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DEPARTMENT OF COMMERCE AND INSURANCE  
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GOVERNOR

JULIE MIX McPEAK  
COMMISSIONER

July 11, 2014

Honorable David Lillard, Jr., Chair  
Tennessee Workers' Compensation Advisory Council  
Treasurer, State of Tennessee  
State Capitol, First Floor  
Nashville, TN 37243-0225

Dear Chairman Lillard:

Tenn. Code Ann. §50-6-402(d) requires that the Commissioner of Commerce and Insurance report to the Workers' Compensation Advisory Council regarding all workers' compensation filings made by the designated rate service organization and received by this Department.

Attached to this letter, please find a summary of all NCCI filings made in Tennessee for the period April 1, 2014 through June 30, 2014. This Department appreciates the role that the Workers' Compensation Advisory Council provides in the area of workers' compensation regulation.

Should you or any member have questions or comments concerning this report, please do not hesitate in contacting me or a member of my staff.

Sincerely,

Julie Mix McPeak  
Commissioner

JMM/ms

# **NCCI Filing Activity Report:**

**Summary as of June 30, 2014**

**(includes filings received April 1, 2014 and later)**

## **1. R-1408 — 2014 Update to the Retrospective Rating Plan Parameters – Excess Loss Pure Premium Factors and Excess Loss and Allocated Expense Pure Premium Factors**

**Filed: June 11, 2014**

**Proposed Effective Date: March 1, 2015 (new and renewal policies)**

**Status: Approved June 16, 2014**

**Summary of Filing (see copy of Filing Memorandum for more details)**

### **Propose**

This filing proposed the following changes:

1. Updated retrospective rating factors in NCCIs *Retrospective Rating Plan Manual for Workers' Compensation and Employers Liability Insurance*: excess loss pure premium factors (ELPPSs) and excess loss and allocated expense pure premium factors (ELAEPFs)
2. Additionally, a new enhanced methodology for determining ELPPFs and ELAEPFs was introduced.

### **Background**

A retrospective rating plan is product that adjusts the premium based upon losses incurred during the policy period. It also contains a basic premium factor that includes company expenses and an insurance charge, including an optional loss limitation load. Finally, the developed and converted losses are added to the basic premium and multiplied by the tax multiplier to determine the retrospective rated premium. The load for limiting losses is determined by the application of an excess loss factor (ELF) or an excess loss and allocated expense factor (ELAEF). These factors vary depending upon the loss limitation selected, as well as the applicable state and hazard group. The varying degrees of severity exposure to occupational hazards determine the ELFs and ELAEFs for each classification.

In states such as Tennessee where loss costs are developed, NCCI files ELPPFs and ELAEPFFs instead of ELFs and ELAEFs. Insurance carriers in turn convert these two factors into ELFs and ELAEFs. ELPPFs and ELAEPFFs differ as described below:

- ELPPFs represent excess losses, or the expected amount of losses above a selected limit. ELPPF do not take into account allocated loss adjustment expense (ALAE) as part of incurred losses. Insurance carriers convert ELPPFs (Excess Losses/Loss Cost Premium) to ELFs.
- ELAEPFFs, includes ALAE in the definition loss and represents the expected amount of losses above a selected limit relative to the loss cost portion of the premium. Similar to ELPPFs, insurance carriers convert ELAEPFFs to ELAEFs.
  - ELAEPFF = Excess Losses and Allocated Loss Adjustment Expenses/Loss Cost Premium

ELPPFs and ELAEPFFs must be updated periodically for two reasons:

1. The factors are computed from excess ratios, which reflect the expected proportion of losses above a given loss limit. For any set limits, inflation increases the percentage of losses above those limits. Thus, ELPPFs and ELAEPFFs are periodically updated to precisely reflect the impact of inflation on such losses.
2. Since overall excess ratios are computed as a weighted average of injury type excess ratios, such ratios (as a result ELPPFs and ELAEPFFs) must be updated recurrently to account for changes in the mix of injury types.

Proposed state ELPPFs and ELAEPFFs in this item filing are all based on the new procedure.

## **Proposal**

This item proposed to update the ELPPFs and ELAEPFFs that were used with optional loss limits in NCCI's Retrospective Rating Plan Manual. Exhibits one and two, included with the complete filing, encompass the proposed ELPPFs and ELAEPFFs. Both exhibits are being filed in Tennessee where both ELPPFs and ELAEPFFs apply.

## **Impact**

These proposed factors are required to maintain the aggregate expected balance between the retrospectively rated premium and the guaranteed cost (fixed cost) premium. If such factors were not updated periodically, there would be a natural erosion of rate adequacy over time triggered by inflation, acting to increase the percentage of losses over any fixed loss limit.

Filed adjustments in ELPPFs and ELAEPFFs may increase or decrease premium for an employer that chooses to purchase and individual loss limitation, depending upon which

limit is selected. Since retrospectively rated policies represent a negligible percentage of a state's premium, changes are expected to have a minimal impact on overall statewide premium levels.

## **2. R-1409 — 2014 Update to the Retrospective Rating Plan Parameters – Hazard Group Differentials**

**Filed: June 26, 2014**

**Proposed Effective Date: January 1, 2015 (new and renewal policies)**

**Status: Approved June 26, 2014**

**Summary of Filing (see copy of Filing Memorandum for more details)**

### **Background**

See explanation of retrospective rating procedures under "background" of R-1408 above. Retrospective rating includes an insurance charge, resulting from maximum and minimum limitations on retrospective rating premiums (RRP). Net insurance charges reflect the charge to offset for the possibility that RRP will exceed the maximum premium amount. It also reflects the savings from the possibility that RPP will turn out to be less than the minimum premium amount. The net insurance charge is the combination of the charge for the maximum and the savings from the minimum.

The Table of Insurance Charges in NCCI's *Retrospective Rating Plan Manual* shown in Appendix B, contains excess ratios needed to determine the insurance charge and savings described above. The "entry ratio" – the ratio of the loss limit to expected losses -- is used to locate the values in the Table of Insurance charges. These charges are also impacted by the size of the employer, in that the expected variation in losses is lower for larger employers.

### **Hazard Group Differentials**

Variations in the loss ratios for policyholders in the lower hazard groups generally should be smaller than the variation for policyholders in the higher hazard groups. The Hazard Group Differential factors adapt for this difference by placing lower hazard group employers in a higher Expected Loss Range and higher hazard group employers in a lower Expected Loss Range than would otherwise be the case. This alteration affects the column selection in the Table of Insurance Charges, which then affects the basic premium portion of the RPP. Hazard Group Differentials are required to be updated regularly in

order to reflect changes in the circumstances (e.g., state statutory benefit levels and inflation) underlying Tennessee's severity.

Hazard Group Differentials are determined by dividing the countrywide average cost per case by the average cost per case for the state and hazard group. The complement of credibility, which equals 1.0 – state credibility, is applied to the countrywide average cost per case for the hazard group.

As described in Item R-1408 (see above) the methodology proposed in determining the excess loss pure premium factors (ELPPFs) and excess loss and allocated expense pure premium factors (ELAEPFs) has been altered significantly. To maintain the consistency in average cost per case values between Item R-1408 and this item, the methodology for determining the state (and countrywide) average cost per case by hazard group used in the calculation of the proposed Hazard Group Differentials is being modified this year for a vast majority of the states.

The current and proposed Hazard Group Differentials both use data reported in accordance with NCCI's *Statistical Plan for Workers Compensation and Employers Liability Insurance (Statistical Plan)* as its source. The following table provides an assessment of the current and proposed Hazard Group Differential methodologies:

Component	Current Methodology	Proposed Methodology
Number of years of data used	Three policy periods	Five policy periods
Average cost per case	Based on empirical data	Fitted using statistical modeling*
Lost-time claim counts	Implied	Fitted using statistical modeling*
Credibility	Uses square root rule using countrywide complement	Implicitly calculated using statistical modeling*
Swing limits	+/- 15% from prior year	None applied

\*The Fitted State Average Cost Per Case and Fitted State Claim Counts are consistent with the values foundational to the ELPPF and ELAEPF computations in Item R-1408.

## Proposed

Item R-1409 revised the Hazard Group Differentials in NCCI's *Retrospective Rating Plan Manual*.

## **Impact**

Retrospective rating should generate premium that is equitably distributed to all employers but, on average, near to the guaranteed, for fixed cost premium. The objective of the change in the Hazard Group Differentials is to maintain the aggregate expected equilibrium, although the impact will vary modestly for each employer. For most policyholders electing this rating methodology, the impact on final premium from these changes is expected to be very small. The improved equity provided by retrospective rating from this modification will bring about no change to the insurance charges for numerous employers, resulting in a negligible statewide impact. In fact, the program is intended to be revenue-neutral countrywide.

Hazard Group Differentials for each state are shown in Exhibit #1, while Informational Exhibit #2 reveals the development of the Hazard Group Differentials.

**ITEM R-1408—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN  
PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS AND EXCESS LOSS AND  
ALLOCATED EXPENSE PURE PREMIUM FACTORS**

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

<b>3. Excess Loss Pure Premium Factors</b>							
<b>Per Accident Limitation</b>	<b>Hazard Groups</b>						
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
\$10,000	0.569	0.615	0.634	0.668	0.696	0.720	0.735
\$15,000	0.517	0.567	0.587	0.625	0.657	0.686	0.705
\$20,000	0.475	0.527	0.549	0.589	0.624	0.655	0.678
\$25,000	0.441	0.495	0.517	0.559	0.596	0.629	0.655
\$30,000	0.412	0.467	0.490	0.532	0.570	0.605	0.634
\$35,000	0.387	0.442	0.465	0.508	0.548	0.584	0.615
\$40,000	0.365	0.420	0.444	0.487	0.528	0.565	0.598
\$50,000	0.329	0.384	0.408	0.451	0.493	0.531	0.567
\$75,000	0.266	0.318	0.342	0.383	0.427	0.465	0.506
\$100,000	0.224	0.273	0.296	0.336	0.379	0.417	0.461
\$125,000	0.194	0.240	0.263	0.301	0.343	0.380	0.425
\$150,000	0.172	0.215	0.238	0.273	0.314	0.350	0.397
\$175,000	0.154	0.195	0.217	0.251	0.291	0.325	0.372
\$200,000	0.140	0.179	0.200	0.232	0.271	0.304	0.352
\$225,000	0.128	0.166	0.186	0.216	0.255	0.286	0.334
\$250,000	0.118	0.154	0.174	0.203	0.241	0.271	0.318
\$275,000	0.109	0.144	0.164	0.191	0.228	0.257	0.305
\$300,000	0.102	0.135	0.155	0.181	0.217	0.245	0.293
\$325,000	0.096	0.128	0.147	0.172	0.207	0.234	0.282
\$350,000	0.090	0.121	0.140	0.164	0.198	0.225	0.272
\$375,000	0.085	0.115	0.133	0.157	0.191	0.216	0.263
\$400,000	0.080	0.109	0.127	0.150	0.183	0.208	0.254
\$425,000	0.076	0.105	0.122	0.144	0.177	0.201	0.247
\$450,000	0.072	0.100	0.117	0.139	0.171	0.194	0.240
\$475,000	0.069	0.096	0.113	0.134	0.165	0.188	0.233
\$500,000	0.066	0.092	0.109	0.129	0.160	0.182	0.227
\$600,000	0.056	0.079	0.095	0.113	0.142	0.162	0.206
\$700,000	0.048	0.070	0.085	0.101	0.129	0.147	0.190
\$800,000	0.042	0.062	0.076	0.092	0.118	0.135	0.177
\$900,000	0.038	0.056	0.069	0.084	0.109	0.125	0.165
\$1,000,000	0.034	0.051	0.064	0.077	0.101	0.116	0.156
\$2,000,000	0.016	0.027	0.035	0.043	0.060	0.070	0.102
\$3,000,000	0.010	0.017	0.023	0.029	0.042	0.050	0.076
\$4,000,000	0.007	0.012	0.017	0.022	0.032	0.039	0.060
\$5,000,000	0.005	0.009	0.013	0.017	0.026	0.031	0.050
\$6,000,000	0.004	0.007	0.011	0.014	0.021	0.026	0.042
\$7,000,000	0.003	0.006	0.009	0.011	0.017	0.022	0.036
\$8,000,000	0.002	0.005	0.007	0.009	0.015	0.019	0.031
\$9,000,000	0.002	0.004	0.006	0.008	0.013	0.016	0.027
\$10,000,000	0.002	0.003	0.005	0.007	0.011	0.014	0.023

**ITEM R-1408—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN  
PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS AND EXCESS LOSS AND  
ALLOCATED EXPENSE PURE PREMIUM FACTORS**

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

<b>3. Excess Loss and Allocated Expense Pure Premium Factors</b>							
<b>Per Accident Limitation</b>	<b>Hazard Groups</b>						
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
\$10,000	0.659	0.708	0.728	0.765	0.794	0.821	0.836
\$15,000	0.602	0.656	0.678	0.719	0.753	0.784	0.804
\$20,000	0.557	0.614	0.637	0.681	0.718	0.752	0.776
\$25,000	0.519	0.578	0.602	0.648	0.687	0.724	0.751
\$30,000	0.487	0.547	0.572	0.619	0.660	0.698	0.728
\$35,000	0.460	0.520	0.546	0.593	0.636	0.675	0.707
\$40,000	0.436	0.496	0.522	0.570	0.614	0.654	0.688
\$50,000	0.395	0.456	0.482	0.530	0.575	0.617	0.655
\$75,000	0.324	0.382	0.408	0.455	0.502	0.545	0.588
\$100,000	0.277	0.332	0.357	0.402	0.449	0.491	0.538
\$125,000	0.242	0.294	0.319	0.362	0.408	0.449	0.498
\$150,000	0.216	0.266	0.290	0.330	0.376	0.416	0.466
\$175,000	0.196	0.243	0.267	0.305	0.350	0.388	0.439
\$200,000	0.179	0.224	0.247	0.284	0.327	0.364	0.416
\$225,000	0.165	0.208	0.231	0.266	0.308	0.344	0.396
\$250,000	0.153	0.194	0.217	0.250	0.292	0.326	0.378
\$275,000	0.142	0.183	0.205	0.237	0.278	0.311	0.362
\$300,000	0.133	0.172	0.194	0.225	0.265	0.297	0.349
\$325,000	0.125	0.163	0.184	0.214	0.253	0.285	0.336
\$350,000	0.118	0.155	0.176	0.204	0.243	0.273	0.325
\$375,000	0.112	0.148	0.168	0.196	0.234	0.263	0.314
\$400,000	0.106	0.141	0.161	0.188	0.225	0.254	0.305
\$425,000	0.101	0.135	0.154	0.181	0.218	0.245	0.296
\$450,000	0.097	0.129	0.149	0.174	0.210	0.238	0.288
\$475,000	0.092	0.124	0.143	0.168	0.204	0.230	0.280
\$500,000	0.088	0.119	0.138	0.162	0.197	0.223	0.273
\$600,000	0.075	0.104	0.121	0.143	0.177	0.200	0.249
\$700,000	0.065	0.092	0.108	0.128	0.160	0.182	0.230
\$800,000	0.058	0.082	0.098	0.116	0.147	0.167	0.214
\$900,000	0.052	0.074	0.089	0.107	0.136	0.155	0.200
\$1,000,000	0.047	0.068	0.082	0.098	0.126	0.145	0.189
\$2,000,000	0.022	0.035	0.045	0.055	0.075	0.088	0.123
\$3,000,000	0.014	0.023	0.030	0.038	0.053	0.063	0.092
\$4,000,000	0.010	0.017	0.022	0.028	0.040	0.049	0.074
\$5,000,000	0.007	0.013	0.017	0.022	0.032	0.039	0.060
\$6,000,000	0.005	0.010	0.014	0.017	0.026	0.032	0.051
\$7,000,000	0.004	0.008	0.011	0.014	0.022	0.027	0.044
\$8,000,000	0.004	0.007	0.009	0.012	0.019	0.023	0.038
\$9,000,000	0.003	0.006	0.008	0.010	0.016	0.020	0.033
\$10,000,000	0.003	0.005	0.007	0.009	0.014	0.018	0.029

## FILING MEMORANDUM

### ITEM R-1408—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS AND EXCESS LOSS AND ALLOCATED EXPENSE PURE PREMIUM FACTORS

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#### PURPOSE

This item proposes to:

- Update the Excess Loss Pure Premium Factors (ELPPFs) and Excess Loss and Allocated Expense Pure Premium Factors (ELAEPFFs) in NCCI's *Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)*
- Introduce a newly enhanced methodology for determining ELPPFs and ELAEPFFs

#### 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. The Retrospective Rating Plan contains an optional provision—an individual loss limitation—which limits the loss amount arising out of any one accident that will be used in the calculation of retrospective premium adjustments. The charge for limiting losses is determined by application of 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 for which 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 described below:

- 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 take into account 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 Filing 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 must be updated periodically 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 periodically updated to accurately reflect the effect of inflation on those losses.
2. Overall excess ratios are computed as a weighted average of injury type excess ratios. Thus, excess ratios, and consequently ELPPFs and ELAEPFFs, must be updated regularly for changes in the mix of injury types.

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## FILING MEMORANDUM

### **ITEM R-1408—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS AND EXCESS LOSS AND ALLOCATED EXPENSE PURE PREMIUM FACTORS**

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The excess ratio curves underlying the proposed state ELPPFs and ELAEPFFs are being modified in this update. In all states except Texas and West Virginia, the excess ratio curves were last adjusted by NCCI in 2004. In Texas and West Virginia, the current excess ratio curves were adopted when NCCI began producing retrospective rating values for these states, which for Texas was 2011 and for West Virginia was 2008. The proposed new methodology has been researched in conjunction with NCCI's Individual Risk Rating Working Group for several years.

The proposed state ELPPFs and ELAEPFFs in this item are all based on the new methodology, except for Texas. The proposed ELPPFs and ELAEPFFs for Texas are computed in the same manner as the currently approved ELPPFs and ELAEPFFs.

#### **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.

Exhibits 1 and 2 are being filed in states where both ELPPFs and ELAEPFFs apply. Exhibit 1 is being filed in states where only ELPPFs apply.

#### **IMPACT**

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. The proposed ELPPFs and ELAEPFFs are adjusted to remove losses beyond \$50 million.

An overview of the proposed new methodology is provided in Informational Exhibit 3. The impact from implementation of the proposed new methodology varies by state, by loss limit selected, and by hazard group. Informational Exhibit 3 provides the areas where the proposed ELPPFs and ELAEPFFs are typically increasing or decreasing on a countrywide basis when compared to the current ELPPFs and ELAEPFFs. The proposed ELPPFs and ELAEPFFs also reflect an updated mix of loss weights by injury type. 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.

#### **IMPLEMENTATION**

This item is applicable to new and renewal voluntary policies and will become effective concurrent with each state's approved loss cost/rate filing effective on and after October 1, 2014. For example, this item will be effective January 1, 2015, for approved loss cost/rate filings that have a January 1, 2015 effective

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**FILING MEMORANDUM**

**ITEM R-1408—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN  
 PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS AND EXCESS LOSS AND  
 ALLOCATED EXPENSE PURE PREMIUM FACTORS**

date. Similarly, this item will be effective July 1, 2015, for approved loss cost/rate filings that have a July 1, 2015 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 anticipated rate effective date. The anticipated rate effective date is the anniversary date of the previous year's effective date in that state.

**Anticipated Effective Dates by State**

The following chart shows the anticipated effective dates for each state:

<b>State</b>	<b>Anticipated Effective Date*</b>
Alabama	March 1, 2015
Alaska	January 1, 2015
Arkansas	July 1, 2015
Colorado	January 1, 2015
Connecticut	January 1, 2015
District of Columbia	November 1, 2014
Georgia	March 1, 2015
Hawaii	The effective date will be determined upon regulatory approval of the individual carrier's election to adopt this change.
Illinois	January 1, 2015
Indiana	January 1, 2015
Kansas	January 1, 2015
Kentucky	October 1, 2014
Louisiana	May 1, 2015
Maine	April 1, 2015
Maryland	January 1, 2015
Mississippi	March 1, 2015
Missouri	January 1, 2015
Montana	July 1, 2015
Nebraska	February 1, 2015
Nevada	March 1, 2015

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FILING MEMORANDUM

ITEM R-1408—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN  
 PARAMETERS—EXCESS LOSS PURE PREMIUM FACTORS AND EXCESS LOSS AND  
 ALLOCATED EXPENSE PURE PREMIUM FACTORS

New Hampshire	January 1, 2015
New Mexico	January 1, 2015
North Carolina	April 1, 2015
Oklahoma	January 1, 2015
Oregon	January 1, 2015
Rhode Island	August 1, 2015
South Carolina	September 1, 2015
South Dakota	July 1, 2015
Tennessee	March 1, 2015
Texas	June 1, 2015
Utah	December 1, 2014
Vermont	April 1, 2015
West Virginia	November 1, 2014

\* Subject to change, depending on the approved effective date of the loss cost/rate filing if one has been submitted for a state.

EXHIBIT COMMENTS AND IMPLEMENTATION SUMMARY

Exhibit	Exhibit Comments	Implementation Summary
1	Details the state ELPPFs, which apply for all states in this item.	Revises NCCI's <i>Retrospective Rating Plan Manual</i> .
2	Details the state ELAEPFFs, which apply for all states in this item except Georgia, Illinois, Kentucky, Louisiana, Maryland, Oregon, and South Dakota.	
3	Details the proposed new methodology for determining ELPPFs and ELAEPFFs.	Provides informational exhibits related to the proposed changes.
4 and 5	Details hypothetical illustrations of Statistical Model Output.	

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**ITEM R-1409—2014 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS  
— HAZARD GROUP DIFFERENTIALS**

**EXHIBIT 1  
RETROSPECTIVE RATING PLAN MANUAL—2009 EDITION  
STATE SPECIAL RATING VALUES**

**1. HAZARD GROUP DIFFERENTIALS**

(Applies in: AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MI, MO, MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, TX, UT, VT, WI, WV)

State	Hazard Group						
	A	B	C	D	E	F	G
AK	1.19	0.95	0.88	0.74	0.62	0.52	0.44
AL	1.37	1.07	0.97	0.81	0.67	0.56	0.45
AR	1.98	1.55	1.41	1.18	0.97	0.81	0.65
AZ	1.77	1.37	1.24	1.03	0.84	0.70	0.55
CO	2.18	1.73	1.61	1.35	1.14	0.95	0.80
CT	1.37	1.09	1.01	0.85	0.72	0.60	0.51
DC	1.44	1.13	1.04	0.87	0.73	0.60	0.50
FL	2.22	1.72	1.56	1.30	1.07	0.89	0.71
GA	1.46	1.14	1.05	0.88	0.73	0.61	0.50
HI	2.55	2.04	1.92	1.61	1.37	1.15	1.00
IA	1.30	1.03	0.96	0.81	0.68	0.57	0.48
ID	1.81	1.44	1.34	1.13	0.96	0.81	0.69
IL	1.09	0.87	0.82	0.69	0.59	0.49	0.43
IN	1.77	1.42	1.34	1.13	0.97	0.82	0.72
KS	1.69	1.34	1.24	1.04	0.87	0.73	0.61
KY	1.70	1.34	1.23	1.03	0.86	0.72	0.59
LA	0.96	0.76	0.72	0.60	0.51	0.43	0.37
MD	1.32	1.04	0.97	0.81	0.68	0.57	0.48
ME	1.74	1.38	1.28	1.08	0.91	0.77	0.65
MI	1.89	1.48	1.38	1.17	0.99	0.84	0.72
MO	1.65	1.30	1.20	1.00	0.83	0.70	0.57
MS	1.80	1.42	1.31	1.10	0.92	0.77	0.64
MT	1.55	1.19	1.08	0.90	0.73	0.61	0.48
NC	1.25	0.98	0.90	0.75	0.63	0.52	0.43
NE	1.56	1.23	1.12	0.94	0.78	0.65	0.52
NH	1.29	1.03	0.97	0.82	0.70	0.59	0.51
NM	1.32	1.05	0.98	0.82	0.70	0.58	0.50
NV	1.49	1.14	1.01	0.84	0.67	0.56	0.42
OK	1.61	1.27	1.18	0.98	0.82	0.68	0.56
OR	2.61	2.06	1.90	1.60	1.34	1.12	0.92
RI	2.10	1.68	1.58	1.33	1.14	0.96	0.83
SC	1.64	1.30	1.20	1.01	0.84	0.71	0.59
SD	1.71	1.31	1.17	0.97	0.78	0.65	0.50
TN	1.98	1.56	1.45	1.21	1.02	0.85	0.71
TX	2.78	2.13	1.91	1.71	1.47	1.20	0.91
UT	1.63	1.26	1.15	0.96	0.78	0.65	0.52
VT	1.36	1.08	1.01	0.85	0.73	0.61	0.52
WI	1.66	1.30	1.21	1.03	0.88	0.75	0.65
WV	1.99	1.57	1.43	1.20	1.00	0.83	0.69

## FILING MEMORANDUM

### ITEM R-1409—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS— HAZARD GROUP DIFFERENTIALS

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#### PURPOSE

This item revises the Hazard Group Differentials (commonly referred to as Relativities) in NCCI's *Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)*.

#### 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 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 retrospective rating premium, 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 retrospective rating premium. The net insurance charge reflects the charge to compensate for the possibility that RRP will exceed the maximum premium amount. It also reflects the savings resulting from the possibility that 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 NCCI's *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.

#### Hazard Group Differentials

The variation in the loss ratios for employers in the lower hazard groups generally should be smaller than the variation for employers in the higher hazard groups. The Hazard Group Differential factors adjust for this difference by placing lower hazard group employers in a higher Expected Loss Range and higher hazard group employers in a lower Expected Loss Range than would otherwise be the case. This adjustment affects the column selection in the Table of Insurance Charges, which then impacts the basic premium portion of the retrospective policy premium. The Hazard Group Differentials should be updated regularly to reflect changes in the circumstances (e.g., state statutory benefit levels and inflation) underlying each state's severity.

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**ITEM R-1409—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS—  
 HAZARD GROUP DIFFERENTIALS**

The Hazard Group Differential is determined by dividing the countrywide average cost per case by the average cost per case for the state and hazard group. For the states of Michigan, Texas, West Virginia, and Wisconsin, a credibility formula is applied for determining each state's average cost per case using a sum of the latest five years of lost-time claim counts relative to a standard of 155,000 to achieve 100% credibility. The complement of credibility (i.e., 1.0 – state credibility) is applied to the countrywide average cost per case for the hazard group.

As described in Item R-1408—2014 Update to the Retrospective Rating Plan Parameters—Excess Loss Pure Premium Factors and Excess Loss and Allocated Expense Pure Premium Factors, the methodology proposed in determining the excess loss pure premium factors (ELPPFs) and excess loss and allocated expense pure premium factors (ELAEPFFs) has been modified significantly. To maintain the consistency in average cost per case values between Item R-1408 and this item, the methodology for determining the state (and countrywide) average cost per case by hazard group used in the calculation of the proposed Hazard Group Differentials is being modified this year for all states except Michigan, Texas, West Virginia, and Wisconsin.

The current and proposed Hazard Group Differentials both use data reported in accordance with NCCI's *Statistical Plan for Workers Compensation and Employers Liability Insurance (Statistical Plan)* as its source. The following table provides a comparison of the current and proposed Hazard Group Differential methodologies:

Component	Current Methodology	Proposed Methodology
Number of years of data used	Three policy periods	Five policy periods
Average cost per case	Based on empirical data	Fitted using statistical modeling*
Lost-time claim counts	Implied	Fitted using statistical modeling*
Credibility	Uses square root rule using countrywide complement	Implicitly calculated using statistical modeling*
Swing limits	+/- 15% from prior year	None applied

\*The Fitted State Average Cost Per Case and Fitted State Claim Counts are consistent with the values underlying the ELPPF and ELAEPFF calculations in Item R-1408. The data for Michigan, Texas, West Virginia, and Wisconsin is not included in the modeling.

**PROPOSAL**

This item proposes to revise the Hazard Group Differentials in NCCI's *Retrospective Rating Plan Manual*.

**IMPACT**

Retrospective rating should produce premium that is equitably distributed to all employers but, on average, close to the guaranteed cost premium. The objective of the change in the Hazard Group Differentials is to maintain the aggregate expected balance, although the impact will vary slightly for each employer. For most

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**ITEM R-1409—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS—  
 HAZARD GROUP DIFFERENTIALS**

employers electing retrospective rating, the impact on final premium from these changes is expected to be negligible. The improved equity afforded by retrospective rating from this change will result in no change to the insurance charges for many employers.

The statewide impact will be negligible. The program is designed to be revenue-neutral countrywide. The development of the Hazard Group Differentials in each state is provided in Informational Exhibit 2.

**EXHIBIT COMMENTS AND IMPLEMENTATION SUMMARY**

Exhibit	Exhibit Comments	Implementation Summary
1	Displays the revised Hazard Group Differentials.	<ul style="list-style-type: none"> <li>• In all states except Hawaii and Texas, this item will become effective for new and renewal voluntary policies only effective on and after 12:01 a.m. on January 1, 2015.</li> <li>• This item will be implemented in Hawaii's loss cost filing proposed to be effective January 1, 2015. The effective date is determined upon regulatory approval of the individual carrier's election to adopt this change.</li> <li>• In Texas, this item will become effective for new and renewal voluntary policies only effective on and after 12:01 a.m. on December 1, 2014.</li> </ul>
2	Describes the development of the Hazard Group Differentials for each state.	Provides informational exhibits related to the proposed changes.

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**ITEM R-1409—2014 UPDATE TO THE RETROSPECTIVE RATING PLAN PARAMETERS  
—HAZARD GROUP DIFFERENTIALS**

**EXHIBIT 2  
INFORMATIONAL EXHIBIT  
DEVELOPMENT OF TENNESSEE HAZARD GROUP DIFFERENTIALS  
FOR HAZARD GROUPS A TO G**

Five years of historical experience is trended, on-leveled, and developed to estimate the severities for each state, hazard group and claim group. The observed data for 36 states is input into a Bayesian multilevel model which produces fitted severities by state, hazard group and claim group. Similarly, a second Bayesian multilevel model produces fitted claim counts from the same observed data by state, hazard group and claim group. For a given hazard group, state severities are calculated by weighting the fitted severities by claim group together using fitted claim counts. The fitted severities and fitted claim counts by state are consistent with the values underlying NCCI's new excess loss factor methodology.

The severities for all states are weighted together to calculate the average countrywide severity. The state and hazard group differentials are calculated by dividing the countrywide severity by the individual state hazard group severities.

(1) <u>Hazard Group</u>	(2) <u>Tennessee Fitted Severities</u>	(3) <u>Countrywide Average Severity</u>	(4) = (3) / (2) <u>Indicated State and Hazard Group Differentials</u>
A	29,941		1.98
B	37,880		1.56
C	40,809		1.45
D	48,738		1.21
E	57,986		1.02
F	69,386		0.85
G	83,012		0.71
All		59,215	

  

<u>Hazard Group</u>	<u>Current Differentials Effective 1/1/2014*</u>	<u>Proposed Differentials Effective 1/1/2015</u>
A	1.62	1.98
B	1.23	1.56
C	1.10	1.45
D	0.99	1.21
E	0.86	1.02
F	0.70	0.85
G	0.55	0.71

Note: The underlying data source for the above calculations is NCCI's *Statistical Plan*, excluding medical-only claims. The *Statistical Plan* data for each state is adjusted accordingly, as reflected in the data underlying the Excess Loss Pure Premium Factor (ELPPF) calculation.

\*Effective January 1, 2014, per Item R-1407.