91
45	11,024	1.970	31.55
46	6,000	2.103	21.30
47	5,433	1.859	29.63
48	873	2.082	42.55
49	9,018	2.152	28.66
Statewide	123,032	1.847	

Statewide Total Base Class Loss Cost =

$$\sum_{i=04}^{49} [(Terr. Total Base Class Loss Cost)_i \times (Terr. Latest Yr. House Yrs.)_i \times (Terr. Latest Yr. C \& C Factor)_i]$$

---


$$[(Statewide Latest Year House Years) \times (Statewide Latest Year Class \& Coverage Factor)]$$

= \$32.59

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PENNSYLVANIA  
HOMEOWNERS INSURANCE

EXPERIENCE FOR DETERMINATION OF STATEWIDE TOTAL  
BASE CLASS LOSS COST – CONDOMINIUM UNIT OWNERS

<u>Territory</u>	<u>Latest Year Earned House Years</u>	<u>Latest Year Classification and Coverage Factor</u>	<u>Total Base Class Loss Cost</u>
04	6,701	2.865	100.99
30	286	3.882	40.64
31	1,256	4.363	24.64
32	1,301	3.995	25.78
33	3,204	3.841	30.00
34	1,853	3.342	51.98
35	2,411	3.509	32.38
36	136	4.089	44.69
37	117	4.226	41.12
38	95	4.191	53.95
39	148	5.008	42.77
40	369	3.974	31.14
41	370	3.930	33.73
42	457	4.034	20.97
43	1,103	3.937	36.37
44	3,695	3.647	58.26
45	5,280	3.784	73.32
46	3,211	4.052	43.48
47	2,016	3.642	55.61
48	15	4.326	30.84
49	1,312	3.698	30.85
Statewide	35,336	3.452	

Statewide Total Base Class Loss Cost =

$$\sum_{i=04}^{49} [(Terr. Total Base Class Loss Cost)_i \times (Terr. Latest Yr. House Yrs.)_i \times (Terr. Latest Yr. C \& C Factor)_i]$$

---


$$[(Statewide Latest Year House Years) \times (Statewide Latest Year Class \& Coverage Factor)]$$

= \$57.25

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF ADVISORY LOSS COST LEVEL CHANGES BY TERRITORY

COLUMN (3) RELATIVITY TO STATEWIDE OF CURRENT NON-MODELED BASE CLASS LOSS COST

The Relativity to Statewide of Current Non-Modeled Base Class Loss Cost is the Credibility-Weighted Non-Modeled Base Class Loss Costs that underlie the current base class loss costs divided by the statewide average of these loss costs. [The statewide average is calculated by weighting the territory loss costs on the latest year house years.] This ratio has been adjusted to account for approved loss cost level changes that differ from the indicated loss cost level changes. Only differences not related to the model are considered.

COLUMN (4) PROJECTED EXPERIENCE NON-MODELED BASE CLASS LOSS COST

The Projected Experience Non-Modeled Base Class Loss Cost by territory is derived by dividing each of the five year's projected incurred losses (adjusted by the territory wind and water provision procedure for Owners, as shown in Section C, and with hurricane losses accounted for by the model removed) by each year's Classification and Coverage Factor. These losses are then summed over the five year period and divided by the five year house years.

To generate a total base class loss cost by territory, the experience base class non-modeled loss cost must be summed with the modeled hurricane base class loss cost. As the modeled loss cost is on a 2014 cost level, the 5 years of incurred losses used to generate the experience base class non-modeled loss costs must be projected to this same level. This is accomplished by employing current cost and amount factors adjusted to a 2014 base.

COLUMN (5) CREDIBILITY

The standard for 100% credibility is a five-year total of 60,000 house years for Owners, 75,000 house years for Tenants, and 50,000 house years for Condominium Unit Owners. Partial credibility is determined by the "square root rule". See Credibility Tables in Section C.

COLUMN (6) CREDIBILITY-WEIGHTED PROJECTED NON-MODELED BASE CLASS LOSS COST

The Credibility-Weighted Projected Non-Modeled Base Class Loss Cost is a weighted average of the projected territory non-modeled base class loss cost and the projected statewide non-modeled base class loss cost. For territory  $i$ , the credibility-weighted projected non-modeled base class loss cost equals  $(\text{Credibility})_i \times (\text{projected territory experience non-modeled base class loss cost})_i + (1 - \text{Credibility})_i \times (\text{projected statewide experience non-modeled base class loss cost}) \times (\text{relativity to statewide of current non-modeled territory base class loss cost})$ .

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DETERMINATION OF ADVISORY LOSS COST LEVEL CHANGES BY TERRITORY

- COLUMN (7)                    MODELED HURRICANE BASE CLASS LOSS COST
- The modeled hurricane loss costs by territory are derived in Section D. This loss cost is an average loss cost for all classes and must be transformed to a base class basis by dividing by the territory's latest year classification and coverage factor. This modeled hurricane base class loss cost is assumed to be fully credible.
- COLUMN (8)                    TOTAL BASE CLASS LOSS COST
- The total base class loss cost is the sum of the credibility-weighted projected non-modeled base class loss cost and the modeled hurricane base class loss cost. The statewide total base class loss cost is determined by form in the exhibits "Experience for Determination of Statewide Total Base Class Loss Cost".
- COLUMN (10)                    RELATIVITY TO STATEWIDE OF CURRENT BASE CLASS LOSS COST
- The Relativity to Statewide of Current Base Class Loss Cost is the current ISO territory base class loss cost divided by the current average statewide base class loss cost, as shown in the "Determination of Statewide Advisory Loss Cost Level Changes" exhibits (Line 14). The average statewide base class loss cost is the average of the current territory base class loss costs using latest year house years as weights.
- COLUMN (11)                    INDICATED RELATIVE CHANGE
- The indicated change by territory is derived by comparing the total base class loss cost relativity (Column (9)) to the current relativity (Column (10)).
- COLUMN (12)                    FILED RELATIVE CHANGE
- The filed relative change is based on the indicated relative change in Column (11). In Condominium Unit Owners, the selections for Territories 30, 31, and 47 take into account, in respective order, high water and liability losses, high water and theft losses, and high fire losses in the year ending 09/30/2014.
- COLUMN (13)                    FILED BASE CLASS LOSS COST CHANGE
- The territory filed loss cost level change is the ratio of the filed territory relative change to the statewide average filed relative change, multiplied by the filed statewide loss cost level change.
- Territory Column (12)                    x Statewide loss cost level change  
Statewide Column (12)

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DETERMINATION OF ADVISORY LOSS COST LEVEL CHANGES BY TERRITORY

In order to combine the experience base class non-modeled loss cost with the modeled hurricane base class loss cost, the non-modeled loss cost must be placed on the same cost level as the modeled loss cost. Therefore, the non-modeled experience loss cost must be projected to the latest year, the level of the modeled hurricane base class loss cost. This is accomplished by developing Current Cost/Amount Factors, similar to those shown for statewide, except they are relative to the latest year of the experience period, 9/30/2014. Once the territory Current Cost/Amount Factors are generated, they may be applied to each of the five years of non-modeled hurricane losses and adjusted to a base level by dividing out Classification and Coverage Factors. These losses are then summed over the five year period and divided by the five year house years to produce the Projected Experience Base Class Non-Modeled loss cost. This calculation is illustrated below using hypothetical values for Owners.

I. DEVELOPMENT OF HYPOTHETICAL CURRENT COST/AMOUNT FACTORS FOR PROJECTING TERRITORY EXPERIENCE BASE CLASS LOSS COST:

(1) Year Ended	(2) Average Relativity	(3) Relativity to Latest Year <u>1.687/(2)</u>	(4) Current Amount Factor <u>((3) - 1.0) x .70) + 1</u>	(5) Current Cost Index	(6) Current Cost Factors to Latest Year <u>392.5/(5)</u>	(7) Territory Current Cost/ Amount Factor <u>(6)/(4)</u>
9/30/2010	1.281	1.317	1.222	339.6	1.156	.946
9/30/2011	1.375	1.227	1.159	352.8	1.113	.960
9/30/2012	1.455	1.159	1.111	366.3	1.072	.965
9/30/2013	1.574	1.072	1.050	379.2	1.035	.986
9/30/2014	1.687	1.000	1.000	392.5	1.000	1.000

II. CALCULATION OF HYPOTHETICAL PROJECTED EXPERIENCE NON-MODELED BASE CLASS LOSS COST:

Terr	Year	(1) Non-Modeled Losses	(2) Classification and Coverage Factor	(3) Current Cost/ Amount Factor	(4) Projected Base Losses <u>((1)/(2)) x (3)</u>		Terr X Projected Experience Non-Modeled Base Class Loss Cost
X	9/30/2010	\$10,000	1.417	.946	\$ 6,676		
	9/30/2011	20,000	1.457	.960	13,178		
	9/30/2012	30,000	1.517	.965	19,084	5 Year	
	9/30/2013	40,000	1.577	.986	25,010	House	
	9/30/2014	50,000	1.636	1.000	<u>30,562</u>	<u>Years</u>	
					\$ 94,510	÷ 5,000 =	\$18.90



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PENNSYLVANIA  
HOMEOWNERS INSURANCE

SECTION C – SUPPORTING MATERIAL

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PENNSYLVANIA  
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COUNTRYWIDE LOSS ADJUSTMENT EXPENSE EXPERIENCE

OBJECTIVE	The reported indemnity losses and modeled hurricane base class loss costs must be loaded for both allocated and unallocated loss adjustment expenses (LAE).
DESCRIPTION	A factor representing the ratio of the sum of the incurred indemnity losses plus all LAE to the sum of the incurred indemnity losses was selected based on countrywide financial data excluding major non-ISO reporting companies shown on the following page.

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COUNTRYWIDE LOSS ADJUSTMENT EXPENSE EXPERIENCE Ø

	(1) 2009	(2) 2010	(3) 2011	(4) 2012	(5) 2013	(6) 2009-2013 MEAN
(1) Direct Losses Incurred	\$17,618,960	\$19,586,610	\$26,652,737	\$23,011,995	\$18,587,843	
(2) Direct Loss Adjustment Expenses Incurred	\$2,573,418	\$2,811,861	\$3,389,572	\$3,316,190	\$3,097,351	
(3) Loss Adjustment Expenses Incurred as ratio to Losses Incurred [(2)/(1)]	14.6%	14.4%	12.7%	14.4%	16.7%	14.6%
(4) Selected Loss Adjustment Expense Ratio						14.5%

Note: All dollar amounts displayed in thousands.

Ø Items (1) and (2) are from the Insurance Expense Exhibits for Agency and Direct Writers Combined excluding major non-ISO reporting companies.

PENNSYLVANIA  
HOMEOWNERS INSURANCE  
TREND PROCEDURE OVERVIEW

INTRODUCTION

The prospective loss cost level established in this document reflects the anticipated cost level and changes in revenue due to increases in amounts of insurance for the period that the new loss costs are assumed to be in effect.

In reviewing experience, aggregate loss costs have been placed on current loss cost levels and historical losses and modeled hurricane losses have been put on a common deductible level. The exhibits on the following pages present the trending procedure used in this document to reflect the effects of inflation on non-modeled losses, aggregate loss costs, and the modeled hurricane base class loss costs.

AMOUNT OF  
INSURANCE  
TRENDING

The formula used to develop aggregate loss costs (and the Class and Coverage factors derived from them) and the modeled hurricane base class loss costs incorporates a method which reflects changes in the amounts of insurance selected by insureds. This is needed since the policies written during the experience period, if written today, would be written at higher amounts of insurance in order to maintain an appropriate average amount of insurance coverage level.

The trend is applied in two steps. First, current amount factors trend amounts of insurance from the experience period to the midpoint of the latest quarter of external loss trend data. Then, amounts of insurance are projected from the midpoint of latest quarter of external loss trend data to the average date of writing, six months beyond the anticipated effective date of this document, by a Projection Factor based on the average annual rate of change in average amount of insurance relativity.

LOSS TRENDING

We measure the impact of inflation using external economic index data and supplement this by internal insurance loss trend data.

The external data, based upon the Consumer Price Index (CPI) (and the Xactware Residential Index (XRI) for the Owners forms), is first used to bring losses from their historical time period to the prospective period. (The XRI is furnished by Xactware Solutions, Inc., which is owned by Verisk Analytics.) This is a two-step process: 1) Historical losses are brought from the past to the current time period by means of Current Cost Factors; 2) Losses are then projected from the current time period to the prospective period by a Loss Projection Factor. Additionally, the external data is used in a calculation to adjust trend for use with losses on a deductible basis.

External Loss Data

In order to measure the effect of inflation on losses, an external index, the Current Cost Index (CCI), is used. ISO determines external loss trend for the Owners forms based on a weighted average of buildings and contents indices. (Based on an analysis of recent loss experience reported to ISO, updated weights of 80% and 20% are assigned to the buildings and contents indices respectively.) Trend for Tenants and Condominium Unit Owners forms is determined based on contents indices only.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

TREND PROCEDURE OVERVIEW

LOSS TRENDING  
(Cont'd)

The buildings index is constructed from the quarterly Xactware Residential Index (XRI), which replaces the Producer Price Index and average weekly earnings information (published by the Bureau of Labor Statistics) used in prior filings. The XRI measures building material and repair costs for residential properties. This index is based on regular surveys of nearly 25,000 material and equipment suppliers and contractors, in addition to claims settlement data. The index values are created by estimating the cost to rebuild a sample set of different structures ranging in size, style, and quality in each economic market.

The contents measure is based on Consumer Price Indices (CPI) from the Bureau of Labor Statistics (BLS). The CPI measures the average change over time in the prices paid by urban consumers for a market basket of goods and services. Even though the contents trend for both Owners and Tenant/Condominium Unit Owners uses the same indices, the weightings differ.

For Owners, the MCPI is a weighted average of the following subgroups of our reconstructed Consumer Price Index: House Furnishings (48%), Medical Care (20%), Apparel Commodities (16%) and Entertainment Commodities (16%). The Xactware Residential and the Modified Consumer Price Indices are weighted 80% and 20%, respectively. The weights have been updated from prior reviews and are selected based on Homeowners building/contents loss distributions. The indices are displayed in the "Development of Current Cost Factors (CCF) and Loss Projection Factor – Owners" exhibit.

Since Tenants covers only contents and Condominium Unit Owners covers primarily contents, the Modified Consumer Price Index is used exclusively for loss trending in Tenants and Condominium Unit Owners, and is a weighted average of the following subgroups of the "All-Urban" Consumer Price Index: House Furnishings (54%), Apparel Commodities (18%), Entertainment Commodities (18%) and Medical Care (10%). This index is displayed in the "Development of Current Cost Factors (CCF) and Loss Projection Factor – Tenants and Condominium Unit Owners" exhibit.

Each index has been re-based such that the average value across the year 2012 corresponds with a value of 100.0.

The current cost factors trend adjusted incurred losses from the experience period to the midpoint of the latest quarter of external loss trend data. The losses are then projected from the midpoint of the latest quarter of cost index data to the average date of loss, 12 months beyond the anticipated effective date of this document, by a projection factor based on the latest annual rate of change in the applicable external index.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

TREND PROCEDURE OVERVIEW

LOSS TRENDING

Loss Trend Adjustment

(Cont'd)

In some instances, the historical consumer trend data will not be indicative of future trends. In order to provide a more accurate estimate of prospective non-modeled and modeled losses, we have supplemented the trend as measured by the external index with a loss trend adjustment factor. This loss trend adjustment factor is based on an analysis of observed historical loss trends relative to the external trend index (reflecting the trend from first dollar adjustment).

Trend from First Dollar Adjustment

A trend from first dollar adjustment factor is needed since loss trend indices are based on full coverage (first dollar) losses, whereas ISO's non-modeled loss experience and the modeled hurricane base class loss cost are adjusted to a base deductible level. Applying first dollar trend to deductible losses understates the trend effect. This is due to the elimination of losses below the deductible. The trend from first dollar factor when applied to the external index produces a trend factor appropriate for deductible losses.

Composite Loss Projection Factor

The composite loss projection factor includes an external loss projection factor, total loss trend adjustment, and an adjustment for trend from first dollar. The composite loss projection factor is applied to non-modeled and modeled losses to project them from the midpoint of the latest quarter of trend to the average date of loss (12 months past the effective date). A separate composite loss projection factor is calculated and applied to the modeled hurricane base class loss costs to account for the different length of trend period for the modeled loss costs.

PENNSYLVANIA  
HOMEOWNERS INSURANCE - OWNERS

DEVELOPMENT OF CURRENT COST FACTORS (CCF) AND LOSS PROJECTION FACTOR

QUARTER ENDING MARCH 31, 2015

**PART A: CURRENT COST INDEX (CCI)**

80% Weight to Xactware Residential Index (XRI)  
20% Weight to Modified Consumer Price Index (MCPI)  
(Base for XRI and MCPI: 2012 = 100)

<u>Quarter Ending</u>	<u>XRI</u>	<u>MCPI</u>	<u>CCI</u>
6/2012	99.9	100.0	99.9
9/2012	100.3	100.2	100.3
12/2012	100.8	100.4	100.7
3/2013	102.5	100.9	102.2
6/2013	103.1	101.1	102.7
9/2013	103.8	101.1	103.3
12/2013	104.4	101.1	103.7
3/2014	104.8	101.5	104.1
6/2014	106.7	102.0	105.8
9/2014	108.1	101.7	106.8
12/2014	109.8	102.0	108.2
3/2015	110.9	102.3	109.2

**PART B: CURRENT COST FACTORS (CCF)**

<u>Year</u>	Average <u>XRI</u>	Average <u>MCPI</u>	Average <u>CCI</u>	Current Cost Factors To Quarter Ending March 31, 2015 <u>109.2 ÷ Average CCI</u>
10/1/2009 - 9/30/2010	98.0	96.2	97.6	<b>1.119</b>
10/1/2010 - 9/30/2011	98.2	97.3	98.0	<b>1.114</b>
10/1/2011 - 9/30/2012	99.4	99.5	99.4	<b>1.099</b>
10/1/2012 - 9/30/2013	102.5	100.9	102.2	<b>1.068</b>
10/1/2013 - 9/30/2014	106.0	101.6	105.1	<b>1.039</b>

**PART C: COMPUTATION OF LOSS PROJECTION FACTOR**

ANNUAL RATE OF CHANGE = 1.033 or +3.3%

LOSS PROJECTION FACTOR \* =  $1.033^{(25.5/12)} = 1.071$

\* TO PROJECT LOSSES FROM 2/15/2015 TO 4/1/2017.

PENNSYLVANIA  
 HOMEOWNERS INSURANCE – TENANTS AND CONDOMINIUM UNIT OWNERS

DEVELOPMENT OF CURRENT COST FACTORS (CCF) AND LOSS PROJECTION FACTOR

QUARTER ENDING MARCH 31, 2015

**PART A: CURRENT COST INDEX (CCI)**

(Base for MCPI: 2012 = 100)

<u>Quarter Ending</u>	<u>MCPI</u>
6/2012	100.2
9/2012	100.0
12/2012	100.1
3/2013	100.3
6/2013	100.5
9/2013	100.2
12/2013	99.9
3/2014	100.0
6/2014	100.4
9/2014	99.8
12/2014	99.8
3/2015	99.7

**PART B: CURRENT COST FACTORS (CCF)**

<u>Year</u>	<u>Average MCPI</u>	<u>Current Cost Factors To Quarter Ending March 31, 2015 99.7 ÷ Average MCPI</u>
10/1/2009 - 9/30/2010	98.2	<b>1.015</b>
10/1/2010 - 9/30/2011	98.3	<b>1.014</b>
10/1/2011 - 9/30/2012	99.8	<b>0.999</b>
10/1/2012 - 9/30/2013	100.3	<b>0.994</b>
10/1/2013 - 9/30/2014	100.0	<b>0.997</b>

**PART C: COMPUTATION OF LOSS PROJECTION FACTOR**

ANNUAL RATE OF CHANGE = 0.998 or -0.2%

LOSS PROJECTION FACTOR \* =  $0.998^{(25.5/12)} = 0.996$

\* TO PROJECT LOSSES FROM 2/15/2015 TO 4/1/2017.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DEVELOPMENT OF LOSS TREND ADJUSTMENT FACTOR – CONDOMINIUM UNIT OWNERS

<u>Accident Year Ended</u>	<u>Statewide Pure Premium (A)</u>
9/30/10	173.25
12/31/10	172.52
3/31/11	165.78
6/30/11	169.22
9/30/11	186.80
12/31/11	182.14
3/31/12	169.22
6/30/12	174.31
9/30/12	151.65
12/31/12	177.69
3/31/13	194.24
6/30/13	178.05
9/30/13	192.90
12/31/13	175.70
3/31/14	252.21
6/30/14	261.74
9/30/14	249.26

(1) Fitted Annual Changes in Pure Premium:

Latest 17 points = +9.1%

12 points = +16.4%

8 points = +25.8%

(2) External Index (CCI Annual Change) = 0.998 or -0.2%\*

(3) Annualized Trend From First Dollar =  $(1.000)^{12/54.0}$  = 1.000 or 0.0%\*\*

(4) CCI Annual Change from First Dollar = (2) x (3) = 0.998 or -0.2%

(5) Selected Annual Loss Trend Adjustment Factor = 0.5%

\* See Exhibit "DEVELOPMENT OF CURRENT COST FACTORS (CCF) AND LOSS PROJECTION FACTOR"

\*\* See Exhibit "DEVELOPMENT OF COMPOSITE LOSS PROJECTION FACTORS AND TREND FROM FIRST DOLLAR – CONDOMINIUM UNIT OWNERS"

(A) Excluding Wind and on an incurred basis.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DEVELOPMENT OF COMPOSITE LOSS PROJECTION FACTOR AND TREND FROM FIRST DOLLAR OWNERS

A. CALCULATION OF TREND FROM FIRST DOLLAR OF LOSS

Year Ended	(1) Current Cost Factor	(2) Weights		
09/30/2010	1.119	0.10		
09/30/2011	1.114	0.15		
09/30/2012	1.099	0.20		
09/30/2013	1.068	0.25		
09/30/2014	1.039	0.30		
(B) Base Deductible Amount			=	500
(3) Weighted Current Cost Factors = Sum of (1) X (2)			=	1.078
(4) Loss Projection Factor			=	1.071
(5) Loss Trend = (3) X (4)			=	1.154
(6) Five Year Non-Modeled Adjusted Claims			=	261,419
(7) Five Year Non-Modeled Liability Claims			=	16,816
(8) Losses Eliminated by Base Deductible = ((6)-(7)) X (B)			=	122,301,500
(9) Five Year Non-Modeled Losses and Loss Adjustment Expense Adjusted for Excess = ( Total Losses - Excess Losses) x LAE x Excess Factor = ( 2,030,999,891 - 545,022,996) x 1.145 x 1.076			=	1,830,753,254
(10) Factor to Adjust Non-Modeled Losses for Effect of Trending From First Dollar = 1.0 + (( (5) - 1.0 ) x (8) ) / ( (5) x (9) )			=	1.009

B. CALCULATION OF COMPOSITE LOSS PROJECTION FACTOR

(11) Annualized Trend From First Dollar (10) 12/54.0			=	1.002
(12) Factor to Adjust Modeled Losses for Effect of Trending From the First Dollar of Loss = (11) 36.0/12			=	1.006
(13) Composite Loss Projection Factor for Non-Modeled Losses = (4) x (10) x (13)			=	1.081
(14) Composite Loss Projection Factor for Modeled Losses = (4) x (12) x (14)			=	1.077

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DEVELOPMENT OF COMPOSITE LOSS PROJECTION FACTOR AND TREND FROM FIRST DOLLAR  
TENANTS

A. CALCULATION OF TREND FROM FIRST DOLLAR OF LOSS

Year Ended	(1) Current Cost Factor	(2) Weights
09/30/2010	1.015	0.10
09/30/2011	1.014	0.15
09/30/2012	0.999	0.20
09/30/2013	0.994	0.25
09/30/2014	0.997	0.30
(B) Base Deductible Amount	=	500
(3) Weighted Current Cost Factors = Sum of (1) X (2)	=	1.001
(4) Loss Projection Factor	=	0.996
(5) Loss Trend = (3) X (4)	=	0.997
(6) Five Year Non-Modeled Adjusted Claims	=	6,971
(7) Five Year Non-Modeled Liability Claims	=	529
(8) Losses Eliminated by Base Deductible = ((6)-(7)) X (B)	=	3,221,000
(9) Five Year Non-Modeled Losses and Loss Adjustment Expense		
= Total Losses x LAE		
= 36,055,471 x 1.145	=	41,283,514
(10) Factor to Adjust Non-Modeled Losses for Effect of Trending From First Dollar		
= $1.0 + ((5) - 1.0) \times (8) / ((5) \times (9))$	=	1.000

B. CALCULATION OF COMPOSITE LOSS PROJECTION FACTOR

(11) Annualized Trend From First Dollar (10) $12/54.0$	=	1.000
(12) Factor to Adjust Modeled Losses for Effect of Trending From the First Dollar of Loss		
= (11) $36.0/12$	=	1.000
(13) Composite Loss Projection Factor for Non-Modeled Losses		
= (4) x (10) x (13)	=	0.996
(14) Composite Loss Projection Factor for Modeled Losses		
= (4) x (12) x (14)	=	0.996

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DEVELOPMENT OF COMPOSITE LOSS PROJECTION FACTOR AND TREND FROM FIRST DOLLAR  
CONDOMINIUM UNIT OWNERS

A. CALCULATION OF TREND FROM FIRST DOLLAR OF LOSS

Year Ended	(1) Current Cost Factor	(2) Weights
09/30/2010	1.015	0.10
09/30/2011	1.014	0.15
09/30/2012	0.999	0.20
09/30/2013	0.994	0.25
09/30/2014	0.997	0.30
(B) Base Deductible Amount	=	500
(3) Weighted Current Cost Factors = Sum of (1) X (2)	=	1.001
(4) Loss Projection Factor	=	0.996
(5) Loss Trend = (3) X (4)	=	0.997
(6) Five Year Non-Modeled Adjusted Claims	=	6,858
(7) Five Year Non-Modeled Liability Claims	=	557
(8) Losses Eliminated by Base Deductible = ((6)-(7)) X (B)	=	3,150,500
(9) Five Year Non-Modeled Losses and Loss Adjustment Expense		
= Total Losses x LAE		
= 34,234,527 x 1.145	=	39,198,533
(10) Factor to Adjust Non-Modeled Losses for Effect of Trending From First Dollar		
= $1.0 + ((5) - 1.0) \times (8) / ((5) \times (9))$	=	1.000

B. CALCULATION OF COMPOSITE LOSS PROJECTION FACTOR

(11) Annualized Trend From First Dollar (10) $12/54.0$	=	1.000
(12) Factor to Adjust Modeled Losses for Effect of Trending From the First Dollar of Loss		
= (11) $36.0/12$	=	1.000
(13) Non-Modeled Loss Trend Adjustment $1.005^{54.0/12}$	=	1.023
(14) Modeled Loss Trend Adjustment $1.005^{36.0/12}$	=	1.015
(15) Composite Loss Projection Factor for Non-Modeled Losses		
= (4) x (10) x (13)	=	1.019
(16) Composite Loss Projection Factor for Modeled Losses		
= (4) x (12) x (14)	=	1.011

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DEVELOPMENT OF CURRENT AMOUNT FACTORS AND AMOUNT OF INSURANCE  
PROJECTION FACTOR

Year End	(1)	OWNERS (2)	(3)
	Average Relativity	Relativity to Projected Point <u>3.961 / (1)</u>	Current Amount Factor <u>(((2)-1.0) x 0.70) + 1</u>
09/30/2010	3.621	1.094	1.066
09/30/2011	3.692	1.073	1.051
09/30/2012	3.759	1.054	1.038
09/30/2013	3.818	1.037	1.026
09/30/2014	3.874	1.022	1.015
02/15/2015	3.961		

Year End	(1)	TENANTS (2)	(3)
	Average Relativity	Relativity to Projected Point <u>1.493 / (1)</u>	Current Amount Factor <u>(((2)-1.0) x 0.75) + 1</u>
09/30/2010	1.470	1.016	1.012
09/30/2011	1.482	1.007	1.005
09/30/2012	1.483	1.007	1.005
09/30/2013	1.486	1.005	1.004
09/30/2014	1.487	1.004	1.003
02/15/2015	1.493		

Year End	CONDOMINIUM UNIT OWNERS		
	(1)	(2)	(3)
Average Relativity	Relativity to Projected Point <u>2.696 / (1)</u>	Current Amount Factor <u>(((2)-1.0) x 0.75) + 1</u>	
09/30/2010	2.547	1.059	1.044
09/30/2011	2.564	1.051	1.038
09/30/2012	2.588	1.042	1.032
09/30/2013	2.623	1.028	1.021
09/30/2014	2.657	1.015	1.011
02/15/2015	2.696		

	Owners	Tenants	Condominium Unit Owners
(4) A (Mean of Fitted Line of Column (1))	= 3.753	1.482	2.596
(5) B (Average Annual Increment of Column (1))	= 0.063	0.004	0.028
(6) Annual Rate of Change = (5) / (4)	= 0.017	0.003	0.011
(7) Annual Rate of Change Tempered 25% = (6) x 0.75*	= 0.012	0.002	0.008
(8) Amount of Insurance Projection Factor = (1 + (7)) <sup>19.5/12</sup>	= 1.020	1.003	1.013

\*0.70 for Owners

PENNSYLVANIA  
HOMEOWNERS INSURANCE

TREND PROCEDURE

EXPLANATION OF THE DEVELOPMENT OF CURRENT COST FACTORS (CCF)  
AND LOSS PROJECTION FACTOR EXHIBITS

Part A

These are the quarterly indices of the Current Cost Index (CCI) for the latest 12 quarters available. For the Owners forms, the 80% Xactware Residential Index (XRI) - 20% Modified Consumer Price Index (MCPI) component weighting of the CCI is also shown. For Tenants and Condominium Unit Owners, only the MCPI is used.

Part B

The Current Cost Factors for the Statewide Advisory Loss Cost level indication are developed by dividing the average CCI values, for a given year, into the latest quarterly average CCI value. The Current Cost Factors (CCF) adjust losses from each experience year to the level expected at the midpoint of the latest quarter of the Current Cost Index (CCI).

Part C

The latest annual rate of change for historical and modeled losses is developed by fitting a least squares exponential curve to the latest 12 quarterly CCI points. The annual rate of change is then used to determine the external Loss Projection Factor which, as part of the Composite Loss Projection Factor, is used to project losses from the midpoint of the latest quarter to 12 months beyond the anticipated effective date.

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HOMEOWNERS INSURANCE

TREND PROCEDURE

EXPLANATION OF THE LOSS TREND ADJUSTMENT FACTOR EXHIBIT

The Homeowners ratemaking methodology used to develop indicated loss cost levels employs external trend indices to bring losses to current and anticipated cost levels. An evaluation of the latest Homeowners data, for Condominium Unit Owners, indicates that the cost level inherent in the coverage(s) provided by the Homeowners policy is increasing at a faster rate than the external trend indices. Comparisons reflecting this difference, including the effect of the “first dollar” adjustment, are shown on the “Loss Trend Adjustment Factor” exhibit.

Based on this comparison, a +0.5% Loss Trend Adjustment Factor has been selected for Condominium Unit Owners. Hence, in this filing, losses are being projected at an annual rate of +0.3% (0.998 x 1.005) for Condominium Unit Owners, compounded from the midpoint of the experience period to one year past the effective date. Given the differences between the observed annual changes in pure premium versus the external index, the selected Loss Trend Adjustment percentage has, in effect, been tempered.

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HOMEOWNERS INSURANCE

TREND PROCEDURE

EXPLANATION OF "DEVELOPMENT OF COMPOSITE LOSS PROJECTION FACTOR" EXHIBITS

SECTION A

CALCULATION OF TREND FROM FIRST DOLLAR OF LOSS (FOR  
NON-MODELED LOSSES)

The formula to develop loss costs employs external trend indices to bring non-modeled and modeled losses to current and anticipated cost levels. These indices estimate changes in claim cost from the first dollar of loss, i.e. before the application of a deductible.

Applying first dollar trend to non-modeled and modeled losses which reflect the application of a deductible understates the trend effect. This is due to the elimination of losses below the deductible. To ensure adequate loss costs, we add back in the losses eliminated by the deductible which are calculated by multiplying the number of claims (excluding liability claims as no deductible is applicable to them) by the deductible amount \$500. The losses including those eliminated by the deductible are trended. The losses below the deductible are then removed to put the losses back on a \$500 deductible level.

The ratio of loss amounts calculated as described above to loss amounts computed as "base deductible losses x loss trend" is the Trend from First Dollar adjustment factor, which covers the time period from the weighted midpoint of the experience period, 10/1/2012, to the average date of coverage, 12 months past the effective date for the incurred non-modeled losses.

All hurricane losses and claims accounted for by the model have been removed from the calculation of the adjustment to trend from first dollar.

SECTION B

CALCULATION OF COMPOSITE LOSS PROJECTION FACTOR

For the modeled hurricane base class loss costs, the trend from first dollar adjustment factor covers the time period from the midpoint of the model experience period, 4/1/2014, to the average date of coverage, 12 months past the effective date. This factor is calculated by annualizing the non-modeled loss trend from first dollar adjustment on line (11) and extending it over the time period described above, as shown in line (12).

An evaluation of the latest homeowners data shows that the cost level inherent in the coverages provided by the homeowners policy is increasing at a faster rate than the external trend indices for Condominium Unit Owners. Comparisons reflecting this difference are shown on the "Loss Trend Adjustment Factor" exhibit.

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HOMEOWNERS INSURANCE

TREND PROCEDURE

EXPLANATION OF "DEVELOPMENT OF COMPOSITE LOSS PROJECTION FACTOR" EXHIBITS

SECTION B  
(Cont'd)

For Condominium Unit Owners, Line (13) displays the selected Annual Loss Trend Adjustment percentage compounded for N/12 years, where N, for non-modeled losses, represents the number of months from the weighted midpoint of the experience period, 10/1/2012 to the average date of coverage, 12 months past the effective date. Line (14) displays the selected Annual Loss Trend Adjustment percentage compounded for M/12 years, where M, for modeled losses, represents the number of months from the midpoint of the model experience period to the average date of coverage.

For Condominium Unit Owners, the Composite Loss Projection Factor for non-modeled losses, line (15), is calculated as the product of lines (4), (10), and (13). The Composite Loss Projection Factor for the modeled base class loss costs, line (16), is calculated as the product of lines (4), (12), and (14).

For Owners and Tenants, the Composite Loss Projection Factor for non-modeled losses, line (13), is calculated as the product of lines (4) and (10). Line (14) displays the Composite Projection Factor for the modeled base class loss costs, calculated as the product of lines (4) and (12).

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HOMEOWNERS INSURANCE

TREND PROCEDURE

EXPLANATION OF THE DEVELOPMENT OF CURRENT AMOUNT FACTORS AND  
AMOUNT OF INSURANCE PROJECTION FACTOR EXHIBITS

COLUMN (1)

AVERAGE RELATIVITY

Average Relativities are the average policy amount relativities based on the current policy amount curves in effect. The relativities listed for 2/15/2015 (which corresponds to the midpoint of the latest quarter of the Current Cost Index) are Projected Values based on linear least squared fits of the latest five values.

$$\text{Projected Value} = R + (I \times M/12)$$

where I is the average annual increment B obtained from one least squares fit.

M is the number of months from the average date of writing for policies in effect during the latest year of the experience period, 10/1/2013, to the midpoint of the latest quarter of trend data, 2/15/2015.

R is the average relativity for the latest year of experience period, ending 9/30/2014.

COLUMN (2)

RELATIVITY TO PROJECTED VALUE

The projected value for 2/15/2015 is divided by each relativity in column (1).

COLUMN (3)

CURRENT AMOUNT FACTORS

Current amount factors in column (3) are tempered 30% (25% in Tenants and Condominium Unit Owners) due to

- a) the impact of new construction (Owners only), and
- b) the variation in insureds from year to year.

LINES (4) - (6)

The linear least squares fit is used to compute Annual Rates of Change.

LINE (7)

The Annual Rates of Change are tempered 30% (25% in Tenants and Condominium Unit Owners) in order to reflect the effects of the following:

- a) the impact of new construction (Owners only) and
- b) variation of insureds from year to year

Note that an analysis of recently reported data for the owners' forms indicates that the rate of growth in average policy limits has decreased relative to the average growth rate for the five-year historical time period underlying our loss cost level analysis. While this decreased growth rate is partially reflected in the average policy limits underlying the latter part of the historical time period, the overall growth for the historical time period exceeds the more-recently observed growth rate. In order to reflect this slowdown in the rate of growth, our premium trend procedure incorporates a tempering factor of 0.70.

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

TREND PROCEDURE

EXPLANATION OF THE DEVELOPMENT OF CURRENT AMOUNT FACTORS AND AMOUNT OF  
INSURANCE PROJECTION FACTOR EXHIBITS

LINE (8)

The Amount of Insurance Projection Factor is calculated as:

$$(1 + \text{Tempered Annual Rate of Change})^{N/12}$$

where N = the number of months from the midpoint of the latest quarter of trend to an average date of writing for policies that will be written using these loss costs; i.e. 6 months beyond the effective date.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

CREDIBILITY TABLES

STATEWIDE CREDIBILITIES

<u>Owners</u>		<u>Tenants</u>		<u>Condominium Unit Owners</u>	
<u>House Years</u>	<u>Credibility</u>	<u>House Years</u>	<u>Credibility</u>	<u>House Years</u>	<u>Credibility</u>
240,000 & Over	1.00	285,000 & Over	1.00	190,000 & Over	1.00
194,400 - 239,999	.90	230,850 - 284,999	.90	153,900 - 189,999	.90
153,600 - 194,399	.80	182,400 - 230,849	.80	121,600 - 153,899	.80
117,600 - 153,599	.70	139,650 - 182,399	.70	93,100 - 121,599	.70
86,400 - 117,599	.60	102,600 - 139,649	.60	68,400 - 93,099	.60
60,000 - 86,399	.50	71,250 - 102,599	.50	47,500 - 68,399	.50
38,400 - 59,999	.40	45,600 - 71,249	.40	30,400 - 47,499	.40
21,600 - 38,399	.30	25,650 - 45,599	.30	17,100 - 30,399	.30
9,600 - 21,599	.20	11,400 - 25,649	.20	7,600 - 17,099	.20
2,400 - 9,599	.10	2,850 - 11,399	.10	1,900 - 7,599	.10
0 - 2,399	.00	0 - 2,849	.00	0 - 1,899	.00

TERRITORY CREDIBILITIES

<u>Owners</u>		<u>Tenants</u>		<u>Condominium Unit Owners</u>	
<u>House Years</u>	<u>Credibility</u>	<u>House Years</u>	<u>Credibility</u>	<u>House Years</u>	<u>Credibility</u>
60,000 & Over	1.00	75,000 & Over	1.00	50,000 & Over	1.00
48,600 - 59,999	.90	60,750 - 74,999	.90	40,500 - 49,999	.90
38,400 - 48,599	.80	48,000 - 60,749	.80	32,000 - 40,499	.80
29,400 - 38,399	.70	36,750 - 47,999	.70	24,500 - 31,999	.70
21,600 - 29,399	.60	27,000 - 36,749	.60	18,000 - 24,499	.60
15,000 - 21,599	.50	18,750 - 26,999	.50	12,500 - 17,999	.50
9,600 - 14,999	.40	12,000 - 18,749	.40	8,000 - 12,499	.40
5,400 - 9,599	.30	6,750 - 11,999	.30	4,500 - 7,999	.30
2,400 - 5,399	.20	3,000 - 6,749	.20	2,000 - 4,499	.20
600 - 2,399	.10	750 - 2,999	.10	500 - 1,999	.10
0 - 599	.00	0 - 749	.00	0 - 499	.00

The formula used to obtain the credibility to be assigned is the square root of the quantity (5 years earned house years/house years required for full credibility). These tables are based on the 'frequency with severity modification' model discussed in "Credibility of the Pure Premium" by Mayerson, Bowers and Jones. The full credibility standards are based upon a Normal distribution with a 90% probability of meeting the test and a 5.0% and 10.0% maximum departure from the expected value for Statewide and Territories, respectively. The claims standards have been translated to house year standards. Minimum credibility is 50% for statewide.

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LOSS DEVELOPMENT

The incurred losses are developed to an "ultimate" settlement basis by applying loss development factors. The use of a loss development factor is necessitated by the fact that not all of the losses for a particular accident year have been finally determined at the time the experience is compiled. The modeled hurricane base class loss costs are at an ultimate settlement basis and therefore there is no need to apply loss development to them.

The incurred losses for each of the years appearing on the Statewide Loss Cost Level exhibit have been evaluated as of December 31, 2014. As an example, losses for the first accident year have "matured" for 63 months while losses for the last accident year have "matured" for 15 months. The immature experience must be adjusted to an ultimate settlement basis. This adjustment is accomplished through the use of loss development factors.

ISO loss development methodology is a basic loss development triangle. The loss development procedure uses statewide data and computes link ratios through 87 months. In selecting the final development factors, link ratios that are "outliers" are tempered.

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS DEVELOPMENT

OWNERS

Pennsylvania Incurred Losses as of

Accident Year	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months
2002	154,225,119	159,311,325	162,196,150	162,012,850	161,010,950	160,961,979	160,719,536
2003	201,081,375	206,488,323	208,241,981	207,312,308	206,778,713	206,500,061	206,488,978
2004	190,083,713	194,122,299	192,668,903	192,602,659	192,333,601	192,176,020	192,139,715
2005	192,622,036	193,260,484	191,782,398	191,528,737	190,881,053	190,790,626	190,457,720
2006	192,212,676	193,125,901	192,590,340	191,753,847	191,032,951	190,960,777	190,933,533
2007	228,630,102	229,942,133	229,971,260	229,324,770	228,883,747	228,316,486	228,508,311
2008	242,541,692	245,954,164	245,777,619	244,455,311	243,967,998	244,046,159	
2009	284,854,847	289,701,346	289,984,934	289,361,845	288,569,539		
2010	397,071,302	407,102,323	406,199,907	405,118,420			
2011	480,656,508	486,356,385	485,170,593				
2012	360,831,579	369,939,817					
2013	256,275,943						

Pennsylvania Link Ratios

Accident Year	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>	<u>75:63</u>	<u>87:75</u>
2002	1.033	1.018	0.999	0.994	1.000	0.998
2003	1.027	1.008	0.996	0.997	0.999	1.000
2004	1.021	0.993	1.000	0.999	0.999	1.000
2005	1.003	0.992	0.999	0.997	1.000	0.998
2006	1.005	0.997	0.996	0.996	1.000	1.000
2007	1.006	1.000	0.997	0.998	0.998	1.001
2008	1.014	0.999	0.995	0.998	1.000	
2009	1.017	1.001	0.998	0.997		
2010	1.025	0.998	0.997			
2011	1.012	0.998				
2012	1.025					
Average	<u>27:15</u> 1.017	<u>39:27</u> 1.000	<u>51:39</u> 0.997	<u>63:51</u> 0.997	<u>75:63</u> 0.999	<u>87:75</u> 1.000
Selected Link Ratio	1.017	1.000	0.997	0.997	0.999	1.000

Selected Loss Development Factors

<u>09/2010</u>	<u>09/2011</u>	<u>09/2012</u>	<u>09/2013</u>	<u>09/2014</u>
0.999	0.996	0.993	0.993	1.010

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS DEVELOPMENT

TENANTS

Pennsylvania Incurred Losses as of

Accident Year	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months
2002	2,981,352	3,164,794	3,204,834	3,207,898	3,209,077	3,199,668	3,199,668
2003	3,699,473	3,843,017	3,589,443	3,524,913	3,499,622	3,486,265	3,485,752
2004	2,527,460	2,500,602	2,463,212	2,462,994	2,512,519	2,512,247	2,512,247
2005	3,235,868	3,043,954	2,972,809	2,971,326	2,971,326	2,969,931	2,969,931
2006	4,366,396	4,253,925	4,263,654	4,307,212	4,290,958	4,290,858	4,290,685
2007	5,534,176	5,282,554	4,870,127	4,781,157	4,713,934	4,714,864	4,714,648
2008	5,882,920	5,806,522	5,122,253	5,127,321	5,127,319	5,127,142	
2009	6,147,059	6,205,134	6,206,566	6,076,178	5,901,691		
2010	6,629,627	6,693,032	6,535,688	6,542,622			
2011	6,739,848	6,900,725	6,802,663				
2012	7,144,411	6,834,428					
2013	8,044,991						

Pennsylvania Link Ratios

Accident Year	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>	<u>75:63</u>	<u>87:75</u>
2002	1.062	1.013	1.001	1.000	0.997	1.000
2003	1.039	0.934	0.982	0.993	0.996	1.000
2004	0.989	0.985	1.000	1.020	1.000	1.000
2005	0.941	0.977	1.000	1.000	1.000	1.000
2006	0.974	1.002	1.010	0.996	1.000	1.000
2007	0.955	0.922	0.982	0.986	1.000	1.000
2008	0.987	0.882*	1.001	1.000	1.000	
2009	1.009	1.000	0.979	0.971		
2010	1.010	0.976	1.001			
2011	1.024	0.986				
2012	0.957					
	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>	<u>75:63</u>	<u>87:75</u>
Average	0.995	0.968	0.995	0.996	0.999	1.000
Selected Link Ratio	0.995	0.977	0.995	0.996	0.999	1.000

Selected Loss Development Factors

<u>09/2010</u>	<u>09/2011</u>	<u>09/2012</u>	<u>09/2013</u>	<u>09/2014</u>
0.999	0.995	0.990	0.967	0.962

\* Value excluded in selection of link ratio.

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS DEVELOPMENT

CONDOMINIUM UNIT OWNERS

Pennsylvania Incurred Losses as of

Accident Year	15 Months	27 Months	39 Months	51 Months	63 Months	75 Months	87 Months
2002	2,716,640	2,714,967	2,872,824	2,829,377	2,829,433	2,829,433	2,829,433
2003	3,699,518	3,910,386	3,913,445	3,689,062	3,670,381	3,668,769	3,666,419
2004	3,496,018	3,568,434	3,593,624	3,630,339	3,629,397	3,629,132	3,626,544
2005	4,169,716	3,918,742	3,989,739	4,000,990	3,996,509	3,997,380	3,997,380
2006	4,068,318	4,332,260	4,343,880	4,510,941	4,493,954	4,447,444	4,447,444
2007	5,049,306	5,172,157	4,877,005	4,807,600	4,810,634	4,810,634	4,810,634
2008	4,806,608	4,880,781	4,865,623	4,833,626	4,837,964	4,837,964	
2009	5,135,351	5,159,772	5,107,736	5,128,048	5,128,048		
2010	6,277,767	6,240,764	6,109,784	6,088,784			
2011	6,520,013	6,612,689	6,621,453				
2012	6,497,599	6,567,750					
2013	5,994,216						

Pennsylvania Link Ratios

Accident Year	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>	<u>75:63</u>	<u>87:75</u>
2002	0.999	1.058	0.985	1.000	1.000	1.000
2003	1.057	1.001	0.943	0.995	1.000	0.999
2004	1.021	1.007	1.010	1.000	1.000	0.999
2005	0.940	1.018	1.003	0.999	1.000	1.000
2006	1.065	1.003	1.038	0.996	0.990	1.000
2007	1.024	0.943	0.986	1.001	1.000	1.000
2008	1.015	0.997	0.993	1.001	1.000	
2009	1.005	0.990	1.004	1.000		
2010	0.994	0.979	0.997			
2011	1.014	1.001				
2012	1.011					
	<u>27:15</u>	<u>39:27</u>	<u>51:39</u>	<u>63:51</u>	<u>75:63</u>	<u>87:75</u>
Average	1.013	1.000	0.995	0.999	0.999	1.000
Selected Link Ratio	1.013	1.000	0.995	0.999	0.999	1.000

Selected Loss Development Factors

<u>09/2010</u>	<u>09/2011</u>	<u>09/2012</u>	<u>09/2013</u>	<u>09/2014</u>
0.999	0.998	0.993	0.993	1.006

PENNSYLVANIA  
HOMEOWNERS INSURANCE

NON-MODELED

EXCESS WIND AND EXCESS WATER PROCEDURE

OBJECTIVE

Since wind and water\* not accounted for by the hurricane model can cause large and unexpected losses, an excess wind and water procedure is incorporated in the development of Homeowners loss costs. The purpose of this procedure is to avoid shifts in loss costs (both upward and downward) which would result from reflecting large, unexpected losses only in the year in which they occur. All losses described in the following procedure have been adjusted to remove hurricane losses accounted for by the model. Losses as determined by the model have not been included in this procedure.

DESCRIPTION OF  
NON-MODELED  
EXCESS WIND  
AND WATER  
FACTOR  
METHODOLOGY

The non-modeled excess wind and excess water procedure makes two adjustments to reported non-modeled losses. First, it removes the excess wind and water losses that actually occurred in a given year. Then, it replaces these losses with an expected excess wind and excess water loss provision, by application of the statewide excess factor. This statewide excess wind and excess water factor is based on the state's long-term history of excess wind and excess water losses and, therefore, is not subject to the type of yearly variation inherent in actual wind and excess water losses. The methodology for calculating the excess factor is described below.

Statewide excess water losses by year are calculated by determining a “normal” average water to total minus wind and water ratio which represents the long-term expected water to total minus wind and water ratio for the state. All losses above the “normal” water-to-total minus wind and water ratio are defined as excess water losses.

Statewide excess wind and excess water losses by year are calculated by determining a “normal” average wind-and-excess-water-to-total minus wind and excess water ratio, which represents the long term expected wind-and-excess-water-to-total minus wind and excess water ratio for the state. All losses above the “normal” wind-and-excess-water-to-total minus wind and excess water ratio are defined as excess wind and excess water losses.

\* Water damage, freezing, other physical damage, and V&MM.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

NON-MODELED

EXCESS WIND AND EXCESS WATER PROCEDURE

DESCRIPTION OF  
NON-MODELED  
EXCESS WIND  
AND WATER  
FACTOR  
METHODOLOGY  
(CONT'D)

The “normal” wind-and-excess-water-to-total minus wind and water ratio is determined by first capping the wind-and-excess-water-to-total minus wind and excess water ratios for extreme wind and excess water years to 5 times the state's median wind-and-excess-water-to-total minus wind and excess water ratio.\*

An excess wind-and-excess-water-to-total minus wind and excess water ratio for a given year is composed of two parts: (1) a capped excess wind-and-excess-water-to-total minus wind and excess water ratio and (2) an “excess wind and excess water ratio above the cap”.

The excess factor (line 14) is calculated as follows:

state excess factor =  $[1.0 + [(average\ capped\ excess\ ratio + average\ excess\ ratio\ above\ the\ cap) \div (1.0 + normal\ ratio - average\ capped\ excess\ ratio)]]$

For a description of the treatment of wind and water losses by territory, see the “Methodology for Calculating Wind and Excess Water Provisions by Territory” exhibit.

DEVELOPMENT  
OF ADJUSTED  
NON-MODELED  
EXCESS LOSSES

The “Derivation of Excess Wind and Water Factor” exhibit develops a non-modeled excess wind and water factor using non-modeled losses on a reported basis. Since the “Determination of Statewide Advisory Loss Cost Level Change - Owners” exhibit in Section B uses losses adjusted to a common deductible level to determine the advisory loss cost level change, the “Development of Non-Modeled Excess Losses on a Base Deductible Level” exhibit calculates the adjusted excess losses by determining the ratio of total reported excess losses to the total reported wind and excess water losses. This ratio is then applied to the adjusted non-modeled wind and excess water losses to produce the adjusted excess non-modeled losses.

\* In the procedure above, minimum values apply to the median wind-and-excess-water to total minus wind and excess water ratio and the capped wind-and-excess-water to total minus wind and excess water ratio. The median has a minimum of 0.100, the cap has a minimum of 5 x 0.100 (0.500). The values used for the median ratio and wind and excess water cap are shown on line 13 (minimum values are shown, where applicable).

PENNSYLVANIA  
HOMEOWNER INSURANCE - OWNERS

DERIVATION OF NON-MODELED EXCESS WATER LOSSES

Year	(1) Non-Modeled Reported Wind Losses	(2) Non-Modeled Reported Water & Other PD Losses	(3) Non-Modeled Reported Total Losses	(4) Non-Modeled Reported Total- Wind-Water-Other PD Losses (3) - (2) - (1)	(5) Total Water To Non- WW Ratio (2) / (4)	(6) Excess Water Ratio (5) - AVG(5)	(7) Non-Modeled Excess Water Losses (4) x (6)
12/1980	13,656,091	14,130,319	97,095,029	69,308,619	0.204	0.000	0
12/1981	4,219,133	16,590,578	89,253,789	68,444,078	0.242	0.000	0
12/1982	8,415,375	23,428,373	97,915,335	66,071,587	0.355	0.000	0
12/1983	8,197,666	23,844,637	100,928,570	68,886,267	0.346	0.000	0
12/1984	8,483,041	24,608,385	103,835,688	70,744,262	0.348	0.000	0
12/1985	32,211,276	31,416,440	148,494,833	84,867,117	0.370	0.000	0
12/1986	6,093,373	25,931,466	112,400,454	80,375,615	0.323	0.000	0
12/1987	6,947,521	32,309,061	120,988,671	81,732,089	0.395	0.000	0
12/1988	8,258,482	30,753,997	125,652,738	86,640,259	0.355	0.000	0
12/1989	16,955,022	42,920,601	144,580,865	84,705,242	0.507	0.000	0
12/1990	12,290,074	39,091,909	145,403,073	94,021,090	0.416	0.000	0
06/1992	13,386,720	44,020,348	159,316,980	101,909,912	0.432	0.000	0
12/1993	25,827,291	55,668,076	169,374,842	87,879,475	0.633	0.000	0
12/1994	16,014,109	169,147,974	252,648,601	67,486,518	2.506	1.752	118,236,380
12/1995	17,408,630	58,043,895	150,366,466	74,913,941	0.775	0.021	1,573,193
12/1996	39,867,218	160,051,335	302,404,429	102,485,876	1.562	0.808	82,808,588
12/1997	28,185,455	84,201,211	225,775,689	113,389,023	0.743	0.000	0
12/1998	55,151,928	86,871,318	270,933,284	128,910,038	0.674	0.000	0
12/1999	60,171,410	119,916,292	305,964,734	125,877,032	0.953	0.199	25,049,529
09/2001	37,518,931	112,384,176	287,415,441	137,512,334	0.817	0.063	8,663,277
09/2002	28,681,133	96,457,658	240,039,171	114,900,380	0.839	0.085	9,766,532
09/2003	25,923,578	138,049,955	281,929,697	117,956,164	1.170	0.416	49,069,764
09/2004	44,307,569	113,131,804	266,188,020	108,748,647	1.040	0.286	31,102,113
09/2005	18,573,879	89,976,673	228,518,505	119,967,953	0.750	0.000	0
09/2006	34,464,422	85,548,291	238,277,474	118,264,761	0.723	0.000	0
09/2007	36,520,663	95,438,601	259,018,790	127,059,526	0.751	0.000	0
09/2008	38,249,031	88,380,395	263,692,336	137,062,910	0.645	0.000	0
09/2009	58,719,268	120,668,644	328,845,911	149,457,999	0.807	0.053	7,921,274
09/2010	128,804,219	183,046,236	451,840,685	139,990,230	1.308	0.554	77,554,587
09/2011	183,378,939	145,539,025	487,983,643	159,065,679	0.915	0.161	25,609,574

(continued on next page)

PENNSYLVANIA  
HOMEOWNER INSURANCE - OWNERS

DERIVATION OF NON-MODELED EXCESS WATER LOSSES

Year	(1) Non-Modeled Reported Wind Losses	(2) Non-Modeled Reported Water & Other PD Losses	(3) Non-Modeled Reported Total Losses	(4) Non-Modeled Reported Total- Wind-Water-Other PD Losses (3) - (2) - (1)	(5) Total Water To Non- WW Ratio (2) / (4)	(6) Excess Water Ratio (5) - AVG(5)	(7) Non-Modeled Excess Water Losses (4) x (6)
09/2012	58,029,700	108,954,774	298,540,962	131,556,488	0.828	0.074	9,735,180
09/2013	37,059,233	106,041,990	283,823,660	140,722,437	0.754	0.000	0
09/2014	148,394,248	192,184,114	479,549,993	138,971,631	1.383	0.629	87,413,156
TOTAL AVERAGE	\$ 1,260,364,628	\$ 2,758,748,551	\$ 7,518,998,358	\$ 3,499,885,179	24.869 0.754	5.101 0.155	\$ 534,503,147

NORMAL WATER TO NON-WIND & WATER RATIO = AVG. OF COL.(5) = 0.754

PENNSYLVANIA  
HOMEOWNER INSURANCE - OWNERS

DERIVATION OF NON-MODELED EXCESS WIND & WATER FACTOR

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Year	Non-Modeled Reported Wind Losses	Non-Modeled Excess Water Losses	Non-Modeled Reported Total Losses	Non-Modeled Total-Wind- Excess Water Losses (3) - (2) - (1)	Total Wind & Excess Water To Non- WXSX Ratio ( (1)+(2) )/(4)	Capped Wind & Excess Water Ratio <(5xMED)	Capped Excess W & XSX Ratio (6)-AVG(6)	Capped Excess W & XSX Losses (4)x(7)	Excess Non-Modeled W & XSX Ratio Above The Cap (5)-(6)	Excess Non-Modeled Losses Above The Cap (4)x(9)	Total Non- Modeled Excess Losses (8)+(10)
12/1961	1,445,700	0	13,503,622	12,057,922	0.120	0.120	0.000	0	0.000	0	0
12/1962	1,266,812	0	14,422,121	13,155,309	0.096	0.096	0.000	0	0.000	0	0
12/1963	1,989,354	0	20,338,613	18,349,259	0.108	0.108	0.000	0	0.000	0	0
12/1964	1,247,159	0	15,394,097	14,146,938	0.088	0.088	0.000	0	0.000	0	0
12/1965	1,181,462	0	16,977,467	15,796,005	0.075	0.075	0.000	0	0.000	0	0
12/1966	1,177,571	0	20,404,298	19,226,727	0.061	0.061	0.000	0	0.000	0	0
12/1967	2,043,420	0	23,162,263	21,118,843	0.097	0.097	0.000	0	0.000	0	0
12/1968	1,147,737	0	23,622,135	22,474,398	0.051	0.051	0.000	0	0.000	0	0
12/1969	1,072,891	0	20,710,825	19,637,934	0.055	0.055	0.000	0	0.000	0	0
12/1970	1,979,684	0	24,176,727	22,197,043	0.089	0.089	0.000	0	0.000	0	0
12/1971	2,343,636	0	28,519,836	26,176,200	0.090	0.090	0.000	0	0.000	0	0
12/1972	2,104,532	0	31,975,490	29,870,958	0.070	0.070	0.000	0	0.000	0	0
12/1973	1,465,061	0	34,164,349	32,699,288	0.045	0.045	0.000	0	0.000	0	0
12/1974	3,873,804	0	44,236,693	40,362,889	0.096	0.096	0.000	0	0.000	0	0
12/1975	6,071,488	0	53,227,461	47,155,973	0.129	0.129	0.000	0	0.000	0	0
12/1976	6,287,635	0	59,581,136	53,293,501	0.118	0.118	0.000	0	0.000	0	0
12/1977	4,579,644	0	70,016,319	65,436,675	0.070	0.070	0.000	0	0.000	0	0
12/1978	9,295,803	0	79,790,851	70,495,048	0.132	0.132	0.000	0	0.000	0	0
12/1979	4,426,620	0	66,901,783	62,475,163	0.071	0.071	0.000	0	0.000	0	0
12/1980	13,656,091	0	97,095,029	83,438,938	0.164	0.164	0.000	0	0.000	0	0
12/1981	4,219,133	0	89,253,789	85,034,656	0.050	0.050	0.000	0	0.000	0	0
12/1982	8,415,375	0	97,915,335	89,499,960	0.094	0.094	0.000	0	0.000	0	0
12/1983	8,197,666	0	100,928,570	92,730,904	0.088	0.088	0.000	0	0.000	0	0
12/1984	8,483,041	0	103,835,688	95,352,647	0.089	0.089	0.000	0	0.000	0	0
12/1985	32,211,276	0	148,494,833	116,283,557	0.277	0.277	0.095	11,046,938	0.000	0	11,046,938
12/1986	6,093,373	0	112,400,454	106,307,081	0.057	0.057	0.000	0	0.000	0	0
12/1987	6,947,521	0	120,988,671	114,041,150	0.061	0.061	0.000	0	0.000	0	0
12/1988	8,258,482	0	125,652,738	117,394,256	0.070	0.070	0.000	0	0.000	0	0
12/1989	16,955,022	0	144,580,865	127,625,843	0.133	0.133	0.000	0	0.000	0	0
12/1990	12,290,074	0	145,403,073	133,112,999	0.092	0.092	0.000	0	0.000	0	0

(continued on next page)

PENNSYLVANIA  
HOMEOWNER INSURANCE - OWNERS

DERIVATION OF NON-MODELED EXCESS WIND & WATER FACTOR

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Year	Non-Modeled Reported Wind Losses	Non-Modeled Excess Water Losses	Non-Modeled Reported Total Losses	Non-Modeled Reported Total-Wind- Excess Water Losses (3) - (2) - (1)	Total Wind & To Non- WXSX Ratio ( (1)+(2) )/(4)	Capped Wind & Water Ratio <(5xMED)	Capped Excess W & XSX Ratio (6)-AVG(6)	Capped Excess W & XSX Losses (4)x(7)	Excess Non-Modeled W & XSX Ratio Above The Cap (5)-(6)	Excess Non-Modeled Losses Above The Cap (4)x(9)	Total Non- Modeled Excess Losses (8)+(10)
06/1992	13,386,720	0	159,316,980	145,930,260	0.092	0.092	0.000	0	0.000	0	0
12/1993	25,827,291	0	169,374,842	143,547,551	0.180	0.180	0.000	0	0.000	0	0
12/1994	16,014,109	118,236,380	252,648,601	118,398,112	1.134	0.595	0.413	48,898,420	0.539	63,816,582	112,715,002
12/1995	17,408,630	1,573,193	150,366,466	131,384,643	0.144	0.144	0.000	0	0.000	0	0
12/1996	39,867,218	82,808,588	302,404,429	179,728,623	0.683	0.595	0.413	74,227,921	0.088	15,816,119	90,044,040
12/1997	28,185,455	0	225,775,689	197,590,234	0.143	0.143	0.000	0	0.000	0	0
12/1998	55,151,928	0	270,933,284	215,781,356	0.256	0.256	0.074	15,967,820	0.000	0	15,967,820
12/1999	60,171,410	25,049,529	305,964,734	220,743,795	0.386	0.386	0.204	45,031,734	0.000	0	45,031,734
09/2001	37,518,931	8,663,277	287,415,441	241,233,233	0.191	0.191	0.009	2,171,099	0.000	0	2,171,099
09/2002	28,681,133	9,766,532	240,039,171	201,591,506	0.191	0.191	0.009	1,814,324	0.000	0	1,814,324
09/2003	25,923,578	49,069,764	281,929,697	206,936,355	0.362	0.362	0.180	37,248,544	0.000	0	37,248,544
09/2004	44,307,569	31,102,113	266,188,020	190,778,338	0.395	0.395	0.213	40,635,786	0.000	0	40,635,786
09/2005	18,573,879	0	228,518,505	209,944,626	0.088	0.088	0.000	0	0.000	0	0
09/2006	34,464,422	0	238,277,474	203,813,052	0.169	0.169	0.000	0	0.000	0	0
09/2007	36,520,663	0	259,018,790	222,498,127	0.164	0.164	0.000	0	0.000	0	0
09/2008	38,249,031	0	263,692,336	225,443,305	0.170	0.170	0.000	0	0.000	0	0
09/2009	58,719,268	7,921,274	328,845,911	262,205,369	0.254	0.254	0.072	18,878,787	0.000	0	18,878,787
09/2010	128,804,219	77,554,587	451,840,685	245,481,879	0.841	0.595	0.413	101,384,016	0.246	60,388,542	161,772,558
09/2011	183,378,939	25,609,574	487,983,643	278,995,130	0.749	0.595	0.413	115,224,989	0.154	42,965,250	158,190,239
09/2012	58,029,700	9,735,180	298,540,962	230,776,082	0.294	0.294	0.112	25,846,921	0.000	0	25,846,921
09/2013	37,059,233	0	283,823,660	246,764,427	0.150	0.150	0.000	0	0.000	0	0
09/2014	148,394,248	87,413,156	479,549,993	243,742,589	0.967	0.595	0.413	100,665,689	0.372	90,672,243	191,337,932
Total	\$ 1,315,364,641	\$ 534,503,147	\$ 8,180,124,444	\$ 6,330,256,656	10.839	9.440	3.033	\$ 639,042,988	1.399	\$ 273,658,736	\$ 912,701,724
Average					0.208	0.182	0.058		0.027		

(12) NORMAL WIND TO NON-W&W RATIO = AVG. OF COL6 = 0.182

(13) MEDIAN WIND TO NON-W&W RATIO = 0.119 5 X MEDIAN WIND TO NON-W&W RATIO = 0.595

(14) EXCESS WIND FACTOR = 1.0 + {(AVG.(7) + AVG.(9))/(1.0 + (AVG.(6) - AVG.(7))}  
 EXCESS WIND FACTOR = 1.0 + {( 0.058 + 0.027)/(1.0 + 0.182 - 0.058)} = 1.076

## PENNSYLVANIA

## HOMEOWNERS INSURANCE – OWNERS FORMS

DEVELOPMENT OF NON-MODELED EXCESS LOSSES ON A BASE DEDUCTIBLE LEVEL

<u>Accident Year Ended</u>	(1) Non-Modeled Excess Water Losses <u>Column (7) (a)</u>	(2) Non-Modeled Reported Water Losses <u>Column (2) (a)</u>	(3) Excess Water Ratio <u>(1)/(2)</u>	(4) Non-Modeled Water Losses on a Base Deductible Level
09/30/2010	\$ 77,554,587	\$ 183,046,236	0.424	\$ 183,565,219
09/30/2011	25,609,574	145,539,025	0.176	146,917,418
09/30/2012	9,735,180	108,954,774	0.089	110,047,403
09/30/2013	0	106,041,990	0.000	107,464,074
09/30/2014	87,413,156	192,184,114	0.455	199,425,891

<u>Accident Year Ended</u>	(5) Non-Modeled Excess Water Losses on a Base Deductible Level	(6) Non-Modeled Wind Losses on a Base Deductible Level	(7) Non-Modeled Wind and Excess Water Losses on a Base Deductible Level <u>(5) + (6)</u>	(8) Non-Modeled Excess Losses <u>Column (11)(b)</u>
09/30/2010	\$ 77,831,653	\$ 129,449,358	\$ 207,281,011	\$ 161,772,558
09/30/2011	25,857,466	183,005,813	208,863,279	158,190,239
09/30/2012	9,794,219	57,975,722	67,769,941	25,846,921
09/30/2013	0	37,479,409	37,479,409	0
09/30/2014	90,738,780	154,125,379	244,864,159	191,337,932

<u>Accident Year Ended</u>	(9) Non-Modeled Reported Wind and Excess Water Losses <u>Column (1) + (2) (b)</u>	(10) Excess Ratio <u>(8)/(9)</u>	(11) Non-Modeled Excess Losses on a Base Deductible Level <u>(7) x (10)</u>
09/30/2010	\$ 206,358,806	0.784	\$ 162,508,313
09/30/2011	208,988,513	0.757	158,109,502
09/30/2012	67,764,880	0.381	25,820,348
09/30/2013	37,059,233	0.000	0
09/30/2014	235,807,404	0.811	198,584,833

(a) See the "Derivation of Non-Modeled Excess Water Losses" exhibit.

(b) See the "Derivation of Non-Modeled Excess Wind and Water Factor" exhibit.

PENNSYLVANIA

HOMEOWNERS INSURANCE

METHODOLOGY FOR CALCULATING NON-MODELED WIND AND EXCESS WATER PROVISIONS BY TERRITORY – OWNERS

In order to develop Non-Modeled Wind and Excess Water Provisions by territory\*, the statewide provision\*\* is distributed using each territory's "expected" wind and excess water losses. This procedure is illustrated in the following example (All hurricane losses accounted for by the model have been removed. Modeled hurricane losses are not included in this procedure):

Territory	(1) Long-Term*** Ratio of Wind and Excess Water to Non-Wind and Excess Water Losses	(2) Non-[Wind and Excess Water] Losses for Latest Five Years	(3) "Expected" Wind and Excess Water Losses for Latest Five Years <u>(1) x (2)</u>	(4) "Expected" Wind and Excess Water Distribution <u>(3) ÷ Total (3)</u>
	A	.250	\$16,000,000	\$ 4,000,000
B	.200	6,000,000	1,200,000	.120
C	.600	8,000,000	4,800,000	.480
Total			10,000,000	1.000

  

Year	(5) Statewide Wind and Excess Water Provision	(6) "Expected" Wind and Excess Water Distribution	(7) Territory A	(8) Territory B	(9) Territory C	(10) Territory Wind and Excess Water Provision <u>(5) x (6)</u>	(11) Territory B <u>(5) x (7)</u>	Territory C <u>(5) x (8)</u>
	x	\$4,000,000	.400	.120	.480	\$1,600,000	\$480,000	\$1,920,000
x+1	1,000,000	.400	.120	.480	400,000	120,000	480,000	
x+2	2,000,000	.400	.120	.480	800,000	240,000	960,000	
x+3	3,000,000	.400	.120	.480	1,200,000	360,000	1,440,000	
x+4	2,000,000	.400	.120	.480	800,000	240,000	960,000	

\* When Loss Cost Changes By Territory are worked up, actual non-modeled wind and excess water losses by territory are taken out of the Adjusted Incurred Non-Modeled Losses and replaced with the losses arrived at using this procedure.

\*\* The statewide wind and excess water provision is defined as  $(T - E)F - (T - L_1 - L_2)$ , where:

T = total statewide incurred non-modeled losses on a base deductible level

E = statewide non-modeled excess wind and water losses on a base deductible level

F = statewide excess wind and water factor

L<sub>1</sub> = non-modeled wind losses on a base deductible level

L<sub>2</sub> = statewide non-modeled excess water losses on a base deductible level

\*\*\* Average of yearly ratios of non-modeled wind to non-wind losses and non-modeled wind and excess water to non-wind and excess water losses based on territory experience for all available years.



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PENNSYLVANIA  
HOMEOWNERS INSURANCE

SECTION D – AIR HURRICANE COMPUTER MODEL

Hurricane Model Procedure.....	D-2
Description of AIR Hurricane Model .....	D-3-6
Hurricane Model Output .....	D-7-10

PENNSYLVANIA  
HOMEOWNERS INSURANCE

HURRICANE MODEL PROCEDURE

INTRODUCTION	<p>The modeled hurricane loss costs for the Homeowners policy forms reflect the use of the Atlantic Tropical Cyclone Model – Version 14.0.1 as implemented in the Touchstone 1.5.2 software platform, and developed by AIR Worldwide Corporation (AIR). AIR, which is owned by Verisk Analytics, Inc., is a pioneer in the application of sophisticated computer modeling to the hurricane peril as well as other catastrophes. The model output in this filing is based on the AIR standard 100K storm event set.</p> <hr/>
HURRICANE COMPUTER MODEL	<p>Models predict hurricane losses with greater accuracy and in greater geographic detail than traditional experience-based procedures. This model uses a meteorological database of both landfalling and non-landfalling tropical cyclones since 1900, a sophisticated windfield model, and engineering and insurance-based damage relationships to develop reliable estimates of expected hurricane losses. The model relates the probability of a hurricane at a specific location, the duration of the wind speeds at that location and the damageability relationship by type of structure to the current distribution of insureds.</p> <hr/>
MODELED HURRICANE LOSS COSTS	<p>The hurricane computer model provides mean damage ratios as a percentage of the amount of insurance at risk. For each Homeowners policy form (Owners, Tenants, and Condominium Unit Owners), modeled hurricane loss costs by territory and state are calculated from these mean damage ratios and the current amount of insurance. See the section on "Mean Damage Ratios at the Base Deductible" for more details on calculating expected hurricane losses.</p> <hr/>
HURRICANE DEFINED	<p>A hurricane is a tropical cyclone technically defined as a non-frontal, low pressure synoptic-scale system in which the maximum sustained surface wind speed is at least 74 miles per hour.</p> <hr/>

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DESCRIPTION OF AIR HURRICANE MODEL

OVERVIEW OF  
HURRICANE  
COMPUTER MODEL

The model consists of several components – an event generation, local intensity, and damage module. The event generation module creates the stochastic storm catalog. Over 100 years of historical data on the frequency of hurricanes and their meteorological characteristics were used to fit statistical distributions for each parameter. By stochastically drawing from these distributions, the fundamental characteristics of each simulated storm are generated. These parameters include storm track, landfall location and track angle at landfall, and the intensity variables of central pressure, radius of maximum winds, and forward speed. The result is a large, representative catalog of potential events. The model generates simulated “years” of event activity. A simulated year represents a hypothetical year of catastrophe experience, which could happen in the current year. The AIR model allows for the possibility of multiple events occurring within a single year. Many thousands of these scenarios are run to produce the complete and stable range of potential annual experience of catastrophe event activity as well as ensuring full coverage of extreme events.

Once the model generates the characteristics of a simulated event, it propagates the event along its track. Peak gust wind speeds and wind duration are estimated for each geographical location affected by the storm, and the local intensity is estimated as a function of the magnitude of the event, distance from the source of the event, and a variety of local conditions. Damageability functions are then used to determine the relationship between the local intensity and the resulting damage to buildings and contents. Expected hurricane losses are calculated by applying the appropriate damage functions to the insured value of the properties.

EVENT  
GENERATION  
MODULE

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The following storm characteristics are modeled as part of the event generation module.

Frequency of Occurrence – The model estimates frequency of occurrence based tropical cyclones occurring since 1900.

Landfall Location – The model estimates the probability of a hurricane occurring at points along the smoothed coastline from Texas to Maine.

Central Pressure – Central pressure is the primary determinant of hurricane wind speed and therefore of intensity. All else being equal, as central pressure decreases, wind speeds increase or, more precisely, wind speed is an increasing function of the difference between the central and peripheral pressure.

Radius of Maximum Winds – The radius of maximum winds is the distance from the storm's center, or eye, to where the strongest winds are found. On average, the radius of maximum winds tends to be larger at higher latitudes. Similarly, the radius will be smaller, on average, for more intense storms. These relationships are explicitly accounted for in the model. While a smaller radius of maximum winds corresponds to greater storm intensity, it does not necessarily follow that losses will be greater. This is because a smaller radius usually results in a smaller affected area.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

DESCRIPTION OF AIR HURRICANE MODEL

EVENT  
GENERATION  
MODULE (Cont'd)

Forward Speed – Forward, or translational, speed is the rate at which a hurricane moves from point to point along its track. In general, the higher the latitude, the faster the hurricane's translational speed. Faster moving storms result in higher losses further inland. On the other hand, the faster a storm travels, the shorter the duration that a building is subjected to high wind speeds. In some areas, particularly along the coast, this can lead to lower losses than would otherwise be the case.

Track Angle at Landfall – Separate distributions for track angle at landfall are estimated for segments of coastline that are variable in length, depending upon the coastal orientation of that segment.

Storm Track – Once landfall location and the track angle at landfall are identified, the simulated storm track is generated using conditional probability matrices which resemble the curving and recurving tracks actually observed from the stochastic storm database.

Multiple-Landfalling Storms – In order to model multiple landfalling events as single storms, simulated storm tracks are joined statistically based on consistency of certain storm parameters.

LOCAL INTENSITY  
MODULE

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Once the model probabilistically generates the hurricane's meteorological characteristics, it simulates the storm's movement along its track. Calculations of local intensity begin with maximum over-water windspeed and adjustments are then made for the asymmetric nature of the hurricane windfield, storm filling over land, surface friction, and relative wind speed profiles.

Asymmetry Effect – In the Northern Hemisphere, hurricane winds rotate in a counter-clockwise direction. The combined effects of hurricane winds and forward motion (or translational speed) will produce higher wind speeds on the right-hand-side of the storm. The model accounts for the dynamic interaction of the translational and rotational speeds, and the inflow angle.

Filling Effect – As the storm moves inland its intensity begins to dissipate. Central pressure rises and the eye of the hurricane begins to "fill" as it moves away from its energy source, i.e., warm ocean water. The model filling equations are a function of the geographic location (particularly distance from coastline) and the time elapsed since landfall. Rates of fill vary by region, as is consistent with historical observation.

Surface Friction Effect – Differences in surface terrain also affect windspeeds. Wind velocity profiles typically show higher wind speeds at higher elevations. Winds travel more slowly at ground-level because of the horizontal drag force of the earth's surface, or surface friction. The addition of obstacles such as buildings will further degrade wind speed. In general, the rougher the terrain, due to both natural and man-made obstacles, the more quickly wind speeds dissipate.

Relative Wind Speeds – The wind speed at any particular location is dependent on the radial distance between the eye of the storm and the location of interest.

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PENNSYLVANIA  
HOMEOWNERS INSURANCE

DESCRIPTION OF AIR HURRICANE MODEL

DAMAGE  
ESTIMATION  
MODULE

The tropical cyclone model develops a complete time profile of wind speeds for each location affected by the storm, thus capturing the effect of wind duration on structures as well as the effect of peak wind speed. Damage estimation for hurricanes begins at sustained wind speeds of 40 mph and is calculated cumulatively until sustained winds are once again below 40 mph.

Estimated damages are measured in terms of a Mean Damage Ratio (MDR) which is defined as the ratio of repair cost (i.e. losses) to the replacement cost. Four different coverages are modeled for personal lines – buildings, appurtenant structures, contents and additional living expenses. For each coverage, there are four construction types (frame, masonry veneer, masonry, and superior masonry) and three occupancy types (single-family, multi-family apartment/condominium, and multi-family all other).

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DEMAND SURGE

The MDRs reflect demand surge - an observable, economic phenomenon of sudden inflation following a catastrophe. To the extent that individual insured properties' hurricane losses are partial, demand surge will raise the cost of covered losses, and consequently what the insurer ultimately pays. Demand surge is applied separately by coverage and varies by territory. One set of factors is applied to building and other structures losses. A factor of one is applied to contents losses, as AIR's research indicates that the items covered under contents coverage do not see significant price increases following catastrophic events. The demand surge on additional living expense coverage is calculated by applying an additional factor to the building and other structures function. AIR's research indicates that the additional living expense coverage is sensitive to demand surge due to longer-than-normal repair times when widespread damage occurs to property. Though the Homeowners renters and unit owners forms are primarily contents driven, demand surge does affect the additional living expense part of these two policy forms.

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AGGREGATION

Mean Damage Ratios (MDRs) are calculated for each 5-digit zip code within the state. The zip code-specific MDRs are aggregated into each of the ISO territories by calculating a weighted average of the MDRs of the individual zip codes within a territory. The zip code MDRs are weighted using corresponding earned amount of insurance years. For a zip code contained in multiple territories, the zip code's earned amount of insurance years (and thus its weight) is allocated among the applicable territories.

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PENNSYLVANIA  
HOMEOWNERS INSURANCE

DESCRIPTION OF AIR HURRICANE MODEL

MEAN DAMAGE  
RATIOS AT THE BASE  
DEDUCTIBLE

For each zip code, construction class, and occupancy type, the model produces a combined coverage Mean Damage Ratios (MDRs) adjusted to the base deductible. The combined coverage MDRs reflect the differing weight given to buildings, appurtenant structures, contents, and additional living expenses, according to the coverages afforded by the various Homeowners policy forms. MDRs net of the base deductible are calculated based on the probability distributions of the combined damage ratios, exclusive of additional living expenses coverage. The additional living expenses MDRs on a ground-up basis are weighted with the other coverages, deductible-based MDRs to generate the combined coverage MDRs.

Owners provide coverage for the building and other structures, contents and additional living expenses. The weights used in calculating the Owners MDRs net of the base deductible are 1.00 for Coverage A, 0.10 for Coverage B, various for Coverage C, and 0.30 for Coverage D. The range for the Coverage C weight varies by territory, and ranges from 0.634 to 0.681. Since Owners are written almost entirely on single-family dwellings, only the single-family MDRs are used. The resulting combined coverage MDRs net of the base deductible are multiplied by the reported Coverage A amounts of insurance for each zip, territory, and construction type, and then summed to expected hurricane losses by state and territory.

Tenants provides coverage for contents and additional living expenses. The weights used in calculating the Tenants MDR net of the base deductible are 1.00 for Coverage C and 0.30 for Coverage D. Tenants is written on single-family and multi-family units (apartment/condominium and all other). Thus, the single-family, multi-family apartment/condominium, and multi-family all other MDRs are weighted together using the Calendar 2011, 3 year, American Community Survey and internal data. The weight used for single-family is 0.390, for multi-family apartment/ condominium is 0.081, and for multi-family all other is 0.529. The resulting combined coverage MDRs net of the base deductible are multiplied by the reported Coverage C amounts of insurance for each zip, territory, and construction type, and then summed to the expected hurricane losses by state and territory.

Condominium Unit Owners provides coverage for applicable building structures, contents and additional living expenses. The coverage weights underlying the MDR net of the base deductible are various for Coverage A, 1.00 for Coverage C, and 0.50 for Coverage D. The weight given Coverage A is the ratio of the reported Coverage A amount of insurance to that of Coverage C by territory. The range for this weight varied from 0.084 to 0.302. Since Condominium Unit Owners is written primarily on multi-family units, only the multi-family MDRs (apartment/condominium and all other) are used. The apartment/condominium weight is 0.102, while the all other multi-family weight is 0.898. The resulting combined coverage MDRs net of the base deductible are multiplied by the reported Coverage C amounts of insurance for each zip, territory, and construction type, and then summed to the expected hurricane losses by state and territory.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

HURRICANE MODEL OUTPUT

MODELED HURRICANE LOSS COSTS BY STATE AND TERRITORY

		(1)	(2)	(3)	(4)
		Earned	Modeled	Average	Aggregate
		Amount	Hurricane	Modeled	Mean
<u>Territory</u>		<u>of Insurance</u>	<u>Losses</u>	<u>Hurricane</u>	<u>Damage</u>
				<u>Loss Costs</u>	<u>Ratios</u>
Owners	04	13,911,358,272	988,668	16.95	0.007%
	30	2,485,200,154	116,424	12.91	0.005%
	31	8,541,182,069	426,368	16.39	0.005%
	32	15,234,247,062	552,592	10.31	0.004%
	33	24,218,976,730	619,375	7.20	0.003%
	34	7,054,077,137	116,106	4.55	0.002%
	35	15,462,859,566	255,998	4.70	0.002%
	36	1,149,434,071	16,965	3.53	0.001%
	37	1,456,552,359	18,305	3.50	0.001%
	38	4,633,174,497	122,030	7.25	0.003%
	39	5,360,113,758	127,271	6.04	0.002%
	40	2,369,727,437	34,896	3.58	0.001%
	41	3,403,462,947	68,734	5.65	0.002%
	42	6,564,645,157	119,241	4.72	0.002%
	43	22,300,518,947	366,356	4.03	0.002%
	44	19,252,583,179	1,846,601	35.88	0.010%
	45	23,738,747,142	1,572,499	26.33	0.007%
	46	17,782,113,649	956,685	22.29	0.005%
	47	11,369,863,375	724,623	21.89	0.006%
	48	1,334,966,190	20,450	4.05	0.002%
	49	21,802,323,589	531,448	6.21	0.002%
	Statewide	229,426,127,287	9,601,635	12.36	0.004%

PENNSYLVANIA  
HOMEOWNERS INSURANCE

HURRICANE MODEL OUTPUT

MODELED HURRICANE LOSS COSTS BY STATE AND TERRITORY

		(1)	(2)	(3)	(4)
	<u>Territory</u>	<u>Earned Amount of Insurance</u>	<u>Modeled Hurricane Losses</u>	<u>Average Modeled Hurricane Loss Costs</u>	<u>Aggregate Mean Damage Ratios</u>
Tenants	04	434,286,499	13,693	1.01	0.003%
	30	94,914,734	2,043	0.63	0.002%
	31	132,954,063	2,943	0.73	0.002%
	32	360,720,992	5,774	0.57	0.002%
	33	462,428,841	5,348	0.39	0.001%
	34	234,442,268	1,751	0.21	0.001%
	35	274,698,413	2,018	0.26	0.001%
	36	28,351,737	206	0.21	0.001%
	37	21,706,682	119	0.19	0.001%
	38	94,468,539	1,150	0.44	0.001%
	39	102,142,112	1,137	0.39	0.001%
	40	40,103,342	282	0.22	0.001%
	41	49,193,862	474	0.34	0.001%
	42	95,160,204	821	0.29	0.001%
	43	354,455,194	2,601	0.25	0.001%
	44	260,259,415	10,525	1.55	0.004%
	45	434,733,611	11,976	1.09	0.003%
	46	233,589,866	5,322	0.89	0.002%
	47	199,479,250	5,381	0.99	0.003%
	48	29,607,644	208	0.24	0.001%
	49	312,787,957	3,102	0.34	0.001%
	Statewide	4,250,485,225	76,874	0.63	0.002%

PENNSYLVANIA  
HOMEOWNERS INSURANCE

HURRICANE MODEL OUTPUT

MODELED HURRICANE LOSS COSTS BY STATE AND TERRITORY

		(1)	(2)	(3)	(4)
	<u>Territory</u>	<u>Earned Amount of Insurance</u>	<u>Modeled Hurricane Losses</u>	<u>Average Modeled Hurricane Loss Costs</u>	<u>Aggregate Mean Damage Ratios</u>
Condominium Unit Owners	04	414,542,730	21,814	3.26	0.005%
	30	23,254,110	934	3.27	0.004%
	31	107,915,314	4,735	3.77	0.004%
	32	103,587,454	3,187	2.45	0.003%
	33	239,094,571	5,113	1.60	0.002%
	34	140,756,120	1,644	0.89	0.001%
	35	186,980,063	2,423	1.01	0.001%
	36	11,996,088	161	1.18	0.001%
	37	9,783,078	123	1.05	0.001%
	38	8,388,929	164	1.73	0.002%
	39	14,993,985	305	2.06	0.002%
	40	29,860,743	374	1.01	0.001%
	41	32,241,975	512	1.38	0.002%
	42	39,841,802	563	1.23	0.001%
	43	86,917,903	1,113	1.01	0.001%
	44	260,432,807	20,704	5.60	0.008%
	45	428,126,165	21,224	4.02	0.005%
	46	269,359,971	11,769	3.67	0.004%
	47	154,880,425	7,549	3.75	0.005%
	48	1,431,648	18	1.20	0.001%
49	92,748,220	1,553	1.18	0.002%	
	Statewide	2,657,134,101	105,982	3.00	0.004%

PENNSYLVANIA  
HOMEOWNERS INSURANCE

HURRICANE MODEL OUTPUT

DETERMINATION OF MODELED HURRICANE LOSS COSTS BY STATE AND TERRITORY

COLUMN (1) EARNED AMOUNT OF INSURANCE

These are the latest year Earned Amount of Insurance Years for Coverage A for Owners Forms (Coverage C for Tenants and Condominium Unit Owners). Each Earned Amount of Insurance Year represents \$1.00 of coverage for one exposure for one year.

COLUMN (2) MODELED HURRICANE LOSSES

The expected modeled hurricane losses on a base deductible level are calculated by multiplying the Coverage A Amount of Insurance years for Owners Forms (Coverage C for Tenants and Condominium Unit Owners) by the weighted mean damage ratios for each construction class and summing over the territory. This procedure is explained in more detail in "Description of AIR Hurricane Computer Model, Mean Damage Ratios at the Base Deductible".

COLUMN (3) AVERAGE MODELED HURRICANE LOSS COSTS

The Average Modeled Hurricane Loss Costs are determined by dividing the modeled hurricane losses from Column (2) by the latest year earned house years.

COLUMN (4) AGGREGATE MEAN DAMAGE RATIOS

These are the average Mean Damage Ratio's (MDRs) as a percent of the amount of insurance at risk, for all construction classes combined. These MDRs have been calculated by dividing the Modeled Hurricane Losses from Column (2) by the Earned Amount of Insurance from Column (1).



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SECTION E – LOSS COSTS AND RATING INFORMATION

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PENNSYLVANIA  
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LOSS COSTS AND RELATIVITIES

SAMPLE LOSS COSTS (Pages E-7-9)

Sample calculations of the Base Class Loss Costs for Owners, Tenants, and Condominium Unit Owners for one territory are displayed on Pages E-7-9. The Base Premium Computation section of the ISO manual provides instructions and factors to calculate Key Loss Costs.

RELATIVITIES (Pages E-10-15)

The current relativities included in this section of the Loss Cost Reference Filing are presented ONLY for information.

REVISED MISCELLANEOUS LOSS COSTS (Pages E-16)

The miscellaneous loss costs included in this section for **Rule 521., Limited Water Back Up and Sump Discharge or Overflow Coverage**, have been revised based on the pure premiums for the latest five years of water back up experience available for the \$5,000 limit for policies to which the Personal Property Replacement Cost Endorsement, **HO 04 90**, may or may not be attached, found in the following table:

(1) Five-year combined Water Back-up pure premium excluding losses for named hurricanes for the \$5,000 limit for all policies	\$64.67
(2) Five-year earned house years for policies when <b>HO 04 90</b> is not attached	2,248,292
(3) Five-year earned house years for policies when <b>HO 04 90</b> is attached	2,670,225
(4) Implied relativity between current Water Back-up loss costs for the \$5,000 limit for when <b>HO 04 90</b> is not attached vs. when <b>HO 04 90</b> is attached	1.191
(5) Calculated relativity between five-year combined Water Back-up pure premiums for the \$5,000 limit for when <b>HO 04 90</b> is not attached vs. when <b>HO 04 90</b> is attached	1.894
(6) Initially selected relativity between calculated Water Back-up loss costs for the \$5,000 limit for when <b>HO 04 90</b> is not attached vs. when <b>HO 04 90</b> is attached	1.5
(6) Resulting relativity between proposed Water Back-up loss costs for the \$5,000 limit for when <b>HO 04 90</b> is not attached vs. when <b>HO 04 90</b> is attached	1.376

The results above are based on multistate experience that has been trended to a year past the effective date and includes loss adjustment expenses. In addition, the pure premiums for all policies combined is used for this analysis and it is combined over all five years by taking the arithmetic average in order to recognize the volatile nature of the data for this coverage.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COSTS AND RELATIVITIES

Since this is a multistate change, we have decided to use the same effective date, trend and loss adjustment expense factors for all states so as to maintain multistate loss costs for this coverage. As a result, the effective date of 6/1/2015 was chosen since it is the earliest effective date selected for all states being filed in late 2014 and most of 2015. In addition, the latest trend and loss adjustment factors available in late 2014 are being used for all states.

A multistate trend factor of 1.05 was selected for this analysis based on the second quarter 2014 external annual trend factors of 1.026 for Owners and 1.004 for Tenants and Unit Owners and the annual trend in Homeowners multistate water pure premiums. An evaluation of Homeowners multistate data for water shows that the cost level inherent in the coverage provided by this endorsement is increasing at a faster rate than the external trend indices. In particular, the multistate annual trend factors for water pure premiums are 1.055 for Owners, 1.092 for Tenants and 1.069 for Unit Owners. Further details about the selected trend factor can be found in the tables on page E-5.

A loss adjustment expense factor of 1.14 was used for this analysis based on countrywide loss adjustment expense experience from 2008 through 2012. Further details about the loss adjustment expense factor can be found in the table on page E-6.

In order to acknowledge that water losses due to hurricanes can cause large and unexpected variations, losses for named hurricanes have been removed from the pure premiums as well.

Currently, an implied relativity between Water Back-up loss costs for the \$5,000 limit for when HO 04 90 is not attached vs. when HO 04 90 is attached can be calculated to be 1.191. Using the latest experience for five years combined, a relativity between these two options of 1.894 can be calculated but the results are very volatile by year. As a result, we chose to initially select a relativity of 1.5 to recognize that there should be a greater difference between the two options than there is currently.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COSTS AND RELATIVITIES

Using the five year "non-hurricane" pure premium for the \$5,000 limit of coverage of \$64.67 for all policies found in line (1), the distribution of earned house years for the five years of the experience period between policies for when **HO 04 90** is not attached and when **HO 04 90** is attached found in lines (2) and (3), and the initially selected relativity of 1.5 for when **HO 04 90** is not attached vs. when **HO 04 90** is attached found in line (6), as illustrated in the following table:

Policies without <b>HO 04 90</b>	2,248,292	X
Policies with <b>HO 04 90</b>	2,670,225	1.5X
Total	4,918,517	\$64.67

leads to calculated loss costs for the \$5,000 limit for this coverage of \$50.86 for policies when **HO 04 90** is not attached and \$76.29 for when **HO 04 90** is attached. This results in a +8.2% change for policies when **HO 04 90** is not attached and +36.2% for when **HO 04 90** is attached. We have, however, decided to further limit the changes to +25% so this results in the proposed loss cost of \$50.86 for when **HO 04 90** is not attached and \$70.00 for when **HO 04 90** is attached. The resulting relativity between these proposed Water Back-up loss costs for the \$5,000 limit for when **HO 04 90** is not attached vs. when **HO 04 90** is attached can now be calculated to be 1.376.

An overall change of +18.0% for the \$5,000 limit loss costs results from the changes of +8.6% for policies when **HO 04 90** is not attached and +25.0% for when **HO 04 90** is attached.

The higher limits loss costs and the percent changes from the current loss costs by limit are then as follows:

<u>Limit</u>	<u>Factor</u>	<u>Proposed loss cost for policies when <b>HO 04 90</b> is not attached</u>	<u>Proposed loss cost for policies when <b>HO 04 90</b> is attached</u>	<u>Percent change for policies when <b>HO 04 90</b> is not attached</u>	<u>Percent change for policies when <b>HO 04 90</b> is attached</u>
\$5,000	1.00	\$50.86	\$70.00	8.2%	25.0%
\$10,000	1.50	76.29	105.00	7.5	25.0
\$15,000	1.75	89.01	122.50	8.5	25.0
\$20,000	1.90	96.63	132.50	8.6	25.0
\$25,000	2.00	101.72	140.00	8.2	25.0

Note that we have chosen to maintain the relationship by limit that exists in the current loss costs for this coverage until more data for the higher limit options becomes available.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COSTS AND RELATIVITIES

The trend factors for the Limited Water Back Up and Sump Discharge or Overflow Coverage are based on the information in the following tables:

External Trend - Current Cost Index

<u>Quarter Ended</u>	<u>Owners (a)</u>	<u>Tenants and Unit Owners (b)</u>
9/30/2011	98.7	98.7
12/31/2011	98.5	99.2
3/31/2012	99.1	99.6
6/30/2012	99.9	100.2
9/30/2012	100.3	100.0
12/31/2012	100.7	100.1
3/31/2013	102.2	100.3
6/30/2013	102.7	100.5
9/30/2013	103.3	100.2
12/31/2013	103.7	99.9
3/31/2014	104.1	100.0
6/30/2014	105.8	100.4
Annual Change	2.6%	0.4%

(a) 80% Weight to Xactware Residential Index (XRI)

20% Weight to Modified Consumer Price Index (MCPI)

(b) 100% Weight to Modified Consumer Price Index (MCPI)

The Modified Consumer Price Index is a composite of various Consumer Price Indices - see Section C for further details.

(Base for XRI and MCPI: 2012 = 100)

Multistate Water Pure Premiums (c)

<u>Account Year Ended</u>	<u>Owners</u>	<u>Tenants</u>	<u>Unit Owners</u>
9/30/2008	\$106.28	\$5.02	\$87.42
12/31/2008	109.92	5.06	88.20
3/31/2009	125.61	5.77	96.74
6/30/2009	132.19	6.47	99.84
9/30/2009	134.71	6.70	101.75
12/31/2009	134.63	6.81	101.31
3/31/2010	129.14	6.65	97.17
6/30/2010	131.28	6.53	99.20
9/30/2010	134.07	6.97	102.52
12/31/2010	136.35	7.14	105.17
3/31/2011	157.26	7.38	112.92
6/30/2011	171.85	7.68	118.38
9/30/2011	184.60	8.30	124.57
12/31/2011	198.45	9.14	127.52
3/31/2012	172.93	8.98	123.19
6/30/2012	153.58	8.65	119.43
9/30/2012	139.72	7.75	115.57
12/31/2012	127.26	7.25	115.53
3/31/2013	130.10	7.34	116.67
6/30/2013	135.77	7.64	117.92
Annual Change	5.48%	9.15%	6.86%
Selected Change	5%	5%	5%

(c) On a paid basis

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PENNSYLVANIA  
HOMEOWNERS INSURANCE

LOSS COSTS AND RELATIVITIES

The loss adjustment factor for the Limited Water Back Up and Sump Discharge or Overflow Coverage is based on the countrywide loss adjustment expense experience in the following table:

	(1) 2008	(2) 2009	(3) 2010	(4) 2011	(5) 2012	(6) 2008-2012 MEAN
(1) Direct Losses Incurred	\$19,903,133	\$17,334,160	\$19,456,993	\$26,821,884	\$22,911,609	
(2) Direct Loss Adjustment Expenses Incurred	\$2,657,965	\$2,563,331	\$2,802,120	\$3,378,886	\$3,281,755	
(3) Loss Adjustment Expenses Incurred as ratio to Losses Incurred [(2)/(1)]	13.4%	14.8%	14.4%	12.6%	14.3%	13.9%
(4) Selected Loss Adjustment Expense Ratio						14.0%

Notes: All dollar amounts displayed in thousands.

Items (1) and (2) are from the Insurance Expense Exhibits for Agency and Direct Writers Combined excluding major non-ISO reporting companies.

PENNSYLVANIA  
HOMEOWNERS INSURANCE – OWNERS

SAMPLE CALCULATION OF THE FILED BASE CLASS (\$60,000) LOSS COST

<u>Territory</u>	<u>Current Base Class \$60,000 Loss Cost, Form 3, Class 5 Frame</u>		<u>Filed Loss Cost Level Adjustment Factor</u>		<u>Filed Base Class \$60,000 Loss Cost, Form 3, Class 5 Frame</u>
04	\$207.08	×	1.159	=	\$240.01

PENNSYLVANIA  
HOMEOWNERS INSURANCE – TENANTS

SAMPLE CALCULATION OF THE FILED BASE CLASS (\$20,000) LOSS COST

<u>Territory</u>	<u>Current Base Class \$20,000 Loss Cost, Class 5 Frame</u>		<u>Filed Loss Cost Level Adjustment Factor</u>		<u>Filed Base Class \$20,000 Loss Cost, Class 5 Frame</u>
04	\$68.23	×	0.934	=	\$63.73

PENNSYLVANIA  
HOMEOWNERS INSURANCE – CONDOMINIUM UNIT OWNERS

SAMPLE CALCULATION OF THE FILED BASE CLASS (\$20,000) LOSS COST

<u>Territory</u>	<u>Current Base Class \$20,000 Loss Cost, Class 5 Frame</u>		<u>Filed Loss Cost Level Adjustment Factor</u>		<u>Filed Base Class \$20,000 Loss Cost, Class 5 Frame</u>
04	\$116.57	×	1.024	=	\$119.37

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

CURRENT RELATIVITIES

86-G2 Curve

1. Policy Size Relativities, Owners (Key Factors)

<u>Amount of Insurance</u>	<u>Relativity</u>	<u>Amount of Insurance</u>	<u>Relativity</u>	<u>Amount of Insurance</u>	<u>Relativity</u>
\$10,000	0.876	\$ 68,000	1.064	\$165,000	2.946
12,000	0.877	70,000	1.083	170,000	3.031
14,000	0.878	72,000	1.103	175,000	3.096
16,000	0.879	74,000	1.124	180,000	3.161
18,000	0.890	76,000	1.146	185,000	3.211
20,000	0.891	78,000	1.169	190,000	3.261
22,000	0.892	80,000	1.194	195,000	3.311
24,000	0.893	82,000	1.219	200,000	3.361
26,000	0.894	84,000	1.246	205,000	3.411
28,000	0.895	86,000	1.274	210,000	3.461
30,000	0.896	88,000	1.304	215,000	3.511
32,000	0.898	90,000	1.334	220,000	3.561
34,000	0.900	92,000	1.366	225,000	3.606
36,000	0.903	94,000	1.399	230,000	3.651
38,000	0.907	96,000	1.432	235,000	3.691
40,000	0.911	98,000	1.468	240,000	3.731
42,000	0.916	100,000	1.504	245,000	3.766
44,000	0.922	105,000	1.599	250,000	3.801
46,000	0.928	110,000	1.701	255,000	3.836
48,000	0.936	115,000	1.809	260,000	3.871
50,000	0.944	120,000	1.923	265,000	3.901
52,000	0.953	125,000	2.041	270,000	3.931
54,000	0.963	130,000	2.162	275,000	3.961
56,000	0.975	135,000	2.286	280,000	3.991
58,000	0.987	140,000	2.411	285,000	4.016
60,000	1.000	145,000	2.531	290,000	4.041
62,000	1.014	150,000	2.651	295,000	4.066
64,000	1.030	155,000	2.756	300,000	4.091
66,000	1.046	160,000	2.861		
				Each Additional 1,000	0.005

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

CURRENT RELATIVITIES

90-F4 Curve

2. Policy Size Relativities, Tenants (Key Factors)

<u>Amount of Insurance</u>	<u>Relativity</u>	<u>Amount of Insurance</u>	<u>Relativity</u>	<u>Amount of Insurance</u>	<u>Relativity</u>
\$ 6,000	0.356	\$34,000	1.532	\$62,000	2.526
7,000	0.402	35,000	1.570	63,000	2.554
8,000	0.448	36,000	1.608	64,000	2.582
9,000	0.494	37,000	1.646	65,000	2.610
10,000	0.540	38,000	1.684	66,000	2.638
11,000	0.584	39,000	1.722	67,000	2.666
12,000	0.628	40,000	1.760	68,000	2.694
13,000	0.672	41,000	1.798	69,000	2.722
14,000	0.716	42,000	1.836	70,000	2.750
15,000	0.760	43,000	1.874	71,000	2.778
16,000	0.808	44,000	1.912	72,000	2.806
17,000	0.856	45,000	1.950	73,000	2.834
18,000	0.904	46,000	1.988	74,000	2.862
19,000	0.952	47,000	2.026	75,000	2.890
20,000	1.000	48,000	2.064	76,000	2.918
21,000	1.038	49,000	2.102	77,000	2.946
22,000	1.076	50,000	2.140	78,000	2.974
23,000	1.114	51,000	2.178	79,000	3.002
24,000	1.152	52,000	2.216	80,000	3.030
25,000	1.190	53,000	2.254	81,000	3.058
26,000	1.228	54,000	2.292	82,000	3.086
27,000	1.266	55,000	2.330	83,000	3.114
28,000	1.304	56,000	2.358	84,000	3.142
29,000	1.342	57,000	2.386	85,000	3.170
30,000	1.380	58,000	2.414	86,000	3.198
31,000	1.418	59,000	2.442	87,000	3.226
32,000	1.456	60,000	2.470	88,000	3.254
33,000	1.494	61,000	2.498	89,000	3.282
				Each Additional 1,000	0.028

INSURANCE SERVICES OFFICE, INC.

PENNSYLVANIA  
HOMEOWNERS INSURANCE

CURRENT RELATIVITIES

90-F6 Curve

3. Policy Size Relativities, Condominium Unit Owners (Key Factors)

<u>Amount of Insurance</u>	<u>Relativity</u>	<u>Amount of Insurance</u>	<u>Relativity</u>	<u>Amount of Insurance</u>	<u>Relativity</u>	
\$ 1,000	0.332	\$31,000	1.374	\$61,000	2.346	
2,000	0.364	32,000	1.408	62,000	2.372	
3,000	0.396	33,000	1.442	63,000	2.398	
4,000	0.428	34,000	1.476	64,000	2.424	
5,000	0.460	35,000	1.510	65,000	2.450	
6,000	0.492	36,000	1.544	66,000	2.476	
7,000	0.524	37,000	1.578	67,000	2.502	
8,000	0.556	38,000	1.612	68,000	2.528	
9,000	0.588	39,000	1.646	69,000	2.554	
10,000	0.620	40,000	1.680	70,000	2.580	
11,000	0.662	41,000	1.714	71,000	2.606	
12,000	0.704	42,000	1.748	72,000	2.632	
13,000	0.746	43,000	1.782	73,000	2.658	
14,000	0.788	44,000	1.816	74,000	2.684	
15,000	0.830	45,000	1.850	75,000	2.710	
16,000	0.864	46,000	1.884	76,000	2.736	
17,000	0.898	47,000	1.918	77,000	2.762	
18,000	0.932	48,000	1.952	78,000	2.788	
19,000	0.966	49,000	1.986	79,000	2.814	
20,000	1.000	50,000	2.020	80,000	2.840	
21,000	1.034	51,000	2.054	81,000	2.866	
22,000	1.068	52,000	2.088	82,000	2.892	
23,000	1.102	53,000	2.122	83,000	2.918	
24,000	1.136	54,000	2.156	84,000	2.944	
25,000	1.170	55,000	2.190	85,000	2.970	
26,000	1.204	56,000	2.216	86,000	2.996	
27,000	1.238	57,000	2.242	87,000	3.022	
28,000	1.272	58,000	2.268	88,000	3.048	
29,000	1.306	59,000	2.294	89,000	3.074	
30,000	1.340	60,000	2.320			
<hr/>					Each Additional 1,000	0.026

PENNSYLVANIA  
HOMEOWNERS INSURANCE

CURRENT RELATIVITIES

4. Form Relativities

<u>Form</u>	<u>Relativities</u>
2	0.75
3	1.00
5	1.25
8	1.25

5. Three and Four Family Relativity

One and two families	1.00
Three and four families	1.30

PENNSYLVANIA  
HOMEOWNERS INSURANCE

CURRENT RELATIVITIES

6. Protection – Construction Relativities

Note that the following protection-construction relativities are applied to a homeowners loss cost that includes coverage for non-fire causes of loss such as water, theft, wind and liability that are not materially influenced by the fire protection grade. The protection-construction relativities would differ more by grade if they were being applied to a fire only loss cost.

<u>Construction</u>	<u>Protection Class</u>	<u>Owners</u>		
		44	<u>Territory</u> 04, 30-33, 36, 38, 39, 45, 46, 49	34, 35, 37, 40-43, 47, 48
Frame	1	0.96	0.94	0.92
	2	0.97	0.95	0.94
	3	0.98	0.97	0.96
	4	0.99	0.99	0.98
	5	1.00	1.00	1.00
	6	1.03	1.04	1.05
	7	1.07	1.10	1.13
	8	1.08	1.11	1.15
	8B	1.08	1.13	1.17
	9	1.09	1.13	1.18
	10	1.20	1.30	1.40
	1X - 5X, 1Y - 5Y	1.03	1.05	1.06
	6X, 6Y	1.07	1.11	1.15
	7X, 7Y	1.08	1.11	1.15
	8Y	1.08	1.13	1.17
	8X	1.09	1.13	1.18
10W	1.18	1.27	1.36	
Masonry	1	0.82	0.80	0.78
	2	0.83	0.82	0.80
	3	0.83	0.83	0.81
	4	0.84	0.84	0.83
	5	0.85	0.85	0.85
	6	0.87	0.88	0.89
	7	0.89	0.91	0.92
	8	0.90	0.92	0.94
	8B	0.90	0.93	0.95
	9	0.90	0.93	0.95
	10	0.99	1.06	1.12
	1X - 5X, 1Y - 5Y	0.86	0.87	0.87
	6X, 6Y	0.89	0.92	0.93
	7X, 7Y	0.90	0.92	0.93
	8Y	0.90	0.93	0.95
	8X	0.90	0.93	0.95
10W	0.97	1.04	1.09	

PENNSYLVANIA  
HOMEOWNERS INSURANCE

CURRENT RELATIVITIES

6. Protection – Construction Relativities - Continued

<u>Construction</u>	<u>Protection Class</u>	<u>Tenants</u>	<u>Condominium Unit Owners</u>
Frame	1	0.92	0.95
	2	0.95	0.97
	3	0.98	0.98
	4	0.99	0.99
	5	1.00	1.00
	6	1.09	1.03
	7	1.32	1.07
	8	1.33	1.08
	8B	1.34	1.08
	9	1.34	1.08
	10	1.59	1.17
	1X - 5X, 1Y - 5Y	1.20	1.03
	6X, 6Y	1.31	1.07
	7X, 7Y, 8Y	1.34	1.08
	8X	1.34	1.08
	10W	1.54	1.15
	Masonry	1	0.78
2		0.81	0.86
3		0.83	0.87
4		0.84	0.87
5		0.84	0.88
6		0.91	0.91
7		1.00	0.92
8		1.01	0.93
8B		1.01	0.93
9		1.02	0.93
10		1.18	0.99
1X - 5X, 1Y - 5Y		0.92	0.89
6X, 6Y		0.99	0.92
7X, 7Y, 8Y		1.01	0.93
8X		1.02	0.93
10W		1.14	0.98

PENNSYLVANIA  
HOMEOWNERS INSURANCE

REVISED MISCELLANEOUS LOSS COSTS

**521. LIMITED WATER BACK-UP AND SUMP DISCHARGE OR OVERFLOW COVERAGE**

C. Premium

Charge per policy if **HO 04 90** Personal Property Replacement Cost  
Endorsement is:

1. Not attached to the policy

<b>Limit</b>	<b>Loss Costs</b>
\$5,000	<del>\$47.00</del> <u>50.86</u>
\$10,000	<del>\$71.00</del> <u>76.29</u>
\$15,000	<del>\$82.00</del> <u>89.01</u>
\$20,000	<del>\$89.00</del> <u>96.63</u>
\$25,000	<del>\$94.00</del> <u>101.72</u>

2. Attached to the policy

<b>Limit</b>	<b>Loss Costs</b>
\$5,000	<del>\$56.00</del> <u>70.00</u>
\$10,000	<del>\$84.00</del> <u>105.00</u>
\$15,000	<del>\$98.00</del> <u>122.50</u>
\$20,000	<del>\$106.00</del> <u>132.50</u>
\$25,000	<del>\$112.00</del> <u>140.00</u>



**INSURANCE SERVICES OFFICE, INC.**

101 BURR RIDGE PARKWAY SUITE 300, BURR RIDGE, ILLINOIS 60527 PHONE: (630) 288-2025 FAX: (630) 320-1799

**Peter A. Quirk, CPCU**  
Regional Manager  
E-Mail: PQuirk@ISO.com

September 1, 2015

The Honorable Teresa D. Miller  
Commissioner  
Commonwealth of Pennsylvania  
Insurance Department  
1311 Strawberry Square  
Harrisburg, PA 17120-0046

Attn: Bureau of Property & Casualty Insurance

Dear Commissioner Miller:

Insurance Services Office, Inc.  
**HO-2015-RLA1**  
*Homeowners Advisory Prospective Loss Costs Revision*

Insurance Services Office, Inc. hereby files the captioned revision.

This revision is subject to the following rule of application:

These changes are applicable to all policies written on or after **April 1, 2016**.

In accordance with your loss cost procedures, this effective date applies only to those insurers who have filed loss cost adjustments to be automatically applicable to future ISO loss cost revisions for this program. Any other appropriately participating ISO insurer may adopt ISO loss costs by filing loss cost multipliers and selecting an effective date.

Your early approval will be greatly appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter A. Quirk', written in a cursive style.

Peter A. Quirk, CPCU

PAQ/kt