

LOSS COSTS – IMPLEMENTATION

DECEMBER 17, 2021

COMMERCIAL PROPERTY

LI-CF-2021-076

VERMONT COMMERCIAL FIRE AND ALLIED LINES ADVISORY PROSPECTIVE LOSS COST REVISION TO BE IMPLEMENTED

KEY MESSAGE

Revised advisory prospective loss costs reflecting a statewide loss cost level change of **-4.5%** to be implemented.

BACKGROUND

In circular [LI-CF-2021-035](#), we provided you with information about the Commercial Fire and Allied Lines loss cost level experience review.

ISO ACTION

We are implementing CF-2021-RLA1, which presents a review of Commercial Fire and Allied Lines loss cost experience. Refer to the attachment(s) for complete details.

CONSIDERATION OF COVID-19

ISO has considered whether any adjustments need to be made to prospective loss costs, which are based partially on historical experience (pre-COVID-19), to reflect the conditions in which these loss costs will be effective (post-COVID-19). While there will almost certainly be long-term behavioral, social and economic changes as a result of COVID-19, we expect, based on the information currently available, that those changes will have negligible and/or offsetting effects on prospective loss costs.

Occasional cases of possible deviation from long-term trends are difficult to separate from inherent volatility in Commercial Property losses due to the low-frequency, high-severity nature of BGI, and the weather-driven perils in BGII and SCL. However, we are continuing to monitor the economic environment to determine whether adjustments will be necessary. As stated above, based on the information available at the time of this filing, ISO is not making any explicit adjustment to our Commercial Property prospective loss costs due to COVID-19.

SUPPLEMENTARY INFORMATION

We are including the following supplementary information:

- An Actuarial Analysis Supplement, which provides discussion and analysis of changes in the experience and adjustments used to derive the loss cost level analysis.
- Section S, which provides supplementary exhibits displaying Basic Group I experience on a Rating Group basis.

NOTE: This supplementary information is **not** part of the experience review document and, in states where we are making a filing, is **not** part of the filing.

IMPORTANT NOTE**Change in Format**

This circular offers several enhancements for customers. In addition to the PDF version, exhibits and loss cost tables are now available in user-friendly Excel format rather than Word. Where possible, exhibits are linked together formulaically to clarify how calculations flow through the entire ratemaking process and to enable customers to test the effects of different assumptions on the results.

To facilitate this change, the filing has been restructured. All explanatory text, for all sections of the filing, appears first; all exhibits and tables are grouped together and appear thereafter. Exhibits have been relabeled (Exhibit A1, Exhibit A2, etc.).

We invite customers to share feedback on this revised format and suggestions for further enhancements by contacting the individuals listed in the Contact Information block.

EFFECTIVE DATE

The ISO revision is subject to the following rule of application:

These changes are applicable to all policies written on or after June 1, 2022.

The effective date applies only to those insurers who have filed their Commercial Fire and Allied Lines loss cost adjustments to be automatically applicable to future ISO loss cost revisions.

IMPACT ON THE STATISTICAL REPORTING OF LOSS COST MULTIPLIER

For the purpose of reporting your company Loss Cost Multiplier under the CSP, as of June 1, 2022, the multiplier must be based on the relationship between your gross rates and the ISO advisory prospective loss costs contained in this circular.

COMPANY ACTION

You must independently determine the final rates you will use. The action, if any, you must take in response to this filing is dependent upon how you filed to have your loss cost adjustments apply to subsequent revisions of ISO loss costs. Any submission you make with respect to this revision must comply with applicable regulatory filing requirements.

For guidance on submission requirements, consult the ISO State Filing Handbook.

WE WILL SUBMIT OUR REFERENCE FILING TO THE INSURANCE DEPARTMENT ON MAY 1, 2022. ANY SUBMISSION YOU MAY MAKE WITH THE INSURANCE DEPARTMENT WITH RESPECT TO THIS FILING SHOULD NOT BE SUBMITTED PRIOR TO THIS DATE.

In all correspondence with the Insurance Department on this revision, you should refer to ISO Filing Number CF-2021-RLA1, NOT this circular number.

CAUTION: This reference filing revises only certain advisory prospective loss costs for Commercial Fire And Allied Lines in this state. In determining whether or not to revise your rates, you should consider the application of your loss cost adjustments to any loss costs not included in this revision.

RATING SOFTWARE IMPACT

No new attributes are being introduced with this revision.

POLICYHOLDER NOTIFICATION

If you decide to implement this revision, you should check all applicable laws for the state(s) to which this revision applies, to determine whether or not a specific policyholder notice requirement may apply. Please note that circular [LI-CL-2021-004](#) contains the ISO Guide To Renewals With Changed Conditions For Commercial Lines, which is available only as a guide to assist participating companies in complying with various conditional renewal statutes or regulations, for the major commercial lines of insurance serviced by ISO. The information in the Guide does not necessarily reflect all requirements or exceptions that may apply, and it is not intended as a substitute for your review of all applicable statutes and regulations concerning policyholder notification.

REVISION DISTRIBUTION INFORMATION

- **Manual And ISO Suite**

We will issue a Notice to Manualholders with an edition date of 6-22 (or the earliest possible subsequent date), along with any new and/or revised manual pages.

- **ProMetrix**

Revised loss costs for specifically rated and class-rated properties contained in ProMetrix will be displayed as "Pending" beginning on January 24, 2022. On June 1, 2022, these loss costs will move to "Current" status. The previous "Current" becomes the most recent "Prior" and joins all previously displayed "Priors". With each subsequent loss cost revision, we will make an additional "Prior" available. Information in ProMetrix will distinguish between loss costs which reflect the effect of limit of insurance (LOI) relativities and pre-LOI loss costs.

- **Toll-free Telephone Service**

Revised loss costs for specifically rated and class-rated properties will be available by calling toll-free 1-800-444-4554 and requesting "Pending" from January 24, 2022 to June 1, 2022. On June 1, 2022, these loss costs will move to "Current" status. The previous "Current" becomes the most recent "Prior" and joins all previously displayed "Priors". With each subsequent loss cost revision, we will make an additional "Prior" available. Information available via toll-free telephone service will distinguish between loss costs which reflect the effect of limit of insurance (LOI) relativities and pre-LOI loss costs.

REFERENCE(S)

- [LI-CF-2021-035](#) (07/27/2021) Commercial Fire And Allied Lines Experience Level Indications Reviewed By ISO Staff
 - [LI-CL-2021-004](#) (02/17/2021) Revised Lead Time Requirements Listing
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ATTACHMENT(S)

- CF-2021-RLA1
- Actuarial Analysis Supplement
- Excel Workbook

FILES AVAILABLE FOR DOWNLOAD

To download all files associated with this circular, including attachments in the full circular PDF and/or any additional files not included in the PDF, search for the circular number on [ISOnet Circulars](#). Then click the Word/Excel link under the Full Circular column on the Search Results screen.

Please note that in some instances, not all files listed in the Attachment(s) block (if applicable) are included in the PDF.

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DATA QUALITY

Statistical plan data reported to ISO is first processed through a system of rigorous automated data verification procedures so that only valid data would be used for ratemaking. Subsequent to this initial data submission review, additional analyses on the statistical plan data and AIR Hurricane Model involving an even more customized data review for this line were performed by staff. During these processes, various data records were excluded from the review. The ISO staff responsible for this circular also reviewed the data for reasonableness.

ACKNOWLEDGMENT OF ACTUARIAL QUALIFICATIONS

The American Academy of Actuaries' "Qualifications Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" requires that an actuary issuing a Statement of Actuarial Opinion should include an acknowledgment with the opinion that he/she has met the qualification standards of the AAA. ISO considers the loss cost level indications shown in this document a Statement of Actuarial Opinion; therefore, we are including the following acknowledgment:

I, Nancy Narisi, am a Senior Actuarial Associate in Actuarial Operations for ISO, and I, Brian Klaif, am an Actuarial Associate for Commercial Property for ISO. We are jointly responsible for the content of this Statement of Actuarial Opinion. We are both members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

AIR WORLDWIDE CORPORATION

This filing incorporates the use of AIR Worldwide Corporation's (AIR) tropical cyclone model to produce hurricane modeled loss costs as part of the Basic Group II ratemaking procedure. AIR is the world's premier risk modeling and technology firm specializing in risks associated with natural and man-made catastrophes, weather and climate. AIR has developed models covering all major natural hazards, including hurricanes and earthquakes, and man-made perils (terrorist events) for more than 40 countries throughout North America, the Caribbean, South America, Europe, and the Asia-Pacific region. AIR provides a full suite of integrated products for underwriting, pricing, portfolio management, risk transfer and financing.

For more information concerning AIR Worldwide Corporation, please see the Contact Information block.

XACTWARE SOLUTIONS, INC.

This filing incorporates the use of pricing data from Xactware Solutions, Inc., to estimate trends in building costs for commercial properties. Xactware provides computer software solutions for professionals involved in estimating all phases of building construction and repair. The company has been providing building cost data, estimate tracking and data trending to the insurance repair market since 1986. Insurance carriers using Xactware data are responsible for settlement of the majority of property claims in the USA and Canada.

For more information concerning Xactware Solutions, Inc., please see the Contact Information block.

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Callers outside the United States, Canada, and the Caribbean may contact us using our global toll-free number (International Access Code + 800 48977489). For information on all ISO products, visit us at www.verisk.com/iso. To keep abreast of the latest Insurance Lines Services updates, view www.verisk.com/ils.

VERMONT

COMMERCIAL FIRE AND ALLIED LINES INSURANCE PROSPECTIVE LOSS COST LEVEL REVISION EXECUTIVE SUMMARY

PURPOSE

This document:

- revises advisory prospective loss costs. These loss costs represent a -4.5% statewide change from the current ISO loss costs.
 - provides the analyses used to derive the prospective loss costs based on experience through calendar/accident year ending 3/31/2020, evaluated as of 6/30/2020.
 - incorporates hurricane modeled loss costs based on Touchstone Version 8.0 of AIR Worldwide Corporation's (AIR) tropical cyclone model.
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CONSIDERATION OF COVID-19

ISO has considered whether any adjustments need to be made to prospective loss costs, which are based on historical experience (pre-COVID-19), to reflect the conditions in which these loss costs will be effective (post-COVID-19). While there will almost certainly be long-term behavioral, social and economic changes as a result of COVID-19, we expect, based on the information currently available, that those changes will have negligible and/or offsetting effects on prospective loss cost.

Occasional cases of possible deviation from long-term trends are difficult to separate from inherent volatility in Commercial Property losses due to the low-frequency, high-severity nature of BGI, and the weather-driven perils in BGII and SCL. However, we are continuing to monitor the economic environment to determine whether adjustments will be necessary. As stated above, based on the information available at the time of this filing, ISO is not making any explicit adjustment to our Commercial Property prospective loss costs due to COVID-19.

DEFINITION OF THE ISO PROSPECTIVE LOSS COST

Advisory prospective loss costs in this document are the expected value of 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 and projected through trending to a future point in time.

CHANGES TO METHODOLOGY

With this filing, we are removing the Rating Group dimension from the Basic Group I relativity analysis in Exhibits B4 and B6 and removing Exhibit A2. Future class relativity reviews will be derived from countrywide data, in order to increase the credibility and stability of those relativities.

As an associated change, we are removing the credibility weighting from Exhibit B6, as the raw experience ratios without the Rating Group dimension are sufficient for use in the subsequent least squares iterative procedure.

LOSS COST
LEVEL
CHANGES

The statewide monoline prospective loss cost level changes are:

<u>Coverage</u>	<u>Indicated</u>
Basic Group I	-3.1%
Basic Group II	-3.0%
Special Causes of Loss	-8.5%
Total	-4.5%

Indicated loss cost level changes are changes from the current loss cost level.

PRIOR ISO
REVISIONS

The latest revisions in this state are:

<u>Reference Document or Filing</u>	CF-2019-RLA1	CF-2018-RLA1
<u>Rates/ Loss Costs</u>	Loss Costs	Loss Costs
<u>Dates Implemented</u>	11/01/2019	11/01/2018
<u>Changes</u>		
Basic Group I	-8.4%	-8.1%
Basic Group II	-0.2%	-2.6%
Special Causes of Loss	-3.8%	-3.5%
Total	-6.2%	-6.3%

HISTORICAL
SOURCE DATA

The data used in this revision is:

- Voluntary experience for ISO reporting companies.
- Five calendar/accident years ending 3/31/2020 for Basic Group I and Special Causes of Loss.
- Ten calendar/accident years ending 3/31/2020 for Basic Group II.

DISTRIBUTION
OF STATEWIDE
MONOLINE
LOSS COST
CHANGES

ISO has distributed the statewide monoline prospective loss cost changes as follows:

- by territory (where applicable) for Basic Group I.
- by territory, coverage and symbol (where applicable) for Basic Group II.
- by category (building coverage and occupancy type) for Special Causes of Loss.

This has been done based on the experience of each territory (where applicable) for Basic Group I or category for Special Causes of Loss. Therefore, the resulting changes will vary by territory (where applicable) for Basic Group I and by category for Special Causes of Loss.

TREND AND
OTHER
ADJUSTMENTS

Loss Trend

For trend purposes, the period of use for this revision is assumed to begin on 10/01/2021. To adjust the loss experience to the levels expected to prevail while the revised loss costs are in effect, trend factors have been applied to the historical incurred losses. These trend factors are based on:

- external cost indices published by the U.S. Government and information provided by Xactware Solutions, Inc.
- changes in multistate average claim costs through fourth quarter 2019.

The "historic" trend factors based on the external indices, i.e. the factors based on historic changes in the indices, vary by year. The latest annual rates of change based on these indices are:

<u>Coverage</u>	<u>Annual Rate of Change</u>
Buildings	3.9%
Contents	1.7%
Time Element	-0.2%

Incurred losses are also multiplied by loss trend adjustment factors (LTA's) to reflect trends in claim frequency and claim costs that are different from those exhibited by the external indices. The annual loss trend adjustments are:

<u>Line of Business</u>	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
Basic Group I	1.2%	1.5%	2.4%
Basic Group II	-0.4%	0.6%	2.6%
Special Causes of Loss	0.2%	-1.0%	2.4%

TREND AND
OTHER
ADJUSTMENTS
(cont'd)

This produces a total annual loss trend of:

<u>Line of Business</u>	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
Basic Group I	5.1%	3.2%	2.2%
Basic Group II	3.5%	2.3%	2.4%
Special Causes of Loss	4.1%	0.7%	2.2%

Premium Trend

Over time, insureds tend to purchase increased amounts of insurance in order to compensate for inflation, which results in increased premium revenue.

In order to reflect this increase in revenue, ISO uses a premium trend procedure. The premium trend factors are based on observed changes in the annual amount of insurance written for BG I renewal policies for a group of selected companies. For property damage coverages, these amount of insurance, or exposure, trend factors are adjusted for the decrease in limit of insurance factors associated with the increase in amount of insurance to calculate premium trend factors. The selected annual trends in the amount of insurance are:

<u>Line of Business</u>	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
Basic Group I	1.9%	1.8%	1.0%
Basic Group II	1.8%	1.6%	1.0%
Special Causes of Loss	1.8%	1.4%	1.0%

Other Adjustments

Standard actuarial procedures have been used in calculating the loss costs including loss development and the reflection of all loss adjustment expense. In addition, smoothing procedures have been applied to stabilize the effects of large or excess losses.

TEN LARGEST
COMPANY
GROUPS IN
ISO DATA BASE

COMMERCIAL MULTIPERIL - NON-LIABILITY (ASLOB 51)

1. Vermont Mutual Insurance Company
2. Patrons Cooperative Fire Insurance
3. Cincinnati Insurance Company
4. Travelers Indemnity Company
5. Tokio Marine Companies
6. Concord General Mutual Insurance Company
7. Frankenmuth Mutual Insurance Company
8. NGM Insurance Company
9. Country Mutual Insurance Company
10. Zurich American Insurance Company

Insurers are listed in descending order based on the percent of statewide written premium volume from Annual Statement Page 15 for year ending 12/31/2019 for

Annual Statement Line of Business (ASLOB) 51, Commercial Multiperil - Non-liability.

Although ASLOB 51 includes coverages in addition to commercial fire and allied lines, e.g., crime, inland marine, fidelity, the largest percentage of premium volume is due to fire and allied lines (Basic Group I, Basic Group II, and Special Causes of Loss coverages). ASLOB 51 does not include data reported under monoline fire and allied lines (ASLOBs 10 and 21), which includes both commercial and personal property experience.

SIZE OF ISO
DATA BASE

The market share of all insurers reporting to ISO in this state and included in the ratemaking experience underlying this review as measured by Annual Statement Page 15 written premium for year ending 12/31/2019 is:

Commercial Multi-peril - Non-liability (ASLOB 51) - 48.1%

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

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COMMERCIAL PROPERTY

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OVERVIEW OF ISO ACTUARIAL PROCEDURES - COMMERCIAL PROPERTY

INTRODUCTION

Commercial Property prospective loss costs are determined by evaluating the adequacy of the current ISO loss costs to pay for our best estimate of losses and all loss adjustment expenses that will be incurred in the prospective (or future) period. This evaluation is done separately for Basic Group I, Basic Group II, and Special Causes of Loss.

STEP 1: DETERMINATION OF INDICATED STATEWIDE LOSS COST LEVEL CHANGE

The first step in this process is the determination of the indicated statewide loss cost level change. This indicated statewide loss cost level change is the average percentage change which must be made to the current ISO loss costs in order to achieve adequacy for the prospective conditions. The percentage changes are presented on the exhibits labeled "Statewide Coverage Loss Cost Level Evaluation".

STEP 2: DISTRIBUTION OF CHANGES

Based on the experience, ISO then distributes the indicated statewide loss cost level change by territory (where applicable) and type of policy for Basic Group I; by type of policy for Basic Group II; and by type of policy and category for Special Causes of Loss.

STEP 3: CALCULATION OF REVISED LOSS COSTS

The last step is the calculation of the prospective ISO loss costs. This is achieved by applying the indicated monoline changes to the current ISO loss costs. For Basic Group I, for those states without BG I rating territories, the statewide loss cost changes are applied to the current manual loss costs. For those states with rating territories, the Balance of State loss cost changes are applied to the current manual loss costs. The revised territory multipliers are calculated by multiplying the current territory multipliers by the indicated territory changes. For specifically-rated properties, the appropriate changes are applied to the current experience level adjustment factors and territory multipliers. For Basic Group II, revised loss costs are calculated by applying the indicated statewide monoline change to the current ISO loss costs, and where applicable, adding the hurricane modeled loss costs. For Special Causes of Loss, revised loss costs are calculated by applying the indicated monoline changes by category to the current ISO loss costs.

COMMERCIAL PROPERTY INSURANCE
CALCULATION OF STATEWIDE ADVISORY LOSS COST LEVEL CHANGES IN EXHIBITS B1-B3

OBJECTIVE	The objective of this procedure is to determine the indicated statewide advisory loss cost level change. This procedure answers the question: What average percentage change must be made to the current ISO loss costs in order for them to be adequate to cover indemnity losses and all loss adjustment expenses incurred in the prospective period in which the revised loss costs are assumed to be in effect?
DESCRIPTION	<p>This procedure compares the trended and developed incurred losses and loss adjustment expenses with the trended aggregate loss costs at current ISO level. The aggregate loss costs at current level are the amounts that would have been collected for losses and all loss adjustment expenses if the current ISO loss costs had been in effect during the experience period.</p> <p>Experience ratios (losses and all loss adjustment expenses divided by aggregate loss costs, both trended to the prospective experience period) are calculated by year, and a weighted average of the yearly experience ratios is calculated. For Basic Group I (BG I) and Special Causes of Loss (SCL), the five year weights vary by year, giving greater weight to the more recent experience. For Basic Group II (BG II), because of the more volatile nature of the data, the ten individual years are given equal weight.</p> <p>The average experience ratio is then credibility-weighted with the expected experience ratio in order to minimize the impact of random variation in the observed losses. The resulting credibility-weighted experience ratio is the indicated statewide advisory loss cost level change in decimal form.</p>
EXPERIENCE BASE	The experience used in this review is the latest available data reported under the ISO Commercial Statistical Plan for BG I, BG II and SCL. The data are aggregated on an accident year basis.

EXPLANATORY NOTES TO EXHIBITS B1-B3

STATEWIDE BASIC GROUP I, BASIC GROUP II AND
SPECIAL CAUSES OF LOSS COVERAGE LOSS COST LEVEL EVALUATION

COLUMN (1)

EXPERIENCE PERIOD

Experience for the five most recent accident years is used for BG I and SCL.
Experience for the ten most recent accident years is used for BG II.

COLUMN (2)

AGGREGATE LOSS COSTS

Since the objective of the ratemaking procedure is to test the adequacy of the current ISO loss costs, premium data for each year in the experience period are adjusted to the loss cost level which would have been earned had the current loss costs been in effect. This is accomplished by using either an extension-of-exposures (PPR or premium at present rates/loss costs) approach or an on-level approach. Where appropriate, certain reported data elements have been adjusted prior to being used in the calculations.

Extension of Exposures Approach

Where feasible, aggregate loss costs at current level (ALCCL) are developed using an extension-of-exposures approach. That is, the exposure (amount of insurance per \$100) for each policy is multiplied by the current manual loss cost for that state, territory, subline, coverage, construction, occupancy and by any other applicable rating factors, such as limit of insurance factors and deductible relativities.

On-level Approach

The on-level approach is applied on an individual policy basis. The first step in the process is to multiply the reported premiums by the product of all loss cost level changes that have become effective subsequent to the inception date of the policy. The premiums are divided by the reported Rating Modification Factors and Loss Cost Multipliers to bring them to current ISO monoline manual loss cost level.

For premium records with inception dates prior to the effective date of the implementation of Limit of Insurance (LOI) curves, premiums are multiplied by off-balance factors and limit of insurance factors to bring them to a post-LOI loss cost level.

The on-level approach is used to adjust those premium records which cannot be adjusted using the extension-of-exposures techniques, for example, premium records for Basic Group I specifically-rated properties, for which manual loss costs do not exist. In addition, records failing an exposure edit which checks for a reasonable relationship between reported premium and exposure amount have also been on-leveled.

STATEWIDE BASIC GROUP I, BASIC GROUP II AND
SPECIAL CAUSES OF LOSS COVERAGE LOSS COST LEVEL EVALUATION (cont'd)

COLUMN (2)
(cont'd)

Current IPMF and Prospective Amount of Insurance Levels

Premiums are also adjusted to prospective amount of insurance levels by exposure trend factors to reflect the impact of inflation on the average amount of insurance written (Exhibit C13). After multiline premiums are brought to current ISO monoline manual level, they are further adjusted to implicit package modification factor (IPMF) level by the application of Commercial Package Policy (CPP) IPMF's which vary by the eight CPP types of policy. (Both the adjustments to prospective amount of insurance level and to current IPMF level are done on an aggregate basis.) For a more complete description of the IPMF's and the other premium adjustments, refer to Exhibits C7 through C9 in the supporting material.

COLUMN (3) - BG II

NON-HURRICANE AGGREGATE LOSS COSTS - BASIC GROUP II ONLY

The non-hurricane aggregate loss costs reflect that portion of the BG II loss cost volume due to perils other than hurricane. These loss costs are calculated by multiplying the total aggregate loss costs for each rating territory, coverage, and symbol by the ratio of the current non-hurricane to current total loss costs found on Exhibit C25.

COLUMN (3) -
BG I, SCL
COLUMN (4) - BG II

ADJUSTED INCURRED LOSSES

In order to assure the adequacy of the proposed loss cost level, incurred losses are adjusted to reflect the effect of inflation and other trends on loss costs. The adjustment of past losses to prospective levels is accomplished on an individual loss basis by application of current cost factors, loss projection factors and loss trend adjustments (Exhibits C10 through C12). In addition to adjusting losses to prospective cost level, the effect of inflation on the deductible portion of the loss incurred is reflected. For Basic Group II, losses due to hurricanes reflected in the modeled hurricane loss costs have been removed from the experience and replaced with average non-hurricane losses for each rating territory and loss month.

For each subline, incurred losses are further adjusted by an excess loss procedure which smoothes fluctuations due to large loss occurrences. The procedure removes any losses determined to be excess from the total incurred losses, resulting in normal incurred losses. These normal incurred losses (total - excess) are then multiplied by excess loss factors to calculate adjusted incurred losses (Exhibits C18 through C21). The resulting adjusted incurred losses are then developed to their ultimate settlement value and loaded by a factor to include all loss adjustment expenses. Loss development factors can be found on Exhibit C17, and loss adjustment expense factors on Exhibit D6. Where appropriate, certain reported data elements have been adjusted prior to being used in the calculations.

STATEWIDE BASIC GROUP I, BASIC GROUP II AND
SPECIAL CAUSES OF LOSS COVERAGE LOSS COST LEVEL EVALUATION (cont'd)

COLUMN (4) - BG I, SCL EXPERIENCE RATIO
COLUMN (5) - BG II

The experience ratio is the ratio of adjusted incurred losses to aggregate loss costs for each year. For BG II, the experience ratio is a measure of non-hurricane experience only. It is the ratio of the adjusted non-hurricane incurred losses to the non-hurricane aggregate loss costs.

COLUMN (5) - BG I, SCL WEIGHTS

For Basic Group I and Special Causes of Loss, the yearly experience ratios are weighted using weights of 10%, 15%, 20%, 25%, and 30% with the greatest weight assigned to the most recent year. These weights recognize the need to balance stability and responsiveness. The ten Basic Group II experience ratios are equally weighted, each given 10% weight.

LINE (6) WEIGHTED EXPERIENCE RATIO

For Basic Group I and Special Causes of Loss, the weights are applied to the experience ratios to yield the weighted experience ratio. For Basic Group II, the experience ratios are equally weighted. These weighted experience ratios represent a projection of the experience which would result if future policies were written without a loss cost level revision.

LINE (7) CREDIBILITY

The standards for 100% credibility are discussed in detail in Exhibits C22, C23, and C24 for Basic Group I, Basic Group II, and Special Causes of Loss, respectively.

LINE (8) EXPECTED EXPERIENCE RATIO

The expected experience ratio is ISO's best prediction of the experience ratio if the actual incurred experience were not available. For this review, we have assumed that the current loss costs were adequate when implemented and will be inadequate for the prospective period only to the extent of the net trend. The expected experience ratio is represented by the net (loss / amount of insurance) trend factor.

STATEWIDE BASIC GROUP I, BASIC GROUP II AND
SPECIAL CAUSES OF LOSS COVERAGE LOSS COST LEVEL EVALUATION (cont'd)

LINE (9) CREDIBILITY WEIGHTED EXPERIENCE RATIO

The credibility weighted experience ratio is a weighted average of the weighted experience ratio (line (6)) and the expected experience ratio (line (8)) using the credibility factor and its complement as respective weights. For more detailed information regarding the development of the credibility factors, refer to Exhibits C22, C23, and C24.

LINE (10) INDICATED COVERAGE LOSS COST CHANGE

The credibility weighted experience ratio yields the overall coverage loss cost level change for Basic Group I (see Exhibit B1), Basic Group II (see Exhibit B2), and Special Causes of Loss (see Exhibit B3).

COMPOSITION OF THE RATEMAKING DATA BASE

DATA INCLUDED

BASIC GROUP I

- . CSP Subline 010 (Commercial Fire)
- . CSP Subline 015 (Basic Group I, i.e., Fire, Lightning, Explosion, Vandalism, Sprinkler Leakage)
- . CSP Subline 016 (BG I excluding Vandalism)
- . CSP Subline 017 (BG I excluding Sprinkler Leakage)
- . CSP Subline 018 (BG I excluding Vandalism and Sprinkler Leakage)

BASIC GROUP II

- . CSP Subline 020 (Extended Coverage)
- . CSP Subline 025 (Basic Group II, i.e., Windstorm or Hail, Smoke, Aircraft or Vehicles, Riot or Civil Commotion, Sinkhole Collapse and Volcanic Action)
- . CSP Subline 027 (Basic Group II Causes of Loss, i.e., Windstorm or Hail, Smoke, Aircraft or Vehicles, Riot or Civil Commotion, Sinkhole Collapse and Volcanic Action)
- . CSP Subline 029 (Basic Group II Causes of Loss excluding Windstorm or Hail)

SPECIAL CAUSES OF LOSS

- . CSP Subline 028 (All Other Perils Special Coverage Forms & Endorsements)
- . CSP Subline 035 (Causes of Loss Special Form Including Theft)
- . CSP Subline 045 (Causes of Loss Special Form Excluding Theft)

NOTES ON DATA INCLUDED

All CSP data are reviewed for CSP Types of Policy 10 (monoline), 3X, 70, and 7X (multiline).

For BG I, BG II and SCL, the reviewed experience is for property damage and time element coverages (coverage codes 1-7, as well as coverage code 9 reported under pre-simplification sublines 010, 020, and 028).

COMPOSITION OF THE RATEMAKING DATA BASE (cont'd)

<u>DATA EXCLUDED</u>	<u>TYPE OF DATA</u>	<u>BG I</u>	<u>BG II</u>	<u>SCL</u>
	• Non-voluntary experience (e.g. FAIR Plans)	X	X	NA
	• Dwelling experience	X	X	X
	• Farm experience	X	X	NA
	• Countrywide rated risks	X	X	X
	• Highly protected risks	X	X	X
	• Experience for policies with large deductibles	X	X	X

X indicates that experience is excluded.

For BG II, losses due to hurricanes with wind speeds of 40 miles per hour or greater have been excluded and replaced with average non-hurricane losses for each BG II rating territory and loss month.

Separately identifiable terrorism premium and loss records have been excluded from the ratemaking experience.

OVERVIEW OF ISO ACTUARIAL PROCEDURES - COMMERCIAL PROPERTY

STEP 2 - DISTRIBUTION OF LOSS COST LEVEL CHANGES

OBJECTIVE The objective of this procedure is to distribute the indicated statewide loss cost level change for Basic Group I, Basic Group II, and Special Causes of Loss among the various rating variables used in each subline. These procedures are used to answer the question: What percentage change for each rating variable must be made to the current ISO loss costs in order to achieve adequacy for the prospective conditions?

BASIC GROUP I For Basic Group I, a consolidated simultaneous iterative procedure is used to calculate the type of policy and territory relativities. More detail on this procedure is given in Exhibit B4. The type of policy relativities serve to price Commercial Package policies relative to monoline policies, via the Package Modification Factors (PMF), while the territory relativities serve to price the various territories relative to one another.

The overall loss cost level change is distributed across type of policy and territory. The indicated monoline change is the product of the monoline type of policy relativity, the territory relativity and the statewide loss cost level change.

BASIC GROUP II The purpose of the Basic Group II relativity analysis is to determine monoline loss cost level needs, to obtain marginal relativities displayed on Exhibit B8 and to price CPP policies relative to monoline policies via the PMFs. Unlike the BG I and SCL relativity analyses, the BG II relativity analysis does not employ a simultaneous review procedure because the overall loss cost change is distributed across type of policy only.

The statewide monoline non-hurricane loss cost change is the product of the monoline normalized formula relativity, shown on Exhibit B8 and the indicated statewide loss cost level change. This change is applied to the non-hurricane portion of the BG II loss costs to produce indicated non-hurricane loss costs. The indicated loss costs by territory, coverage, and symbol are equal to the sum of the indicated non-hurricane loss costs plus the hurricane modeled loss costs.

OVERVIEW OF ISO ACTUARIAL PROCEDURES - COMMERCIAL PROPERTY

STEP 2 - DISTRIBUTION OF LOSS COST LEVEL CHANGES (cont'd)

BASIC GROUP II (cont'd)

The overall monoline loss cost level change is the weighted average of the loss cost changes by territory, coverage and symbol. In calculating this weighted average, the latest year aggregate monoline and multiline combined loss costs at current level are used as weights.

SPECIAL CAUSES OF LOSS

For Special Causes of Loss, a simultaneous iterative procedure is used as for BG I to arrive at a set of type of policy and category relativities (as displayed on Exhibit B5) that best represent the experience within each state. The type of policy relativities serve to price CPP policies relative to monoline policies via the PMFs, while the category relativities serve to price the various categories relative to one another.

The indicated monoline loss cost level changes are calculated for each category by taking the product of the monoline type of policy relativity, the category relativity and the statewide loss cost change. See Exhibit B5 for the monoline loss cost indications.

The overall monoline loss cost level change is a weighted average of the 14 monoline category changes. In calculating this weighted average, the latest year monoline and multiline combined loss costs at current level are used as weights.

EXPLANATORY NOTES TO EXHIBITS B4 AND B5

BASIC GROUP I AND SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

INTRODUCTION

The explanations which follow clarify Exhibits B4 and B5, the Basic Group I relativity analysis and the Special Causes of Loss relativity analysis, respectively. The purpose of these analyses is to:

- (1) determine monoline territorial loss cost level needs for Basic Group I;
- (2) determine monoline category loss cost level needs for Special Causes of Loss;
- (3) determine indicated changes to the eight CPP package modification factors (PMFs) based on Basic Group I/Special Causes of Loss experience.

COLUMN (1)

LEAST SQUARES FORMULA RELATIVITIES

The least squares formula relativities are the marginal relativities which result from the application of the simultaneous review procedure to the raw experience (where marginal refers to the relativities for a given rating variable, e.g. type of policy, across all subsets of any other rating variables, i.e. territory for Basic Group I, and category for Special Causes of Loss).

The purpose of such a simultaneous review procedure is to arrive at a set of type of policy relativities (which will serve to price CPP policies relative to monoline policies via the PMFs); a set of territory relativities for Basic Group I; and a set of category relativities for Special Causes of Loss that best represent the experience. This procedure is in contrast to a review of each rating variable's experience separately. Such one-way types of review do not take into account differing percentages of monoline and multiline experience in each rating variable, nor differing percentages of a particular rating variable's experience in the monoline and multiline types of policy. The simultaneous relativity procedure accounts for these different distributions in generating relativities for the various rating variables.

EXPLANATORY NOTES TO EXHIBITS B4 AND B5 (cont'd)

COLUMN (1)
(Cont'd)

The procedure follows an iterative technique to determine a set of marginal relativities by rating variable that is a best fit to the individual cell relativities, with each cell being defined as the cross-section of specific values of each rating variable. The process uses the relativity of the five year experience ratios by rating cell to the overall statewide experience ratio and the latest year aggregate loss costs for each rating cell. (This experience is shown in Exhibits B6 for Basic Group I and Exhibits B7 for Special Causes of Loss.) Specifically, the iteration procedure uses the following formulas:

BASIC GROUP I:

$$TOP_i = \frac{\sum_{k=1}^t W_{ik}^2 R_{ik} TER_k}{\sum_{k=1}^t W_{ik}^2 TER_k^2}, \text{ where } 1 \leq i \leq m;$$

$$TER_k = \frac{\sum_{i=1}^m W_{ik}^2 R_{ik} TOP_i}{\sum_{i=1}^m W_{ik}^2 TOP_i^2}, \text{ where } 1 \leq k \leq t;$$

SPECIAL CAUSES OF LOSS:

$$TOP_i = \frac{\sum_{j=1}^n W_{ij}^2 R_{ij} CAT_j}{\sum_{j=1}^n W_{ij}^2 CAT_j^2}, \text{ where } 1 \leq i \leq m;$$

$$CAT_j = \frac{\sum_{i=1}^m W_{ij}^2 R_{ij} TOP_i}{\sum_{i=1}^m W_{ij}^2 TOP_i^2}, \text{ where } 1 \leq j \leq n;$$

EXPLANATORY NOTES TO EXHIBITS B4 AND B5 (cont'd)

COLUMN (1)
(cont'd)

- TOP_i is the relativity for the i th type of policy;
- CAT_j is the relativity for the j th category;
- TER_k is the relativity for the k th territory;
- W_{ik} is the loss cost volume at current level for the i th type of policy and k th territory;
- R_{ij} is the experience ratio relativity for the i th type of policy and j th category (Special Causes of Loss);
- R_{ik} is the experience ratio relativity for the i th type of policy and k th territory (Basic Group I);
- m is the number of types of policy in the analysis;
- n is the number of categories in the analysis;
- t is the number of territories in the analysis.

The procedure determines m type of policy relativities using the above formulas. Then, using those results, a set of t territory relativities (BG1) or a set of n category relativities (SCL) are determined. These steps form an iterative process which continues until there is no appreciable difference in results from one iteration to the next.

COLUMN (2)

CREDIBILITY

The credibility of the experience for each rating variable is determined from the formula:

$$Z = \frac{P}{P + K},$$

where P represents the five-year aggregate adjusted loss costs for a given rating variable, and K is a constant value. For Basic Group I, K equals an aggregate loss cost volume of \$55,000,000 for territory and \$100,000,000 for type of policy. For Special Causes of Loss, K equals an aggregate loss cost volume of \$15,000,000 for category and \$40,000,000 for type of policy.

EXPLANATORY NOTES TO EXHIBITS B4 AND B5 (cont'd)

COLUMN (3) CREDIBILITY-WEIGHTED RELATIVITIES

Credibility-weighted relativities are calculated based on the formula

$$W = R^Z,$$

where Z is the credibility, R is the least squares formula relativity and W is the credibility weighted relativity for a given rating variable.

This formula implicitly assigns the complement of credibility to a relativity of unity.

COLUMN (4) BALANCED RELATIVITIES

The credibility-weighted relativities are balanced to assure that the average relativity across all rating variables remains at unity.

COLUMN (5) INDICATED MONOLINE LOSS COST LEVEL CHANGE

For Basic Group I, the indicated monoline loss cost changes are calculated for each territory by taking the product of the monoline type of policy (TOP 10) relativity, the territory relativity and the statewide loss cost level change. (An example of such a calculation appears on Exhibit B4.)

EXPLANATORY NOTES TO EXHIBITS B4 AND B5 (cont'd)

COLUMN (5)
(cont'd)

The indicated overall statewide monoline loss cost level change shown at the bottom of the first page of Exhibit B4 is the aggregate loss cost-weighted average of the individual territory changes.

For Special Causes of Loss, the indicated monoline loss cost changes are calculated for each category by taking the product of the monoline type of policy (TOP 10) relativity, the category relativity, and the statewide loss cost level change. (An example of such a calculation is included in Exhibits B5.) The indicated overall statewide loss cost level change shown at the bottom of Exhibits B5 is the aggregate loss cost-weighted average of the individual category changes.

In all cases, the loss costs used in these calculations are the latest year's monoline and multiline combined adjusted loss costs.

MULTILINE
CONSIDERATIONS

The type of policy (TOP) relativities are used to generate multiline indications which apply to the current implicit package modification factors (IPMF's). The indicated IPMF's are calculated as follows:

$$\frac{\text{TOP y indicated IPMF}}{\text{IPMF}} = \frac{(\text{TOP y current IPMF})(\text{TOP y relativity})}{\text{monoline relativity}}$$

For each CPP type of policy, the indicated IPMF is subject to a minimum value of 0.50 and a maximum value of 1.50. If an indicated IPMF falls outside one of those limits, it is capped at that amount, the loss costs for that type of policy are adjusted to the capped IPMF level, and the entire relativity review as described above is re-performed to take this into account. If an IPMF has been capped, it is so noted at the bottom of Exhibits B4 and Exhibits B5.

It should be noted that although this procedure generates multiline indications, this filing only addresses monoline loss cost levels. That is, upon implementation of this filing only the monoline loss costs will be revised. The multiline indications developed here will be combined with those of the other component coverages, e.g. GL Premises and Operations in the CPP review for the purpose of revising the package modification factors.

EXPLANATORY NOTES TO EXHIBITS B6

BASIC GROUP I RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

INTRODUCTION	<p>The experience used in the relativity analysis and displayed on Exhibit B6 is the latest five accident years of data reported under the Commercial Statistical Plan. As in the overall review, loss costs have been adjusted to current ISO loss cost and prospective amount of insurance levels (with multiline aggregate loss costs adjusted additionally by the current implicit package modification factors). Incurred losses are adjusted to prospective cost levels, and are further adjusted by the Basic Group I large loss procedure and the Special Causes of Loss excess procedure. Losses have also been developed to their ultimate settlement value by application of loss development factors.</p>
COLUMN (1)	<p><u>2020 AGGREGATE LOSS COSTS</u></p> <p>The latest accident year aggregate loss costs (adjusted as described above) are used as weights both in the calculation of any totals shown in this table and in the iterative formulas used in the simultaneous review procedure.</p>
COLUMN (2)	<p><u>2016 - 2020 AGGREGATE LOSS COSTS</u></p> <p>The combined five-year adjusted aggregate loss costs (adjusted as described above) are used to calculate the experience ratios in column (3).</p>
COLUMN (3)	<p><u>FIVE-YEAR EXPERIENCE RATIOS</u></p> <p>These are the ratios of the combined five-year adjusted incurred losses (adjusted as described above) to the combined five-year adjusted aggregate loss costs as shown in column (2). Any totals which are shown are weighted averages using the adjusted aggregate loss costs in column (1).</p>
COLUMN (4)	<p><u>RELATIVITIES</u></p> <p>The relativities are the ratios of the five-year experience ratios shown in column (3) to the average five-year experience ratio for all TOP's and territories (where applicable) combined. These relativities represent how much better or worse than average the experience for a given cell is. They are used along with the aggregate loss costs in column (1) as input for the simultaneous review procedure.</p>

EXPLANATORY NOTES TO EXHIBITS B7

SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

INTRODUCTION	<p>The experience used in the relativity analysis and displayed on Exhibit B7 is the latest five accident years of data reported under the Commercial Statistical Plan. As in the overall review, loss costs have been adjusted to current ISO loss cost and prospective amount of insurance levels (with multiline aggregate loss costs adjusted additionally by the current implicit package modification factors). Incurred losses are adjusted to prospective cost levels, and are further adjusted by the Basic Group I large loss procedure and the Special Causes of Loss excess procedure. Losses have also been developed to their ultimate settlement value by application of loss development factors.</p>
COLUMN (1)	<p><u>2020 AGGREGATE LOSS COSTS</u></p> <p>The latest accident year aggregate loss costs (adjusted as described above) are used as weights both in the calculation of any totals shown in this table and in the iterative formulas used in the simultaneous review procedure.</p>
COLUMN (2)	<p><u>2016 - 2020 AGGREGATE LOSS COSTS</u></p> <p>The combined five-year adjusted aggregate loss costs (adjusted as described above) are used to calculate the experience ratios in column (3).</p>
COLUMN (3)	<p><u>FIVE-YEAR EXPERIENCE RATIOS</u></p> <p>These are the ratios of the combined five-year adjusted incurred losses (adjusted as described above) to the combined five-year adjusted aggregate loss costs as shown in column (2). Any totals which are shown are weighted averages using the adjusted aggregate loss costs in column (1).</p>
COLUMN (4)	<p><u>CREDIBILITY (Z) WEIGHTED EXPERIENCE RATIO</u></p> <p>A credibility procedure is applied to the initial experience ratios in column (3) on a cell-by-cell basis prior to the simultaneous review procedure. The credibility values are calculated using an empirical Bayesian credibility procedure. In the following discussion, cell refers to an individual combination of TOP and category.</p>

EXPLANATORY NOTES TO EXHIBITS B7 (cont'd)

COLUMN (4)
(cont'd)

The important concept underlying empirical Bayesian credibility is that credibility should depend both on the overall variation of the group of which the cell is a member and the variation of the yearly experience ratios for the cell. Therefore, if a cell's data is very stable then a relatively high credibility value is assigned, and vice versa.

The empirical Bayesian credibility formula for individual cell credibility is $Z = ((C-3)/C) (P/(P+K)) + (3/C)$. P equals the cell's five-year adjusted aggregate loss costs and C equals the number of unique combinations of rating variables (TOP and Category) within a class group. The K value is estimated from the underlying data using the empirical Bayes method and varies by TOP group. The three TOP groups used in this analysis are: Monoline (TOP 10), Premises (TOP's 31-35), and Operations (TOP's 36-38). The 3/C term corrects for the statistical bias associated with the credibility process. The minimum credibility that is possible is 3/C.

COLUMN (5)

Z-WEIGHTED RELATIVITIES

The relativities are the ratios of the five-year credibility-weighted experience ratios shown in column (4) to the average five-year credibility-weighted experience ratio for all TOP's and categories combined. These relativities represent how much better or worse than average the experience for a given cell is. They are used along with the aggregate loss costs in column (1) as input for the simultaneous review procedure.

EXPLANATORY NOTES TO EXHIBIT B8

BASIC GROUP II RELATIVITY ANALYSIS

INTRODUCTION

The explanations which follow clarify Exhibit B8, the Basic Group II (BG II) relativity analysis. The purpose of this analysis is to:

- (1) determine the monoline loss cost level need;
- (2) determine indicated changes to the eight CPP package modification factors (PMFs) based on Basic Group II experience.

The BG II relativity analysis is based on non-hurricane loss experience only, as it is assumed that type of policy relativities are the same for both non-hurricane and hurricane perils. The resulting relativities apply to the total (hurricane plus non-hurricane) BG II loss costs.

COLUMN (1)

2020 AGGREGATE LOSS COSTS

The latest accident year adjusted aggregate loss costs (adjusted in the same manner as in the overall review, i.e. to current manual loss cost and prospective amount of insurance levels, with multiline aggregate loss costs further adjusted to current IPMF level) are used as weights in the calculation of any totals shown in this table.

COLUMN (2)

2011 - 2020 EXPERIENCE RATIO

These experience ratios are the ratios of the combined ten-year CSP adjusted incurred non-hurricane losses (adjusted to current deductible and prospective cost levels including loss development, and smoothed by the BG II excess loss procedure) to the combined ten year CSP adjusted aggregate loss costs. Any totals which are shown are weighted averages using the aggregate loss costs in column (1). When a dash is displayed in the column, it indicates that the indicated IPMF which resulted from this procedure was capped. The procedure which follows when capping occurs is described below.

COLUMN (3)

FORMULA RELATIVITY

The formula relativities are the ratios of the ten year non-hurricane experience ratios for the type of policy (either monoline vs. multiline or individual multiline programs) to the average ten year experience ratio for monoline and multiline combined. These relativities represent how much better or worse than average the experience for a given type of policy is. Again, any totals which are shown are weighted averages and the display of a dash indicates that the resulting IPMF was capped. Unlike the BG I and SCL relativity analyses, the BG II analysis does not employ a simultaneous review procedure since a one way review is involved. That is, the overall loss cost change is only distributed across type of policy; no other rating variables are considered.

EXPLANATORY NOTES TO EXHIBIT B8 (cont'd)

COLUMN (4)

CREDIBILITY

The credibility of the experience for each type of policy is determined from the formula:

$$Z = \frac{P}{P + K}$$

where P is the ten year aggregate adjusted loss costs for a given type of policy, and K is a constant loss cost volume of \$45,000,000.

COLUMN (5)

Z - WEIGHTED RELATIVITY

The weighted relativity is a weighted average of the individual TOP formula relativity and the overall (coverage) formula relativity using credibility and its complement as the respective weights. Therefore, to the extent that the indication for a type of policy is not fully credible, the complement of credibility is assigned to the statewide coverage level change.

COLUMN (6)

BALANCED FORMULA RELATIVITY

The individual multiline weighted relativities are balanced to the multiline weighted relativity level by applying a factor equal to the overall multiline relativity (i.e. the weighted relativity for all multiline combined which is shown on the top of the exhibit directly under the corresponding monoline relativity) divided by the average multiline relativity (i.e. the weighted average of the individual multiline weighted relativities which is shown on the bottom of the exhibit). When the indicated IPMF for a type of policy is capped, the balanced relativity is set equal to the product of the capped IPMF in column (9) and the monoline balanced formula relativity in column (6), divided by the current IPMF in column (8).

COLUMN (7)

NORMALIZED FORMULA RELATIVITY

The normalized relativity is equal to the balanced formula relativity divided by the average monoline/multiline combined relativity. This balances the average monoline/multiline relativity to unity.

COLUMN (8)

CURRENT IMPLICIT PMF

This is the current IPMF for each multiline type of policy.

EXPLANATORY NOTES TO EXHIBIT B8 (cont'd)

COLUMN (9)

INDICATED IMPLICIT PMF

The indicated IPMF is calculated from the normalized relativities as follows:

$$\frac{\text{TOP y indicated IPMF}}{\text{IPMF}} = \frac{(\text{TOP y current IPMF}) \times (\text{TOP y relativity})}{(\text{monoline relativity})}$$

For each CPP type of policy the indicated IPMF is subject to a minimum value of 0.50 and a maximum value of 1.50. If an indicated IPMF falls outside one of those limits, it is capped at that amount, the aggregate loss costs for that type of policy are adjusted to the capped IPMF level, and the entire relativity review as described above is redone to take this into account. If an IPMF has been capped it is so noted in footnote A.

COLUMN (10)

INDICATED LOSS COST CHANGES

The indicated monoline change is the statewide BG II total (hurricane and non-hurricane combined) monoline loss cost change found on Exhibit C25. The multiline change for each TOP is the product of the statewide monoline loss cost change times the ratio of the TOP y relativity divided by the monoline relativity found in column (7).

The overall multiline loss cost level change is a weighted average of the individual multiline TOP changes based on the aggregate loss cost volume shown in column (1). The coverage change is a weighted average of the monoline and average multiline TOP changes based on the aggregate loss cost volume shown in column (1).

MULTILINE
CONSIDERATIONS

It should be noted that although this procedure generates multiline indications, this filing only addresses monoline loss cost levels. That is, upon implementation of this filing only the monoline loss costs will be revised. The multiline indications developed here will be combined with those of the other component coverages, e.g. GL Premises and Operations in the CPP review for the purpose of revising the package modification factors.

OVERVIEW

AGGREGATE LOSS COSTS AT CURRENT LEVEL

Exhibits C1, C2 and C3 provide the overall loss cost/rate level histories for Basic Group I, Basic Group II, and Special Causes of Loss respectively. These tables, along with Exhibits C4, C5 and C6, provide information on the on-level factors needed to bring collected aggregate loss costs to current loss cost level.

Exhibit C4 provides rate level/loss cost level histories by rating id (class vs. specific), rating group, and territory (where applicable) for Basic Group I, Exhibit C5 provides rate level/loss cost level histories by territory, coverage, and symbol (where applicable) for Basic Group II, and Exhibit C6 provides rate level/loss cost level histories by category for Special Causes of Loss. These tables can be used to develop on-level factors appropriate to bring collected aggregate loss costs up to current loss cost level. Factors based on these tables are more appropriate for company use than the overall factors shown on Exhibits C1, C2 and C3 if the company's mix of business differs substantially from the industrywide average. For example, if a company's business is very heavily concentrated in a single class or territory, it is more appropriate to use the rate level/loss cost history for that class rather than the overall average to develop on-level factors.

Exhibits C7, C8 and C9 provide the current implicit package modification factors (IPMFs) and IPMF caps for Basic Group I, Basic Group II and Special Causes of Loss.

ADJUSTMENTS TO LOSSES

The loss projection factors, current cost factors, and loss trend adjustments shown on Exhibit C10, C11 and C12 reflect the combined impact of all economic influences on Commercial Property underwriting results and are used to project past underwriting results to future loss levels. They are intended to reflect the impact of inflation on loss payments, the impact of higher costs due to repairs done on an "emergency" basis, the impact of coinsurance and relative insurance to value on loss payments, and any other economic influences which can affect underwriting losses but for which specific provisions are not made. Losses have also been developed to their ultimate settlement value using factors shown on Exhibit C17.

CREDIBILITY

Credibility, Z , is a weight given to the most recent body of data. The complement of credibility, $1-Z$, is the weight assigned to net trend. The final estimate is a weighted average obtained by using the formula $C = Z \times R + (1-Z) \times N$, where

Z = credibility

C = final estimate

R = estimate based on the most recent data

N = net trend

OVERVIEW (cont'd)

CREDIBILITY (cont'd)

Credibility may range from 0 to 1, where $Z=1$ is full credibility and $Z=0$ is no credibility. The actual numerical value of Z is calculated by considering how the state's volume of experience compares with the full credibility standard. Credibility is capped at 25% if the credibility calculated is less than 25%. See Exhibit C22, C23 and C24 for a complete explanation of the credibility standards for Basic Group I, Basic Group II, and Special Causes of Loss.

LOSS COST/RATE LEVEL HISTORY

Loss cost/rate level histories are provided for Basic Group I, Basic Group II and Special Causes of Loss. The loss cost/rate level changes are then further split out by rating territory, rating group or category since a company's business may be more heavily concentrated in a single class. These histories can be used to develop on-level factors appropriate to bring collected aggregate loss costs up to current loss cost levels.

EXPLANATORY NOTES TO EXHIBITS C1, C2 AND C3

LOSS COST/RATE LEVEL HISTORIES

COLUMN (1)

EFFECTIVE DATE

The effective dates of the latest loss cost/rate level changes are shown.

COLUMN (2)

LOSS COST/RATE LEVEL CHANGE

The overall loss cost/rate level change is shown in percent form.

COLUMN (3)

LOSS COST/RATE LEVEL INDEX

The product of all loss cost/rate level changes up to and including the loss cost/rate change for that effective date is used to calculate on level factors.

COLUMN (4)

WRITTEN ADJUSTMENT (ON LEVEL) FACTORS

These factors are used to bring individual policies with inception dates prior to the effective date up to current loss cost level. The actual loss cost/rate changes vary by rating id, rating group, and territory (where applicable) for Basic Group I, by territory, coverage, and symbol (where applicable) for Basic Group II, and by category for Special Causes of Loss. Consequently, these on-level factors represent average factors and are not the factors actually used to adjust the aggregate loss costs on an individual policy basis. For complete loss cost/rate level histories in detail, refer to Exhibits C4, C5 and C6.

COLUMN (5)

WEIGHT

The weight indicates the portion of the effective year for which the on level factors apply. These can be used to calculate average yearly factors.

EXPLANATORY NOTES TO EXHIBIT C4

HISTORY OF BASIC GROUP I LOSS COST/RATE CHANGES
BY TERRITORY, RATING ID AND RATING GROUP

TERRITORY

The loss cost/rate level changes shown apply to the rating territory shown here.

EFFECTIVE DATE

The effective dates of the latest loss cost/rate level changes are shown.

LOSS COST/RATE LEVEL CHANGES

Loss cost/rate level changes are shown in percent form for each rating group.

EXPLANATORY NOTES TO EXHIBIT C5

HISTORY OF BASIC GROUP II LOSS COST CHANGES BY TERRITORY

COLUMN (1)	<u>TERRITORY</u> The loss cost level changes shown apply to the rating territory shown here.
COLUMN (2)	<u>EFFECTIVE DATE</u> The effective dates of the latest loss cost level changes are shown.
COLUMN (3)	<u>SYMBOL</u> The construction group symbol is shown here. Refer to the explanatory notes to Exhibit C25 for the symbol definitions.
COLUMN (4)	<u>BUILDING</u> Building loss cost changes are shown in percent form.
COLUMN (5)	<u>CONTENTS</u> Contents loss cost changes are shown in percent form.

EXPLANATORY NOTES TO EXHIBIT C6

HISTORY OF SPECIAL CAUSES OF LOSS
LOSS COST/RATE LEVEL CHANGES BY CATEGORY

COLUMN (1)

EFFECTIVE DATE

The effective dates of the latest loss cost/rate level changes are shown.

COLUMN (2)

LOSS COST/RATE LEVEL CHANGES BY CATEGORY

Loss cost/rate changes are shown in percent form for each category. Refer to Exhibit D2 for definitions of the current 14 categories.

The prior category definitions (before implementation of the revised rating for Special Causes of Loss) are:

- 01 - Buildings
- 02 - Apartments Contents
- 03 - Office Contents
- 04 - Mercantile, Motel/Hotel and Institutional Contents
- 05 - Service, Industrial/Processing, and Contractors Contents

COMMERCIAL PACKAGE POLICY IMPLICIT PACKAGE MODIFICATION FACTORS (IPMF's)
AND IPMF CAPS

IMPLICIT PACKAGE
MODIFICATION
FACTORS

Since multiline experience is included in the loss cost level evaluations, an additional adjustment is made to multiline aggregate loss costs after they have been brought to current ISO loss cost level. This adjustment is the application of implicit CPP package modification factors which vary for each of the eight CPP types of policy.

The loss costs used to price a Commercial Package Policy (CPP) are the monoline loss costs multiplied by the PMF to reflect the package policy discount for the particular type of CPP policy relative to the individual monoline policies. However, these PMF's measure the amount of multiline discount for all property coverages combined. A more accurate measure of the amount of multiline discount for each subline (e.g., Basic Group I, Basic Group II, or Special Causes of Loss) is the implicit package modification factor that was used to calculate the overall PMF for all property coverages combined.

For example, the published PMF for Apartments (all property coverages combined) may be .85, but the implicit PMF for Apartments, Commercial Basic Group I coverage only, may be .80. The average of the implicit PMF's for the various coverages is equal to the published PMF for each type of policy.

The current IPMF's by coverage for each CPP type of policy are applied to multiline aggregate loss costs at current level for Basic Group I, Basic Group II and Special Causes of Loss.

IPMF CAPS

For Basic Group I, Basic Group II, and Special Causes of Loss, the IPMF's lower caps are set at 0.50 and the upper caps are set at 1.50 for all TOP's.

EXPLANATORY NOTES TO EXHIBITS C7, C8 AND C9

IMPLICIT PACKAGE MODIFICATION
FACTORS (IPMF's) AND IPMF CAPS

EXHIBITS C7, C8
AND C9

These tables provide the current IPMF's and IPMF caps for Basic Group I, Basic Group II, and Special Causes of Loss. The IPMF's shown here are those which resulted from the most recent CPP revision. The IPMF lower caps are set at .50 and the upper caps are set at 1.50 for all TOP's.

TREND PROCEDURE

INTRODUCTION

The prospective loss cost levels established in this document reflect the anticipated claim cost and claim frequency levels and changes in revenue due to increased amounts of insurance purchased for the period when the new loss costs are assumed to be in effect.

LOSS TREND

EXTERNAL LOSS DATA

For Commercial Property, the loss trend factors are referred to as current cost factors (CCF's) and loss projection factors (LPF's). These CCF's and LPF's are based on the following accepted economic indices:

1. Xactware Commercial Index (XCI) for buildings loss projection factors and current cost factors
2. Producer Price Index (PPI) published by the US Department of Labor (Finished Goods Less Energy, Not Seasonally Adjusted) for contents factors
3. Index for Manufacturers' Sales Exposure (IMSEP) developed by ISO using indices published by the Department of Commerce and Chain-Type Price Index for Retail Sales (RSALES) produced by the Bureau of the Census, Bureau of Economic Analysis for time element factors

The CCF's adjust losses for actual inflationary changes which have taken place between the accident date and the midpoint of the latest period of external trend information, i.e. November 15, 2020 for property damage and time element. The LPF's adjust losses for projected inflationary changes from the midpoint of the latest period of external trend information to the anticipated average date of accident for policies written under the proposed loss costs (assumed to be 12 months after the assumed revision date based on all one-year policies).

The CCF's and LPF's are calculated separately for buildings, contents, and time element coverages. For coverage 3 (buildings and contents on a combined basis), combined trend factors are calculated using the following weights for buildings and contents: 70%/30% for Basic Group I, 75%/25% for Basic Group II, and 50%/50% for Special Causes of Loss. For time element (coverages 4-9) the combined trend factors are calculated using 70%/30% weights for RSALES/IMSEP. The factors are applied by coverage to the losses reported under CSP and CMSP on an individual occurrence basis.

TREND PROCEDURE (cont'd)

LOSS TREND (cont'd)

LOSS TREND ADJUSTMENT - SEVERITY

An evaluation of the latest Commercial Property insurance data shows that the cost levels inherent in the property damage coverages are increasing at a different rate than those measured by the external indices. Therefore, to insure adequate prospective loss cost levels during the period for which loss costs are to be determined, loss trend adjustments (LTA's) have been applied. These factors were developed by comparing the annual rate of change in average claim costs to the annual rate of change in the external indices. (Refer to Exhibit C12 for the calculations.)

LOSS TREND ADJUSTMENT - FREQUENCY

In order to reflect total trend more precisely, a frequency component is included in the loss trend adjustment factors (LTA's) separately for buildings and contents for Basic Group I and contents only for Special Causes of Loss. No frequency component is used for Basic Group II and Special Causes of Loss buildings due to the extremely volatile nature of the coverages.

AMOUNT-OF-
INSURANCE
TREND

Cost changes over time to both real and personal property result in insureds purchasing increased amounts of insurance. To reflect the impact of this phenomenon, amount of insurance trend factors are applied to collected loss costs to bring them to prospective amount of insurance levels. These factors are developed by measuring amount of insurance trends on a sample of renewal policies.

The application and development of these factors parallels loss trend factors in that separate factors are developed for buildings, contents, and time element, and the adjustment to prospective amount of insurance levels is done in two steps. The current written factors adjust loss costs to the amount of insurance level for the midpoint of the latest period of renewal information, i.e. July 1, 2020. Total amount of insurance trend factors are then calculated by projecting these current factors to the average date of writing (i.e. to the amount of insurance level six months beyond the assumed effective date).

EXPLANATORY NOTES TO EXHIBIT C10

PART A: XACTWARE, PRODUCER PRICE, IMSEP, RSALES INDICES AND COMBINED TIME ELEMENT

QUARTER	The quarter for which the indices shown apply.
XACTWARE COMMERCIAL INDEX (XCI)	The Xactware Commercial Index measures the costs of building material and repairs for commercial properties. The index, which is available since 1st Quarter 2005, is based on regular surveys of over 42,000 material and equipment suppliers and over 9,500 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 Xactware index is used in this filing to adjust for current cost from 1/1/05 to the midpoint of the latest index point and for determining the loss projection factor.
PRODUCER PRICE INDEX (PPI)	The Producer Price Index is a time series which measures the price level for a predetermined group of goods produced relative to the price level for an earlier point in time (2009). The PPI Finished Goods Less Energy is published by the U.S. Department of Labor.
PRICE DEFLATOR INDEX FOR MANUFACTURERS' SALES EXPOSURE (IMSEP)	<p>The price deflator index for manufacturers' sales exposure is a quarter's model of Manufacturers' Sales Exposure Proxy (MSEP) for the period in question relative to MSEP measured in chained 2012 dollars. The price deflator is defined as the GNP (Gross National Product) price deflator with government expenditures, investment in intellectual property products, inventory changes, and all services except food services removed.</p> $\text{MSEP} = (\text{CD} + \text{CN} + \text{FS}) + (\text{EXD\&N} - \text{IMD\&N}) + (\text{IFIX} - \text{IPP}), \text{ where}$ <p>CD and CN represent consumption of durables and nondurables, respectively; EXD&N and IMD&N represent exports and imports of merchandise, respectively; FS represents food services and IFIX represents gross private domestic fixed investment (including residential fixed investment as well as nonresidential fixed investment in structures, equipment, and intellectual property products); and IPP represents nonresidential fixed investment in intellectual property products.</p>
CHAIN-TYPE PRICE INDEX FOR RETAIL SALES (RSALES)	The Chain-Type Price Index for Retail Sales measures changes in losses due solely to inflation.

EXPLANATORY NOTES TO EXHIBIT C10 (cont'd)

PARTS B, C and D: COMPUTATION OF THE LOSS PROJECTION FACTOR

LOSS PROJECTION
FACTOR

The loss projection factor is calculated by fitting a least squares exponential curve to the appropriate number of points (where the appropriate number of points is determined based on judgment and an examination of the goodness of fit as determined by the R-squared values subject to a maximum of 12 quarterly points for property damage and time element).

The table displays the indices for those points used in fitting the curve. The relevant equations are shown and the annual rate of change in the indices based on the exponential fit is developed. This annual rate of change is projected over the period which extends from the latest period of cost information to the average accident date of the projection period.

PART E: CALCULATION OF CURRENT COST FACTORS (CCF'S)

CALENDAR YEAR
AVERAGES

The calendar year averages are the averages of the Xactware, PPI and Time Element indices for the given year. These average indices measure the average cost level of each year relative to the base.

CURRENT COST
FACTORS

The current cost factors are the ratios of the indices for the latest period of cost information divided by the average indices for each calendar year. These factors measure the changes in cost levels which have occurred from the midpoint of the given year to the latest point of cost information. In this regard, they represent average factors which would result if each year's losses were distributed evenly throughout the year.

For buildings, the index for the latest point is based on the latest available Xactware point.

Since losses are trended on a record by record basis, these calendar year factors are not actually used in ISO's trend calculations. Instead, factors are calculated from the bi-monthly or quarterly indices and applied to the unit losses based on the date of occurrence.

EXPLANATORY NOTES TO EXHIBIT C11

SUMMARY OF LOSS TREND ADJUSTMENTS (LTA'S)

COVERAGE

The LTA's vary by coverage (buildings, contents, and time element) and line of business (BG I, BG II, and SCL).

FIVE-YEAR INCURRED LOSSES

The five-year multistate incurred losses are used as weights to determine the annual LTA for all lines of business and coverages combined.

ANNUAL LTA's

The LTA's are the factors which are applied to losses to supplement the external indices in order to correctly reflect cost level and claim frequency changes. These are shown here as annual factors. However, they are applied over the entire length of the trend period, i.e. from the date of loss occurrence to the anticipated average accident date under the revised loss costs. The severity portion of the LTA is applied on an individual record basis in the same manner as the CCF's and LPF's. The frequency portion of the LTA is applied to the aggregate losses.

OVERVIEW

DEVELOPMENT OF LOSS TREND ADJUSTMENTS

INTRODUCTION

In order to supplement the external indices reflected in CCF's and LPF's, loss trend adjustments (LTA's) have been developed based on internal loss data. This is necessary because the external indices alone have been insufficient in reflecting cost level and claim frequency changes in Commercial Property Insurance. The following tables show the calculations used to develop these LTA's. Please note the development of the LTA's for the 2021 COMFAL reviews is based on internal commercial property experience through 12/31/2019 and external cost indices through 12/31/2019. Therefore, the CCF's and LPF's shown on Exhibit C12 will not necessarily match those shown on Exhibit C10. ISO has determined that the selected LTAs are appropriate to be used with the latest external indices shown on Exhibit C10.

EXPLANATORY NOTES TO EXHIBIT C12

DEVELOPMENT OF LOSS TREND ADJUSTMENTS (LTA'S)

I. EXTERNAL RATE OF CHANGE

COLUMN (1), (2)
AND (3)

CURRENT COST FACTORS

The CCF's underlying the LTA analysis are based on external cost indices through 12/31/2019 for buildings, contents and time element.

COLUMNS (4)
AND (5)

WEIGHTS

The standard review weights are shown for each line of business.

LINES (6)

AVERAGE CURRENT COST FACTORS

The average CCF's for the experience period are calculated based on the weights shown in columns (4) and (5).

LINE (7)

LOSS PROJECTION FACTORS

The LPF's underlying the LTA analysis are shown here.

LINE (8)

TOTAL TREND

The total trend is the product of the average CCF and the LPF.

LINE (9)

EXTERNAL ANNUAL RATE OF CHANGE

The total trend is converted to an annual basis by raising it to the reciprocal of the number of years between the weighted midpoint of the experience period and the anticipated average accident date. For BG I and SCL the weighted midpoint of the experience period is 1/1/2018, for BG II it is 1/1/2015. Accordingly, there are 54 and 90 months, respectively, to the anticipated average accident date of 7/1/2022.

II. INTERNAL ANNUAL RATES OF CHANGES

LINE (10)

SELECTED COMFAL

The displayed annual rates of change in the average claim costs for BG I, BG II, and SCL were selected based on several least squares exponential fits of the annual claim costs for each subline. This was done to the most recent ten years of Commercial Property data using all companies in the ratemaking data base.

EXPLANATORY NOTES TO EXHIBIT C12 (cont'd)

III. LTA CALCULATION

COLUMN (11)

ANNUAL EXTERNAL

The annual external rates of change from column (9) are shown here.

COLUMN (12)

ANNUAL INTERNAL

The adjusted annual internal rates of change in average loss from line (10) are shown here.

COLUMN (13)

INDICATED SEVERITY LTA

The indicated severity LTA's are calculated by dividing the annual internal rates of change by the annual external rates of change.

COLUMN (14)

FORMULA SEVERITY LTA

The severity LTA's in column (13) are then selected to temper the full effect of internal trend data. Without such tempering, full weight would in effect be given to the internal data without any consideration of the external cost indices.

COLUMN (15)

FREQUENCY EFFECT

The displayed annual rates of change in claim frequency for BG I and SCL were selected based on several least squares exponential fits of the claim frequency by subline. No frequency trend was selected for BG II and SCL buildings due to the extremely volatile nature of the coverage.

COLUMN (16)

FINAL LTA

The final LTA is the combination of the severity and frequency trend adjustments, calculated as column (14) times column (15), in factor form.

EXPLANATORY NOTES TO EXHIBIT C13
EXPOSURE AND PREMIUM TREND FACTORS

Exhibit C13 contains Exposure trend factors, Premium trend factors for Basic Group I, Basic Group II and Special Causes of Loss respectively, building and contents. As annual written exposures increase (decrease), the resulting limit of insurance factors used for rating decrease (increase) and the combined effect should be reflected when trending premiums to future level. There are separate premium trend factor tables for Basic Group I, Basic Group II and Special Causes of Loss since there are separate limit of insurance curves for BG I, BG II and SCL.

For Time Element, exposure trend factors are also used to trend premiums, i.e., there are not separate Time Element premium trend factors because Time Element does not use limit of insurance factors for rating.

COLUMNS (1)
AND (5)

ANNUAL WRITTEN INCREASE

The annual written increases for buildings, contents, and time element are calculated from the actual changes in amount of insurance from one year to the next for a sample of renewal policies (based on BG I experience). The change in amount of insurance for each policy in the sample was weighted with its prior year's premiums to obtain a weighted average change for each year. The Annual Written Increase in Premiums (Exhibit C13) are calculated as the Annual Written Increase in Exposure tempered by the change in Limit of Insurance factor.

COLUMNS (2)
AND (6)

7/1/2020 WRITTEN FACTORS

The written factors for a given year are the product of the written annual changes for all years subsequent to that year. Although the 2020 written changes are based on two quarters of data, the consistency of this experience allows for the assumption that written changes for the first half of 2020 are applicable for the entire year.

COLUMNS (3)
AND (7)

4/1/2022 PROJECTED FACTORS

The 4/1/2022 factors are calculated by applying a factor to adjust the 7/1/2020 written factors to the amount of insurance level at the average date of writing, 4/1/2022. This is done using the selected annual changes in exposure or premium.

COLUMNS (4)
AND (8)

4/1/2022 EARNED EXPOSURES/PREMIUM FACTORS

The projected earned factors at the 4/1/2022 level (where 4/1/2022 is the average date of writing in the effective period) are calculated by earning the written factors assuming all one-year policies. The earning factors are shown in footnote (c).

EXPLANATORY NOTES TO EXHIBITS C14, C15 AND C16

BG I, BG II, AND SCL ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

COLUMN (1) UNADJUSTED INCURRED LOSSES

The unadjusted incurred losses are the reported losses prior to any adjustment.

COLUMN (2) TRENDED INCURRED LOSSES

The trended incurred losses are the aggregate of the individual losses trended on a unit record basis.

COLUMN (3) AVERAGE TREND FACTOR

The average trend factors are the trended incurred losses in column (2) divided by the unadjusted incurred losses in column (1). Although average factors could be calculated from the information contained in Exhibits C10 through C12, they would differ from the factors shown in this table for the following reasons:

- (1) In calculating such averages, the usual assumption is that the losses are spread evenly throughout the year, yielding the midpoint of each year as the average date of loss. A predominance of losses at a certain time of the year could shift the average accident date away from the midpoint.
- (2) The average trend factors will be slightly higher due to the impact of trend on the deductible.

COLUMN (4) PERCENTAGE SPLIT BETWEEN BUILDINGS, CONTENTS, AND TIME ELEMENT

The current cost factors and loss projection factors are different for buildings, contents, and time element. Therefore, in addition to the reasons cited above, the average trend factors will differ from state to state depending on the buildings/contents/time element split. Companies with splits substantially different from the industrywide averages shown here may find it appropriate to develop trend factors which reflect their own coverage mix.

LOSS DEVELOPMENT

INTRODUCTION

For Commercial Property, losses are evaluated as of June 30, 2020, three months after the end of the latest experience year used in the review. In order to account for development of losses beyond fifteen months and to reflect overall loss development patterns, loss development was incorporated into the adjustment process of incurred losses to their ultimate settlement value.

LOSS DEVELOPMENT PROCEDURES

The application of loss development factors recognizes the fact that not all of the Commercial Property losses for a particular accident year have been finally determined at the time the experience is compiled.

The incurred losses underlying the statewide loss cost level indications were evaluated as of June 30, 2020.

Accident year ended March 31, 2020 includes all losses paid on accidents from 4/1/2019 to March 31, 2020 and all losses outstanding on those accidents as of June 30, 2020, fifteen months after the inception of the accident year. Similarly, accident years ended March 31, 2019, 2018, 2017 and 2016 include all losses paid and outstanding as of 27, 39, 51 and 63 months, respectively, after the inception of the accident year.

Thus, the immature experience reported as of 15, 27, 39 or 51 months must be adjusted to an ultimate settlement basis. This adjustment is accomplished through the use of loss development factors based on the historic multistate Basic Group I, Basic Group II, and Special Causes of Loss incurred losses as shown in Exhibit C17.

EXPLANATORY NOTES TO EXHIBIT C17

LOSS DEVELOPMENT

INTRODUCTION

Exhibit C17 shows multistate incurred loss development exhibits for Basic Group I, Basic Group II and Special Causes of Loss. The exhibits on Exhibit C17 are arranged identically for each subline and can be summarized as listing the following information: incurred losses by accident year and age, age-to-age factors by accident year, and age-to-ultimate factors.

INCURRED LOSSES

The multistate incurred losses are shown by accident year and age at the top of Exhibit C17. The multistate incurred losses are evaluated as of 15, 27, 39, 51 and 63 months. For Basic Group II, losses due to hurricanes reflected in the modeled hurricane loss costs have been removed from the experience for each rating territory and loss month.

AGE-TO-AGE DEVELOPMENT FACTORS

Age-to-age development factors or link ratios are calculated for each accident year. These age-to-age factors are calculated by dividing the incurred losses evaluated at each age by the incurred losses evaluated at the immediately preceding age. For example, 27:15 month age-to-age factors are calculated by taking the losses evaluated as of 27 months and dividing them by the losses evaluated as of 15 months, for each accident year. Age-to-age development factors are also calculated for 39:27 months, 51:39 months and 63:51 months. Latest five-year averages are then determined for each age-to-age interval.

AGE-TO-ULTIMATE DEVELOPMENT FACTORS

Age-to-ultimate factors are then calculated for the latest four years by multiplying the five-year average age-to-age development factors. These age-to-ultimate factors are then used in the adjustment of incurred losses to develop losses to their ultimate settlement value.

EXCESS LOSS PROCEDURES

INTRODUCTION

If not addressed, the presence or absence of large losses during the review period can produce significant fluctuations in loss cost levels. In order to develop a more stable body of experience, large losses have been smoothed. This procedure removes any excess losses from the experience and applies excess loss factors to the resultant state normal losses to generate the adjusted incurred losses. The adjusted losses developed in this manner replace the incurred losses in the loss cost level evaluation.

BASIC GROUP I

First, the excess portion of each large loss is removed from the trended loss experience.

Individual claim amounts that result from the same occurrence are grouped together, and if the total loss for one occurrence exceeds the normal loss cutoff (at 2005 cost levels), the total loss is identified as a large loss. Each large loss is then split into its normal and excess portions based on the normal loss cutoff.

The Basic Group I normal loss cutoff begins at \$250,000 and varies with the size of loss up to a maximum normal amount (approached asymptotically) of \$1,250,000. (The formula and a graph are shown on Exhibit C18.) The portion of each large loss exceeding the cutoff is considered excess and the portion of any loss up to the cutoff is considered normal.

As noted above, the excess loss procedure is performed on trended loss experience (i.e. loss experience adjusted to prospective cost levels by the current cost factors, loss projection factors, and loss trend adjustment factors (for claim cost only) shown in Exhibits C10 through C11). The loss trend adjustment for frequency trend is not reflected at this step in the process. The normal breakpoint of \$250,000 for BG I and the parameters in the normal loss formula are at 2005 cost levels and therefore have been similarly adjusted to prospective cost levels.

Both the normal and total incurred losses are aggregated over all states and years in the experience period by construction, protection, and amount of insurance intervals. Excess loss factors by construction, protection and amount of insurance are then calculated as the ratios of the ten-year multistate incurred losses to the ten-year multistate normal losses.

These factors are then smoothed by fitting curves (by amount of insurance intervals) to the indicated factors. The resulting factors are then balanced so that the original ten-year multistate incurred loss level is maintained.

The excess factors are then applied to the state normal losses, which are maintained in the same detail (construction, protection and amount of insurance) as well as by year, territory, rating group and TOP. The state normal losses used in this calculation have also been trended for frequency.

The excess loss factors vary by construction, protection and the amount of insurance because these are the most significant severity-related rating variables.

EXCESS LOSS PROCEDURES (cont'd)

BASIC GROUP II

Since wind caused by non-hurricane events can cause large and unexpected losses, a long-term excess procedure is used for Basic Group II. The purpose of this procedure is to avoid the shifts in loss costs which would result from reflecting large, unexpected losses only in the year in which they occur.

The Basic Group II excess procedure identifies periods of overall adverse experience, rather than individual large losses, since catastrophic non-hurricane wind losses affect both the frequency and the severity of losses. Also, due to the extreme volatility of these losses, a long-term review period (1950 - present) is used. Losses reflected in the hurricane model are not included in this procedure. For those years reported under the Commercial Statistical Plan (CSP), 1982 and later, hurricane losses have been replaced with average non-hurricane losses. For years prior to CSP reporting, any year in which a hurricane occurred has been excluded.

A loss ratio cutoff is used to determine normal and excess losses in the excess procedure. The application of this cutoff is described in the explanatory notes to Exhibit C20. The excess losses are used to determine the excess multiplier. The excess multiplier is derived in such a manner as to provide an estimate of the expected excess non-hurricane loss dollars per normal non-hurricane loss dollar.

The excess multiplier is applied to the normal non-hurricane losses for each accident year in the ten-year experience period used in the review. In this way, a review database is created reflecting both the current normal non-hurricane loss experience and the average excess non-hurricane loss experience based on the long-term review. This allows a concurrent evaluation of both the normal and the excess components of the BG II non-hurricane loss cost level.

SPECIAL CAUSES OF LOSS

Similar to Basic Group II, the Special Causes of Loss (SCL) smoothing procedure uses a loss ratio approach to reflect both the frequency and severity of unusual loss events which may produce significant fluctuations in loss cost levels. The excess procedure uses longer term statewide SCL experience (1985 - present) to account for the volatile nature of weather related losses (water damage from bursting pipes, or the weight of ice, sleet, or snow) which are the predominant cause of large SCL losses in a given experience period. A monthly normal loss ratio cutoff of 2.0 is used to define normal and excess losses. The resulting ratio of excess to normal losses over the long-term experience period is then applied to the normal losses used in the loss cost level review. The calculations underlying the smoothing procedure are described in the Explanatory Notes to Exhibit C21.

EXPLANATORY NOTES TO EXHIBIT C18

COUNTRYWIDE BASIC GROUP I EXCESS LOSS FACTORS

EXCESS LOSS
FACTORS

The multistate excess loss factors are the ratios of the ten-year multistate adjusted incurred losses to the ten-year multistate adjusted normal losses (both adjusted for severity trend). They are determined separately by construction, protection and amount of insurance range. Due to credibility considerations, both constructions and protections have been consolidated as shown. The amount of insurance ranges are also shown.

EXPLANATORY NOTES TO EXHIBIT C19

BASIC GROUP I ADDITIONAL EXCESS LOSS INFORMATION

COLUMN (1) TRENDED INCURRED LOSSES

The trended incurred losses are the aggregate of all individually-trended loss records prior to any adjustment for large losses. They are shown here fully trended for severity.

COLUMN (2) TRENDED NORMAL LOSSES

The normal losses are the aggregate of the normal portions of each loss occurrence. These are also fully trended.

COLUMN (3) STATE NORMAL PERCENTAGE

The state normal percentages are the statewide normal losses divided by the statewide trended incurred losses. These percentages can be used in conjunction with the multistate percentages and actual dollar amounts of normal losses to assess the state loss experience. For example, consistently lower state normal percentages relative to multistate normal percentages could indicate that the state has a greater propensity for large losses.

COLUMN (4) MULTISTATE NORMAL PERCENTAGES

The multistate normal percentages are the multistate normal losses divided by the multistate trended incurred losses. As noted above these can be used as a yardstick against which the statewide experience can be measured.

COLUMN (5) ADJUSTED INCURRED LOSSES

The adjusted incurred losses are the totals across all constructions, protections and exposures of the fully trended normal losses multiplied by the excess loss factors.

COLUMN (6) STATE AVERAGE EXCESS FACTOR

The state average excess factors are the adjusted incurred losses in column (5) divided by the normal losses in column (2). These factors represent the annual averages of the factors calculated separately by construction, protection and amount of insurance. The average excess factor reflects the normal loss mix by construction, protection and exposure. Heavy concentration in those subsets of the data with high excess factors will result in large average factors.

EXPLANATORY NOTES TO EXHIBIT C20

BASIC GROUP II EXCESS MULTIPLIER

COLUMN (1) EARNED PREMIUMS

The unadjusted earned premiums are shown for each year.

COLUMN (2) INCURRED NON-HURRICANE LOSSES

The unadjusted non-hurricane incurred losses are shown for each year. Note that any year prior to 1982 (pre-CSP) in which a hurricane occurred has been excluded from the excess review period. The incurred losses have been adjusted to reflect loss development.

COLUMN (3) NORMAL INCURRED NON-HURRICANE LOSSES

The normal incurred losses for each year are those non-hurricane losses which do not exceed 0.500 times the earned premium for that year.

COLUMN (4) NORMAL LOSS RATIO

For each year in the excess review period, the normal loss ratio is the ratio of the normal incurred losses to the earned premium for the same year.

COLUMN (5) STATE EXCESS LOSS RATIO

The state excess loss ratio for each year is the ratio of the excess losses to the earned premium for the year. The excess losses are calculated as the incurred losses minus the normal incurred losses for each year.

LINE (6) STATE EXCESS COMPONENT

The state excess component is determined by dividing the sum of the state excess loss ratios by the sum of all normal loss ratios (where each sum is taken across all non-hurricane accident years in the excess review period).

LINE (7) STATE EXCESS MULTIPLIER

The state excess multiplier is derived by adding unity to the state excess component.

EXPLANATORY NOTES TO EXHIBIT C21

SPECIAL CAUSES OF LOSS ADDITIONAL EXCESS LOSS FACTOR

COLUMN (1) EARNED PREMIUMS

These are the unadjusted earned premiums for each year.

COLUMN (2) INCURRED LOSSES

These are the unadjusted incurred losses for each year.

COLUMN (3) NORMAL INCURRED LOSSES

The normal incurred losses are shown for each year. The normal incurred losses are defined to be that portion of each month's losses which does not exceed 2.0 times the monthly earned premiums.

COLUMN (4) NORMAL LOSS RATIO

The normal loss ratio for each year is the ratio of the normal incurred losses for each year divided by the earned premiums for the year.

Column (4) = Column (3) ÷ Column (1)

COLUMN (5) EXCESS LOSS RATIO

The excess loss ratio for each year is the ratio of the excess losses to the earned premium for the year. The excess losses are calculated as the incurred losses minus the normal incurred losses for each year.

LINE (6) EXCESS COMPONENT

The excess component is determined by dividing the sum of the excess loss ratios by the sum of the normal loss ratios, where the sums are taken across all years in the excess review period.

LINE (7) EXCESS MULTIPLIER

The excess multiplier is derived by adding unity to the excess component.

OVERVIEW

APPLICATION OF CREDIBILITY

INTRODUCTION

Credibility, Z , is a weight given to the most recent body of data. The complement of credibility, $1-Z$, is the weight assigned to net trend. The final estimate is a weighted average obtained by using the formula $C = Z \times R + (1-Z) \times N$, where:

Z = credibility

C = final estimate

R = estimate based on the most recent data

N = net trend

Credibility may range from 0 to 1, where $Z=1$ is full credibility and $Z=0$ is no credibility. The actual numerical value of Z is calculated by considering how the state's volume of experience compares with an established full credibility standard. Credibility is capped at 25% if the credibility calculated is below 25%. See Exhibits C22, C23, and C24 for a complete explanation of the credibility standards for Basic Group I, Basic Group II, and Special Causes of Loss.

EXPLANATORY NOTES TO EXHIBITS C22, C23 AND C24

BASIC GROUP I, BASIC GROUP II, AND SPECIAL CAUSES OF LOSS
STATEWIDE CREDIBILITY CALCULATION

LINE (1a)
(BGI only)

Full Credibility Claims Standard of Frequency

Based on a Poisson distribution, the minimum sample size of claims is determined such that the probability that the actual number of claims will be within 5% of the expected number of claims is greater than 95%.

LINE (1b)
(BGI only)

Severity Modification Factor

This factor, defined as $(1 + S^2 / M^2)$, is used to modify the claims standard to reflect variance due to severity, where S is the standard deviation and M is the mean of the loss severity distribution (on a normal loss basis).

LINE (1c) - BGI
LINE (1) - BGII, SCL

Full Credibility Claims Standard

For Basic Group I, this standard is the product of the frequency standard in line (1a) and the severity modification factor in line (1b). For Basic Group II and Special Causes of Loss, standards for full credibility of 30,000 claims for BGII and 25,000 claims for SCL were selected to balance stability and responsiveness.

LINE (2)

Multistate Experience Period Ratio of Earned Risks to Claims

This ratio was determined based on Commercial Statistical Plan data for the latest experience period (Five years for Basic Group I and Special Causes of Loss; Ten years for Basic Group II).

LINE (3)

Full Credibility Earned Risks Standard

To translate the claims standard to an equivalent standard based on earned risks, the claims standard (line (1c) for BGI, (1) for BGII and SCL) is multiplied by the multistate experience period ratio of earned risks to claims (line (2)).

LINE (4)

Experience Period Statewide Earned Risks

This is the number of earned risks in the state for the experience period.

EXPLANATORY NOTES TO EXHIBITS C22, C23 AND C24 (cont'd)

LINE (5) Experience Period Aggregate Loss Costs

These are the state's experience period adjusted aggregate loss costs.

LINE (6) Statewide Experience Period Ratio of Aggregate Loss Costs to Earned Risks

This ratio is determined by dividing the state's experience period adjusted aggregate loss costs by its experience period earned risks.

LINE (7) Full Credibility Aggregate Loss Costs Standard

To translate the risk standard into an aggregate loss cost standard on a state by state basis, the ratio (line (6)) is multiplied by the full credibility earned risks standard (line (3)).

LINE (8) Credibility

The state's credibility is calculated by using the square root credibility formula:

$$Z = \sqrt{\frac{P}{C}}$$

where Z = credibility,
P = statewide five-year adjusted aggregate loss costs (line (5)), and
C = full credibility aggregate loss costs standard (line (7)).

When the indicated credibility is below 25%, a minimum cap of 25% is assigned to the state credibility in order to reasonably reflect the state's experience in the coverage change calculation.

BASIC GROUP II

HURRICANE PROCEDURES

INTRODUCTION

The Basic Group II ratemaking procedures in hurricane-prone states incorporate the use of a computerized hurricane model which can estimate hurricane losses more accurately and with greater geographic specificity than traditional experience-based techniques. The model uses a meteorological database of both landfalling and nonlandfalling tropical cyclones since 1900, a sophisticated wind field model, and engineering and insurance-based damage relationships to develop reliable estimates of expected hurricane losses. The model evaluates the probability of a hurricane at a specific location, the duration of the wind speeds at that location and the relative damageability by type of structure for the current distribution of exposures.

OVERVIEW OF THE USE OF HURRICANE MODELS IN RATEMAKING

The model provides hurricane loss costs (expected hurricane losses per \$100 of replacement cost value) by ZIP code, construction class, and coverage (building vs. contents). These loss costs are weighted together using the latest year Basic Group II premium distribution to calculate expected hurricane loss costs by BG II rating territory, symbol (construction grouping) and coverage (building vs. contents). The hurricane loss costs are then adjusted to an 80% coinsurance, base deductible, and base limit of insurance level, and a factor is applied to reflect all loss adjustment expenses.

The non-hurricane portion of the prospective loss costs is calculated by applying the statewide non-hurricane monoline change, based on the latest ten years of non-hurricane experience, to the non-hurricane portion of the current BG II loss costs.

The revised BG II loss costs are then equal to the sum of the modeled hurricane loss costs and the non-hurricane portion of the prospective loss costs.

BASIC GROUP II

DESCRIPTION OF THE HURRICANE MODEL

HURRICANE DEFINED

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.

HURRICANE MODEL

The model consists of several components or modules - an event generation module, local intensity module, and damage module.

The event generation module is used to create 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 used. 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. By stochastically drawing from these statistical distributions, the fundamental characteristics of each simulated storm are generated. The result is a large, representative catalog of potential 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 replacement value of the insured properties.

Following is a discussion of those elements reflected in the AIR tropical cyclone model for the Gulf and Atlantic Coasts of the continental United States.

EVENT
GENERATION
MODULE

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

Frequency of Occurrence - The model estimates frequency of occurrence based on 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 (Rmax) - 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.

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

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 the maximum over-water windspeed, and then adjustments are 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 produce higher wind speeds on the right side of the storm, as viewed facing the storm's forward direction. The model accounts for the dynamic interaction of the forward (translational) and rotational speeds, as well as 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 filling vary by region, consistent with historical observations.

Surface Friction Effect - Differences in surface terrain (or land use/land cover) 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.

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.

Separate damageability estimates exist by construction type (e.g., frame, joisted masonry, masonry non-combustible) and coverage (buildings vs. contents). Estimated hurricane damage is measured as the ratio of repair cost (i.e., expected hurricane losses) to the replacement cost of the property, capped at 80% of the replacement cost. 80% replacement cost is the exposure base, or limit of insurance, used in ISO's commercial property program.

BASIC GROUP II

RATEMAKING PROCEDURES AND LOSS COST CALCULATIONS

The following is an overview of the Basic Group II ratemaking procedures incorporating computer modeled hurricane loss costs in the hurricane-prone states.

REMOVAL OF HURRICANE LOSSES

Losses due to hurricanes reflected in the modeled hurricane loss costs are excluded from the Basic Group II loss database. Storm track data from several meteorological sources are analyzed to determine the date, location, and wind speed of each hurricane during the BG II experience period, and those losses incurred during the month of a hurricane reflected in the model are replaced with the average monthly non-hurricane losses for each rating territory. The resulting non-hurricane losses are used in the calculation of the statewide non-hurricane coverage change, the excess procedure (for CSP years, 1982 and later), and the type of policy relativities.

EXCESS PROCEDURE

The excess procedure smoothes catastrophic BG II losses due to perils other than hurricane. The procedure is based on long-term (1950 to present) statewide BG II non-hurricane experience. For those years prior to 1982 (pre-CSP), any year in which a hurricane occurred has been excluded from the excess procedure. For 1982 and later, losses incurred during the month of a hurricane have been replaced by average non-hurricane losses as described above. The normal loss ratio cutoff for each year included in the excess procedure is 0.500. From this follows the following definitions:

The Normal incurred losses for each year are those losses which do not exceed 0.500 times the earned premium for the year. The Excess incurred losses for each year are equal to the Incurred losses minus the Normal losses for the year.

$$\text{Normal Loss Ratio (NLR)} = \frac{\text{Normal Losses}}{\text{Earned Premium}}, \text{ for each year}$$

$$\text{Excess Loss Ratio (ELR)} = \frac{\text{Excess Losses}}{\text{Earned Premium}}, \text{ for each year}$$

$$\text{Excess Component} = \frac{\text{Sum of ELR's}}{\text{Sum of NLR's}}, \text{ over the long-term non-hurricane experience period}$$

The Excess Multiplier is equal to the excess component plus 1.000, and is applied to the normal non-hurricane losses used in the statewide experience review.

STATEWIDE
EXPERIENCE
LEVEL REVIEW

The statewide experience review (Exhibit B2) is based on the latest ten years of non-hurricane loss experience. The losses are normal non-hurricane losses (i.e., hurricane losses reflected by the model have been replaced by average non-hurricane losses and the resulting losses have been capped at 0.500 times the earned premium for each year), multiplied by the excess multiplier, loss adjustment expense factor, trend factors, and loss development factors. The non-hurricane aggregate loss costs are at current manual level and have been trended to the average date of writing in the assumed effective period.

NON-HURRICANE
LOSS COST
PROVISION

The non-hurricane portion of the revised BG II loss costs for each territory (where applicable), coverage, and symbol is calculated as:

$$\text{Current Non-Hurricane Loss Cost} \times \text{Statewide Monoline Non-Hurr. Change}$$

where the statewide monoline non-hurricane change is the product of the statewide non-hurricane coverage change (Exhibit B2) and the indicated monoline relativity found on Exhibit B8, Column (7).

MODELED
HURRICANE
LOSS COSTS

The model produces hurricane loss costs (expected hurricane losses per \$100 of replacement cost) including demand surge and truncated at 80% of value in ZIP code, coverage, and construction detail. These loss costs are weighted together to derive expected hurricane loss costs for each rating territory, coverage, and symbol, using the latest BG II premium distribution. The hurricane loss costs are then adjusted to an 80% coinsurance, base deductible, and base limit of insurance level, and a factor is applied to reflect all loss adjustment expenses.

REVISED
BASIC GROUP II
LOSS COSTS

The revised BG II loss costs are the sum of the non-hurricane portion of the revised loss costs plus the modeled hurricane loss costs.

The statewide BG II monoline change shown on Exhibit A1 is calculated as a weighted average of the individual loss cost changes for each territory (where applicable), coverage, and symbol. This monoline change (based on hurricane plus non-hurricane experience combined) is then used to determine the indicated loss cost adjustments by type of policy as described on Exhibit B8.

EXPLANATORY NOTES TO EXHIBIT C25

CALCULATION OF REVISED BASIC GROUP II LOSS COSTS

SYMBOL
DEFINITIONS

The Basic Group II (BG II) symbol definitions are:

<u>Symbol</u>	<u>Definition</u>
AA	Superior Wind Resistive
A	Wind Resistive
AB	Semi-Wind Resistive
B	Ordinary

The OA, OAB, and OB construction symbols are based on the old construction definitions and are included for weighting purposes since not all of the experience has been reported under the revised construction definitions.

COLUMN (1) Latest Year Aggregate Loss Costs

The latest accident year statewide aggregate loss costs for each symbol.

COLUMN (2) Current Loss Costs

The current manual loss costs are shown here.

COLUMN (3) Current Non-Hurricane Loss Costs

These are the current manual loss costs minus their hurricane component.

COLUMN (4) Statewide Monoline Non-Hurricane Loss Cost Change

The statewide monoline non-hurricane loss cost change is the product of the indicated statewide coverage change shown on Exhibit B2, line (10), times the monoline normalized formula relativity shown on Exhibit B8, column (7).

COLUMN (5) Indicated Non-Hurricane Loss Costs

The indicated non-hurricane loss costs are calculated as the current non-hurricane loss costs times the statewide non-hurricane monoline change, and reflect that portion of the indicated BG II loss costs due to non-hurricane perils.

EXPLANATORY NOTES TO EXHIBIT C25

CALCULATION OF REVISED BASIC GROUP II LOSS COSTS (Cont'd)

COLUMN (6) Hurricane Modeled Loss Costs

These are the expected hurricane loss costs based on the computer simulation model. The model produces hurricane loss costs (expected hurricane loss per \$100 of replacement cost) by ZIP code, coverage (building vs. contents) and construction. These loss costs are weighted together using the latest year written premium to calculate expected hurricane loss costs by territory, coverage and symbol. The loss costs are then adjusted to reflect the 80% coinsurance clause, \$500 base deductible level, base limit of insurance (\$250,000 for buildings and \$50,000 for contents), and all loss adjustment expenses.

COLUMN (7) Indicated Total Loss Costs

The indicated total loss costs are equal to the sum of the revised non-hurricane loss costs plus the hurricane modeled loss costs.

COLUMN (8) Percent Change

The percentage change is the ratio of the indicated loss cost to current loss cost, minus one. The overall statewide change is a weighted average of the percent changes for each symbol based on the aggregate loss costs shown in column (1).

OVERVIEW

LOSS ADJUSTMENT EXPENSE FACTORS

OBJECTIVE	The reported indemnity losses must be loaded for any loss adjustment expenses (LAE) that are not reported in statistical detail to ISO.
PROPERTY COVERAGES	For the property coverages, only the incurred indemnity losses are reported to ISO under the Commercial Statistical Plan. All loss adjustment expenses must be loaded in. A factor representing the ratio of incurred losses plus all LAE to incurred losses was selected based on multistate financial data (see Exhibit D6 for the underlying data).
EXPERIENCE INCLUDED	Fire and Allied Lines incurred loss and loss adjustment expense experience for 2015-2019 is displayed on Exhibit D6. The experience is based on Insurance Expense Exhibit information compiled by A.M. Best. For Allied Lines, the loss adjustment expense ratios [Exhibit D6, line (3)(b)] for a few years are distorted by unusual catastrophe-related losses and loss adjustment expenses. The selected Allied Lines loss adjustment expense factor used for this review was selected after consideration of this distortion and based on a review of average loss adjustment expense ratios over a longer time period.
SELECTED FACTORS	The following factors have been used in this review to load incurred losses for all loss adjustment expenses:

Basic Group I	1.090
Basic Group II	1.110
Special Causes of Loss	1.110

VERMONT

SUMMARY OF MONOLINE PROSPECTIVE LOSS COST CHANGES (A)

COVERAGE	INDICATIONS	AGGREGATE LOSS COSTS AT CURRENT LEVEL
BASIC GROUP I	-3.1%	5,168,481
BASIC GROUP II	-3.0%	1,083,096
SPECIAL CAUSES OF LOSS	-8.5%	2,307,086
ALL COVERAGES COMBINED	-4.5%	8,558,663

(A) FOR TREND PURPOSES, THE PERIOD OF USE FOR THIS REVISION IS ASSUMED TO BEGIN ON 10/01/2021.

VERMONT

BASIC GROUP II PROSPECTIVE LOSS COST CHANGES
BY TERRITORY, COVERAGE, AND SYMBOL

TERRITORY

COVERAGE	SYMBOL	Entire State
BUILDINGS	AA	0.0%
	A	-4.3%
	AB	-3.7%
	B	-2.7%
CONTENTS	AA	-3.8%
	A	-3.4%
	AB	-2.9%
	B	-4.8%
	TOTAL	-3.0%

VERMONT

SPECIAL CAUSES OF LOSS PROSPECTIVE LOSS COST CHANGES BY CATEGORY

CATEGORY	DESCRIPTION	ENTIRE STATE
01	BUILDINGS	-8.8%
02	RES. APTS. AND CONDOS	-7.7%
03	OFFICES	-7.7%
04	MERCANTILE - HIGH	-7.2%
05	MERCANTILE - MEDIUM	-7.6%
06	MERCANTILE - LOW	-7.7%
07	MOTELS AND HOTELS	-6.7%
08	INSTITUTIONAL - HIGH	-7.7%
09	INSTITUTIONAL - LOW	-7.8%
10	INDUST-PROC - HIGH	-7.5%
11	INDUST-PROC - LOW	-7.6%
12	SERVICE - HIGH	-7.5%
13	SERVICE - LOW	-7.7%
14	CONTRACTORS	-7.6%
	STATEWIDE TOTAL	-8.5%

VERMONT

POTENTIAL IMPACT OF BG I, BG II, AND SCL MONOLINE REVISIONS
ON COMMERCIAL PACKAGE POLICY

	(1)	(2)	(3)	(4)
		BASIC GROUP I	BASIC GROUP II	SPECIAL CAUSES OF LOSS
TYPE OF POLICY	-----	-----	-----	-----
31	MOTEL/HOTEL	-3.1%	-8.1%	-8.3%
32	APARTMENT	-3.1%	-8.3%	-8.5%
33	OFFICE	-3.1%	-8.3%	-8.5%
34	MERCANTILE	-3.1%	-8.3%	-8.5%
35	INSTITUTIONAL	-3.1%	-8.0%	-8.3%
36	SERVICES	-3.1%	-8.2%	-8.5%
37	INDUST/PROCESSING	-3.1%	-8.2%	-8.5%
38	CONTRACTORS	-3.1%	-8.2%	-8.4%

BASIC GROUP I, BASIC GROUP II, AND SPECIAL CAUSES OF LOSS MONOLINE CHANGES BY TYPE OF POLICY (TOP) ARE DISPLAYED. THEY ARE CALCULATED BY TAKING A WEIGHTED AVERAGE OF THE LOSS COST CHANGES BY TERRITORY (WHERE APPLICABLE) FOR BG I, OR BY CATEGORY FOR SCL, USING THE LATEST YEAR MULTILINE AGGREGATE LOSS COSTS AS WEIGHTS. BASIC GROUP II MONOLINE CHANGES ARE CALCULATED BY TAKING A WEIGHTED AVERAGE OF THE LOSS COST CHANGES BY COVERAGE AND SYMBOL, USING THE LATEST YEAR AGGREGATE LOSS COSTS AS WEIGHTS.

VERMONT

STATEWIDE BASIC GROUP I
COVERAGE LOSS COST LEVEL EVALUATION

(1) YEAR	(2) AGGREGATE* LOSS COSTS	(3) ADJUSTED** INCURRED LOSSES	(4) EXPERIENCE RATIO (3)/(2)	(5) WEIGHTS		
2016	6,188,682	4,397,687	0.711	0.10		
2017	5,997,874	663,456	0.111	0.15		
2018	5,790,867	2,178,467	0.376	0.20		
2019	5,131,104	5,595,384	1.090	0.25		
2020	5,168,481	9,367,971	1.813	0.30		
(6) WEIGHTED EXPERIENCE RATIO					=	0.979
(7) CREDIBILITY					=	0.250
(8) EXPECTED EXPERIENCE RATIO					=	1.025
(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO (0.250 X 0.979) + (0.750 X 1.025)					=	1.014
(10) INDICATED COVERAGE LOSS COST CHANGE					=	1.014
					OR	1.4%

* AGGREGATE LOSS COSTS ARE ADJUSTED TO CURRENT ISO LOSS COST LEVEL AND 04/01/2022 AMOUNT OF INSURANCE LEVELS.

** INCURRED LOSSES ARE ADJUSTED TO 10/01/2022 COST LEVELS INCLUDING LOSS DEVELOPMENT AND ALL LOSS ADJUSTMENT EXPENSES.

VERMONT

STATEWIDE BASIC GROUP II
COVERAGE LOSS COST LEVEL EVALUATION

(1)	(2)	(3)	(4)	(5)
YEAR	AGGREGATE* LOSS COSTS	NON HURRICANE AGGREGATE LOSS COSTS	ADJUSTED NON-HURRICANE INCURRED LOSSES	NON-HURRICANE EXPERIENCE RATIO (4)/(3)
2011	1,245,073	1,051,999	1,383,745	1.315
2012	1,206,953	1,018,709	936,311	0.919
2013	1,273,615	1,074,943	1,226,451	1.141
2014	1,256,322	1,061,313	591,401	0.557
2015	1,265,144	1,069,572	1,677,018	1.568
2016	1,272,775	1,076,416	333,738	0.310
2017	1,211,980	1,025,600	585,701	0.571
2018	1,219,272	1,032,315	1,645,150	1.594
2019	1,097,698	928,952	1,078,853	1.161
2020	1,083,096	917,204	404,331	0.441
(6) WEIGHTED EXPERIENCE RATIO				= 0.958
(7) CREDIBILITY				= 0.250
(8) EXPECTED EXPERIENCE RATIO				= 1.014
(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO (0.250 X 0.958) + (0.750 X 1.014)				= 1.000
(10) INDICATED COVERAGE LOSS COST CHANGE				= 1.000
				OR 0.0%

* AGGREGATE LOSS COSTS ARE ADJUSTED TO CURRENT ISO LOSS COST LEVEL AND 04/01/2022 AMOUNT OF INSURANCE LEVELS.

** INCURRED LOSSES ARE ADJUSTED TO 10/01/2022 COST LEVELS INCLUDING LOSS DEVELOPMENT AND ALL LOSS ADJUSTMENT EXPENSES.

VERMONT

STATEWIDE SPECIAL CAUSES OF LOSS
COVERAGE LOSS COST LEVEL EVALUATION

(1) YEAR	(2) AGGREGATE* LOSS COSTS	(3) ADJUSTED** INCURRED LOSSES	(4) EXPERIENCE RATIO (3)/(2)	(5) WEIGHTS		
2016	2,685,691	1,123,891	0.418	0.10		
2017	2,556,077	2,002,212	0.783	0.15		
2018	2,624,396	1,961,978	0.748	0.20		
2019	2,354,285	1,715,946	0.729	0.25		
2020	2,307,086	1,248,610	0.541	0.30		
(6) WEIGHTED EXPERIENCE RATIO					=	0.653
(7) CREDIBILITY					=	0.250
(8) EXPECTED EXPERIENCE RATIO					=	1.008
(9) CREDIBILITY WEIGHTED EXPERIENCE RATIO (0.250 X 0.653) + (0.750 X 1.008)					=	0.919
(10) INDICATED COVERAGE LOSS COST CHANGE					=	0.919
					OR	-8.1%

* AGGREGATE LOSS COSTS ARE ADJUSTED TO CURRENT ISO LOSS COST LEVEL AND 04/01/2022 AMOUNT OF INSURANCE LEVELS.

** INCURRED LOSSES ARE ADJUSTED TO 10/01/2022 COST LEVELS INCLUDING LOSS DEVELOPMENT AND ALL LOSS ADJUSTMENT EXPENSES.

VERMONT
BASIC GROUP I RELATIVITY ANALYSIS

TOP	(1) \$ LST SQ FORMULA RELATIVITY	(2) CREDIBILITY Z	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	STATEWIDE COVERAGE LOSS COST CHANGE OF OR	1.014 1.4%
-----	-----	-----	-----	-----	-----	
10	0.218	0.037	0.945	0.956		
31	1.334	0.014	1.004	1.016		
32	1.654	0.038	1.019	1.031		
33	0.003	0.015	0.917	0.927		
34	2.350	0.037	1.032	1.044		
35	1.203	0.053	1.010	1.021		
36	0.628	0.036	0.983	0.995		
37	0.167	0.030	0.948	0.959		
38	0.298	0.013	0.984	0.996		

STATEWIDE MONOLINE LOSS COST LEVEL CHANGE: -3.1%

VERMONT
BASIC GROUP I RELATIVITY ANALYSIS

EXAMPLE OF AN INDIVIDUAL LOSS COST CHANGE CALCULATION
FOR ENTIRE STATE

STATEWIDE COVERAGE LOSS COST LEVEL CHANGE	=	1.014
TERRITORIAL RELATIVITY	=	1.000
MONOLINE (TOP 10) RELATIVITY	=	0.956

INDICATED MONOLINE LOSS COSTS LEVEL CHANGE
= 1.014 X 1.000 X 0.956 = 0.969
OR -3.1%

VERMONT
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

TOP	(1) \$ LST SQ FORMULA RELATIVITY	(2) CREDIBILITY Z	(3) CREDIBILITY WEIGHTED RELATIVITY	(4) BALANCED RELATIVITY	STATEWIDE COVERAGE LOSS COST CHANGE OF OR	0.919 -8.1%
-----	-----	-----	-----	-----	-----	
10	0.890	0.034	0.996	0.996		
31	0.853	0.017	0.997	0.998		
32	1.012	0.058	1.001	1.001		
33	0.985	0.021	1.000	1.000		
34	0.910	0.059	0.994	0.995		
35	1.173	0.039	1.006	1.007		
36	1.078	0.036	1.003	1.003		
37	0.966	0.024	0.999	1.000		
38	1.235	0.012	1.003	1.003		

CATEGORY					(5) INDICATED MONOLINE LOSS COST LEVEL CHANGE
01	0.968	0.363	0.988	0.996	-8.8%
02	0.997	0.046	1.000	1.008	-7.7%
03	0.978	0.020	1.000	1.008	-7.7%
04	1.230	0.026	1.005	1.014	-7.2%
05	1.178	0.013	1.002	1.010	-7.6%
06	0.994	0.012	1.000	1.008	-7.7%
07	1.944	0.016	1.011	1.019	-6.7%
08	1.004	0.029	1.000	1.008	-7.7%
09	0.949	0.028	0.999	1.007	-7.8%
10	1.287	0.009	1.002	1.011	-7.5%
11	1.044	0.018	1.001	1.009	-7.6%
12	1.140	0.018	1.002	1.011	-7.5%
13	0.935	0.011	0.999	1.008	-7.7%
14	1.073	0.013	1.001	1.009	-7.6%

OVERALL MONOLINE LOSS COST LEVEL CHANGE -8.5%

VERMONT
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS

EXAMPLE OF AN INDIVIDUAL LOSS COST CHANGE CALCULATION

STATEWIDE COVERAGE LOSS COST LEVEL CHANGE	=	0.919
MONOLINE (TOP 10) RELATIVITY	=	0.996
CATEGORY 01 RELATIVITY	=	0.996

INDICATED MONOLINE LOSS COST LEVEL CHANGE FOR CATEGORY 01	=	0.912
	OR	-8.8%

VERMONT
 BASIC GROUP I RELATIVITY ANALYSIS
 SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	(1) ACCIDENT YEAR ENDING 03/31/2020 AGGREGATE LOSS COSTS	(2) 5 - YEAR AGGREGATE LOSS COSTS	(3) 5 - YEAR EXPERIENCE RATIO	(4) CREDIBILITY WEIGHTED RELATIVITY

ENTIRE STATE				
10 MONOLINE	700,430	3,802,658	0.171	0.218
31 MULTILINE MOTEL/HOTEL	236,684	1,369,762	1.047	1.334
32 MULTILINE APARTMENT	703,320	3,992,700	1.298	1.654
33 MULTILINE OFFICE	268,922	1,482,813	0.002	0.003
34 MULTILINE MERCANTILE	705,229	3,822,586	1.845	2.350
35 MULTILINE INSTITUTIONAL	1,064,999	5,651,765	0.944	1.203
36 MULTILINE SERVICES	701,923	3,712,979	0.493	0.628
37 MULTILINE INDUST/PROCES:	589,999	3,117,661	0.131	0.167
38 MULTILINE CONTRACTORS	<u>196,975</u>	<u>1,324,084</u>	<u>0.234</u>	<u>0.298</u>
TOTAL ALL TOPS*	5,168,481	28,277,008	0.785	1.000

VERMONT
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 03/31/2020 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	CREDIBILITY WEIGHTED RATIO	CREDIBILITY WEIGHTED RELATIVITY

ENTIRE STATE						
10 MONOLINE	01 BUILDINGS	196,942	973,922	0.541	0.541	0.871
	02 RES. APTS. AND COND	7,508	53,981	1.274	0.822	1.324
	03 OFFICES	9,426	58,528	0.209	0.407	0.655
	04 MERCANTILE - HIGH	13,092	74,454	0.333	0.449	0.723
	05 MERCANTILE - MEDIUM	2,567	16,268	0.000	0.390	0.628
	06 MERCANTILE - LOW	1,845	15,839	0.000	0.390	0.628
	07 MOTELS AND HOTELS	935	7,642	0.000	0.406	0.654
	08 INSTITUTIONAL - HIG	2,189	14,016	4.717	1.654	2.663
	09 INSTITUTIONAL - LOW	5,805	55,553	0.000	0.328	0.528
	10 INDUST-PROC - HIGH	1,734	14,659	3.446	1.321	2.127
	11 INDUST-PROC - LOW	13,278	59,628	0.000	0.323	0.520
	12 SERVICE - HIGH	5,066	28,224	0.113	0.404	0.651
	13 SERVICE - LOW	5,946	41,335	0.257	0.439	0.707
	14 CONTRACTORS	<u>1,128</u>	<u>4,785</u>	<u>0.000</u>	<u>0.412</u>	<u>0.663</u>
	TOTAL	267,461	1,418,834	0.527	0.530	0.853
31 MULTILINE	01 BUILDINGS	99,233	442,597	0.040	0.516	0.831
MOTEL/HOTEL	07 MOTELS AND HOTELS	<u>28,353</u>	<u>230,504</u>	<u>2.882</u>	<u>1.037</u>	<u>1.670</u>
	TOTAL	127,586	673,101	0.672	0.632	1.017
32 MULTILINE	01 BUILDINGS	351,550	1,802,265	0.562	0.612	0.986
APARTMENT	02 RES. APTS. AND COND	<u>118,480</u>	<u>673,678</u>	<u>0.582</u>	<u>0.629</u>	<u>1.013</u>
	TOTAL	470,030	2,475,943	0.567	0.616	0.993

VERMONT
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 03/31/2020 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	CREDIBILITY WEIGHTED RATIO	CREDIBILITY WEIGHTED RELATIVITY
ENTIRE STATE (Continued)						
33 MULTILINE OFFICE	01 BUILDINGS	113,303	612,395	0.437	0.595	0.958
	03 OFFICES	33,115	232,620	0.459	0.612	0.986
	08 INSTITUTIONAL - HIG	488	2,912	0.000	0.560	0.902
	14 CONTRACTORS	<u>10</u>	<u>10</u>	<u>0.000</u>	<u>0.560</u>	<u>0.902</u>
	TOTAL	146,916	847,937	0.440	0.599	0.964
34 MULTILINE MERCANTILE	01 BUILDINGS	376,915	1,844,875	0.405	0.550	0.886
	03 OFFICES	75	6,926	0.000	0.560	0.902
	04 MERCANTILE - HIGH	39,781	321,485	1.060	0.724	1.166
	05 MERCANTILE - MEDIUM	28,519	186,838	0.812	0.672	1.082
	06 MERCANTILE - LOW	25,905	158,338	0.157	0.566	0.911
	08 INSTITUTIONAL - HIG	27	683	0.000	0.560	0.902
	12 SERVICE - HIGH	96	738	2.498	0.883	1.422
	13 SERVICE - LOW	500	640	0.000	0.560	0.902
	14 CONTRACTORS	<u>1,806</u>	<u>9,343</u>	<u>0.000</u>	<u>0.559</u>	<u>0.900</u>
TOTAL	473,624	2,529,866	0.469	0.573	0.923	
35 MULTILINE INSTITUTIONAL	01 BUILDINGS	167,413	846,360	0.880	0.709	1.142
	03 OFFICES	33	137	0.000	0.560	0.902
	08 INSTITUTIONAL - HIG	83,521	430,472	1.076	0.735	1.184
	09 INSTITUTIONAL - LOW	60,116	328,869	0.928	0.699	1.126
	12 SERVICE - HIGH	110	635	0.000	0.560	0.902
	14 CONTRACTORS	<u>216</u>	<u>471</u>	<u>0.000</u>	<u>0.560</u>	<u>0.902</u>
TOTAL	311,409	1,606,944	0.941	0.714	1.150	

VERMONT
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 03/31/2020 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	CREDIBILITY WEIGHTED RATIO	CREDIBILITY WEIGHTED RELATIVITY
ENTIRE STATE (Continued)						
36 MULTILINE SERVICES	01 BUILDINGS	204,384	1,063,707	0.623	0.652	1.050
	03 OFFICES	35	454	0.000	0.597	0.961
	04 MERCANTILE - HIGH	65	310	0.000	0.597	0.961
	05 MERCANTILE - MEDIUM	3	3	0.000	0.597	0.961
	06 MERCANTILE - LOW	274	432	0.000	0.597	0.961
	08 INSTITUTIONAL - HIG	1,491	4,998	0.000	0.595	0.958
	09 INSTITUTIONAL - LOW	11,306	50,136	0.000	0.573	0.923
	11 INDUST-PROC - LOW	5	25	0.000	0.597	0.961
	12 SERVICE - HIGH	37,714	252,079	0.983	0.771	1.242
	13 SERVICE - LOW	21,126	123,081	0.443	0.635	1.023
	14 CONTRACTORS	<u>453</u>	<u>2,212</u>	<u>0.000</u>	<u>0.596</u>	<u>0.960</u>
	TOTAL	276,856	1,497,437	0.628	0.663	1.068
37 MULTILINE INDUST/PROC	01 BUILDINGS	118,427	659,415	0.446	0.581	0.936
	03 OFFICES	10	10	0.000	0.597	0.961
	04 MERCANTILE - HIGH	165	165	0.000	0.597	0.961
	10 INDUST-PROC - HIGH	16,408	118,285	1.085	0.770	1.240
	11 INDUST-PROC - LOW	24,643	211,073	0.733	0.699	1.126
	12 SERVICE - HIGH	34	34	0.000	0.597	0.961
	14 CONTRACTORS	<u>7</u>	<u>7</u>	<u>0.000</u>	<u>0.597</u>	<u>0.961</u>
	TOTAL	159,694	988,989	0.555	0.619	0.997

VERMONT
SPECIAL CAUSES OF LOSS RELATIVITY ANALYSIS
SUMMARY OF EXPERIENCE USED IN SIMULTANEOUS REVIEW

TYPE OF POLICY	CATEGORY	(1)	(2)	(3)	(4)	(5)
		ACCIDENT YEAR ENDING 03/31/2020 AGGREGATE LOSS COSTS	5 - YEAR AGGREGATE LOSS COSTS	5 - YEAR EXPERIENCE RATIO	CREDIBILITY WEIGHTED RATIO	CREDIBILITY WEIGHTED RELATIVITY
ENTIRE STATE (Continued)						
38 MULTILINE	01 BUILDINGS	50,378	299,752	0.884	0.747	1.203
CONTRACTORS	03 OFFICES	264	622	0.000	0.597	0.961
	04 MERCANTILE - HIGH	28	28	0.000	0.597	0.961
	11 INDUST-PROC - LOW	155	155	0.000	0.597	0.961
	14 CONTRACTORS	<u>22,685</u>	<u>187,927</u>	<u>1.256</u>	<u>0.829</u>	<u>1.335</u>
	TOTAL	73,510	488,484	0.993	0.771	1.242
TOTAL ALL TOPS*	01 BUILDINGS	1,678,545	8,545,288	0.526	0.599	0.965
	02 RES. APTS. AND COND	125,988	727,659	0.623	0.640	1.031
	03 OFFICES	42,958	299,297	0.400	0.567	0.913
	04 MERCANTILE - HIGH	53,131	396,442	0.876	0.656	1.056
	05 MERCANTILE - MEDIUM	31,089	203,109	0.745	0.649	1.045
	06 MERCANTILE - LOW	28,024	174,609	0.145	0.554	0.893
	07 MOTELS AND HOTELS	29,288	238,146	2.790	1.017	1.637
	08 INSTITUTIONAL - HIG	87,716	453,081	1.142	0.755	1.215
	09 INSTITUTIONAL - LOW	77,227	434,558	0.722	0.653	1.051
	10 INDUST-PROC - HIGH	18,142	132,944	1.311	0.823	1.325
	11 INDUST-PROC - LOW	38,081	270,881	0.474	0.568	0.914
	12 SERVICE - HIGH	43,020	281,710	0.881	0.727	1.171
	13 SERVICE - LOW	27,572	165,056	0.395	0.591	0.952
	14 CONTRACTORS	<u>26,305</u>	<u>204,755</u>	<u>1.083</u>	<u>0.786</u>	<u>1.266</u>
	TOTAL	2,307,086	12,527,535	0.611	0.621	1.000

* TOTALS IN COLUMNS (3) & (4) ARE AVERAGES USING COLUMN (1) AS WEIGHTS.

VERMONT

BASIC GROUP II RELATIVITY ANALYSIS

INDICATED TOTAL LOSS COST ADJUSTMENT: -0.4%

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	ACCIDENT YEAR ENDING 03/31/2020	ACCIDENT YEARS 2011-2020	FORMULA RELATIVITY	CREDIBILITY C	CREDIBILITY WEIGHTED RELATIVITY D	BALANCED FORMULA RELATIVITY E	NORMALIZED FORMULA RELATIVITY F	CURRENT IMPLICIT PMF	INDICATED IMPLICIT PMF G	INDICATED TOTAL LOSS COST ADJUST
	LOSS COSTS AT CURRENT IMPLICIT PMF	NON-HURRICANE EXPERIENCE RATIO AT CURRENT PMF	(2)/ 0.816							
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
MONOLINE	201,865	0.513	0.629	0.046	0.984	0.984	0.9743			-3.0%
MULTILINE	881,231	0.886	1.086	0.181	1.016	1.016	1.0063			0.1%
	-----	-----	-----	-----	-----	-----	-----			-----
COVERAGE	1,083,096	0.816	1.001			1.0100	1.0003			-0.5%
MULTILINE TOP										
31 MOTEL/HOTEL	44,680	0.641	0.786	0.011	0.999	1.008	0.9980	0.615	0.630	-0.7%
32 APARTMENT	101,232	1.160	1.422	0.022	1.010	1.019	1.0089	0.506	0.524	0.4%
33 OFFICE	75,368	0.356	0.436	0.016	0.992	1.001	0.9911	0.850	0.865	-1.4%
34 MERCANTILE	169,973	0.728	0.892	0.042	0.996	1.005	0.9950	0.705	0.720	-1.0%
35 INSTITUTIONAL	214,482	1.238	1.517	0.051	1.027	1.036	1.0257	0.636	0.670	2.1%
36 SERVICES	177,657	0.988	1.211	0.042	1.010	1.019	1.0089	0.850	0.880	0.4%
37 INDUST/PROCESS	68,486	0.424	0.520	0.020	0.991	1.000	0.9901	0.592	0.602	-1.5%
38 CONTRACTORS	29,353	0.485	0.594	0.010	0.997	1.006	0.9960	0.680	0.695	-0.9%
	-----	-----	-----	-----	-----	-----	-----			-----
	881,231	0.886	1.086		1.007	1.016	1.0063			0.1%

B - AVERAGE WEIGHTED BY COLUMN (1)

C - CREDIBILITY = P/(P+K) WHERE P REPRESENTS THE TOTAL 10 YEAR ADJUSTED LOSS COSTS AND K = 45,000,000

D - (5) = (3) * (4) + (1.000 - (4))

E - (6) = (5) * (1.016/1.007)

F - (7) = (6) / 1.01

G - (9) = (7) * (8) / (0.9743)

VERMONT
BASIC GROUP I
HISTORY OF STATEWIDE LOSS COST/RATE LEVEL CHANGES

LOSS COST/RATE LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2000-03-01	-14.8	0.852	0.678	0.833
2001-02-01	-16.1	0.715	0.808	0.917
2002-02-01	-15.5	0.604	0.957	0.917
2004-01-01	-9.2	0.548	1.055	1.000
2007-10-01	-4.0	0.527	1.097	0.250
2008-10-01	-0.2	0.525	1.101	0.250
2009-09-01	5.6	0.555	1.041	0.333
2012-10-01	9.2	0.606	0.954	0.250
2013-10-01	11.4	0.675	0.856	0.250
2014-10-01	-3.3	0.653	0.885	0.250
2017-01-01	5.2	0.687	0.841	1.000
2018-11-01	-8.1	0.631	0.916	0.167
2019-11-01	-8.4	0.578	1.000	0.167

TIME ELEMENT ONLY LOSS COST LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2013-04-01	-13.1	0.869	1.000	0.750

VERMONT
BASIC GROUP II
HISTORY OF STATEWIDE LOSS COST/RATE LEVEL CHANGES

LOSS COST/RATE LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2000-03-01	0.0	1.000	1.594	0.833
2001-02-01	4.8	1.048	1.521	0.917
2002-02-01	4.2	1.092	1.460	0.917
2004-01-01	1.8	1.112	1.433	1.000
2007-10-01	7.6	1.196	1.333	0.250
2008-10-01	4.1	1.245	1.280	0.250
2009-09-01	4.3	1.299	1.227	0.333
2012-10-01	6.6	1.384	1.152	0.250
2013-10-01	6.1	1.469	1.085	0.250
2014-10-01	5.7	1.553	1.026	0.250
2017-01-01	5.6	1.640	0.972	1.000
2018-11-01	-2.6	1.597	0.998	0.167
2019-11-01	-0.2	1.594	1.000	0.167

TIME ELEMENT ONLY LOSS COST LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2013-04-01	-13.3	0.867	1.000	0.750

VERMONT
SPECIAL CAUSES OF LOSS
HISTORY OF STATEWIDE LOSS COST/RATE LEVEL CHANGES

LOSS COST/RATE LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2000-03-01	-12.9	0.871	0.741	0.833
2001-02-01	-9.5	0.788	0.819	0.917
2002-02-01	1.7	0.802	0.804	0.917
2004-01-01	-1.4	0.790	0.816	1.000
2007-10-01	-12.8	0.689	0.936	0.250
2008-10-01	-0.8	0.684	0.943	0.250
2009-09-01	5.2	0.719	0.897	0.333
2012-10-01	2.6	0.738	0.874	0.250
2013-10-01	-0.6	0.734	0.879	0.250
2014-10-01	-7.2	0.681	0.947	0.250
2017-01-01	2.0	0.694	0.929	1.000
2018-11-01	-3.5	0.670	0.963	0.167
2019-11-01	-3.8	0.645	1.000	0.167

TIME ELEMENT ONLY LOSS COST LEVEL HISTORY

(1)	(2)	(3)	(4)	(5)
EFFECTIVE DATE	LOSS COST/ RATE LEVEL CHANGE (%)	LOSS COST/ RATE LEVEL INDEX	ADJUSTMENT FACTOR	WEIGHT*
2013-04-01	-25.0	0.750	1.000	0.750

VERMONT
 HISTORY OF BASIC GROUP I
 LOSS COST CHANGES BY TERRITORY, RATING ID AND RATING GROUP

TERRITORY: Entire State

EFFECTIVE RATING
 DATE ID

RATING GROUP

		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	17	18	19	20	21	22
10/01/2007	SPEC.	-7.9	-10.1	-2.7	-4.7	-8.1	-10.8	-9.7	-8.7	-8.2	-8.8	-4.8	-4.8	-5.3	-4.8	-7.4	-8.8	-9.3	-6.2	-6.2	-7.6	-6.2
	CLASS	-1.8	-4.1	3.7	1.6	-2.0	-4.9	-3.7	-2.6	-2.1	-2.8	1.5	1.5	0.9	1.5	-1.2	-8.8	-9.3	-6.2	-6.2	-7.6	-6.2
10/01/2008	SPEC.	-7.0	-8.8	-1.9	-5.1	-4.0	-7.5	-6.5	-6.8	-6.8	-7.3	-4.0	-4.0	-5.0	-4.0	-6.6	-5.9	-5.2	-5.6	-5.6	-6.3	-5.6
	CLASS	2.6	0.6	8.3	4.8	5.9	2.1	3.2	2.8	2.9	2.3	5.9	5.9	4.9	5.9	3.1	-5.9	-5.2	-5.6	-5.6	-6.3	-5.6
09/01/2009	SPEC.	9.9	8.8	17.5	21.5	15.2	16.3	12.9	10.6	12.2	9.9	15.2	15.2	13.4	15.2	14.2	13.9	14.7	14.2	14.2	13.4	14.2
	CLASS	-4.6	-5.5	2.0	5.5	0.0	1.0	-2.0	-4.0	-2.6	-4.6	0.0	0.0	-1.5	0.0	-0.8	13.9	14.7	14.2	14.2	13.4	14.2
10/01/2012	SPEC.	3.5	2.8	9.8	29.4	4.9	13.0	1.7	1.4	10.7	2.4	4.9	4.9	10.1	4.9	10.5	10.1	11.3	8.3	8.3	10.1	8.3
	CLASS	0.4	-0.2	6.6	25.6	1.8	9.7	-1.3	-1.6	7.4	-0.7	1.8	1.8	6.9	1.8	7.2	6.9	11.3	5.1	8.3	10.1	5.1
10/01/2013	SPEC.	7.6	4.6	13.3	22.1	6.4	14.3	0.5	-0.1	9.0	3.0	8.5	6.4	8.4	6.4	9.7	9.0	8.8	8.3	8.3	9.2	8.3
	CLASS	8.8	5.8	14.5	23.5	7.6	15.5	1.6	1.0	10.3	4.1	9.7	7.6	9.6	7.6	10.9	10.3	8.8	9.5	8.3	9.2	9.5
10/01/2014	SPEC.	-14.7	-15.0	-13.3	-17.0	-14.7	-12.7	-15.6	-13.8	-14.1	-16.1	-15.0	-14.7	-14.3	-14.7	-14.4	-15.1	-15.4	-15.4	-15.4	-15.1	-15.4
	CLASS	4.3	4.0	6.0	1.5	4.3	6.7	3.2	5.5	5.0	2.5	4.0	4.3	4.8	4.3	4.6	3.8	-15.4	3.5	-15.4	-15.1	3.5
01/01/2017	SPEC.	1.0	1.4	-1.4	-3.8	-1.3	-1.4	-2.0	-1.8	-1.4	-2.1	-0.9	-1.3	-0.7	-1.3	-0.7	0.2	0.4	2.1	2.1	0.3	2.1
	CLASS	10.9	11.3	8.3	5.6	8.4	8.3	7.7	7.9	8.3	7.6	8.9	8.4	9.1	8.4	9.1	10.0	0.4	12.1	2.1	0.3	12.1
11/01/2018	SPEC.	-2.7	-3.1	-7.0	-13.1	-6.4	-12.0	-7.9	-8.8	-9.0	-6.8	-5.9	-6.6	-4.6	-6.6	-7.0	-5.3	-6.1	-2.4	-2.4	-6.0	-2.4
	CLASS	-2.7	-3.1	-7.0	-13.1	-6.4	-12.0	-7.9	-8.8	-9.0	-6.8	-5.9	-6.6	-4.6	-6.6	-7.0	-5.3	-6.1	-2.4	-2.4	-6.0	-2.4
11/01/2019	SPEC.	-4.5	-4.7	-8.0	-13.2	-7.0	-11.1	-8.3	-9.3	-7.5	-7.7	-6.7	-7.5	-7.0	-7.5	-7.7	-5.7	-6.0	-3.3	-3.3	-6.4	-3.3
	CLASS	-4.5	-4.7	-8.0	-13.2	-7.0	-11.1	-8.3	-9.3	-7.5	-7.7	-6.7	-7.5	-7.0	-7.5	-7.7	-5.7	-6.0	-3.3	-3.3	-6.4	-3.3

VERMONT

BASIC GROUP II
HISTORY OF LOSS COST/RATE LEVEL CHANGES
BY TERRITORY, SYMBOL AND COVERAGE

(1) TERRITORY	(2) EFFECTIVE DATE	(3) SYMBOL	(4) BUILDING	(5) CONTENTS
Statewide	10/01/2007	A	0.0%	0.0%
		AA	0.0%	0.0%
		AB	44.4%	44.4%
		B	4.5%	4.5%
	10/01/2008	A	0.0%	0.0%
		AA	0.0%	0.0%
		AB	0.0%	0.0%
		B	4.3%	4.3%
	09/01/2009	A	0.0%	0.0%
		AA	0.0%	0.0%
		AB	7.7%	7.7%
		B	4.2%	4.2%
	10/01/2012	A	17.6%	17.4%
		AA	20.0%	14.3%
		AB	8.7%	6.9%
		B	6.7%	5.7%
	10/01/2013	A	5.0%	3.7%
		AA	5.6%	4.2%
		AB	4.0%	6.5%
		B	6.3%	5.4%
	10/01/2014	A	4.8%	3.6%
		AA	5.3%	4.0%
		AB	3.8%	3.0%
		B	5.9%	5.1%
	01/01/2017	A	4.5%	6.9%
		AA	5.0%	7.7%
		AB	7.4%	5.9%
		B	5.6%	4.9%
11/1/2018	A	0.0%	-3.2%	
	AA	0.0%	-3.6%	
	AB	-3.4%	-2.8%	
	B	-2.6%	-2.3%	
11/1/2019	A	0.0%	-3.3%	
	AA	0.0%	-3.7%	
	AB	-3.6%	-2.9%	
	B	0.0%	0.0%	

VERMONT

SPECIAL CAUSES OF LOSS

HISTORY OF LOSS COST/RATE LEVEL CHANGES BY CATEGORY

(1) EFFECTIVE DATE	(2) CATEGORY													
	01	02	03	04	05	06	07	08	09	10	11	12	13	14
10/01/2007	-11.3	-16.7	-16.7	-21.7	-17.6									
10/01/2008	0.0	-2.9	-2.2	-7.2	-2.7									
09/01/2009	5.9	3.2	1.9	-0.5	4.1									
10/01/2012	0.9	4.1	4.7	3.7	4.0	4.0	3.9	6.0	5.5	4.1	5.5	6.1	4.6	6.8
10/01/2013	-1.6	0.4	0.5	1.4	0.9	0.6	0.5	1.1	1.0	0.0	-0.1	1.3	-0.8	3.2
10/01/2014	-7.5	-6.6	-6.7	-6.1	-6.5	-6.8	-6.9	-7.4	-6.6	-7.2	-6.8	-6.9	-9.0	-5.9
01/01/2017	1.3	3.1	3.7	6.1	3.8	3.3	2.8	1.5	3.4	3.7	3.2	2.9	3.1	3.4
11/01/2018	-4.0	-3.1	-2.4	-1.8	-2.5	-2.7	-2.1	-3.0	-2.9	-2.3	-2.7	-2.8	-2.6	-2.5
11/01/2019	-6.1	0.0	2.8	5.5	2.7	2.3	4.6	0.1	0.8	3.6	-0.1	1.4	2.2	2.3

VERMONT

BASIC GROUP I IMPLICIT PACKAGE
MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

CPP IMPLICIT PACKAGE MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

TOP	DESCRIPTION	IPMF	LOW CAP	HIGH CAP

31	MOTEL/HOTEL	1.002	0.500	1.500
32	APARTMENT	0.690	0.500	1.500
33	OFFICE	0.903	0.500	1.500
34	MERCANTILE	0.522	0.500	1.500
35	INSTITUTIONAL	0.889	0.500	1.500
36	SERVICES	0.795	0.500	1.500
37	INDUST/PROCESSING	0.901	0.500	1.500
38	CONTRACTORS	0.747	0.500	1.500

VERMONT

BASIC GROUP II IMPLICIT PACKAGE
MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

CPP IMPLICIT PACKAGE MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

TOP	DESCRIPTION	IPMF	LOW CAP	HIGH CAP

31	MOTEL/HOTEL	0.615	0.500	1.500
32	APARTMENT	0.506	0.500	1.500
33	OFFICE	0.850	0.500	1.500
34	MERCANTILE	0.705	0.500	1.500
35	INSTITUTIONAL	0.636	0.500	1.500
36	SERVICES	0.850	0.500	1.500
37	INDUST/PROCESSING	0.592	0.500	1.500
38	CONTRACTORS	0.680	0.500	1.500

VERMONT

SPECIAL CAUSES OF LOSS IMPLICIT PACKAGE
MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

CPP IMPLICIT PACKAGE MODIFICATION FACTORS (IPMFS) AND IPMF CAPS

TOP	DESCRIPTION	IPMF	LOW CAP	HIGH CAP

31	MOTEL/HOTEL	1.254	0.500	1.500
32	APARTMENT	1.467	0.500	1.500
33	OFFICE	1.266	0.500	1.500
34	MERCANTILE	1.238	0.500	1.500
35	INSTITUTIONAL	0.743	0.500	1.500
36	SERVICES	0.946	0.500	1.500
37	INDUST/PROCESSING	0.831	0.500	1.500
38	CONTRACTORS	0.982	0.500	1.500

Development of Current Cost Factors and Loss Projection Factors
For Commercial Property Building and Contents Experience
 Period ending December 31, 2020

Part A: Quarterly Indices for Buildings, Contents and Time Element

Building Loss Projection Factors - Xactware Commercial Index (XCI) (Base: 2009 = 100.0)

Contents - Producer Price Index (PPI) - U.S. Dept. of Labor (Finished Goods Less Energy) (Base: 2009 = 100.0)

Time Element Combined Index - Weighted average of IMSEP and RSALES indices ^(a)

Quarter	XCI	PPI	IMSEP	RSALES	Time Element
					Combined
					Index
1 Q1-2018	116.6	117.6	1.045	0.969	0.992
2 Q2-2018	117.5	118.1	1.052	0.972	0.996
3 Q3-2018	118.4	118.3	1.056	0.973	0.998
4 Q4-2018	118.8	119.6	1.057	0.969	0.995
5 Q1-2019	119.8	120.4	1.058	0.964	0.992
6 Q2-2019	121.1	120.8	1.063	0.970	0.998
7 Q3-2019	121.9	120.8	1.063	0.968	0.997
8 Q4-2019	123.0	121.7	1.063	0.968	0.997
9 Q1-2020	124.6	121.9	1.061	0.965	0.994
10 Q2-2020	126.0	123.3	1.043	0.944	0.974
11 Q3-2020	128.4	122.0	1.059	0.964	0.993
12 Q4-2020	129.8	122.9	1.067	0.966	0.996

Part B: Computation of Loss Projection Factor (LPF) for Buildings based on 12 points

$$\text{Annual Rate of Change} = +3.90\% \quad R^2 = 0.974$$

$$\text{Loss Projection Factor for Buildings} = 1.039^{22.5/12 (b)} = 1.0744$$

Part C: Computation of Loss Projection Factor (LPF) for Contents based on 12 points

$$\text{Annual Rate of Change} = +1.68\% \quad R^2 = 0.924$$

$$\text{Loss Projection Factor for Contents} = 1.017^{22.5/12 (b)} = 1.0317$$

Part D: Computation of Loss Projection Factor (LPF) for Time Element Based on 12 points

$$\text{Annual Rate of Change} = -0.21\% \quad R^2 = 0.081$$

$$\text{Loss Projection Factor for Time Element} = 0.998^{22.5/12 (b)} = 0.9961$$

(a) 30% weight for IMSEP and 70% weight for RSALES. IMSEP & RSALES indices were rescaled to a 2012 year base.

(b) Assuming a rate or loss cost revision date of 10/01/2021, and all one year policies, the time interval between the midpoint of the latest period (11/15/2020) and the average date of accident (10/01/2022) would be 22.5 months.

Development of Current Cost Factors and Loss Projection Factors

Part E: Calculation of Current Cost Factors (CCF)

<u>Year</u>	<u>Calendar Year Averages</u>			<u>Current Cost Factors Based on Average Index Values for Period ending December 31, 2020</u>		
	<u>XCI</u>	<u>PPI</u>	<u>Index</u>	<u>Buildings</u>	<u>Contents</u>	<u>Time Element</u>
2009	100.0	100.0	0.940	129.8 / 100.0 = 1.298	122.9 / 100.0 = 1.229	0.9963 / 0.940 = 1.060
2010	99.3	101.8	0.953	129.8 / 99.3 = 1.308	122.9 / 101.8 = 1.207	0.9963 / 0.953 = 1.045
2011	100.0	105.2	0.985	129.8 / 100.0 = 1.298	122.9 / 105.2 = 1.168	0.9963 / 0.985 = 1.011
2012	101.0	108.0	1.000	129.8 / 101.0 = 1.285	122.9 / 108.0 = 1.138	0.9963 / 1.000 = 0.996
2013	102.7	109.7	1.003	129.8 / 102.7 = 1.264	122.9 / 109.7 = 1.120	0.9963 / 1.003 = 0.993
2014	104.7	112.5	1.005	129.8 / 104.7 = 1.240	122.9 / 112.5 = 1.092	0.9963 / 1.005 = 0.991
2015	109.1	113.8	0.986	129.8 / 109.1 = 1.189	122.9 / 113.8 = 1.080	0.9963 / 0.986 = 1.010
2016	111.1	114.4	0.975	129.8 / 111.1 = 1.168	122.9 / 114.4 = 1.074	0.9963 / 0.975 = 1.022
2017	114.3	116.4	0.983	129.8 / 114.3 = 1.136	122.9 / 116.4 = 1.056	0.9963 / 0.983 = 1.014
2018	117.8	118.4	0.995	129.8 / 117.8 = 1.102	122.9 / 118.4 = 1.038	0.9963 / 0.995 = 1.001
2019	121.5	120.9	0.996	129.8 / 121.5 = 1.069	122.9 / 120.9 = 1.016	0.9963 / 0.996 = 1.000
2020	127.2	122.5	0.989	129.8 / 127.2 = 1.020	122.9 / 122.5 = 1.003	0.9963 / 0.989 = 1.007

SUMMARY OF LOSS TREND ADJUSTMENTS (LTA'S)

<u>BUILDINGS</u>	<u>5 YEAR INCURRED LOSSES</u>	<u>LTA'S*</u>
BASIC GROUP I	3,222,471,318	1.2%
BASIC GROUP II	3,465,840,527	-0.4%
SPECIAL CAUSES OF LOSS	1,682,225,202	0.2%
TOTAL	8,370,537,047	0.3%
<u>CONTENTS</u>		
BASIC GROUP I	1,104,115,390	1.5%
BASIC GROUP II	337,973,836	0.6%
SPECIAL CAUSES OF LOSS	666,012,529	-1.0%
TOTAL	2,108,101,755	0.6%
<u>TIME ELEMENT</u>		
BASIC GROUP I	394,365,666	2.4%
BASIC GROUP II	183,986,074	2.6%
SPECIAL CAUSES OF LOSS	138,013,951	2.4%
TOTAL	716,365,691	2.5%
GRAND TOTAL	11,195,004,493	0.5%

*The LTA's are based on internal severity and frequency data. They apply to both the historical period and projection period.

DEVELOPMENT OF LTA'SI. EXTERNAL RATE OF CHANGE^a

Calendar Year	(1) Buildings Current Cost Factor	(2) Contents Current Cost Factor	(3) Time Element Cost Factor	(4) Basic Group I (BGI)& Special Causes of Loss (SCL) Weights	(5) Basic Group II (BGII) Weights
2010	1.239	1.195	1.046		0.10
2011	1.230	1.157	1.012		0.10
2012	1.218	1.127	0.997		0.10
2013	1.198	1.109	0.994		0.10
2014	1.175	1.082	0.992		0.10
2015	1.127	1.069	1.011	0.10	0.10
2016	1.107	1.064	1.023	0.15	0.10
2017	1.076	1.046	1.014	0.20	0.10
2018	1.044	1.028	1.002	0.25	0.10
2019	1.013	1.007	1.001	0.30	0.10

(6) AVERAGE CURRENT COST FACTORS

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss (Weighted on Column (4))	1.059	1.035	1.008
Basic Group II (Weighted on Column (5))	1.143	1.088	1.009

(7) LOSS PROJECTION FACTORS

	Buildings	Contents	Time Element
Annual Rate of Change	0.031	0.019	0.006
Loss Projection Factor: ^b $(1.0 + \text{Annual Rate of Change})^{(X/12)}$	1.083	1.051	1.017

(8) TOTAL TREND FACTOR (Average Current Cost Factor × Loss Projection Factor)

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss	1.147	1.088	1.025
Basic Group II	1.238	1.143	1.026

(9) EXTERNAL ANNUAL RATE OF CHANGE^c

	Buildings	Contents	Time Element
Basic Group I and Special Causes of Loss: $(\text{Total Trend Factor})^{12/54}$	1.031	1.019	1.006
Basic Group II: $(\text{Total Trend Factor})^{12/90}$	1.029	1.018	1.003

- (a) The Current Cost Factors and Loss Projection Factors on this exhibit are based on external economic indices through December 31, 2019 for Buildings, Contents and Time Element.
- (b) Assuming a loss cost revision date of July 1, 2021, the time interval between the midpoint of the latest period of external trend information (November 15, 2019) and the prospective average date of loss (July 1, 2022) is 31.5 months for Buildings, Contents and Time Element.
- (c) The time interval from the weighted midpoint of the experience period to the prospective average date of loss (July 1, 2022) is 54 months for BG I and SCL, and 90 months for BG II. The weighted midpoint is January 1, 2018 for BG I and SCL, and January 1, 2015 for BG II.

DEVELOPMENT OF LTA'SII. INTERNAL ANNUAL RATES OF CHANGE:

(10) SELECTED COMFAL

	Buildings	Contents	Time Element
Basic Group I (BGI)	1.055	1.050	1.055
Basic Group II (BGII)	1.020	1.030	1.055
Special Causes of Loss	1.035	1.020	1.055

III. LTA CALCULATION:

CALCULATION OF LTAs - BUILDINGS

	(11)	(12)	(13)	(14)	(15)	(16)
	External	Internal	Indicated	Formula	Frequency	Final
	Rate of	Rate of	Severity LTA	Severity	Frequency	Final
	<u>Change^d</u>	<u>Change</u>	<u>[(12)/(11)-1.0]</u>	<u>LTA^e</u>	<u>Effect</u>	<u>LTA^f</u>
Basic Group I (BGI)	1.031	1.055	2.3	1.2	0.0	1.2
Basic Group II (BGII)	1.029	1.020	-0.9	-0.4	0.0	-0.4
Special Causes of Loss	1.031	1.035	0.4	0.2	0.0	0.2

CALCULATION OF LTAs - CONTENTS

	(11)	(12)	(13)	(14)	(15)	(16)
	External	Internal	Indicated	Formula	Frequency	Final
	Rate of	Rate of	Severity LTA	Severity	Frequency	Final
	<u>Change^d</u>	<u>Change</u>	<u>[(12)/(11)-1.0]</u>	<u>LTA^e</u>	<u>Effect</u>	<u>LTA^f</u>
Basic Group I (BGI)	1.019	1.050	3.0	1.5	0.0	1.5
Basic Group II (BGII)	1.018	1.030	1.2	0.6	0.0	0.6
Special Causes of Loss	1.019	1.020	0.1	0.0	-1.0	-1.0

CALCULATION OF LTAs - TIME ELEMENT

	(11)	(12)	(13)	(14)	(15)	(16)
	External	Internal	Indicated	Formula	Frequency	Final
	Rate of	Rate of	Severity LTA	Severity	Frequency	Final
	<u>Change^d</u>	<u>Change</u>	<u>[(12)/(11)-1.0]</u>	<u>LTA^e</u>	<u>Effect</u>	<u>LTA^f</u>
Basic Group I (BGI)	1.006	1.055	4.9	2.4	0.0	2.4
Basic Group II (BGII)	1.003	1.055	5.2	2.6	0.0	2.6
Special Causes of Loss	1.006	1.055	4.9	2.4	0.0	2.4

(d) The external rates of change are based on external economic indices through December 31, 2019 for Buildings, Contents and Time Element.

(e) The formula severity LTA for Buildings, Contents and Time Element is calculated as one-half of the indicated severity LTA. This is equivalent to calculating the overall severity trend giving 50% weight to the external trend and 50% weight to the selected internal trend.

(f) The final LTA is calculated as the product (in factor form) of the formula severity LTA and frequency effect.

EXPOSURE TREND
DEVELOPMENT OF CURRENT AND PROJECTED EARNED EXPOSURE FACTORS

Year	Buildings				Contents			
	(1) ^a Annual Written Increase	(2) ^a 7/1/2020 Written Factors	(3) ^b 4/1/2022 Projected Factors	(4) ^c 4/1/2022 Earned Factors	(5) ^a Annual Written Increase	(6) ^a 7/1/2020 Written Factors	(7) ^b 4/1/2022 Projected Factors	(8) ^c 4/1/2022 Earned Factors
2008	3.5%	1.353	1.410	1.447	2.4%	1.260	1.307	1.330
2009	3.3%	1.310	1.366	1.399	2.2%	1.233	1.279	1.300
2010	2.5%	1.278	1.332	1.358	1.7%	1.212	1.257	1.274
2011	2.5%	1.247	1.300	1.324	1.8%	1.191	1.235	1.252
2012	2.7%	1.214	1.265	1.291	1.8%	1.170	1.213	1.230
2013	2.6%	1.183	1.233	1.257	2.1%	1.146	1.188	1.207
2014	2.5%	1.154	1.203	1.226	2.1%	1.122	1.164	1.182
2015	2.3%	1.128	1.176	1.196	1.9%	1.101	1.142	1.159
2016	2.1%	1.105	1.152	1.170	1.8%	1.082	1.122	1.137
2017	2.1%	1.082	1.128	1.146	1.8%	1.063	1.102	1.117
2018	2.7%	1.054	1.099	1.121	1.9%	1.043	1.082	1.097
2019	2.9%	1.024	1.067	1.091	2.2%	1.021	1.059	1.076
2020	2.4%	1.000	1.042	1.061	2.1%	1.000	1.037	1.054

Notes

- a The percentages in columns (1) and (5) represent the change in written exposures from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written exposures for each year relative to the latest year.
- b The selected average annual changes in Amount of Insurance for projection purposes are 2.4% and 2.1% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2020 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 4/1/2022 (i.e., 6 months beyond an assumed revision date of 10/1/2021), by applying a factor of $(1.024)^{(21/12)}$ for Buildings and $(1.021)^{(21/12)}$ for Contents.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

Year	Earning Factors (All Years)
n-2	1/32
n-1	11/16
n	9/32

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level are 1.061 for Buildings and 1.054 for Contents.

EXPOSURE TREND
DEVELOPMENT OF CURRENT AND PROJECTED EARNED EXPOSURE FACTORS

	Time Element			
	(1) ^a Annual Written <u>Increase</u>	(2) ^a 7/1/2020 Written <u>Factors</u>	(3) ^b 4/1/2022 Projected <u>Factors</u>	(4) ^c 4/1/2022 Earned <u>Factors</u>
<u>Year</u>				
2008	1.3%	1.115	1.135	1.146
2009	0.8%	1.106	1.125	1.133
2010	0.7%	1.098	1.117	1.123
2011	0.8%	1.089	1.108	1.115
2012	0.8%	1.080	1.099	1.106
2013	0.9%	1.070	1.089	1.096
2014	1.0%	1.059	1.078	1.086
2015	1.1%	1.047	1.065	1.075
2016	1.1%	1.036	1.054	1.062
2017	0.9%	1.027	1.045	1.052
2018	0.7%	1.020	1.038	1.043
2019	1.0%	1.010	1.028	1.035
2020	1.0%	1.000	1.018	1.026

Notes

- a The percentages in columns (1) and (5) represent the change in written exposures from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written exposures for each year relative to the latest year.
- b The selected average annual change in Net Income (Time Element exposure) for projection purposes is 1%. Consequently, the written factors at 7/1/2020 levels in column (2) are brought to the level of the average date of writing in the effective period, 4/1/2022 (i.e., 6 months beyond an assumed revision date of 10/1/2021), by applying a factor of $(1.01)^{(21/12)}$ for Time Element.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

<u>Year</u>	<u>Earning Factors (All Years)</u>
n-2	1/32
n-1	11/16
n	9/32

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level is 1.026 for Time Element

PREMIUM TREND - BASIC GROUP I
DEVELOPMENT OF CURRENT AND PROJECTED EARNED PREMIUM FACTORS

	Buildings				Contents			
	(1) ^a Annual Written <u>Increase</u>	(2) ^a 7/1/2020 Written <u>Factors</u>	(3) ^b 4/1/2022 Projected <u>Factors</u>	(4) ^c 4/1/2022 Earned <u>Factors</u>	(5) ^a Annual Written <u>Increase</u>	(6) ^a 7/1/2020 Written <u>Factors</u>	(7) ^b 4/1/2022 Projected <u>Factors</u>	(8) ^c 4/1/2022 Earned <u>Factors</u>
Year								
2008	2.8%	1.276	1.319	1.347	2.0%	1.213	1.251	1.270
2009	2.7%	1.242	1.284	1.310	1.8%	1.192	1.230	1.246
2010	2.0%	1.218	1.259	1.278	1.4%	1.176	1.213	1.226
2011	2.0%	1.194	1.234	1.253	1.5%	1.159	1.196	1.209
2012	2.2%	1.168	1.207	1.227	1.5%	1.142	1.178	1.191
2013	2.1%	1.144	1.182	1.201	1.8%	1.122	1.158	1.173
2014	2.0%	1.122	1.160	1.177	1.8%	1.102	1.137	1.153
2015	1.9%	1.101	1.138	1.155	1.6%	1.085	1.119	1.133
2016	1.7%	1.083	1.119	1.133	1.5%	1.069	1.103	1.115
2017	1.7%	1.065	1.101	1.115	1.5%	1.053	1.086	1.099
2018	2.2%	1.042	1.077	1.095	1.6%	1.036	1.069	1.082
2019	2.3%	1.019	1.053	1.071	1.8%	1.018	1.050	1.064
2020	1.9%	1.000	1.033	1.048	1.8%	1.000	1.032	1.046

Notes

- a The percentages in columns (1) and (5) represent the change in written premium (reflecting the combined effect of change in exposures and limit of insurance factors) from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written premiums for each year relative to the latest year.
- b The average annual changes in Premium for projection purposes are 1.9% and 1.8% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2020 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 4/1/2022 (i.e., 6 months beyond an assumed revision date of 10/1/2021), by applying a factor of $(1.019)^{(21/12)}$ for Buildings and $(1.018)^{(21/12)}$ for Contents.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

<u>Year</u>	<u>Earning Factors (All Years)</u>
n-2	1/32
n-1	11/16
n	9/32

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level are 1.048 for Buildings and 1.046 for Contents.

PREMIUM TREND - BASIC GROUP II - OTHER THAN SOUTHEAST
DEVELOPMENT OF CURRENT AND PROJECTED EARNED PREMIUM FACTORS

	Buildings				Contents			
	(1) ^a Annual Written <u>Increase</u>	(2) ^a 7/1/2020 Written <u>Factors</u>	(3) ^b 4/1/2022 Projected <u>Factors</u>	(4) ^c 4/1/2022 Earned <u>Factors</u>	(5) ^a Annual Written <u>Increase</u>	(6) ^a 7/1/2020 Written <u>Factors</u>	(7) ^b 4/1/2022 Projected <u>Factors</u>	(8) ^c 4/1/2022 Earned <u>Factors</u>
Year	2.6%	1.253	1.293	1.319	1.8%	1.194	1.228	1.244
2008	2.4%	1.224	1.263	1.286	1.7%	1.174	1.207	1.223
2009	1.9%	1.201	1.239	1.257	1.3%	1.159	1.192	1.203
2010	1.9%	1.179	1.216	1.233	1.4%	1.143	1.175	1.188
2011	2.0%	1.156	1.193	1.210	1.4%	1.127	1.159	1.171
2012	1.9%	1.134	1.170	1.187	1.6%	1.109	1.140	1.154
2013	1.9%	1.113	1.148	1.165	1.6%	1.092	1.123	1.136
2014	1.7%	1.094	1.129	1.143	1.4%	1.077	1.107	1.119
2015	1.6%	1.077	1.111	1.125	1.4%	1.062	1.092	1.103
2016	1.6%	1.060	1.094	1.107	1.4%	1.047	1.076	1.088
2017	2.0%	1.039	1.072	1.088	1.4%	1.033	1.062	1.073
2018	2.1%	1.018	1.050	1.067	1.7%	1.016	1.045	1.058
2019	1.8%	1.000	1.032	1.046	1.6%	1.000	1.028	1.041
2020								

Notes

- a The percentages in columns (1) and (5) represent the change in written premium (reflecting the combined effect of change in exposures and limit of insurance factors) from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written premiums for each year relative to the latest year.
- b The average annual changes in Premium for projection purposes are 1.8% and 1.6% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2020 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 4/1/2022 (i.e., 6 months beyond an assumed revision date of 10/1/2021), by applying a factor of $(1.018)^{(21/12)}$ for Buildings and $(1.016)^{(21/12)}$ for Contents.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

<u>Year</u>	<u>Earning Factors (All Years)</u>
n-2	1/32
n-1	11/16
n	9/32

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level are 1.046 for Buildings and 1.041 for Contents.

PREMIUM TREND - SPECIAL CAUSES OF LOSS
DEVELOPMENT OF CURRENT AND PROJECTED EARNED PREMIUM FACTORS

	Buildings				Contents			
	(1) ^a Annual Written <u>Increase</u>	(2) ^a 7/1/2020 Written <u>Factors</u>	(3) ^b 4/1/2022 Projected <u>Factors</u>	(4) ^c 4/1/2022 Earned <u>Factors</u>	(5) ^a Annual Written <u>Increase</u>	(6) ^a 7/1/2020 Written <u>Factors</u>	(7) ^b 4/1/2022 Projected <u>Factors</u>	(8) ^c 4/1/2022 Earned <u>Factors</u>
Year								
2008	2.7%	1.260	1.300	1.326	1.6%	1.162	1.191	1.205
2009	2.5%	1.229	1.268	1.292	1.4%	1.146	1.174	1.187
2010	1.9%	1.206	1.244	1.262	1.1%	1.134	1.162	1.171
2011	1.9%	1.184	1.222	1.239	1.2%	1.121	1.149	1.159
2012	2.1%	1.160	1.197	1.216	1.2%	1.108	1.135	1.145
2013	2.0%	1.137	1.173	1.191	1.4%	1.093	1.120	1.131
2014	1.9%	1.116	1.151	1.168	1.4%	1.078	1.105	1.116
2015	1.8%	1.096	1.131	1.146	1.2%	1.065	1.091	1.102
2016	1.6%	1.079	1.113	1.127	1.2%	1.052	1.078	1.088
2017	1.6%	1.062	1.096	1.109	1.2%	1.040	1.066	1.075
2018	2.1%	1.040	1.073	1.090	1.2%	1.028	1.053	1.063
2019	2.2%	1.018	1.050	1.067	1.4%	1.014	1.039	1.049
2020	1.8%	1.000	1.032	1.046	1.4%	1.000	1.025	1.036

Notes

- a The percentages in columns (1) and (5) represent the change in written premium (reflecting the combined effect of change in exposures and limit of insurance factors) from 07/01/n-1 to 07/01/n. Columns (2) and (6) contain the cumulative changes in written premiums for each year relative to the latest year.
- b The average annual changes in Premium for projection purposes are 1.8% and 1.4% for Buildings and Contents, respectively. Consequently, the written factors at 7/1/2020 levels in column (2) and column (6) are brought to the level of the average date of writing in the effective period, 4/1/2022 (i.e., 6 months beyond an assumed revision date of 10/1/2021), by applying a factor of $(1.018)^{(21/12)}$ for Buildings and $(1.014)^{(21/12)}$ for Contents.
- c Written factors are earned into each accident year ending 12/31 using the following factors which assume all one year policies:

<u>Year</u>	<u>Earning Factors (All Years)</u>
n-2	1/32
n-1	11/16
n	9/32

For example, the factors used to adjust earned exposures for the period from 01/01/2020 to 12/31/2020 to the projected level are 1.046 for Buildings and 1.036 for Contents.

VERMONT

BASIC GROUP I
 ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

YEAR	(1)	(2)	(3)	(4)		
	UNADJUSTED INCURRED LOSSES	TRENDED INCURRED LOSSES	AVERAGE TOTAL LOSS TREND FACTOR (2) / (1)	SPLIT % ----- BUILDINGS CONTENTS TIME ELEMENT		
2016	2,627,095	3,479,610	1.325	68.5%	5.6%	25.9%
2017	400,399	532,175	1.329	91.5%	8.5%	0.0%
2018	1,343,719	1,728,735	1.287	89.9%	10.1%	0.0%
2019	6,592,350	7,826,024	1.187	60.1%	32.1%	7.8%
2020	7,233,036	8,329,075	1.152	62.3%	22.9%	14.8%

VERMONT

BASIC GROUP II
 ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

YEAR	(1)	(2)	(3)	(4)		
	UNADJUSTED** NON-HURRICANE INCURRED LOSSES	TRENDED** NON-HURRICANE INCURRED LOSSES	AVERAGE TOTAL LOSS TREND FACTOR (2) / (1)	SPLIT % ----- BUILDINGS CONTENTS TIME ELEMENT		
2011	928,067	1,287,705	1.388	88.5%	7.1%	4.4%
2012	449,295	617,964	1.375	82.3%	17.6%	0.1%
2013	598,979	809,460	1.351	83.3%	16.7%	0.0%
2014	284,061	392,780	1.383	84.5%	15.5%	0.0%
2015	2,860,852	3,735,654	1.306	91.1%	2.5%	6.4%
2016	174,602	220,267	1.262	65.0%	19.6%	15.4%
2017	312,399	383,115	1.226	78.8%	21.2%	0.0%
2018	890,437	1,071,586	1.203	90.5%	7.1%	2.4%
2019	585,067	685,975	1.172	84.5%	13.6%	1.9%
2020	220,454	246,407	1.118	69.7%	20.3%	10.0%

** LOSSES INCURRED DURING THE MONTH OF A HURRICANE HAVE BEEN EXCLUDED AND REPLACED WITH AVERAGE NON-HURRICANE LOSSES.

VERMONT

SPECIAL CAUSES OF LOSS
 ADDITIONAL INFORMATION ON TREND ADJUSTMENTS

YEAR	(1)	(2)	(3)	(4)		
	UNADJUSTED INCURRED LOSSES	TRENDED INCURRED LOSSES	AVERAGE TOTAL LOSS TREND FACTOR (2) / (1)	SPLIT % ----- BUILDINGS CONTENTS TIME ELEMENT		
2016	675,146	862,706	1.278	74.4%	20.0%	5.6%
2017	1,396,251	1,701,504	1.219	76.2%	23.8%	0.0%
2018	1,228,818	1,487,188	1.210	88.5%	11.3%	0.2%
2019	1,121,845	1,310,755	1.168	80.2%	19.0%	0.8%
2020	866,988	953,272	1.100	49.4%	50.3%	0.3%

BASIC GROUP I
INCURRED LOSSES
LOSS YEARS 2011-2020
EVALUATED AS OF 6/2020

LOSSES AS OF					
YEAR ENDING	15 MONTHS	27 MONTHS	39 MONTHS	51 MONTHS	63 MONTHS
3/31/2011	952,419,022	936,229,108	915,346,138	904,656,185	903,007,332
3/31/2012	887,079,899	855,802,157	837,770,127	831,337,264	826,703,317
3/31/2013	939,998,488	906,428,400	889,462,334	883,364,683	869,363,354
3/31/2014	900,206,030	904,130,471	894,029,924	885,822,000	881,971,056
3/31/2015	861,443,364	838,726,656	829,288,574	822,030,598	819,398,132
3/31/2016	796,984,584	771,130,098	762,963,988	754,569,750	750,019,552
3/31/2017	911,410,531	881,792,539	870,074,650	865,848,558	
3/31/2018	1,052,787,989	1,041,282,445	1,000,288,559		
3/31/2019	958,591,264	906,979,087			
3/31/2020	1,185,514,838				

RATIOS				
YEAR ENDING	27:15 MONTHS	39:27 MONTHS	51:39 MONTHS	63:51 MONTHS
3/31/2011	0.983	0.978	0.988	0.998
3/31/2012	0.965	0.979	0.992	0.994
3/31/2013	0.964	0.981	0.993	0.984
3/31/2014	1.004	0.989	0.991	0.996
3/31/2015	0.974	0.989	0.991	0.997
3/31/2016	0.968	0.989	0.989	0.994
3/31/2017	0.968	0.987	0.995	
3/31/2018	0.989	0.961		
3/31/2019	0.946			
5 POINT AVERAGE	0.969	0.983	0.992	0.993

DEVELOPMENT FACTORS TO ULTIMATE

15 MONTHS TO ULTIMATE =	0.938
27 MONTHS TO ULTIMATE =	0.968
39 MONTHS TO ULTIMATE =	0.985
51 MONTHS TO ULTIMATE =	0.993

BASIC GROUP II
INCURRED LOSSES
LOSS YEARS 2011-2020
EVALUATED AS OF 6/2020

LOSSES AS OF					
YEAR ENDING	15 MONTHS	27 MONTHS	39 MONTHS	51 MONTHS	63 MONTHS
3/31/2011	657,948,207	687,709,333	693,208,827	695,266,807	699,139,239
3/31/2012	1,322,845,963	1,338,860,854	1,351,471,628	1,365,160,153	1,375,515,476
3/31/2013	915,529,920	945,647,977	958,590,592	968,724,063	975,593,859
3/31/2014	585,447,928	593,242,197	597,288,150	602,588,601	608,267,309
3/31/2015	535,310,907	553,772,528	570,584,872	575,476,429	580,016,341
3/31/2016	528,932,677	550,426,858	563,414,241	568,964,616	574,942,565
3/31/2017	787,163,844	826,074,159	838,551,838	847,796,220	
3/31/2018	632,930,785	669,456,397	681,506,901		
3/31/2019	639,320,104	661,701,713			
3/31/2020	905,838,758				

RATIOS				
YEAR ENDING	27:15 MONTHS	39:27 MONTHS	51:39 MONTHS	63:51 MONTHS
3/31/2011	1.045	1.008	1.003	1.006
3/31/2012	1.012	1.009	1.010	1.008
3/31/2013	1.033	1.014	1.011	1.007
3/31/2014	1.013	1.007	1.009	1.009
3/31/2015	1.034	1.030	1.009	1.008
3/31/2016	1.041	1.024	1.010	1.011
3/31/2017	1.049	1.015	1.011	
3/31/2018	1.058	1.018		
3/31/2019	1.035			
5 POINT AVERAGE	1.043	1.019	1.010	1.009

<u>DEVELOPMENT FACTORS TO ULTIMATE</u>	
15 MONTHS TO ULTIMATE =	1.083
27 MONTHS TO ULTIMATE =	1.038
39 MONTHS TO ULTIMATE =	1.019
51 MONTHS TO ULTIMATE =	1.009

SPECIAL CAUSES OF LOSS
INCURRED LOSSES
LOSS YEARS 2011-2020
EVALUATED AS OF 6/2020

YEAR ENDING	LOSSES AS OF				
	15 MONTHS	27 MONTHS	39 MONTHS	51 MONTHS	63 MONTHS
3/31/2011	699,445,782	682,412,620	687,061,014	684,277,038	682,466,026
3/31/2012	498,830,568	498,999,214	496,227,261	497,089,163	496,772,503
3/31/2013	421,217,893	414,849,245	405,265,880	407,337,504	407,537,064
3/31/2014	689,380,636	673,094,185	665,819,626	666,028,733	664,179,148
3/31/2015	552,492,001	557,084,674	554,138,981	553,384,808	555,772,413
3/31/2016	401,435,658	400,889,593	398,002,988	403,423,231	401,965,708
3/31/2017	384,240,200	399,394,160	395,918,781	395,801,178	
3/31/2018	535,503,468	529,467,423	525,404,917		
3/31/2019	488,861,847	485,474,221			
3/31/2020	379,124,695				

YEAR ENDING	RATIOS			
	27:15 MONTHS	39:27 MONTHS	51:39 MONTHS	63:51 MONTHS
3/31/2011	0.976	1.007	0.996	0.997
3/31/2012	1.000	0.994	1.002	0.999
3/31/2013	0.985	0.977	1.005	1.000
3/31/2014	0.976	0.989	1.000	0.997
3/31/2015	1.008	0.995	0.999	1.004
3/31/2016	0.999	0.993	1.014	0.996
3/31/2017	1.039	0.991	1.000	
3/31/2018	0.989	0.992		
3/31/2019	0.993			
5 POINT AVERAGE	1.006	0.992	1.004	0.999

<u>DEVELOPMENT FACTORS TO ULTIMATE</u>	
15 MONTHS TO ULTIMATE =	1.001
27 MONTHS TO ULTIMATE =	0.995
39 MONTHS TO ULTIMATE =	1.003
51 MONTHS TO ULTIMATE =	0.999

COUNTRYWIDE BASIC GROUP I EXCESS LOSS FACTORS
BY CONSTRUCTION, PROTECTION AND EXPOSURE

		Amount of Insurance *										
		1	2	3	4	5	6	7	8	9	10	11
Const. 1-3	Prot. 1-4	1.000	1.060	1.123	1.190	1.261	1.336	1.416	1.501	1.590	1.685	1.786
	Prot. 5-7	1.000	1.073	1.151	1.235	1.325	1.421	1.525	1.636	1.755	1.882	2.020
	Prot. 8-10	1.000	1.060	1.123	1.190	1.261	1.336	1.416	1.501	1.590	1.685	1.786

		Amount of Insurance *										
		1	2	3	4	5	6	7	8	9	10	11
Const. 4-6	Prot. 1-4	1.000	1.059	1.121	1.187	1.257	1.332	1.410	1.493	1.581	1.674	1.773
	Prot. 5-7	1.000	1.072	1.149	1.232	1.321	1.416	1.518	1.627	1.744	1.870	2.005
	Prot. 8-10	1.000	1.059	1.121	1.187	1.257	1.332	1.410	1.493	1.581	1.674	1.773

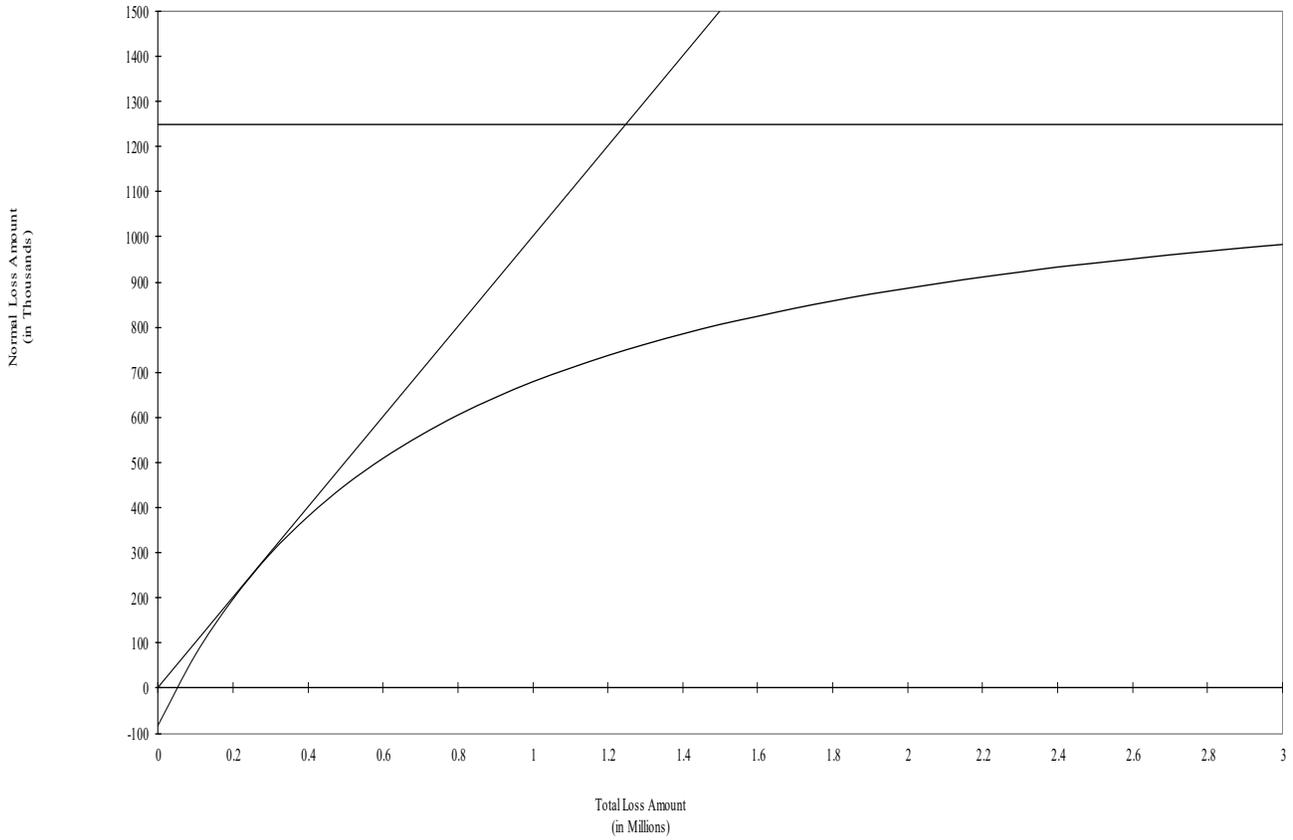
* Amount of
Insurance

Intervals

- 1 0-450,000
- 2 450,001-500,000
- 3 500,001-700,000
- 4 700,001-1,000,000
- 5 1,000,001-1,500,000
- 6 1,500,001-2,500,000
- 7 2,500,001-3,500,000
- 8 3,500,001-5,500,000
- 9 5,500,001-7,500,000
- 10 7,500,001-10,000,000
- 11 10,000,001 and over

Countrywide Basic Group I
Normal vs. Total Loss Amount

$$\text{Normal Loss} = \$1,250,000 \times (1 - (\$800,000 \div (\text{Total Loss} + \$750,000)))$$



VERMONT

BASIC GROUP I
ADDITIONAL EXCESS LOSS INFORMATION

YEAR	(1) TRENDED INCURRED LOSSES	(2) TRENDED NORMAL LOSSES	(3) STATE NORMAL % (2)/(1)	(4) MULTI- STATE NORMAL % %	(5) ADJUSTED INCURRED LOSSES	(6) STATE AVERAGE EXCESS FACTOR (5)/(2)
2016	3,479,610	3,113,060	89.5%	73.2%	4,034,574	1.296
2017	532,175	532,175	100.0%	70.5%	612,967	1.152
2018	1,728,735	1,721,229	99.6%	68.6%	2,029,030	1.179
2019	7,826,024	4,194,816	53.6%	73.0%	5,303,074	1.264
2020	8,329,075	5,396,033	64.8%	59.8%	9,162,546	1.698

VERMONT
DEVELOPMENT OF BASIC GROUP II EXCESS MULTIPLIER

	(1)	(2)	(3)	(4)	(5)
YEAR	EARNED PREMIUMS	NON-HURRICANE INCURRED LOSSES	NORMAL INCURRED LOSSES	NORMAL LOSS RATIO	EXCESS LOSS RATIO
1950	57,599	63,124	28,800	0.500	0.596
1951	66,053	322,026	33,027	0.500	4.375
1952	79,043	48,904	39,522	0.500	0.119
1953	91,985	22,528	22,528	0.245	-
1954	106,043	51,751	51,751	0.488	-
1955	110,548	34,062	34,062	0.308	-
1956	111,940	27,873	27,873	0.249	-
1957	117,309	35,521	35,521	0.303	-
1958	123,571	13,035	13,035	0.105	-
1959	133,599	50,935	50,935	0.381	-
1960	147,224	48,677	48,677	0.331	-
1961	159,021	87,755	79,511	0.500	0.052
1962	161,064	45,850	45,850	0.285	-
1963	155,767	65,911	65,911	0.423	-
1964	153,433	3,953	3,953	0.026	-
1965	150,908	98,421	75,454	0.500	0.152
1966	157,048	64,606	64,606	0.411	-
1967	162,920	85,823	81,460	0.500	0.027
1968	174,250	45,447	45,447	0.261	-
1969	210,832	106,761	105,416	0.500	0.006
1970	315,660	101,690	101,690	0.322	-
1971	328,933	68,493	68,493	0.208	-
1972	398,246	179,833	179,833	0.452	-
1973	409,236	157,369	157,369	0.385	-
1974	489,565	188,148	188,148	0.384	-
1975	684,440	413,251	342,220	0.500	0.104
1976	861,725	296,329	296,329	0.344	-
1977	1,056,929	359,151	359,151	0.340	-
1978	1,211,575	281,878	281,878	0.233	-
1979	1,304,490	396,229	396,229	0.304	-
1980	1,198,109	468,505	468,505	0.391	-
1981	1,021,809	686,794	510,905	0.500	0.172
1982	985,992	533,687	492,996	0.500	0.041
1983	954,744	382,126	382,126	0.400	-
1984	950,232	287,914	287,914	0.303	-
1985	1,152,432	226,415	226,415	0.196	-
1986	1,757,616	438,463	438,463	0.249	-
1987	1,771,572	463,921	463,921	0.262	-
1988	1,630,722	515,849	515,849	0.316	-
1989	1,498,716	519,874	519,874	0.347	-
1990	1,556,643	415,439	415,439	0.267	-
1991	1,354,710	224,319	224,319	0.166	-
1992	1,212,027	194,832	194,832	0.161	-
1993	1,186,608	245,597	245,597	0.207	-

VERMONT
DEVELOPMENT OF BASIC GROUP II EXCESS MULTIPLIER

YEAR	(1) EARNED PREMIUMS	(2) NON-HURRICANE INCURRED LOSSES	(3) NORMAL INCURRED LOSSES	(4) NORMAL LOSS RATIO	(5) EXCESS LOSS RATIO
1994	1,081,281	326,990	326,990	0.302	-
1995	952,716	245,608	245,608	0.258	-
1996	851,622	177,071	177,071	0.208	-
1997	749,958	213,236	213,236	0.284	-
1998	698,652	639,487	349,326	0.500	0.415
1999	707,133	661,673	353,567	0.500	0.436
2000	725,538	428,448	362,769	0.500	0.091
2001	701,904	272,867	272,867	0.389	-
2002	787,650	331,381	331,381	0.421	-
2003	968,211	774,332	484,106	0.500	0.300
2004	1,248,129	206,768	206,768	0.166	-
2005	1,238,130	370,006	370,006	0.299	-
2006	1,255,500	603,508	603,508	0.481	-
2007	1,301,046	1,301,541	650,523	0.500	0.500
2008	1,343,067	847,834	671,534	0.500	0.131
2010	1,644,315	633,214	633,214	0.385	-
2011	1,316,420	928,067	658,210	0.500	0.205
2012	1,326,665	449,294	449,294	0.339	-
2013	1,503,258	598,979	598,979	0.398	-
2014	1,594,374	282,414	282,414	0.177	-
2015	1,695,288	2,860,852	847,644	0.500	1.188
2016	1,792,497	174,602	174,602	0.097	-
2017	1,846,442	315,208	315,208	0.171	-
2018	1,804,497	907,356	902,249	0.500	0.003
2019	1,624,562	607,300	607,300	0.374	-
2020	1,612,772	238,752	238,752	0.148	-
TOTALS	60,294,515	24,765,857	20,038,960	24.450	8.913

(7) STATE EXCESS COMPONENT = (EXLR / NLR) = 0.365

(8) STATE EXCESS MULTIPLIER = (1+SEC) = 1.365

* HURRICANE YEARS BEFORE 1982 HAVE BEEN EXCLUDED. FOR THE YEARS 1982 THROUGH 2020, LOSSES INCURRED DURING THE MONTH OF A HURRICANE HAVE BEEN REPLACED WITH AVERAGE MONTHLY NON-HURRICANE LOSSES.

NOTE: FOR YEARS PRIOR TO 2009, THE DISPLAYED YEAR INCLUDES DATA FOR ACCIDENT YEAR ENDING 12/31. FOR YEARS 2011 TO 2020, THE DISPLAYED YEAR INCLUDES DATA FOR ACCIDENT YEAR ENDING 3/31/. THE DISPLAYED YEAR 2010 INCLUDES DATA FOR FIRST QUARTER 2009 THROUGH FIRST QUARTER 2010.

VERMONT
DEVELOPMENT OF SPECIAL CAUSES OF LOSS EXCESS MULTIPLIER

YEAR	(1)	(2)	(3)	(4)	(5)
	EARNED PREMIUMS	INCURRED LOSSES	NORMAL INCURRED LOSSES	NORMAL LOSS RATIO	STATE EXCESS LOSS RATIO
1986	1,048,662	877,012	798,739	0.762	0.074
1987	1,315,827	719,123	699,925	0.532	0.015
1988	1,425,846	1,542,672	1,063,141	0.746	0.336
1989	1,454,346	546,591	546,591	0.376	
1990	1,629,195	1,096,849	963,669	0.592	0.081
1991	2,009,913	1,022,770	1,022,770	0.509	
1992	2,387,502	1,719,736	1,587,101	0.665	0.055
1993	2,651,847	1,708,489	1,397,159	0.527	0.117
1994	2,507,262	2,201,044	1,693,392	0.675	0.203
1995	2,472,792	2,133,335	2,133,335	0.863	
1996	2,326,110	2,162,951	1,969,821	0.847	0.083
1997	2,026,575	1,371,227	1,371,227	0.677	
1998	1,969,239	1,362,926	1,167,706	0.593	0.099
1999	1,971,663	1,785,142	1,413,422	0.717	0.188
2000	2,035,044	1,777,713	1,751,585	0.861	0.013
2001	2,296,056	4,262,902	1,658,955	0.723	1.134
2002	2,442,705	1,325,118	1,325,118	0.542	
2003	2,816,595	3,180,114	2,571,218	0.913	0.216
2004	3,470,811	2,482,203	2,157,419	0.622	0.093
2005	3,771,606	970,019	970,019	0.257	
2006	3,145,140	596,904	596,904	0.190	
2007	3,083,133	2,180,703	1,433,502	0.465	0.242
2008	2,910,039	1,676,126	1,676,126	0.576	
2009	3,153,459	1,680,173	1,680,173	0.533	
2010	3,015,162	1,041,418	1,041,418	0.345	
2011	3,036,444	1,977,084	1,674,633	0.552	0.099
2012	3,097,284	3,320,342	1,984,879	0.641	0.431
2013	3,304,197	978,347	978,347	0.296	
2014	3,370,194	1,960,379	1,960,379	0.582	
2015	3,408,858	3,266,378	2,301,115	0.675	0.283
2016	3,501,501	675,146	675,146	0.193	
2017	3,538,742	1,396,251	1,266,147	0.358	0.037
2018	3,419,078	1,228,818	1,228,818	0.359	
2019	3,020,530	1,121,845	1,121,845	0.371	
2020	3,040,633	866,988	866,988	0.285	
TOTALS		58,214,838	48,748,732	19.420	3.799

(6) STATE EXCESS COMPONENT = (SELR / NLR) : 0.196

(7) STATE EXCESS MULTIPLIER = (SELR / NLR) = 1.196

VERMONT
BASIC GROUP I STATEWIDE CREDIBILITY CALCULATION

(1a) FULL CREDIBILITY CLAIMS STANDARD FOR FREQUENCY WITH (P,K) = (95.00% , 5.00%)	1,537
(1b) SEVERITY MODIFICATION FACTOR	8.723
(1c) FULL CREDIBILITY CLAIMS STANDARD ADJUSTED FOR SEVERITY ((1a) X (1b))	13,407
(2) MULTISTATE FIVE YEAR RATIO OF EARNED RISKS TO CLAIMS	353.211
(3) FULL CREDIBILITY EARNED RISKS STANDARD (1c)X(2)	4,735,500
(4) FIVE YEAR STATEWIDE EARNED RISKS	92,780
(5) FIVE YEAR AGGREGATE LOSS COSTS	28,277,008
(6) AGGREGATE LOSS COSTS PER EARNED RISK (5)/(4)	304.775
(7) AGGREGATE LOSS COSTS FOR 100% CREDIBILITY (3) X (6)	1,443,262,013
(8) STATEWIDE CREDIBILITY ((5)/(7))**(,5)	25.0%

VERMONT
BASIC GROUP II STATEWIDE CREDIBILITY CALCULATION

(1) FULL CREDIBILITY CLAIMS STANDARD	30,000
(2) MULTISTATE TEN YEAR RATIO OF EARNED RISKS TO CLAIMS	143.641
(3) FULL CREDIBILITY EARNED RISKS STANDARD (1)X(2)	4,309,230
(4) TEN YEAR STATEWIDE EARNED RISKS	194,020
(5) TEN YEAR AGGREGATE LOSS COSTS	12,131,928
(6) AGGREGATE LOSS COSTS PER EARNED RISK (5)/(4)	62.529
(7) AGGREGATE LOSS COSTS FOR 100% CREDIBILITY (3) X (6)	269,451,843
(8) STATEWIDE CREDIBILITY ((5)/(7))**(.5)	25.0%

VERMONT
SPECIAL CAUSES OF LOSS STATEWIDE CREDIBILITY CALCULATION

(1) FULL CREDIBILITY CLAIMS STANDARD	25,000
(2) MULTISTATE FIVE YEAR RATIO OF EARNED RISKS TO CLAIMS	221.619
(3) FULL CREDIBILITY EARNED RISKS STANDARD (1)X(2)	5,540,475
(4) FIVE YEAR STATEWIDE EARNED RISKS	90,487
(5) FIVE YEAR AGGREGATE LOSS COSTS	12,527,535
(6) AGGREGATE LOSS COSTS PER EARNED RISK (5)/(4)	138.446
(7) AGGREGATE LOSS COSTS FOR 100% CREDIBILITY (3) X (6)	767,056,602
(8) STATEWIDE CREDIBILITY ((5)/(7))**(.5)	25.0%

VERMONT
CALCULATION OF INDICATED BASIC GROUP II LOSS COSTS

			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
			ACCIDENT YEAR ENDING 03/31/2020	CURRENT	NON-HURR	STATEWIDE MONOLINE NON-HURR.	INDICATED NON-HURR. LOSS COST (3) * (4)	HURRICANE MODELED LOSS COST	INDICATED TOTAL LOSS COST (5) + (6)	INDICATED PERCENT CHANGE (7)/(2) - 1	
TERRITORY	COVERAGE	SYMBOL	BG II AGG. LOSS COSTS	LOSS COST	LOSS COST	CHANGE		LOSS COST			
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Entire State	BUILDINGS	OA	74	0.023	0.021	0.974	0.020	0.002	0.022	-4.3%	
		OAB	4,134	0.027	0.025	0.974	0.024	0.002	0.026	-3.7%	
		OB	117,521	0.037	0.031	0.974	0.030	0.006	0.036	-2.7%	
		AA	1,398	0.021	0.019	0.974	0.019	0.002	0.021	0.0%	
		A	8,043	0.023	0.021	0.974	0.020	0.002	0.022	-4.3%	
		AB	43,229	0.027	0.025	0.974	0.024	0.002	0.026	-3.7%	
		B	627,065	0.037	0.031	0.974	0.030	0.006	0.036	-2.7%	
	CONTENTS	OA	15	0.029	0.027	0.974	0.026	0.002	0.028	-3.4%	
		OAB	476	0.034	0.032	0.974	0.031	0.002	0.033	-2.9%	
		OB	18,910	0.042	0.036	0.974	0.035	0.005	0.040	-4.8%	
		AA	30	0.026	0.024	0.974	0.023	0.002	0.025	-3.8%	
		A	785	0.029	0.027	0.974	0.026	0.002	0.028	-3.4%	
		AB	9,974	0.034	0.032	0.974	0.031	0.002	0.033	-2.9%	
		B	108,663	0.042	0.036	0.974	0.035	0.005	0.040	-4.8%	
		SUB-TOTAL		940,317							-3.0%
	STATE TOTAL			940,317							-3.0%

BASIC GROUP I RATING GROUP DEFINITIONSTHE FOLLOWING CSP CLASSES COMPRISE THE BASIC GROUP I RATING GROUPS01 APARTMENTS

- 0311 Apartments without Mercantile Occupancies - Up to 10 Units
- 0312 Apartments without Mercantile Occupancies - 11 to 30 Units
- 0313 Apartments without Mercantile Occupancies - Over 30 Units
- 0321 Apartments with Mercantile Occupancies - Up to 10 Units
- 0322 Apartments with Mercantile Occupancies - 11 to 30 Units
- 0323 Apartments with Mercantile Occupancies - Over 30 Units
- 0331 Residential Condominiums without Mercantile Occupancies - Up to 10 Units
- 0332 Residential Condominiums without Mercantile Occupancies - 11 to 30 Units
- 0333 Residential Condominiums without Mercantile Occupancies - Over 30 Units
- 0341 Residential Condominiums with Mercantile Occupancies - Up to 10 Units
- 0342 Residential Condominiums with Mercantile Occupancies - 11 to 30 Units
- 0343 Residential Condominiums with Mercantile Occupancies - Over 30 Units

02 OTHER HABITATIONAL

- 0074 Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories - Up to 10 Units
- 0075 Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories - 11 to 30 Units
- 0076 Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories - Over 30 Units
- 0077 Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes - Up to 10 Units
- 0078 Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes - 11 to 30 Units
- 0079 Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes - Over 30 Units
- 0196 Dwellings Written in Conjunction with Commercial Risks from the Commercial Lines Manual - 1 Family
- 0197 Dwellings Written in Conjunction with Commercial Risks from the Commercial Lines Manual - 2 Family
- 0198 Dwellings Written in Conjunction with Commercial Risks from the Commercial Lines Manual - 3 and 4 Family
- 0300 Large Area Housing Developments (Special Rating Treatment)

03 RESTAURANTS & BARS

- 0541 Bars and Taverns
- 0542 Restaurants with Commercial Cooking
- 0545 Restaurants with Limited Cooking

BASIC GROUP I RATING GROUP DEFINITIONS04 OTHER MERCANTILES

- 0431 Sole Occupancy Mercantile, Over 15,000 Square Feet, Building Coverage, Other than Food Risks
- 0432 Sole Occupancy Mercantile, Over 15,000 Square Feet, Food Risks, Buildings and Personal Property
- 0433 Multiple Occupancy Mercantile, Over 15,000 Square Feet, Building Coverage Only, Not Fire Class Rated
- 0434 Multiple Occupancy Mercantile, Less than 15,000 Square Feet, Building Coverage Only, Not Fire Class Rated
- 0511 Risks Having Low Susceptibility Personal Property, NOC
- 0512 Tire, Battery and Accessory Dealers Without Tire Recapping and Vulcanizing
- 0520 Wearing Apparel, Textiles, Shoes
- 0531 Alcoholic Beverages other than Bars
- 0532 Food Products including Retail Bakeries (no baking and no cooking on premises; sales only); Beverages other than Alcoholic
- 0533 Retail Bakeries - Baking on Premises (No delivery to other outlets)
- 0534 Food Products with Limited Cooking, Excluding Bakeries
- 0550 Motor Vehicle (Auto, Aircraft, Marine) Sales, No Repair
- 0561 Boat and Marine Supply Dealers
- 0562 Drugs
- 0563 Electrical Goods, Hardware and Machinery
- 0564 Furniture and Home Furnishings other than Appliances
- 0565 Jewelry
- 0566 Sporting Goods
- 0567 Risks Having Moderate Susceptibility Personal Property, NOC
- 0570 Risks Having High Susceptibility Personal Property, NOC
- 0580 Greenhouses
- 0581 Multiple Occupancy Mercantile, Fire Class Rated, without furniture Occupant
- 0582 Multiple Occupancy Mercantile, Fire Class Rated, with furniture Occupant

05 PUBLIC BUILDINGS

- 0701 Governmental Offices
- 1000 Penal Institutions
- 1051 Museums, Libraries, Art Galleries (non-profit)
- 1070 Other Public Buildings, Fire Dept., Police, Water/Sewer

06 CHURCHES

- 0900 Churches and Synagogues

07 SCHOOLS

- 1052 Schools, Academic

BASIC GROUP I RATING GROUP DEFINITIONS08 OFFICE AND BANKS

0702 Non-Governmental Offices and Banks

09 RECREATIONAL FACILITIES

0755 Golf Clubs, Tennis Clubs and Similar Sports Facilities with Cooking
0756 Golf Clubs, Tennis Clubs and Similar Sports Facilities without Cooking
0757 Clubs, NOC, Including Fraternal and Union Halls
0831 Motion Picture Studios
0832 Theaters
0833 Drive-in Theaters
0834 Skating Rinks--Roller Rinks
0841 Bowling Alleys
0843 Halls and Auditoriums
0844 Recreational Facilities, NOC
0845 Boys' and Girls' Camps
0846 Dance Halls, Ballrooms & Discotheques
0951 Gambling Casinos with Restaurants
0952 Gambling Casinos without Restaurants

10 HOTELS & MOTELS

0742 Motels and Hotels with Restaurant - Up to 10 Units
0743 Motels and Hotels with Restaurant - 11 to 30 Units
0744 Motels and Hotels with Restaurant - Over 30 Units
0745 Motels and Hotels without Restaurant - Up to 10 Units
0746 Motels and Hotels without Restaurant - 11 to 30 Units
0747 Motels and Hotels without Restaurant - Over 30 Units

BASIC GROUP I RATING GROUP DEFINITIONS11 HOSPITALS & NURSING HOMES

- 0851 Hospitals
- 0852 Nursing and Convalescent Homes

12 BUILDINGS UNDER CONSTRUCTION

- 1150 Buildings Under Construction

13 MOTOR VEHICLE RISKS

- 0931 Auto Parking Garages, Car Washes
- 0932 Gasoline Service Stations
- 0933 Aircraft Hangars with Repairing, Motor Vehicle Repairing Including Auto Body Shops, with or without Sales
- 0934 Tire Recapping and Vulcanizing with or without Sales
- 0940 Aircraft Hangars without Repairing

14 OTHER NON-MANUFACTURING

- 0911 Dry Cleaner and Dyeing Plants, other than Self-Service
- 0912 Laundries, other than Self-Service
- 0913 Self-Service Laundries and Dry Cleaners
- 0921 Light Hazard Service Occupancies
- 0922 Services Occupancies, Other than Light Hazard, NOC
- 0923 Funeral Homes
- 1180 Vacant Buildings
- 1185 Billboards and Signs
- 1190 Yard Property, NOC, Including Property in the Open

BASIC GROUP I RATING GROUP DEFINITIONS15 STORAGE

- 1200 Piers, Wharves, Bridges
- 1211 Freight Terminals
- 1212 General Storage Warehouses - Bailee
- 1213 Miscellaneous Products Storage - (other than Retail or Wholesale or Cold Storage)
- 1220 Household Goods Storage
- 1230 Cold Storage Warehouses
- 1251 Farm Products (other than Grain, Cotton, Tobacco)
- 1252 Grain, Seed, Bean Warehouses
- 1300 Cotton Compresses and Storage
- 1400 Waste and Reclaimed Material, including Yards
- 1450 Whiskey and Liquor Warehouses in Connection with Distilleries
- 1501 Tobacco Warehouses, Storage
- 1502 Tobacco Sales Warehouses
- 1550 Grain Elevators - Terminal
- 1610 Grain Elevators - Country
- 1650 Building Supply Yards, including Retail Lumberyards, Coal and Coke Yards
- 1700 Mill Yards
- 1751 Oil Distributing, Oil Terminals and LPG Tank Farms, Including Stock
- 1752 Oil Distributing, Oil Terminals and LPG Tank Farms, Excluding Stock

17 FOOD MANUFACTURING

- 2000 Dairy Products
- 2059 Meat, Poultry and Fish Products
- 2150 Grain Milling, Including Feed, Stock, Flour Mills
- 2200 Bakeries and Bakery Products
- 2250 Fruit, Nut and Vegetable Products
- 2300 Sugar, Molasses and Syrup Refining
- 2350 Beverages excluding Alcoholic Beverages
- 2400 Breweries
- 2459 Distilleries and Wineries
- 2550 Tobacco and Tobacco Products
- 2600 Food Products, NOC

BASIC GROUP I RATING GROUP DEFINITIONS18 WOOD MANUFACTURING

3809 Basic Wood Production including Veneer and Plywood Plants
3959 Furniture and Other Wood Products, NOC

19 WEARING APPAREL

2800 Textile Mill Products - Natural and Synthetic
3009 Clothing and Apparel including Furs and Finished Products

20 CHEMICAL MANUFACTURING

5000 Chemicals and Pharmaceuticals - Low Hazard
5050 Chemicals and Pharmaceuticals - Moderate Hazard
5100 Chemicals and Pharmaceuticals - High Hazard

21 METAL MANUFACTURING

6810 Heavy Metalworking including Basic Metalwork
6850 Metalworking, NOC

22 OTHER MANUFACTURING

2750 Cotton Gins
3409 Leather and Leather Products
4400 Paper Manufacturing
4450 Paper and Paper Products Processing
4809 Printing
5500 Plastic Products
5759 Rubber Products
6009 Stone, Glass, Concrete, Gypsum, Brick, Tile and Clay Products, Abrasives, Plaster and Other Mineral, NOC
6210 Mining Other than Coal
6250 Coal Mining
6900 Precision Products, Electronic, Radio and Television Manufacturing

SPECIAL CAUSES OF LOSS CATEGORY DEFINITIONSCATEGORY 01 - BUILDING AND TIME ELEMENT COVERAGECATEGORY 02 - APARTMENT AND CONDOMINIUM CONTENTS COVERAGECATEGORY 03 - OFFICE CONTENTS COVERAGECATEGORIES 04, 05, & 06 - MERCANTILE CONTENTS COVERAGE

An establishment in which the principal business is the retail or wholesale buying or selling of goods, wares and merchandise. Included are bars, grills and restaurants.

CATEGORY 04 - MERCANTILE CONTENTS COVERAGE (HIGH)

Occupancy classes 0511, 0520, 0550, 0562, 0566, 0567, 0581, 0702, 1180, 1185, 1190, 1200, 1211, 1212, 1213, 1251, 1300, 1400, 1751, or 1752

CATEGORY 05 - MERCANTILE CONTENTS COVERAGE (MEDIUM)

Occupancy classes not listed in Category 04 or Category 06

CATEGORY 06 - MERCANTILE CONTENTS COVERAGE (LOW)

Occupancy classes 0512, 0541, 0563, 0921, 0922, 0933, 0940, or 1230

CATEGORY 07 - MOTEL & HOTEL CONTENTS COVERAGE

Hotels, motels, motor inns, motor lodges, tourist courts and similar risks whose business is principally the providing of lodging accommodations for transients, including premises and operations necessary or incidental to such lodging accommodations.

CATEGORIES 08 & 09 - INSTITUTIONAL CONTENTS COVERAGE

An establishment principally occupied by an educational, religious, sanitary, charitable or governmental organization. It does not include buildings containing manufacturing of any kind, or sale, storage, processing, or repair of clothing or furniture, or paper or rag storage, or sorting or supplying of food or lodging to itinerants.

CATEGORY 08 - INSTITUTIONAL CONTENTS COVERAGE (HIGH)

Occupancy classes 0701, 0702, 0851, 0921, 1051, or 1052

SPECIAL CAUSES OF LOSS CATEGORY DEFINITIONSCATEGORY 09 - INSTITUTIONAL CONTENTS COVERAGE (LOW)

Occupancy classes not listed in Category 08

CATEGORIES 10 & 11 - INDUSTRIAL & PROCESSING CONTENTS COVERAGE

An establishment in which the principal activity is the manufacturing of goods and wares or processing of raw materials or finished goods.

CATEGORY 10 - INDUSTRIAL & PROCESSING CONTENTS COVERAGE (HIGH)

Occupancy classes 1252, 1300, 1400, 1700, 2000, 2059, 2150, 2200, 2250, 2300, 2350, 2400, 2459, 2550, 2600, 2750, 2800, 2805, 3009, 3409, 3809, 3959, or 4400

CATEGORY 11 - INDUSTRIAL & PROCESSING CONTENTS COVERAGE (LOW)

Occupancy classes not listed in Category 10

CATEGORIES 12 & 13 - SERVICE CONTENTS COVERAGE

An establishment in which the principal operation is the providing of a personal or commercial service. Included are establishments providing entertainment or recreation; warehousing of property of others; and automobile risks, such as service, repair or garaging of automobiles and parking lots.

CATEGORY 12 - SERVICE CONTENTS COVERAGE (HIGH)

Occupancy classes 0520, 0542, 0545, 0550, 0567, 0702, 0755, 0831, 0832, 0911, 0912, 0913, 0921, 0931, 0932, 0934, 1213, or 4809

CATEGORY 13 - SERVICE CONTENTS COVERAGE (LOW)

Occupancy classes not listed in Category 12

CATEGORY 14 - CONTRACTOR CONTENTS COVERAGE

An establishment in which the principal operation is that of installation, construction, demolition or maintenance. This includes any owner/contractor, general contractor or sub-contractor whether or not he or she actually performs any part of such work or has employees on the site.

VERMONT

BASIC GROUP I

UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS

YEAR	TOTAL UNADJUSTED LOSS COSTS	TOTAL UNADJUSTED INCURRED LOSSES	EXPERIENCE RATIO
2016	5,130,905	2,627,095	0.512
2017	5,271,049	400,399	0.076
2018	4,974,161	1,343,719	0.270
2019	4,284,360	6,592,350	1.539
2020	4,336,519	7,233,036	1.668

VERMONT

BASIC GROUP II

UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS

YEAR	TOTAL**		EXPERIENCE RATIO
	TOTAL UNADJUSTED LOSS COSTS	UNADJUSTED NON-HURRICANE LOSSES	
2011	740,662	928,067	1.253
2012	746,588	449,295	0.602
2013	846,147	598,979	0.708
2014	897,657	284,061	0.316
2015	954,555	2,860,852	2.997
2016	1,009,259	174,602	0.173
2017	1,039,788	312,399	0.300
2018	1,016,312	890,437	0.876
2019	915,119	585,067	0.639
2020	908,510	220,454	0.243

** LOSSES INCURRED DURING THE MONTH OF A HURRICANE HAVE BEEN EXCLUDED AND REPLACED WITH AVERAGE NON-HURRICANE LOSSES.

VERMONT

SPECIAL CAUSES OF LOSS

UNADJUSTED AGGREGATE LOSS COSTS, LOSSES, AND EXPERIENCE RATIOS

YEAR	TOTAL UNADJUSTED LOSS COSTS	TOTAL UNADJUSTED INCURRED LOSSES	EXPERIENCE RATIO
2016	1,974,654	675,146	0.342
2017	1,995,808	1,396,251	0.700
2018	1,928,337	1,228,818	0.637
2019	1,703,624	1,121,845	0.659
2020	1,715,159	866,988	0.505

FIRE AND ALLIED LINES INSURANCE
COUNTRYWIDE LOSS ADJUSTMENT EXPENSE EXPERIENCE (A)

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>Selected</u>
(1) Fire						
(a) Direct Losses Incurred	5,453,646	5,651,498	7,743,812	8,515,121	7,422,919	
(b) Direct Loss Adjustment Expense Incurred	521,637	542,989	691,423	667,872	679,915	
(2) Allied Lines						
(a) Direct Losses Incurred	4,779,658	6,416,870	17,941,113	10,344,868	7,617,526	
(b) Direct Loss Adjustment Expense Incurred	675,860	739,333	1,156,389	996,933	973,416	
(3) Loss Adjustment Expense as a Ratio to Losses						
(a) Fire (1b) / (1a)	9.6%	9.6%	8.9%	7.8%	9.2%	9.0%
(b) Allied Lines (2b) / (2a)	14.1%	11.5%	6.4%	9.6%	12.8%	11.0%

NOTE: All dollar amounts are displayed in thousands.

(A) Items (1) and (2) are based on Insurance Expense Exhibit information compiled by A. M. Best.

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SECTION E - REVISED LOSS COST PAGES

Basic Group II Loss Costs.....	E2
Special Causes of Loss Loss Costs.....	E3
Basic Group I Loss Costs.....	E4-14

70. CAUSES OF LOSS – BASIC FORM

E. Rating Procedure**2. Property Damage – Group II Causes Of Loss****e. Loss Costs**

- (1) Determine the Basic Group II symbol from the specific publication or from Rule **70.E.2.a**.
- (2) For Symbols **AA**, **A**, **AB** and **B** use the applicable rate.
- (3) For symbols with numerical prefixes, multiply the applicable rate by the prefix shown in Rule **70.E.2.a**.

Symbol	Building Loss Cost	Contents Loss Cost
AA	.021	<u>.025</u> -.026
A	<u>.022</u> -.023	<u>.028</u> -.029
AB	<u>.026</u> -.027	<u>.033</u> -.034
B	<u>.036</u> -.037	<u>.040</u> -.042

72. CAUSES OF LOSS – SPECIAL FORM

E.2. Rating Procedure – Property Damage – Other than Builders' Risk

b.(1) Building Coverage – Loss Cost: .046.050

c.(2) Personal Property Coverage – Loss Costs

Occupancy Category	Loss Cost
Residential Apartments and Condominiums	<u>.158.171</u>
Offices	<u>.101.109</u>
Mercantile – High	<u>.112.121</u>
Mercantile – Medium	<u>.086.093</u>
Mercantile – Low	<u>.071.077</u>
Motels and Hotels	<u>.049.052</u>
Institutional – High	<u>.049.053</u>
Institutional – Low	<u>.032.035</u>
Industrial and Processing – High	<u>.114.123</u>
Industrial and Processing – Low	<u>.083.090</u>
Service – High	<u>.098.106</u>
Service – Low	<u>.072.078</u>
Contractors	<u>.117.127</u>
Territory (County)	Territorial Multiplier
Entire State	1.000

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85. BASIC GROUP I CLASS LOSS COSTS

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
0074	Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories – Up to 10 Units					
0075	Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories – 11 to 30 Units					
0076	Boarding and Lodging Houses, Rooming Houses, Fraternities and Sororities, Dormitories – Over 30 Units					
0077	Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes – Up to 10 Units					
0078	Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes – 11 to 30 Units					
0079	Convents, Monasteries and Rectories, Orphan Homes, Nurses' Homes, Sisters' Homes – Over 30 Units					
0196	1 Family Dwellings (Lessor's Risk)					
0197	2 Family Dwellings (Lessor's Risk)					
0198	3 or 4 Family Dwellings (Lessor's Risk)					
0311	Apartments without Mercantile Occupancies – Up to 10 Units					
0312	Apartments without Mercantile Occupancies – 11 to 30 Units					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0074	Building (1)	0.136	0.123	0.109	0.088	0.081
	Contents (2)	0.138	0.125	0.117	0.103	0.097
0075	Building (1)	0.136	0.123	0.109	0.088	0.081
	Contents (2)	0.138	0.125	0.117	0.103	0.097
0076	Building (1)	0.136	0.123	0.109	0.088	0.081
	Contents (2)	0.138	0.125	0.117	0.103	0.097
0077	Building (1)	0.126	0.111	0.100	0.080	0.076
	Contents (2)	0.130	0.117	0.110	0.098	0.091
0078	Building (1)	0.126	0.111	0.100	0.080	0.076
	Contents (2)	0.130	0.117	0.110	0.098	0.091
0079	Building (1)	0.126	0.111	0.100	0.080	0.076
	Contents (2)	0.130	0.117	0.110	0.098	0.091
0196	Building (1)	0.083	0.076	0.069	0.054	0.050
	Contents (2)	0.094	0.083	0.078	0.071	0.066
0197	Building (1)	0.083	0.076	0.069	0.054	0.050
	Contents (2)	0.094	0.083	0.078	0.071	0.066
0198	Building (1)	0.083	0.076	0.069	0.054	0.050
	Contents (2)	0.094	0.083	0.078	0.071	0.066
0311	Building (1)	0.233	0.210	0.185	0.152	0.139
	Contents (2)	0.263	0.236	0.222	0.196	0.183
0312	Building (1)	0.233	0.210	0.185	0.152	0.139
	Contents (2)	0.263	0.236	0.222	0.196	0.183
Territory						Territorial Multiplier
Entire State (Vermont)						1.000

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
0313	Apartments without Mercantile Occupancies – Over 30 Units					
0321	Apartments with Mercantile Occupancies – Up to 10 Units					
0322	Apartments with Mercantile Occupancies – 11 to 30 Units					
0323	Apartments with Mercantile Occupancies – Over 30 Units					
0331	Residential Condominiums without Mercantile Occupancies – Up to 10 Units					
0332	Residential Condominiums without Mercantile Occupancies – 11 to 30 Units					
0333	Residential Condominiums without Mercantile Occupancies – Over 30 Units					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0313	Building (1)	0.233	0.210	0.185	0.152	0.139
	Contents (2)	0.263	0.236	0.222	0.196	0.183
0321	Building (1)	0.358	0.322	0.285	0.233	0.215
	Contents (2)					
	A	0.531	0.479	0.453	0.398	0.370
	B&C	0.622	0.559	0.529	0.466	0.438
0322	Building (1)	0.358	0.322	0.285	0.233	0.215
	Contents (2)					
	A	0.531	0.479	0.453	0.398	0.370
	B&C	0.622	0.559	0.529	0.466	0.438
0323	Building (1)	0.358	0.322	0.285	0.233	0.215
	Contents (2)					
	A	0.531	0.479	0.453	0.398	0.370
	B&C	0.622	0.559	0.529	0.466	0.438
0331	Building (1)	0.129	0.116	0.104	0.082	0.078
	Contents (2)	0.113	0.102	0.098	0.085	0.078
0332	Building (1)	0.129	0.116	0.104	0.082	0.078
	Contents (2)	0.113	0.102	0.098	0.085	0.078
0333	Building (1)	0.129	0.116	0.104	0.082	0.078
	Contents (2)	0.113	0.102	0.098	0.085	0.078
Territory					Territorial Multiplier	
Entire State (Vermont)					1.000	

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
0341	Residential Condominiums with Mercantile Occupancies – Up to 10 Units					
0342	Residential Condominiums with Mercantile Occupancies – 11 to 30 Units					
0343	Residential Condominiums with Mercantile Occupancies – Over 30 Units					
0511	Mercantile – Sole Occupancy Only – Not Otherwise Classified – Low Susceptibility					
0512	Mercantile – Sole Occupancy Only – Tire, Battery and Accessory Dealers without Tire Recapping and Vulcanizing					
0520	Mercantile – Sole Occupancy Only – Wearing Apparel, Textiles, Shoes					
0531	Mercantile – Sole Occupancy Only – Alcoholic Beverages other than Bars					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0341	Building (1)	0.202	0.181	0.164	0.131	0.119
	Contents (2)					
	A	0.231	0.208	0.195	0.172	0.161
	B&C	0.269	0.241	0.231	0.202	0.189
0342	Building (1)	0.202	0.181	0.164	0.131	0.119
	Contents (2)					
	A	0.231	0.208	0.195	0.172	0.161
	B&C	0.269	0.241	0.231	0.202	0.189
0343	Building (1)	0.202	0.181	0.164	0.131	0.119
	Contents (2)					
	A	0.231	0.208	0.195	0.172	0.161
	B&C	0.269	0.241	0.231	0.202	0.189
0511	Building (1)	0.186	0.168	0.149	0.120	0.111
	Contents (2)	0.366	0.330	0.312	0.275	0.258
0512	Building (1)	0.176	0.160	0.141	0.114	0.106
	Contents (2)	0.327	0.294	0.276	0.244	0.228
0520	Building (1)	0.221	0.199	0.176	0.143	0.133
	Contents (2)	0.477	0.430	0.408	0.358	0.333
0531	Building (1)	0.189	0.169	0.151	0.123	0.111
	Contents (2)	0.386	0.347	0.327	0.291	0.270
Territory					Territorial Multiplier	
Entire State (Vermont)					1.000	

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
0532	Merc – Sole Occy Only – Food Products Inc. Retail Bakeries; Non-Alcoholic Beverages (Sales Only – No Baking or Cooking)					
0533	Mercantile – Sole Occupancy Only – Baking on Premises, No Delivery to Outlets					
0534	Mercantile – Sole Occupancy Only – Food Products with Limited Cooking, Excluding Bakeries					
0541	Mercantile – Sole Occupancy Only – Bars and Taverns					
0545	Mercantile – Sole Occupancy Only – Restaurants with Limited Cooking					
0550	Mercantile – Sole Occupancy Only – Motor Vehicles, No Repair					
0561	Mercantile – Sole Occupancy Only – Boat and Marine Supply Dealers					
0562	Mercantile – Sole Occupancy Only – Drugs					
0563	Mercantile – Sole Occupancy Only – Electrical Goods, Hardware and Machinery					
0564	Mercantile – Sole Occupancy Only – Furniture and Home Furnishings other than Appliances					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0532	Building (1)	0.287	0.259	0.230	0.186	0.172
	Contents (2)	0.477	0.430	0.408	0.358	0.333
0533	Building (1)	0.225	0.203	0.181	0.146	0.137
	Contents (2)	0.384	0.343	0.325	0.289	0.266
0534	Building (1)	0.315	0.284	0.252	0.204	0.190
	Contents (2)	0.399	0.360	0.341	0.301	0.280
0541	Building (1)	0.429	0.385	0.343	0.278	0.258
	Contents (2)	0.458	0.412	0.390	0.343	0.321
0545	Building (1)	0.506	0.456	0.407	0.328	0.303
	Contents (2)	0.571	0.513	0.486	0.429	0.397
0550	Building (1)	0.169	0.153	0.137	0.110	0.103
	Contents (2)	0.396	0.358	0.336	0.298	0.276
0561	Building (1)	0.180	0.161	0.142	0.114	0.108
	Contents (2)	0.396	0.358	0.336	0.298	0.276
0562	Building (1)	0.203	0.181	0.163	0.133	0.123
	Contents (2)	0.440	0.396	0.373	0.330	0.308
0563	Building (1)	0.202	0.181	0.161	0.132	0.120
	Contents (2)	0.327	0.294	0.276	0.244	0.228
0564	Building (1)	0.278	0.251	0.221	0.181	0.166
	Contents (2)	0.576	0.519	0.489	0.432	0.404
Territory					Territorial Multiplier	
Entire State (Vermont)					1.000	

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
0565	Mercantile – Sole Occupancy Only – Jewelry					
0566	Mercantile – Sole Occupancy Only – Sporting Goods					
0567	Mercantile – Sole Occupancy Only – Not Otherwise Classified – Moderate Susceptibility					
0570	Mercantile – Sole Occupancy Only – Not Otherwise Classified – High Susceptibility					
0580	Greenhouses – Sole Occupancy Only					
0581	Mercantile – Multiple Occupancy without 0564 Occupant					
0582	Mercantile – Multiple Occupancy with 0564 Occupant					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0565	Building (1)	0.185	0.166	0.148	0.120	0.110
	Contents (2)	0.321	0.289	0.270	0.243	0.225
0566	Building (1)	0.208	0.189	0.168	0.137	0.126
	Contents (2)	0.432	0.390	0.366	0.325	0.304
0567	Building (1)	0.186	0.168	0.149	0.120	0.111
	Contents (2)	0.366	0.330	0.312	0.275	0.258
0570	Building (1)	0.186	0.168	0.149	0.120	0.111
	Contents (2)	0.386	0.347	0.327	0.291	0.270
0580	Building (1)	0.186	0.168	0.149	0.120	0.111
	Contents (2)	0.404	0.363	0.343	0.304	0.284
0581	Building (1)	0.198	0.176	0.157	0.128	0.119
	Contents (2)					
	A	0.386	0.347	0.327	0.291	0.270
	B	0.469	0.423	0.399	0.354	0.330
0582	Building (1)	0.218	0.195	0.175	0.142	0.132
	Contents (2)					
	A	0.343	0.312	0.294	0.258	0.243
	B	0.423	0.380	0.360	0.317	0.294
	C	0.384	0.343	0.325	0.289	0.266
Territory					Territorial Multiplier	
Entire State (Vermont)					1.000	

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
0701	Government Offices					
0702	Banks and Offices other than Governmental					
0742	Motels and Hotels with Limited Cooking Restaurant – Up to 10 Units					
0743	Motels and Hotels with Limited Cooking Restaurant – 11 to 30 Units					
0744	Motels and Hotels with Limited Cooking Restaurant – Over 30 Units					
0745	Motels and Hotels without Restaurant – Up to 10 Units					
0746	Motels and Hotels without Restaurant – 11 to 30 Units					
0747	Motels and Hotels without Restaurant – Over 30 Units					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0701	Building (1)	0.094	0.083	0.073	0.060	0.055
	Contents (2)					
	A	0.103	0.094	0.085	0.077	0.072
	B	0.151	0.137	0.129	0.112	0.107
0702	Building (1)	0.116	0.104	0.092	0.077	0.070
	Contents (2)					
	A	0.139	0.123	0.117	0.103	0.096
	B	0.190	0.172	0.163	0.143	0.133
0742	Building (1)	0.177	0.157	0.141	0.114	0.106
	Contents (2)	0.192	0.174	0.165	0.145	0.135
	A	0.177	0.157	0.141	0.114	0.106
	B	0.192	0.174	0.165	0.145	0.135
0743	Building (1)	0.177	0.157	0.141	0.114	0.106
	Contents (2)	0.192	0.174	0.165	0.145	0.135
	A	0.177	0.157	0.141	0.114	0.106
	B	0.192	0.174	0.165	0.145	0.135
0744	Building (1)	0.177	0.157	0.141	0.114	0.106
	Contents (2)	0.192	0.174	0.165	0.145	0.135
	A	0.177	0.157	0.141	0.114	0.106
	B	0.192	0.174	0.165	0.145	0.135
0745	Building (1)	0.076	0.068	0.062	0.049	0.046
	Contents (2)	0.082	0.074	0.070	0.064	0.059
	A	0.076	0.068	0.062	0.049	0.046
	B	0.082	0.074	0.070	0.064	0.059
0746	Building (1)	0.076	0.068	0.062	0.049	0.046
	Contents (2)	0.082	0.074	0.070	0.064	0.059
	A	0.076	0.068	0.062	0.049	0.046
	B	0.082	0.074	0.070	0.064	0.059
0747	Building (1)	0.076	0.068	0.062	0.049	0.046
	Contents (2)	0.082	0.074	0.070	0.064	0.059
	A	0.076	0.068	0.062	0.049	0.046
	B	0.082	0.074	0.070	0.064	0.059
Territory					Territorial Multiplier	
Entire State (Vermont)					1.000	

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
0755	Golf, Tennis and Similar Sport Facilities with Limited Cooking					
0756	Golf, Tennis and Similar Sport Facilities without Cooking					
0757	Clubs, Not Otherwise Classified, Including Fraternal and Union Halls					
0831	Motion Picture Studios					
0832	Theaters Excluding Drive-in Theaters					
0833	Drive-in Theaters					
0834	Skating Rinks – Roller Rinks					
0841	Bowling Alleys without Cooking					
0843	Halls and Auditoriums					
0844	Recreational Facilities, Not Otherwise Classified					
0845	Boys' and Girls' Camps					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0755	Building (1)	0.311	0.279	0.249	0.203	0.187
	Contents (2)	0.358	0.322	0.304	0.267	0.251
0756	Building (1)	0.127	0.114	0.101	0.082	0.077
	Contents (2)	0.145	0.130	0.123	0.109	0.101
0757	Building (1)	0.137	0.123	0.109	0.089	0.082
	Contents (2)	0.145	0.130	0.123	0.109	0.101
0831	Building (1)	0.107	0.095	0.086	0.070	0.063
	Contents (2)	0.123	0.109	0.104	0.092	0.086
0832	Building (1)	0.136	0.121	0.109	0.089	0.080
	Contents (2)	0.145	0.130	0.123	0.109	0.101
0833	Building (1)	0.115	0.104	0.092	0.076	0.070
	Contents (2)	0.134	0.119	0.114	0.101	0.093
0834	Building (1)	0.185	0.167	0.149	0.119	0.110
	Contents (2)	0.188	0.169	0.161	0.141	0.132
0841	Building (1)	0.188	0.169	0.149	0.123	0.113
	Contents (2)	0.196	0.177	0.168	0.147	0.138
0843	Building (1)	0.093	0.086	0.076	0.060	0.056
	Contents (2)	0.100	0.090	0.086	0.076	0.070
0844	Building (1)	0.127	0.114	0.101	0.082	0.077
	Contents (2)	0.140	0.126	0.118	0.105	0.098
0845	Building (1)	0.084	0.076	0.068	0.054	0.050
	Contents (2)	0.095	0.086	0.082	0.073	0.068
Territory					Territorial Multiplier	
Entire State (Vermont)					1.000	

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
0846	Dance Halls, Ballrooms and Discotheques					
0851	Hospitals					
0852	Nursing and Convalescent Homes					
0900	Churches and Synagogues					
0911	Dry Cleaners and Dyeing Plants, other than Self-Service					
0912	Laundries, other than Self-Service					
0913	Self-Service Laundries and Dry Cleaners					
0921	Light Hazard Service Occupancies					
0922	Service Occupancies, other than Light Hazard					
0923	Funeral Homes					
0931	Auto Parking Garages, Car Washes					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0846	Building (1)	0.174	0.159	0.140	0.114	0.105
	Contents (2)	0.172	0.152	0.147	0.129	0.119
0851	Building (1)	0.071	0.064	0.056	0.047	0.044
	Contents (2)	0.082	0.075	0.071	0.063	0.058
0852	Building (1)	0.075	0.066	0.059	0.048	0.045
	Contents (2)	0.085	0.077	0.074	0.064	0.061
0900	Building (1)	0.195	0.174	0.157	0.127	0.117
	Contents (2)	0.206	0.185	0.174	0.155	0.144
0911	Building (1)	0.345	0.311	0.278	0.225	0.208
	Contents (2)	0.407	0.366	0.347	0.305	0.285
0912	Building (1)	0.456	0.412	0.365	0.295	0.272
	Contents (2)	0.564	0.507	0.479	0.422	0.392
0913	Building (1)	0.300	0.270	0.239	0.197	0.179
	Contents (2)	0.353	0.317	0.299	0.264	0.245
0921	Building (1)	0.179	0.162	0.145	0.116	0.109
	Contents (2)	0.214	0.193	0.182	0.160	0.150
0922	Building (1)	0.198	0.179	0.160	0.130	0.119
	Contents (2)	0.242	0.219	0.208	0.183	0.172
0923	Building (1)	0.133	0.119	0.108	0.085	0.078
	Contents (2)	0.141	0.128	0.121	0.108	0.098
0931	Building (1)	0.100	0.088	0.080	0.065	0.059
	Contents (2)	0.115	0.103	0.100	0.085	0.081
Territory					Territorial Multiplier	
Entire State (Vermont)					1.000	

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
0932	Gasoline Service Stations					
0933	Motor Vehicle and Aircraft Repair, with or without Sales					
0934	Tire Recapping and Vulcanizing, with or without Sales					
0940	Aircraft Hangars without Repair					
0951	Gambling Casinos with Limited Cooking Restaurants					
0952	Gambling Casinos without Restaurants					
1000	Penal Institutions					
1051	Museums, Libraries, Art Galleries (Non-Profit)					
1052	Schools, Academic					
1070	Fire Departments, Police, Sewage, Water Works and Other Public Buildings					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
0932	Building (1)	0.141	0.126	0.113	0.090	0.083
	Contents (2)	0.172	0.155	0.145	0.130	0.121
0933	Building (1)	0.120	0.107	0.097	0.078	0.071
	Contents (2)	0.148	0.136	0.127	0.113	0.104
0934	Building (1)	0.155	0.139	0.123	0.101	0.094
	Contents (2)	0.183	0.165	0.156	0.137	0.130
0940	Building (1)	0.075	0.068	0.060	0.048	0.046
	Contents (2)	0.094	0.083	0.080	0.069	0.066
0951	Building (1)	0.362	0.328	0.292	0.236	0.219
	Contents (2)	0.401	0.359	0.340	0.300	0.280
0952	Building (1)	0.123	0.109	0.099	0.078	0.074
	Contents (2)	0.176	0.159	0.149	0.132	0.123
1000	Building (1)	0.090	0.080	0.072	0.058	0.054
	Contents (2)	0.079	0.071	0.068	0.059	0.055
1051	Building (1)	0.057	0.051	0.046	0.037	0.034
	Contents (2)	0.072	0.066	0.062	0.055	0.051
1052	Building (1)	0.080	0.073	0.065	0.053	0.048
	Contents (2)	0.093	0.082	0.078	0.069	0.065
1070	Building (1)	0.085	0.078	0.070	0.057	0.052
	Contents (2)	0.105	0.094	0.088	0.077	0.072
Territory						Territorial Multiplier
Entire State (Vermont)						1.000

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
1150	Builders' Risk					
1180	Vacant Buildings – See CSP Class Code of previous or intended occupancy. Add loss cost of .015 unless Class Code of previous or intended occupancy is 0580, 0742-0747, 0833, 0834, 0841, 0843, 0844, 0846, 0900, 0951, 0952, 1051 or 1052.					
1211	Freight Terminals					
1212	General Storage Warehouses – Bailee					
1213	Miscellaneous Products Storage – (Other Than Retail Or Wholesale Or Cold Storage)					
1220	Household Goods Storage					
1230	Cold Storage Warehouses					
1400	Waste and Reclaimed Materials Including Yards					
1650	Building Supply Yards, Including Retail Lumberyards, Coal and Coke Yards					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
1150	Building (1)	0.114	0.104	0.091	0.075	0.068
1211	Building (1)	0.320	0.289	0.256	0.208	0.192
	Contents (2)	0.376	0.339	0.320	0.282	0.263
1212	Building (1)	0.253	0.230	0.203	0.166	0.153
	Contents (2)	0.311	0.280	0.263	0.233	0.219
1213	Building (1)	0.224	0.203	0.178	0.146	0.137
	Contents (2)	0.297	0.268	0.253	0.224	0.208
1220	Building (1)	0.268	0.240	0.213	0.172	0.160
	Contents (2)	0.327	0.293	0.278	0.245	0.230
1230	Building (1)	0.232	0.208	0.185	0.151	0.140
	Contents (2)	0.316	0.284	0.268	0.235	0.220
1400	Building (1)	0.692	0.624	0.553	0.450	0.413
	Contents (2)	0.841	0.758	0.715	0.632	0.589
	Yard	1.046		0.108		
1650	Building (1)	0.412	0.371	0.329	0.268	0.248
	Contents (2)	0.521	0.470	0.446	0.391	0.366
	Yard	0.289		0.037		
Territory					Territorial Multiplier	
Entire State (Vermont)					1.000	

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85. BASIC GROUP I CLASS LOSS COSTS (Cont'd)

All rates are subject to protection class and territorial multipliers.

CSP Class Codes And Description						
1700	Mill Yards					
1751	Oil Distributing, Oil Terminals and LPG Tank Farms – Including Stock					
1752	Oil Distributing, Oil Terminals and LPG Tank Farms – Excluding Stock					
2200	Baking on Premises, Delivery to Outlets					
2350	Beverage Bottlers Excluding Alcoholic Beverages					
2459	Distilleries and Wineries					
2800	Textile Mill Products					
3409	Leather and Leather Products					
4809	Printing					
CSP Class Code	Coverage	Construction (Code)				
		Frame (1)	Joisted Masonry (2)	Non-Comb. (3)	Mas. Non-Comb. (4)	Mod. F.R. (5) Or Fire Res. (6)
1700	Building (1)	0.336	0.302	0.270	0.220	0.203
	Contents (2)	0.515	0.459	0.436	0.387	0.359
	Yard	0.282		0.033		
1751	Building (1)	0.215	0.194	0.172	0.140	0.131
	Contents (2)	0.282	0.253	0.240	0.213	0.198
1752	Building (1)	0.203	0.183	0.162	0.133	0.122
	Contents (2)	0.203	0.181	0.172	0.151	0.140
2200	Building (1)	0.658	0.596	0.531	0.433	0.395
	Contents (2)	0.787	0.708	0.666	0.589	0.552
2350	Building (1)	0.424	0.383	0.340	0.276	0.255
	Contents (2)	0.504	0.453	0.424	0.374	0.354
2459	Building (1)	0.276	0.248	0.219	0.177	0.163
	Contents (2)	0.354	0.319	0.304	0.268	0.248
2800	Building (1)	0.493	0.448	0.400	0.325	0.298
	Contents (2)	0.651	0.587	0.552	0.486	0.457
3409	Building (1)	0.544	0.488	0.433	0.354	0.326
	Contents (2)	0.629	0.567	0.535	0.471	0.439
4809	Building (1)	0.415	0.375	0.332	0.269	0.252
	Contents (2)	0.507	0.456	0.430	0.379	0.357
Territory					Territorial Multiplier	
Entire State (Vermont)					1.000	

VERMONT
COMMERCIAL PROPERTY
LOSS COST LEVEL REVIEW
ACTUARIAL ANALYSIS SUPPLEMENT

PURPOSE This document provides discussion and analysis of changes in the experience and adjustments used to derive the advisory prospective loss cost level indications.

MONOLINE INDICATIONS The indicated statewide monoline changes are:

<u>Subline</u>	<u>Current Review</u>	<u>Prior Review</u>
Basic Group I	-3.1%	-3.1%
Basic Group II	-3.0%	0.0%
Special Causes of Loss	-8.5%	-5.7%
All Coverages Combined	-4.5%	-3.4%

The prior review's indications were not filed. There has not been a change in the Implicit Package Modification Factors since the prior review.

Given below is a brief discussion and comparison of the multistate factors (premium and loss trend, loss adjustment expense, and loss development) used in this year's and last year's reviews. The discussion is followed by a state specific analysis by subline and a list of events occurring during the experience period in this state that have been identified as catastrophes by ISO's Property Claims Services.

DATA QUALITY Statistical plan data reported to ISO is first processed through a system of rigorous automated data verification processes so that only valid data is used for ratemaking. Subsequent to this initial data submission review, additional analyses involving an even more customized data review for this line were performed by staff. During these processes, various data records were excluded from the review, corrected or adjusted. Specifically, an on-leveling approach was used to determine aggregate loss costs at current level rather than the extension-of-exposures method for some reported exposures, and various loss cost multipliers have been adjusted prior to their use in the calculations. The ISO staff responsible for this loss cost review also reviewed the data for reasonableness.

LOSS ADJUSTMENT EXPENSE/LOSS DEVELOPMENT FACTORS Loss adjustment expense factors have changed since the previous review, from 1.095 in the prior review to 1.090 in the current review for BG I and from 1.115 to 1.110 for BG II and SCL. Loss development factors changed slightly but are still relatively close to unity for all sublines and years.

LOSS TREND
FACTORS

Given below is a comparison of the external trend factors, loss trend adjustments (LTAs) and total loss trend factors for the current and prior reviews.

External Trend

The prospective annual rates of change based on the external indices (Xactware for Buildings, PPI for Contents, and IMSEP/RSALLES for Time Element) for the current and prior year reviews are:

<u>Coverage</u>	<u>Current Review</u>	<u>Prior Review</u>	<u>Change</u>
Buildings	3.9%	3.1%	0.8%
Contents	1.7%	1.9%	-0.2%
Time Element	-0.2%	0.7%	-0.9%

Loss Trend Adjustments (LTAs)

The loss trend adjustment factors underlying the current and prior reviews are:

<u>Subline</u>	<u>Current Review</u>			<u>Prior Review</u>		
	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>
Basic Group I	1.2%	1.5%	2.4%	0.0%	0.6%	2.6%
Basic Group II	-0.4%	0.6%	2.6%	0.0%	0.6%	2.7%
Special Causes of Loss	0.2%	-1.0%	2.4%	0.3%	-0.6%	2.6%

Total Annual Loss Trend

The prospective total annual loss trend factors are given below and are calculated as the product of the external trend factors and loss trend adjustment factors.

<u>Subline</u>	<u>Current Review</u>			<u>Prior Review</u>		
	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>
Basic Group I	5.1%	3.2%	2.2%	3.1%	2.5%	3.3%
Basic Group II	3.5%	2.3%	2.4%	3.1%	2.5%	3.4%
Special Causes of Loss	4.1%	0.7%	2.2%	3.4%	1.3%	3.3%

CHANGE IN
AVERAGE LOSS
TREND

The changes in average loss trend from current year to prior year are:

<u>Subline</u>	<u>Change in Average Trend</u>
Basic Group I	2.2%
Basic Group II	0.3%
Special Causes of Loss	-0.1%

Average loss trend is calculated as a weighted average of the total loss trend from the midpoint of the experience year to one year past the assumed effective date for each year in the experience period based on the statewide loss cost level review year weights (.10, .15, .20, .25, .30 for BG I and SCL, and 0.10 for all years for BG II). Total loss trend includes the effect of Current Cost Factors to bring losses to the latest level of external cost information, Loss Projection Factors to project from the external cost level to one year past the assumed effective date, and Loss Trend Adjustment factors over the entire trend period.

PREMIUM TREND
FACTORS

The prospective annual premium trend factors, based on annual changes in amounts of insurance written, for the current and prior reviews are:

<u>Subline</u>	<u>Current Review</u>			<u>Prior Review</u>		
	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>
Basic Group I	1.9%	1.8%	1.0%	2.5%	1.8%	0.9%
Basic Group II	1.8%	1.6%	1.0%	2.3%	1.7%	0.9%
Special Causes of Loss	1.8%	1.4%	1.0%	2.4%	1.4%	0.9%

NET TREND

The prospective annual net (loss ÷ premium) trend factors for the current and prior year reviews are:

<u>Subline</u>	<u>Current Review</u>			<u>Prior Review</u>		
	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>	<u>Bldg.</u>	<u>Cnts.</u>	<u>TE</u>
Basic Group I	3.2%	1.4%	1.2%	0.6%	0.7%	2.4%
Basic Group II	1.7%	0.7%	1.4%	0.8%	0.8%	2.5%
Special Causes of Loss	2.3%	-0.7%	1.2%	1.0%	-0.1%	2.4%

BASIC GROUP I

The statewide five year weighted average experience ratio, before credibility weighting, increased by 25.4%, from 0.781 in the prior review to 0.979 in the current review. The increase is due to a higher-than-average experience ratio of 1.813 for 2020 entering the experience period. The monoline relativity decreased by 6.3%, due to a higher-than-overall monoline experience ratio of 6.977 for 2015 exiting the experience period and a lower-than-overall monoline experience ratio of 0.030 for 2020 entering the experience period.

Statewide Loss Cost Level Review

	<u>Current Review</u>	<u>Prior Review</u>	<u>Ratio</u>
Weighted Experience Ratio	0.979	0.781	1.254
Credibility	0.250	0.250	1.000
Expected Experience Ratio	1.025	1.008	1.017
Coverage Change	1.014	0.951	1.066
Monoline Relativity	0.956	1.019	0.938
Monoline Change	0.969	0.969	1.000

BASIC GROUP II

The statewide ten year weighted average experience ratio, before credibility weighting, decreased by 8.5%, from 1.047 in the prior review to 0.958 in the current review. The decrease is due to a higher-than-average experience ratio of 1.099 for 2010 exiting the experience period and a lower-than-average experience ratio of 0.441 for 2020 entering the experience period.

Statewide Loss Cost Level Review

	<u>Current Review</u>	<u>Prior Review</u>	<u>Ratio</u>
Weighted Experience Ratio	0.958	1.047	0.915
Credibility	0.250	0.250	1.000
Expected Experience Ratio	1.014	1.009	1.005
Coverage Change	1.000	1.018	0.982
Monoline Relativity	0.974	0.977	0.997
Monoline Change	0.974	0.995	0.979
Monoline Change incl. Hurricane	0.970	1.000	0.970

SPECIAL CAUSES
OF LOSS

The statewide five year weighted average experience ratio, before credibility weighting, decreased by 16.7%, from 0.784 in the prior review to 0.653 in the current review. The decrease is due to a higher-than-average experience ratio of 1.477 for 2015 exiting the experience period and a lower-than-average experience ratio of 0.541 for 2020 entering the experience period.

Statewide Loss Cost Level Review

	<u>Current Review</u>	<u>Prior Review</u>	<u>Ratio</u>
Weighted Experience Ratio	0.653	0.784	0.833
Credibility	0.250	0.250	1.000
Expected Experience Ratio	1.008	1.006	1.002
Coverage Change	0.919	0.950	0.967
Monoline Relativity	0.996	0.991	1.005
Monoline Change	0.915	0.943	0.970

PROPERTY
CLAIMS
SERVICES
INFORMATION

The following events have been identified by Property Claims Services as catastrophes occurring in this state from 1/1/1990 through 12/31/2020.

<u>Date From</u>	<u>Date To</u>	<u>Perils</u>
3/11/1993	3/14/1993	Wind, Hail, Tornadoes, Freezing, Ice, Snow
1/14/1994	1/16/1994	Wind, Snow, Ice, Freezing
1/17/1994	1/20/1994	Wind, Snow, Ice, Freezing
1/6/1996	1/9/1996	Wind, Snow, Ice, Freezing, Flooding
10/18/1996	10/21/1996	Wind, Flooding
12/6/1996	12/8/1996	Wind, Ice, Snow
3/4/1997	3/6/1997	Wind, Hail, Tornadoes, Flooding
1/7/1998	1/12/1998	Ice, Snow, Wind, Flooding, Freezing
5/30/1998	6/1/1998	Hail, Wind, Tornadoes
8/22/1998	8/25/1998	Hail, Wind, Tornadoes
9/6/1998	9/8/1998	Hail, Wind, Flooding, Tornadoes
1/13/1999	1/16/1999	Ice, Hail, Snow, Wind, Flooding, Freezing
9/14/1999	9/17/1999	Hurricane Floyd - Wind, Flooding, Tornadoes
1/14/2000	1/19/2000	Ice, Snow, Wind, Freezing
1/13/2003	1/25/2003	Freezing, Ice, Snow, Wind
2/14/2003	2/18/2003	Flooding, Freezing, Ice, Snow, Wind
2/21/2003	2/23/2003	Flooding, Hail, Tornadoes, Wind
8/14/2003	8/17/2003	Power Outage
1/9/2004	1/12/2004	Freezing, Wind
1/14/2004	1/17/2004	Freezing, Ice, Snow, Wind
6/8/2004	6/9/2004	Flooding, Hail, Tornadoes, Wind
1/22/2005	1/23/2005	Freezing, Ice, Snow, Wind
10/7/2005	10/15/2005	Flooding, Wind
4/13/2007	4/17/2007	Flooding, Hail, Tornadoes, Wind
12/11/2008	12/13/2008	Flooding, Ice, Snow, Wind
2/23/2010	2/28/2010	Flooding, Freezing, Ice, Snow, Wind
8/26/2011	8/28/2011	Hurricane Irene - Flooding, Tornadoes, Wind
10/28/2012	10/31/2012	Hurricane Sandy - Flooding, Snow, Wind
2/16/2015	2/22/2015	Freezing, Ice, Snow, Wind
2/13/2016	2/15/2016	Freezing, Ice, Snow, Wind
10/29/2017	10/30/2017	Flooding, Wind
1/3/2018	1/6/2018	Flood, Freezing, Ice, Snow, Wind
4/28/2018	5/5/2018	Flooding, Hail, Tornadoes, Wind
10/16/2019	10/17/2019	Flooding, Wind
10/31/2019	11/1/2019	Flooding, Tornadoes, Wind
7/30/2020	8/5/2020	Flooding, Hurricane, Tornadoes, Tropical Storm, Wind

PROPERTY
CLAIMS
SERVICES
INFORMATION
(cont'd)

ISO's Property Claims Services defines a catastrophe as an event that:

- reaches a threshold dollar amount of total insured property losses, and
- affects a significant number of property and casualty insurance policyholders and property and casualty insurers.

From 1949 to 1981, the threshold was \$1 million. From 1982 to 1996, it was \$5 million, and since January 1, 1997, the threshold has been \$25 million.

All of the events listed above may not have resulted in unexpected loss experience for commercial property coverage in this state since catastrophes are defined based on total insured property losses spreading across state lines and lines of business.

For more information concerning Catastrophe Claims Services, please see "Persons to Contact" in the circular cover letter.
