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August 10, 2021

Circular 2021-07

To: ICRB Members

ITEM R-1414-B—REVISIONS TO RETROSPECTIVE RATING PLAN MANUAL APPENDIX B AND ALL RELATED RULES AND ENDORSEMENTS (AMENDED INFORMATIONAL EXHIBIT 1

AND

ITEM R-1419—2021 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS AND REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

The ICRB has submitted two Item Filings, R-1414(B) and R-1419, to make minor revisions to the Retrospective Rating Plan Manual. These were approved by the Indiana Department of Insurance on 7/20/21 and 8/2/2021 respectively.

ITEM R-1414-B:

1. Introduces a new methodology that improves the accuracy of the insurance charge component of the basic premium factor when there is an individual loss limitation as well as an aggregate loss limitation (i.e., a maximum and/or minimum limitation)
2. Replaces Appendix A—Table of Expected Loss Ranges in NCCI's *Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)* with new lookup tables
3. Replaces Appendix B—Table of Insurance Charges in NCCI's *Retrospective Rating Plan Manual* with new values, an updated layout, and changes to calculations and lookups
4. Updates several national and state-specific *Compensation and Employers Liability Insurance (Forms Manual)* to replace the term "insurance charge" with "net aggregate loss factor"

ITEM R-1419:

This item filing revises the following values in NCCI's *Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)*:

- Excess Loss Pure Premium Factors (ELPPFs) and Excess Loss and Allocated Expense Pure Premium Factors (ELAEPPFs)

- State average cost per case values by hazard group underlying the proposed ELPPFs and ELAEPFs .

Additionally, this item:

- Clarifies the hazard group assignment and applicability of certain classifications in Appendix E—Classifications by Hazard Group in NCCI's ***Basic Manual for Workers Compensation and Employers Liability Insurance—2001 edition (Basic Manual)*** for Connecticut, Louisiana and Oregon
- Introduces in Texas the methodology used to calculate the Aggregate Loss Factors that underlie ***ALFs on Demand***

For further details please see the Circulars below.

Sincerely,

A handwritten signature in dark ink, appearing to read "K H Byrd", written in a cursive style.

Karen H. Byrd
President & CEO

FILING MEMORANDUM

ITEM R-1414-B—REVISIONS TO RETROSPECTIVE RATING PLAN MANUAL APPENDIX B AND ALL RELATED RULES AND ENDORSEMENTS (AMENDED INFORMATIONAL EXHIBIT 1)

AMENDED INFORMATIONAL EXHIBIT 1

In 2017, NCCI filed Item R-1414—Revisions to Retrospective Rating Plan Manual Appendix B and All Related Rules and Endorsements. This item, which was approved in NCCI jurisdictions for new and renewal voluntary policies only, on and after 12:01 a.m. on January 1, 2019, supported NCCI's retrospective rating plan by establishing the **Aggregate Loss Factors on Demand (ALFs on Demand)** tool and the **Table of Aggregate Loss Factors (Table of ALFs)**.

Item R-1414 - Informational Exhibit 1 contains the technical details describing the calculations underlying the **ALFs on Demand** tool. It was recently identified that a formula displayed in Informational Exhibit 1 is inconsistent with the actual formula describing the calculations underlying the **ALFs on Demand** tool. No values or calculations were impacted in the **ALFs on Demand** tool or the **Table of ALFs** due to the inconsistency. Additionally, there is no premium impact to any intrastate or interstate retrospective rated policy due to the inconsistency.

NCCI is amending Item R-1414 to display the formula describing the calculations underlying the **ALFs on Demand** tool. Item R-1414-A—Amendment to Item R-1414—Revisions to Retrospective Rating Plan Manual Appendix B and All Related Rules and Endorsements, which subsequently amended values in Appendices A, B, and D in NCCI's **Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)** is not impacted by this item.

Original Item R-1414 filing memorandum is shown below. Changes were made only to page 8 of Informational Exhibit 1 to display the formula describing the calculations underlying the **ALFs on Demand** tool. The change to the formula in the informational exhibit is shown in strikethrough. In all states except Hawaii, this item is to become effective for new and renewal voluntary policies only, with effective dates on and after 12:01 a.m. on June 4, 2021, and any in-force voluntary policy in effect on and after June 4, 2021. In Hawaii, the effective date is determined upon regulatory approval of the individual carrier's election to adopt this change.

PURPOSE

This item:

1. Introduces a new methodology that improves the accuracy of the insurance charge component of the basic premium factor when there is an individual loss limitation as well as an aggregate loss limitation (i.e., a maximum and/or minimum limitation)
2. Replaces Appendix A—Table of Expected Loss Ranges in NCCI's **Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)** with new lookup tables
3. Replaces Appendix B—Table of Insurance Charges in NCCI's **Retrospective Rating Plan Manual** with new values, an updated layout, and changes to calculations and lookups
4. Updates several national and state-specific endorsements in NCCI's **Forms Manual of Workers Compensation and Employers Liability Insurance (Forms Manual)** to replace the term "insurance charge" with "net aggregate loss factor"

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FILING MEMORANDUM

ITEM R-1414-B—REVISIONS TO RETROSPECTIVE RATING PLAN MANUAL APPENDIX B AND ALL RELATED RULES AND ENDORSEMENTS (AMENDED INFORMATIONAL EXHIBIT 1)

BACKGROUND

A retrospective rating plan adjusts the premium for an employer's policy on the basis of losses incurred during the term of that policy. At the simplest level, an employer's retrospective rating premium (RRP) is determined by the formula $RRP = (BP + LCF * L) * TM$, where:

RRP	=	Retrospective Rating Premium, subject to minimum and maximum amounts
BP	=	Basic Premium
LCF	=	Loss Conversion Factor, generally reflecting loss adjustment expense
L	=	Actual Incurred Loss during the effective policy period
TM	=	Tax Multiplier

The RRP is not known until after the policy has expired and the actual losses are fully developed. The basic premium contains provisions for the expenses of the carrier. It also includes a net insurance charge, which results from the maximum and minimum limitations on the RRP. The net insurance charge reflects the charge to compensate for the possibility that the RRP will exceed the maximum premium amount. It also reflects the savings resulting from the possibility that the RRP will be less than the minimum premium amount. The net insurance charge is the difference between the charge for the maximum and the savings from the minimum.

Appendix B—Table of Insurance Charges in the *Retrospective Rating Plan Manual* contains the excess ratios needed to quantify the insurance charge and savings described above. The ratio of the loss limit to expected losses—the entry ratio—is used to identify the values in the Table of Insurance Charges. The charges depend not only on the maximum and minimum subject losses but also on the size of the employer. This is because the expected variation in losses is lower for larger employers.

Appendix B has been in effect since 1998, warranting an update to the values in the table and the methodology for determining those values. In developing the proposed methodology, NCCI started from the current framework and selected an algorithm to compute more exact solutions by leveraging enhancements in computing power and available delivery systems that have occurred since the methodology was last updated.

PROPOSAL

Methodology

NCCI proposes a new methodology that:

- Relies on more recent data
- Eliminates some approximating adjustments used by the current methodology
- Increases the accuracy and equity of insurance charges within each state and across the country
- Implements several refinements and methodological enhancements compared to the current countrywide Appendix B

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Due to advancements in computing power, increases in computing speed, and online connectivity, it is now practical to perform real-time calculations and output the results to the carrier. Upon approval of this item, NCCI will develop an external-facing application for carrier use named **Aggregate Loss Factors on Demand (ALFs on Demand)** which calculates insurance charges using the new methodology. The new methodology in conjunction with **ALFs on Demand** provides a better way of reflecting the state and hazard group mix of policies that further improves the accuracy of insurance charges. **ALFs on Demand** leverages the formulas and parameters contained in the 2014 update to **Excess Loss Factor (ELF) Parameters and Tables** to produce results that reflect the state and hazard group specific loss distribution of the policy entered by the user. The new application also simplifies calculations that carriers need to perform for every retrospectively rated policy, produces more accurate results, and makes it easier to perform annual updates based on the data underlying the annual update to the retrospective rating plan parameters. The result is insurance charges and savings that are more responsive to the latest available data. With **ALFs on Demand**, carriers also have the ability to generate graphs based on the policy information entered such as:

- Policy-specific estimated claim count distribution.
- Policy-specific estimated severity distribution.
- Projected ultimate distribution of claims by state, hazard group, and claim group. For example, **ALFs on Demand** could generate the expected number of permanent total claims for a multistate policy written in State X and State Y across hazard groups A, B, and C.

Informational Exhibit 1 provides a detailed explanation of the calculations underlying the proposed methodology underlying **ALFs on Demand**. Illustrative state-specific values that **ALFs on Demand** will generate are provided in Informational Exhibit 2.

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Appendix A

NCCI proposes to replace Appendix A—Table of Expected Loss Ranges with two new lookup tables—Table of Policy Excess Ratio Ranges and Table of Expected Claim Count Groups—that show the user which subtable and column to choose when determining the appropriate insurance charge in Appendix B. Because Appendix A is being replaced in its entirety, Exhibit 4A-Rule displays the current Appendix A title in strikethrough and Exhibit 4B-Rule displays the proposed Appendix A in its entirety without underline (as it would appear published).

Appendix B

The real-time calculations and output generated by **ALFs on Demand** represent a paradigm shift from the current approach, where values are obtained via lookups within a precomputed table in Appendix B—Table of Insurance Charges in the *Retrospective Rating Plan Manual*. In recognition of this, the proposed methodology also includes an alternative countrywide tabular option, known as the Table of Aggregate Loss Factors.

The Table of Aggregate Loss Factors is conceptually similar to the current approach in that it is a precomputed table of values used in conjunction with a lookup procedure, rather than an application that performs real-time calculations. The Table of Aggregate Loss Factors will replace the Table of Insurance Charges currently in Appendix B with new values, an updated layout, and changes to calculations and lookups. The proposed table implements several improvements over the current table. It:

- Shares the same basic methodology improvements as **ALFs on Demand**, and it's more accurate than the current table
- Accounts for inflation in claim size over time automatically
- Eliminates updates to hazard group differentials and Expected Loss Group ranges

The values contained in the Table of Aggregate Loss Factors are consistent with the general methodology underlying **ALFs on Demand** because output from that application is leveraged when creating the table. However, an important distinction is that, due to its countrywide nature, the Table of Aggregate Loss Factors does not reflect the state and hazard group differences in severity distributions that are incorporated by **ALFs on Demand**.

Informational Exhibit 3 provides a detailed explanation of the calculations and methodology underlying the proposed Table of Aggregate Loss Factors, formally known as Appendix B—Table of Insurance Charges.

- Because Appendix B is being replaced in its entirety, Exhibit 5A-Rule displays the current Appendix B title in strikethrough and Exhibit 5B-Rule displays the proposed Appendix B in its entirety without underline (as it would appear published).
- The countrywide Table of Aggregate Loss Factors, described in Informational Exhibit 3, is being filed for carriers that may need additional lead time to adopt the methodology in Informational Exhibit 1 due to computer programming, internal system or process reasons, or other considerations.
- Terminology in national and state-specific rules and endorsements will be updated for consistency with the replacement of the Table of Insurance Charges currently in Appendix B as follows:

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ITEM R-1414-B—REVISIONS TO RETROSPECTIVE RATING PLAN MANUAL APPENDIX B AND ALL RELATED RULES AND ENDORSEMENTS (AMENDED INFORMATIONAL EXHIBIT 1)

Current Term	Proposed Term	Explanation of Terms
Insurance charge	Aggregate Excess Loss Factors (AELFs)	Describes expected losses in excess of those provided by the maximum retrospective premium.
Insurance savings	Aggregate Minimum Loss Factors	Describes expected losses less than those that would produce the minimum retrospective premium.
Net insurance charge	Net aggregate loss factor	Determined by calculating the difference between the aggregate excess loss factor for possible losses that might produce more than the maximum retrospective premium and the aggregate minimum loss factor for losses that might produce less than the minimum retrospective premium, and then multiplying that difference by the product of the expected loss ratio and the loss conversion factor. The net aggregate loss factor may be less than zero, as long as the basic premium factor is not negative.
Table of Insurance Charges	Table of Aggregate Loss Factors	Precomputed table of values used in conjunction with a lookup procedure.

Massachusetts-, Minnesota-, Texas-, and Wisconsin-Specific:

NCCI recommends that these states adopt the proposed lookup tables and associated Table of Aggregate Loss Factors found in Appendices A and B.

IMPACT

The insurance charge is a minor part of the retrospective rating premium compared to other policy costs or expenses. Retrospectively rated policies are typically purchased by employers that pay large amounts of premium.

The net effect for any given employer depends on the terms agreed upon for the retrospectively rated policy. Furthermore, less than 1% of policies are retrospectively rated nationally.

The impact on the insurance charge of the proposed methodology varies by loss limit (if this elective element is selected), policy size, the state and hazard group of the employer's operations, and the selection of the maximum and minimum premium negotiated between the employer and carrier.

Generally, the insurance charges are expected to decrease for the majority of policy combinations.

EXHIBIT COMMENTS AND IMPLEMENTATION SUMMARY

In all states except Hawaii, this item is to become effective for new and renewal voluntary policies only, effective on and after 12:01 a.m. on January 1, 2019.

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**ITEM R-1414-B—REVISIONS TO RETROSPECTIVE RATING PLAN MANUAL APPENDIX B
 AND ALL RELATED RULES AND ENDORSEMENTS (AMENDED INFORMATIONAL EXHIBIT 1)**

In Hawaii, the effective date is determined upon regulatory approval of the individual carrier's election to adopt this change.

Exhibit	Exhibit Comments	Implementation Summary
National Exhibits		
1-Rule	<ul style="list-style-type: none">Details the revisions to Rule 1-B-2-bApplies in all states except FL, MA	Revises NCCI's <i>Retrospective Rating Plan Manual</i> .
2-Rule	<ul style="list-style-type: none">Details the revisions to Rule 1-B-2-e-2-cApplies in all states except FL, MA, WI	
3-Rule	Details the revisions to Rule 3-B.	
4A-Rule	Details the revisions to Appendix A.	
4B-Rule		
5A-Rule	<ul style="list-style-type: none">Details the revisions to Appendix B.	
5B-Rule	<ul style="list-style-type: none">Carriers must choose, on a state-by-state basis, whether to exclusively use either the Table of Aggregate Loss Factors or ALFs on Demand to calculate the net aggregate loss factors for the retrospectively rated policies in their book of business on an annual basis. Carriers do not need to make their own filing in each state declaring which option they intend to use, unless this is specifically requested or required by the state.	
6-Rule	Details the revisions to Appendix D.	
7-Form	<ul style="list-style-type: none">Details the revisions to the Retrospective Rating Plan Premium Endorsement One-Year Plan (WC 00 05 03 C)Applies in all states except AK, FL, GA, IN, LA, MA, MN, NC, TXThe Wisconsin Compensation Rating Bureau files forms on behalf of their members	Revises NCCI's <i>Forms Manual</i> .
8-Form	<ul style="list-style-type: none">Details the revisions to the Retrospective Rating Plan Premium Endorsement Three-Year Plan (WC 00 05 04 C)	

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Exhibit	Exhibit Comments	Implementation Summary
	<ul style="list-style-type: none"> Applies in all states except AK, FL, GA, IN, LA, MA, MN, NC, TX The Wisconsin Compensation Rating Bureau files forms on behalf of their members 	
9-Form	<ul style="list-style-type: none"> Details the revisions to the Retrospective Rating Plan Premium Endorsement Wrap-Up Construction Project (WC 00 05 05 C) Applies in all states except AK, FL, GA, IN, LA, MA, MN, NC, TX The Wisconsin Compensation Rating Bureau files forms on behalf of their members 	Revises NCCI's <i>Forms Manual</i> .
10-Form	<ul style="list-style-type: none"> Details the revisions to the Retrospective Rating Plan Premium Endorsement One-Year Plan—Multiple Lines (WC 00 05 12 C) Applies in all states except AK, FL, GA, LA, OR, TX The independent administrative bureaus file forms on behalf of their members 	
11-Form	<ul style="list-style-type: none"> Details the revisions to the Retrospective Rating Plan Premium Endorsement Three-Year Plan—Multiple Lines (WC 00 05 13 C) Applies in all states except AK, FL, GA, IN, LA, MA, MN, NC, OR, TX The Wisconsin Compensation Rating Bureau files forms on behalf of their members 	
12-Form	<ul style="list-style-type: none"> Details the revisions to the Retrospective Rating Plan Premium Endorsement Wrap-Up Construction Project—Multiple Lines (WC 00 05 14 C) Applies in all states except AK, FL, GA, IN, LA, MA, MN, NC, OR, TX 	

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ITEM R-1414-B—REVISIONS TO RETROSPECTIVE RATING PLAN MANUAL APPENDIX B
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Exhibit	Exhibit Comments	Implementation Summary
	<ul style="list-style-type: none"> The Wisconsin Compensation Rating Bureau files forms on behalf of their members 	
State Exhibits		
13-Form	Details the revisions to the Alaska Retrospective Rating Plan Premium Endorsement One-Year Plan (WC 54 05 01 A).	Revises NCCI's <i>Forms Manual</i> .
14-Form	Details the revisions to the Alaska Retrospective Rating Plan Premium Endorsement Three-Year Plan (WC 54 05 02 A).	
15-Form	Details the revisions to the Alaska Retrospective Rating Plan Premium Endorsement Wrap-Up Construction Project (WC 54 05 03 A).	
16-Form	Details the revisions to the Alaska Retrospective Rating Plan Premium Endorsement One-Year Plan—Multiple Lines (WC 54 05 04 A).	
17-Form	Details the revisions to the Alaska Retrospective Rating Plan Premium Endorsement Three-Year Plan—Multiple Lines (WC 54 05 05 A).	
18-Form	Details the revisions to the Alaska Retrospective Rating Plan Premium Endorsement Wrap-Up Construction Project—Multiple Lines (WC 54 05 06 A).	
13-Rule	Details the revisions to Florida's exception to Rule 1-B-1-k.	Revises NCCI's <i>Retrospective Rating Plan Manual</i> .
14-Rule	Details the revisions to Florida's exception to Rule 1-B-2-b.	
15-Rule	Details the revisions to Florida's exception to Rule 1-B-2-e	
16-Rule	Details the revisions to Florida's exception to Rule 2-B.	

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Exhibit	Exhibit Comments	Implementation Summary
17-Form	Details the revisions to the Florida Retrospective Rating Plan Premium Endorsement One-Year Plan (WC 09 05 03 A).	Revises NCCI's <i>Forms Manual</i> .
18-Form	Details the revisions to the Florida Retrospective Rating Plan Premium Endorsement One-Year Plan—Multiple Lines (WC 09 05 04 A).	
19-Form	Details the revisions to the Florida Retrospective Rating Plan Premium Endorsement—Large Risk Alternative Rating Option (LRARO) (WC 09 05 05).	
13-Form	Details the revisions to the Georgia Retrospective Rating Plan Premium Endorsement One-Year Plan (WC 10 05 01 A).	
14-Form	Details the revisions to the Georgia Retrospective Rating Plan Premium Endorsement Three-Year Plan (WC 10 05 02 A).	
15-Form	Details the revisions to the Georgia Retrospective Rating Plan Premium Endorsement Wrap-Up Construction Project (WC 10 05 03 A).	
16-Form	Details the revisions to the Georgia Retrospective Rating Plan Premium Endorsement One-Year Plan—Multiple Lines (WC 10 05 04 A).	
17-Form	Details the revisions to the Georgia Retrospective Rating Plan Premium Endorsement Three-Year Plan—Multiple Lines (WC 10 05 05 A).	
18-Form	Details the revisions to the Georgia Retrospective Rating Plan Premium Endorsement Wrap-Up Construction Project—Multiple Lines (WC 10 05 06 A).	Revises NCCI's <i>Retrospective Rating Plan Manual</i> .
13-Rule	Details the elimination of Louisiana's exception to Rule 1-B-2-e.	

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Exhibit	Exhibit Comments	Implementation Summary
14-Form	Details the revisions to the Louisiana Retrospective Rating Plan Premium Endorsement One-Year Plan (WC 17 05 01 B).	Revises NCCI's <i>Forms Manual</i> .
15-Form	Details the revisions to the Louisiana Retrospective Rating Plan Premium Endorsement Three-Year Plan (WC 17 05 02 B).	
16-Form	Details the revisions to the Louisiana Retrospective Rating Plan Premium Endorsement Wrap-Up Construction Project (WC 17 05 03 B).	
17-Form	Details the revisions to the Louisiana Retrospective Rating Plan Premium Endorsement One-Year Plan—Multiple Lines (WC 17 05 04 B).	
18-Form	Details the revisions to the Louisiana Retrospective Rating Plan Premium Endorsement Three-Year Plan—Multiple Lines (WC 17 05 05 B).	
19-Form	Details the revisions to the Louisiana Retrospective Rating Plan Premium Endorsement Wrap-Up Construction Project—Multiple Lines (WC 17 05 06 B).	
13-Rule	Details the elimination of Maine's exception to Rule 1-B-2-e.	Revises NCCI's <i>Retrospective Rating Plan Manual</i> .
13-Rule	Details the revisions to Massachusetts' exception to Rule 1-B-2-b.	
13-Form	Details the revisions to the Texas Retrospective Rating Plan Premium Endorsement One-Year Plan (WC 42 05 03 C).	Revises NCCI's <i>Forms Manual</i> .
14-Form	Details the revisions to the Texas Retrospective Rating Plan Premium Endorsement Three-Year Plan (WC 42 05 04 C).	

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Exhibit	Exhibit Comments	Implementation Summary
15-Form	Details the revisions to the Texas Retrospective Rating Plan Premium Endorsement Long-Term Construction Project (WC 42 05 05 B).	Revises NCCI's <i>Forms Manual</i> .
16-Form	Details the revisions to the Texas Retrospective Rating Plan Premium Endorsement One-Year Plan—Multiple Lines (WC 42 05 12 C).	
17-Form	Details the revisions to the Texas Retrospective Rating Plan Premium Endorsement Three-Year Plan—Multiple Lines (WC 42 05 13 C).	
18-Form	Details the revisions to the Texas Retrospective Rating Plan Premium Endorsement Long-Term Construction Project—Multiple Lines (WC 42 05 14 B).	
13-Rule	Details the revisions to Wisconsin's exception to Rule 1-B-2-e	Revises NCCI's <i>Retrospective Rating Plan Manual</i> .
14-Form	Details the revisions to the Wisconsin Workers' Compensation Retrospective Rating Plan Premium Endorsement Large Risk Alternative Rating Option (WC 48 05 02).	Revises NCCI's <i>Forms Manual</i> .
15-Form	Details the revisions to the Retrospective Rating Plan Premium Endorsement—Large Risk Alternative Rating Option (LRARO) (WC 48 05 03).	
16-Form	Details the revisions to the Wisconsin Retrospective Rating Plan Premium Endorsement Large Risk Alternative Rating Option (WC 48 05 06 A).	
17-Form	Details the revisions to the Wisconsin Retrospective Premium Endorsement Large Risk Alternative Rating Option (WC 48 05 07 A).	

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FILING MEMORANDUM

ITEM R-1414-B—REVISIONS TO RETROSPECTIVE RATING PLAN MANUAL APPENDIX B
 AND ALL RELATED RULES AND ENDORSEMENTS (AMENDED INFORMATIONAL EXHIBIT 1)

Exhibit	Exhibit Comments	Implementation Summary
18-Form	Details the revisions to the Wisconsin—Retrospective Rating Plan Premium Endorsement Large Risk Alternative Rating Option (LRARO) (WC 48 05 08 A).	Revises NCCI's <i>Forms Manual</i> .
19-Form	Details the revisions to the Retrospective Rating Plan Premium Endorsement Wisconsin Large Risk Alternative Rating Option (LRARO) (WC 48 05 10 A).	
20-Form	Details the revisions to the Retrospective Premium Endorsement Large Risk Alternative Rating Option (WC 48 05 17 A).	
21-Form	Details the revisions to the Wisconsin Retrospective Rating Plan Premium Endorsement Large Risk Alternative Rating Option (Paid Loss) (WC 48 05 19 C).	
22-Form	Details the revisions to the Wisconsin—Retrospective Rating Plan Premium Endorsement Large Risk Alternative Rating Option (LRARO) (WC 48 05 20).	
Informational Exhibit 1	Details the complete methodology used to calculate the Aggregate Excess Loss Factors (AELFs) that underlie the countrywide tables in Appendix B and the <i>ALFs on Demand</i> .	Provides informational exhibits related to the proposed changes.
Informational Exhibit 2	Details state hypothetical illustrations of <i>ALFs on Demand</i> outputs.	
Informational Exhibit 3	Details the base methodology used to calculate the AELFs that underlie the countrywide tables in Appendix B.	

Note: Form and rule filings must be filed separately in certain states. For filing purposes, this memorandum is being provided for both the rule and form exhibits. The rule exhibits are filed with the regulatory authority as Item R-1414-R. The form exhibits are filed with the regulatory authority as Item R-1414-F.

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INFORMATIONAL EXHIBIT 1 REPLACEMENT PAGE 8

ITEM R-1414-B—REVISIONS TO RETROSPECTIVE RATING PLAN MANUAL APPENDIX B AND ALL RELATED RULES AND ENDORSEMENTS (AMENDED INFORMATIONAL EXHIBIT 1)

- In instances where the claim limit is less than 10 times Agg_L , there may be fewer than 15,000 intervals, although in no case should there be fewer than the minimum allowable number of intervals in the severity distribution, known as the minimum severity interval (MSI) value.
 - The MSI is selected based on a tradeoff between precision and computing power, since increasing the MSI increases both precision and the amount of computations required when determining the aggregate loss distribution
- In conjunction with the criteria above, the interval size is calculated as:

$$Interval\ Size = \frac{L}{\text{Ceiling} \left[\frac{L}{\text{Minimum} \left(\frac{Agg_L}{1500}, MSI \right)} \right]} \quad (7)$$

- Once the interval size has been determined, the evaluation points can be generated starting at 0 and ending at the lesser of L and $10 \times Agg_L$

Assigning Probabilities to Each Evaluation Point:

- We refer to each evaluation point in the severity distribution as x_i . At each x_i , a per-claim average severity limited at the evaluation point, $AvgSev_{x_i}^{PC}$, is computed in a similar manner as $AvgSev_L^{PC}$, described above. $AvgSev_{x_i}^{PC}$ can be thought of as a per-claim limited expected value, LEV_i^{PC} .
- If the applicable policy has a per-occurrence loss limit, it is necessary to convert the per-claim LEV_i^{PC} values to per-occurrence values, LEV_i^{PO} . Because these are not unlimited values, we cannot simply convert from per-claim to per-occurrence by dividing by α . Instead, this can be done by using linear interpolation within the per-claim to per-occurrence conversion table. Because this conversion table is based on excess ratios, it can be adjusted for use with limited expected values by multiplying the per-claim excess ratios by the average per-claim severity limited at \$50M ($AvgSev_{\$50M}^{PC}$), and the per-occurrence excess ratios by the average limited per-occurrence severity ($AvgSev_{\$50M}^{PO}$). Whether the applicable loss limit is applied on a per-claim or per-occurrence basis, we will now refer to the applicable limited expected value at each loss point as LEV_i
- Next, it is necessary to validate the LEV_i values to ensure that the discretized severity distribution will have the following desirable properties:
 - LEV_i is not greater than x_i
 - The differences in limited expected values are non-increasing. That is, $LEV_i - LEV_{i-1} \geq LEV_{i+1} - LEV_i$ for each evaluation point

This is accomplished by starting at $i = 0$ and adjusting each LEV_i such that:

$$LEV_i = \text{Min}(x_i, LEV_i, 2 \times LEV_{i-1} - LEV_{i-2}) \quad (8)$$

Note: $LEV_0 = \text{Min}(x_0, LEV_0)$, and $LEV_1 = \text{Min}(x_1, LEV_1, 2 \times LEV_0)$

FILING MEMORANDUM

ITEM R-1419—2021 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS AND REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

PURPOSE

This item:

Revises the following values in NCCI's *Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)*:

- Excess Loss Pure Premium Factors (ELPPFs) and Excess Loss and Allocated Expense Pure Premium Factors (ELAEPFfs)
- State average cost per case values by hazard group underlying the proposed ELPPFs and ELAEPFfs

Additionally, this item:

- Clarifies the hazard group assignment and applicability of certain classifications in Appendix E—Classifications by Hazard Group in NCCI's *Basic Manual for Workers Compensation and Employers Liability Insurance—2001 edition (Basic Manual)* for Connecticut, Louisiana and Oregon
- Introduces in Texas the methodology used to calculate the Aggregate Loss Factors that underlie *ALFs on Demand*

BACKGROUND

A retrospective rating plan adjusts the premium for an employer's policy on the basis of losses incurred during the term of that policy. At the simplest level, an employer's retrospective rating premium (RRP) is determined by the formula, $RRP = (BP + LCF * L) * TM$, where:

RRP	=	Retrospective Rating Premium, subject to minimum and maximum amounts
BP	=	Basic Premium
LCF	=	Loss Conversion Factor, generally reflecting loss adjustment expense
L	=	Actual Incurred Loss during the effective policy period
TM	=	Tax Multiplier

The RRP is not known until after the policy expires and the actual losses are fully developed. The basic premium contains provisions for the expenses of the carrier. It also includes a net aggregate loss factor, which results from the maximum and minimum limitations on the RRP. The net aggregate loss factor reflects the charge to compensate for the possibility that the RRP will exceed the maximum premium amount. It also reflects the savings resulting from the possibility that the RRP will be less than the minimum premium amount. The net aggregate loss factor accounts for the difference between the provision for the maximum and the savings from the minimum.

To determine policy size, refer to the look-up table in Appendix A—Table of Expected Claim Count Groups, which is based on a calculation of the expected number of claims for the policy. To provide consistency to the derivation of the expected number of claims, the average cost per case values by hazard group that underlie the proposed ELPPFs and ELAEPFfs are included in this filing.

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For an illustration of how the expected number of claims is computed, refer to line 7 of the Basic Premium Factor Calculation Example in Appendix D of NCCI's *Retrospective Rating Plan Manual*.

ELPPFs and ELAEPFFs

The Retrospective Rating Plan contains an optional provision—an individual loss limitation—that limits the loss amount arising out of any one accident that will be used to calculate retrospective premium adjustments. The charge for limiting losses is determined by applying an Excess Loss Factor (ELF) or an Excess Loss and Allocated Expense Factor (ELAEF). The ELFs and ELAEFs vary by loss limitation, state, and hazard group. The variation in ELFs and ELAEFs among hazard groups reflects the varying degrees of severity exposure to occupational hazards inherent to operations associated with each classification.

In states where loss costs are developed, NCCI files ELPPFs and ELAEPFFs instead of ELFs and ELAEFs. Carriers convert these two factors into ELFs and ELAEFs. The differences between ELPPFs and ELAEPFFs are:

- ELPPFs represent the expected amount of losses above a given limit (excess losses) relative to the loss cost portion of the premium. ELPPFs do not consider the inclusion of allocated loss adjustment expense (ALAE) as part of incurred losses. Carriers convert ELPPFs to ELFs.

$$\text{ELPPF} = \text{Excess Losses} / \text{Loss Cost Premium}$$

- ELAEPFFs, which apply when the definition of loss includes ALAE, represent the expected amount of losses and ALAE above a given limit (excess losses including ALAE) relative to the loss cost portion of the premium. These optional values are provided for loss cost states where permitted. Refer to the Exhibit Comments and Implementation Summary of this memorandum for a list of the states where ELAEPFFs are not provided. Carriers convert ELAEPFFs to ELAEFs.

$$\text{ELAEPFF} = \text{Excess Losses and Allocated Loss Adjustment Expenses} / \text{Loss Cost Premium}$$

ELPPFs and ELAEPFFs are updated regularly for two reasons:

1. ELPPFs and ELAEPFFs are computed from excess ratios, which reflect the expected percentage of losses above a given loss limit. For any fixed limit, inflation will increase the percentage of losses above that limit. Therefore, ELPPFs and ELAEPFFs are regularly updated to accurately reflect the effect of inflation on those losses.
2. Overall excess ratios are computed as a weighted average of claim group excess ratios. Thus, excess ratios, and consequently ELPPFs and ELAEPFFs, are updated regularly for changes in the mix of losses across claim groups.

The proposed state ELPPFs and ELAEPFFs are based on the latest five years of Unit Statistical (Unit) Data and actuarial assumptions that generally underlie the latest approved NCCI experience filings. The Unit Data used in this filing is pre-COVID-19. No explicit adjustment for the COVID-19 pandemic has been made in this year's analysis.

Additionally, this filing incorporates the class code hazard group changes from Item B-1442—Revisions to Basic Manual Appendix E—Classifications by Hazard Group. Note that Classifications by Hazard Group was

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ITEM R-1419—2021 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS AND REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

incorporated into NCCI's *Basic Manual* effective November 1, 2021 by Item B-1444 NCCI's Basic Manual for Workers Compensation and Employers Liability Insurance.

Basic Manual Appendix E—Classifications by Hazard Group (applicable to Connecticut, Louisiana, and Oregon)

In 2020, Item B-1442—Revisions to Basic Manual Appendix E—Classifications by Hazard Group was filed and approved in Connecticut, Louisiana, and Oregon applicable to new and renewal policies effective concurrent with each state's loss cost/rate filing. The item updated certain classification hazard group assignments in NCCI's *Basic Manual*.

Appendix E contains a table with the applicable state(s) and hazard group for each classification. During a routine review, it was discovered that Code 3827 in Oregon and Code 5535 in Connecticut and Louisiana were inadvertently omitted from the table. No historical rates/loss costs or rating values were impacted by this omission.

As a result, this item is intended to clarify the appropriate hazard group assignment and applicability of these classifications for these states.

PROPOSAL

This item proposes to:

- Update the ELPPFs and ELAEPFFs that are used with an optional loss limitation in NCCI's *Retrospective Rating Plan Manual*. Exhibits 1 and 2 contain the proposed ELPPFs and ELAEPFFs.
- Update the average cost-per-case values for use in determining the expected number of claims for the countrywide *Table of Aggregate Loss Factors* and are included as Exhibits 3A and 3B.
- Revise Appendix E—Classifications by Hazard Group in NCCI's *Basic Manual* in Connecticut, Louisiana and Oregon. Exhibit 4 displays the revisions to Appendix E.
- Introduce in Texas the methodology used to calculate the Aggregate Loss Factors that underlie *ALFs on Demand*. Refer to Informational Exhibit 1.

IMPACT

ELPPFs and ELAEPFFs

The values proposed in this item are based on the latest filed information available as of April 23, 2021.

The proposed ELPPFs and ELAEPFFs are necessary to maintain the aggregate expected balance between the retrospectively rated premium and the guaranteed cost premium. If the ELPPFs and ELAEPFFs are not updated, there will be a natural erosion of rate adequacy over time caused by inflation acting to increase the percentage of losses over any fixed loss limit.

This proposal to adjust the ELPPFs and ELAEPFFs may increase or decrease premium for an employer that chooses to purchase an individual loss limitation, depending on which limit is purchased.

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The proposed ELPPFs and ELAEPPFs also reflect an updated mix of loss weights and average costs per case by hazard group and claim group. Because retrospectively rated policies represent a small percentage of a state's premium, changes are expected to have a negligible impact on overall statewide premium levels.

Average Cost per Case Values

The updated average cost per case values included as Exhibits 3A and 3B are necessary to maintain the correspondence between the average cost per case value underlying the ELPPFs and ELAEPPFs and those used for the countrywide **Table of Aggregate Loss Factors**. If these are not updated, there will be a natural erosion in the performance of the countrywide **Table of Aggregate Loss Factors**. Changes are expected to have a negligible impact on overall statewide premium levels.

ADDITIONAL STATE-SPECIFIC PROPOSALS AND IMPACTS

Connecticut and Louisiana Proposal

In addition to updating the ELPPFs, ELAEPPS, and the average cost per case values, this item proposes to clarify the hazard group assignment and applicability for Code 5535 in NCCI's **Basic Manual** Appendix E—Classifications by Hazard Group.

Connecticut and Louisiana Impact

No premium impact is expected as a result of this clarification.

Oregon Proposal

In addition to updating the ELPPFs, ELAEPPS, and the average cost per case values, this item proposes to clarify the hazard group assignment and applicability for Code 3827 in NCCI's **Basic Manual** Appendix E—Classifications by Hazard Group.

Oregon Impact

No premium impact is expected as a result of this clarification.

ALFs on Demand Texas

The real-time calculations underlying **ALFs on Demand** provide a better way of reflecting the state and hazard group mix of policies that further improves the accuracy of insurance charges. **ALFs on Demand** leverages the formulas and parameters contained in the approved Excess Loss Factor (ELF) Parameters and Tables to produce results that reflect the state and hazard group specific loss distribution of the policy entered by the user. The approach also simplifies calculations that carriers need to perform for every retrospectively rated policy, produces more accurate results, and makes it easier to perform annual updates based on the data underlying the annual update to the retrospective rating plan parameters. The result is insurance charges and savings that are more responsive to the latest available data. Informational Exhibit 1 provides a detailed explanation of the calculations underlying the proposed methodology underlying **ALFs on Demand**.

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Upon approval, the *Table of Aggregate Loss Factors* or *ALFs on Demand* can be used to calculate the net aggregate loss factors for retrospectively rated policies.

IMPLEMENTATION

This item is applicable to new and renewal voluntary policies only and will become effective with each state's anticipated loss cost/rate filing effective on and after November 1, 2021. For example, this item will be effective January 1, 2022, for loss cost/rate filings that have an anticipated January 1, 2022 effective date. Similarly, this item will be effective July 1, 2022, for loss cost/rate filings that have an anticipated July 1, 2022 effective date.

If there is no loss cost/rate filing for a state in a given year, this item will take effect on that state's regular loss cost/rate effective date. The regular loss cost/rate effective date is one year later than the date of the state's previous year's effective date.

Effective Dates by State

The following chart shows the effective dates for each state:

State	Effective Date
Alabama	March 1, 2022
Alaska	January 1, 2022
Arkansas	July 1, 2022
Colorado	January 1, 2022
Connecticut	January 1, 2022
District of Columbia	November 1, 2021
Georgia	March 1, 2022
Hawaii	The effective date will be determined upon regulatory approval of the individual carrier's election to adopt this change.
Illinois	January 1, 2022
Indiana	January 1, 2022
Kansas	January 1, 2022
Kentucky	January 1, 2022
Louisiana	May 1, 2022
Maine	April 1, 2022

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State	Effective Date
Maryland	January 1, 2022
Mississippi	March 1, 2022
Missouri	January 1, 2022
Montana	July 1, 2022
Nebraska	February 1, 2022
Nevada	March 1, 2022
New Hampshire	January 1, 2022
New Mexico	January 1, 2022
North Carolina	April 1, 2022
Oklahoma	January 1, 2022
Oregon	January 1, 2022
Rhode Island	August 1, 2022
South Carolina	April 1, 2022
South Dakota	July 1, 2022
Tennessee	March 1, 2022
Texas	July 1, 2022
Utah	January 1, 2022
Vermont	April 1, 2022
West Virginia	November 1, 2021

EXHIBIT COMMENTS AND IMPLEMENTATION SUMMARY

Exhibit	Exhibit Comments
1	Displays the revised state ELPPFs in NCCI's <i>Retrospective Rating Plan Manual</i> .
2	<ul style="list-style-type: none"> Displays the revised state ELAEPFs in NCCI's <i>Retrospective Rating Plan Manual</i> Applies in all states in this item except GA, IL, KY, LA, MD, OR, and SD

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ITEM R-1419—2021 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS AND
 REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP

Exhibit	Exhibit Comments
3A	Displays the revised state average cost per case values by hazard group in NCCI's <i>Retrospective Rating Plan Manual</i> .
3B	<ul style="list-style-type: none"> Displays the revised state average cost per case values including ALAE by hazard group in NCCI's <i>Retrospective Rating Plan Manual</i> Applies in all states in this item except GA, IL, KY, LA, MD, OR, and SD
4	Displays the revisions to Appendix E—Classifications by Hazard Group in NCCI's <i>Basic Manual</i> in CT, LA, and OR.
Informational Exhibit 1	Details the complete methodology used to calculate the Aggregate Loss Factors that underlie <i>ALFs on Demand</i> . Carriers must choose, on a state-by-state basis, whether to exclusively use either the <i>Table of Aggregate Loss Factors</i> or <i>ALFs on Demand</i> to calculate the net aggregate loss factors for the retrospectively rated policies in their book of business on an annual basis.

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**ITEM R-1419—2021 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS AND REVISIONS
TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP**

**EXHIBIT 1
RETROSPECTIVE RATING PLAN MANUAL
INDIANA STATE SPECIAL RATING VALUES
EXCESS LOSS PURE PREMIUM FACTORS**

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$10,000	0.512	0.546	0.591	0.626	0.666	0.696	0.728
\$15,000	0.456	0.491	0.539	0.576	0.621	0.654	0.691
\$20,000	0.412	0.448	0.497	0.535	0.583	0.619	0.659
\$25,000	0.376	0.412	0.462	0.501	0.551	0.589	0.631
\$30,000	0.346	0.382	0.432	0.471	0.523	0.561	0.605
\$35,000	0.321	0.357	0.406	0.444	0.497	0.537	0.582
\$40,000	0.299	0.334	0.383	0.421	0.474	0.515	0.561
\$50,000	0.264	0.297	0.344	0.381	0.435	0.476	0.524
\$75,000	0.204	0.234	0.276	0.309	0.362	0.403	0.451
\$100,000	0.166	0.193	0.232	0.262	0.312	0.351	0.397
\$125,000	0.140	0.164	0.200	0.227	0.276	0.313	0.356
\$150,000	0.120	0.143	0.176	0.201	0.247	0.283	0.324
\$175,000	0.105	0.126	0.157	0.180	0.225	0.258	0.298
\$200,000	0.094	0.113	0.142	0.163	0.206	0.238	0.276
\$225,000	0.084	0.102	0.129	0.149	0.190	0.221	0.257
\$250,000	0.076	0.093	0.119	0.137	0.177	0.207	0.241
\$275,000	0.069	0.085	0.110	0.127	0.165	0.194	0.227
\$300,000	0.064	0.079	0.102	0.118	0.155	0.183	0.214
\$325,000	0.059	0.073	0.095	0.110	0.147	0.173	0.203
\$350,000	0.055	0.068	0.089	0.104	0.139	0.164	0.193
\$375,000	0.051	0.064	0.084	0.098	0.132	0.156	0.184
\$400,000	0.048	0.060	0.080	0.092	0.126	0.149	0.176
\$425,000	0.045	0.057	0.076	0.088	0.120	0.143	0.169
\$450,000	0.043	0.054	0.072	0.083	0.115	0.137	0.162
\$475,000	0.040	0.051	0.069	0.079	0.110	0.131	0.156
\$500,000	0.038	0.049	0.066	0.076	0.106	0.126	0.150
\$600,000	0.032	0.041	0.056	0.065	0.092	0.110	0.131
\$700,000	0.027	0.035	0.049	0.056	0.082	0.098	0.117
\$800,000	0.024	0.031	0.044	0.050	0.074	0.089	0.106
\$900,000	0.021	0.028	0.039	0.045	0.067	0.081	0.097
\$1,000,000	0.019	0.025	0.036	0.041	0.062	0.075	0.089
\$2,000,000	0.010	0.014	0.020	0.023	0.037	0.045	0.053
\$3,000,000	0.007	0.010	0.014	0.016	0.027	0.033	0.039
\$4,000,000	0.005	0.007	0.011	0.013	0.021	0.026	0.031
\$5,000,000	0.004	0.006	0.009	0.010	0.017	0.022	0.026
\$6,000,000	0.003	0.005	0.007	0.008	0.015	0.018	0.022
\$7,000,000	0.003	0.004	0.006	0.007	0.012	0.016	0.019
\$8,000,000	0.002	0.003	0.005	0.006	0.011	0.014	0.016
\$9,000,000	0.002	0.003	0.004	0.005	0.009	0.012	0.014
\$10,000,000	0.002	0.002	0.004	0.004	0.008	0.010	0.013

**ITEM R-1419—2021 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS AND REVISIONS
TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP**

EXHIBIT 2
RETROSPECTIVE RATING PLAN MANUAL
INDIANA STATE SPECIAL RATING VALUES
EXCESS LOSS AND ALLOCATED EXPENSE PURE PREMIUM FACTORS

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$10,000	0.567	0.603	0.650	0.687	0.730	0.761	0.794
\$15,000	0.507	0.545	0.595	0.635	0.682	0.717	0.756
\$20,000	0.460	0.498	0.551	0.592	0.643	0.680	0.722
\$25,000	0.421	0.460	0.513	0.555	0.608	0.648	0.693
\$30,000	0.389	0.428	0.481	0.523	0.578	0.620	0.666
\$35,000	0.361	0.400	0.453	0.494	0.551	0.594	0.642
\$40,000	0.338	0.376	0.428	0.469	0.527	0.570	0.619
\$50,000	0.299	0.335	0.386	0.426	0.484	0.529	0.580
\$75,000	0.233	0.266	0.312	0.348	0.405	0.450	0.501
\$100,000	0.192	0.221	0.263	0.296	0.351	0.393	0.443
\$125,000	0.162	0.189	0.228	0.258	0.310	0.351	0.398
\$150,000	0.140	0.165	0.201	0.229	0.279	0.318	0.363
\$175,000	0.124	0.146	0.180	0.205	0.254	0.291	0.334
\$200,000	0.110	0.131	0.163	0.187	0.233	0.269	0.310
\$225,000	0.099	0.119	0.149	0.171	0.216	0.250	0.289
\$250,000	0.090	0.109	0.137	0.158	0.201	0.234	0.271
\$275,000	0.083	0.100	0.127	0.146	0.188	0.219	0.256
\$300,000	0.076	0.093	0.119	0.136	0.177	0.207	0.242
\$325,000	0.071	0.086	0.111	0.128	0.167	0.196	0.230
\$350,000	0.066	0.081	0.104	0.120	0.158	0.186	0.219
\$375,000	0.061	0.076	0.098	0.113	0.151	0.178	0.209
\$400,000	0.058	0.071	0.093	0.107	0.143	0.170	0.200
\$425,000	0.054	0.067	0.088	0.102	0.137	0.162	0.191
\$450,000	0.051	0.064	0.084	0.097	0.131	0.156	0.184
\$475,000	0.049	0.061	0.080	0.093	0.126	0.150	0.177
\$500,000	0.046	0.058	0.077	0.088	0.121	0.144	0.171
\$600,000	0.039	0.049	0.065	0.075	0.105	0.126	0.149
\$700,000	0.033	0.042	0.057	0.066	0.093	0.112	0.133
\$800,000	0.029	0.037	0.051	0.058	0.084	0.101	0.120
\$900,000	0.026	0.033	0.046	0.053	0.077	0.093	0.110
\$1,000,000	0.023	0.030	0.042	0.048	0.071	0.085	0.102
\$2,000,000	0.012	0.016	0.023	0.026	0.042	0.051	0.060
\$3,000,000	0.008	0.011	0.017	0.019	0.030	0.037	0.044
\$4,000,000	0.006	0.009	0.013	0.014	0.024	0.029	0.035
\$5,000,000	0.005	0.007	0.010	0.012	0.020	0.024	0.029
\$6,000,000	0.004	0.006	0.009	0.010	0.016	0.021	0.025
\$7,000,000	0.003	0.005	0.007	0.008	0.014	0.018	0.021
\$8,000,000	0.003	0.004	0.006	0.007	0.012	0.015	0.019
\$9,000,000	0.002	0.003	0.005	0.006	0.011	0.014	0.016
\$10,000,000	0.002	0.003	0.005	0.005	0.009	0.012	0.015

**ITEM R-1419—2021 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS AND
REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP**

**EXHIBIT 3A
RETROSPECTIVE RATING PLAN MANUAL
STATE SPECIAL RATING VALUES
AVERAGE COST PER CASE**

State	Hazard Groups						
	A	B	C	D	E	F	G
AK	9,891	13,234	15,246	20,621	25,527	32,872	42,879
AL	8,762	10,332	13,914	17,291	23,189	33,660	41,611
AR	4,755	5,668	6,738	9,558	13,689	22,881	27,978
CO	5,025	6,961	9,146	11,242	15,186	19,592	26,600
CT	8,653	11,826	16,031	19,193	26,809	34,048	42,191
DC	12,837	16,294	18,653	26,030	35,028	36,977	38,306
GA	8,484	9,829	13,874	16,134	21,741	35,312	46,380
HI	15,836	20,310	22,885	25,914	30,980	36,488	41,628
IL	10,789	13,502	19,472	23,153	32,005	44,039	59,761
IN	5,010	6,295	8,220	10,296	13,945	21,438	29,161
KS	5,116	6,508	9,605	12,632	16,810	25,274	32,072
KY	5,194	7,225	9,868	12,076	18,723	28,982	42,796
LA	13,994	17,585	23,149	32,179	40,313	56,525	53,931
MD	7,672	10,047	13,506	16,332	23,465	31,007	34,840
ME	5,204	6,712	8,549	10,285	14,721	20,669	22,817
MO	8,905	11,390	16,177	20,667	28,268	42,044	54,981
MS	6,929	9,487	11,962	13,933	20,024	29,498	35,690
MT	5,933	8,265	10,764	12,608	15,992	24,312	31,840
NC	6,878	8,483	12,170	15,170	22,865	35,846	51,025
NE	6,355	8,434	10,909	14,534	19,512	29,690	35,781
NH	6,431	8,583	10,864	12,756	18,107	22,313	29,391
NM	7,268	9,189	11,593	15,557	20,207	31,318	43,088
NV	5,542	7,456	9,760	11,738	18,032	23,642	28,799
OK	6,881	11,121	11,808	15,285	20,646	33,025	45,900
OR	4,853	6,174	7,711	8,884	11,197	14,937	18,718
RI	8,637	10,918	13,824	16,358	21,194	27,740	33,547
SC	9,203	11,172	15,893	21,958	26,947	42,220	55,060
SD	5,465	7,674	9,233	12,761	18,330	27,792	34,987
TN	4,685	6,715	9,004	10,796	15,518	23,757	30,570
TX	4,372	6,565	8,616	9,515	14,612	21,349	26,083
UT	3,915	5,035	6,707	7,899	11,298	17,083	19,435
VT	9,238	11,028	14,884	17,315	26,376	31,594	43,879
WV	4,387	6,810	7,944	10,227	13,428	19,931	27,963

**ITEM R-1419—2021 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS AND
REVISIONS TO BASIC MANUAL APPENDIX E—CLASSIFICATIONS BY HAZARD GROUP**

**EXHIBIT 3B
RETROSPECTIVE RATING PLAN MANUAL
STATE SPECIAL RATING VALUES
AVERAGE COST PER CASE INCLUDING ALAE**

State	Hazard Groups						
	A	B	C	D	E	F	G
AK	11,214	14,992	17,245	23,310	28,789	37,022	48,252
AL	9,768	11,506	15,473	19,217	25,716	37,282	46,070
AR	5,318	6,336	7,519	10,652	15,204	25,363	30,990
CO	5,476	7,579	9,945	12,215	16,469	21,226	28,801
CT	9,668	13,202	17,877	21,396	29,831	37,858	46,898
DC	14,250	18,069	20,663	28,813	38,673	40,784	42,236
HI	17,474	22,404	25,238	28,574	34,137	40,190	45,842
IN	5,461	6,858	8,947	11,199	15,147	23,270	31,631
KS	5,680	7,217	10,639	13,980	18,571	27,889	35,369
ME	5,572	7,186	9,146	11,000	15,730	22,073	24,364
MO	9,896	12,640	17,927	22,885	31,228	46,387	60,617
MS	7,937	10,860	13,678	15,925	22,837	33,608	40,643
MT	6,255	8,710	11,336	13,270	16,809	25,531	33,425
NC	7,702	9,487	13,590	16,932	25,452	39,858	56,705
NE	6,854	9,089	11,746	15,637	20,957	31,857	38,377
NH	7,057	9,411	11,903	13,968	19,796	24,377	32,095
NM	7,903	9,988	12,587	16,882	21,894	33,901	46,615
NV	6,086	8,181	10,692	12,846	19,674	25,755	31,343
OK	7,756	12,518	13,274	17,163	23,110	36,896	51,222
RI	9,977	12,605	15,947	18,863	24,401	31,911	38,576
SC	10,327	12,527	17,793	24,572	30,079	47,080	61,371
TN	5,213	7,464	9,994	11,976	17,176	26,266	33,784
TX	4,970	7,451	9,759	10,759	16,457	23,976	29,239
UT	4,483	5,755	7,646	8,997	12,817	19,344	21,993
VT	10,030	11,971	16,144	18,774	28,556	34,188	47,464
WV	5,073	7,863	9,158	11,775	15,415	22,831	31,990