

**State:** Missouri **Filing Company:** NCCI  
**TOI/Sub-TOI:** 16.0 Workers Compensation/16.0004 Standard WC  
**Product Name:** R-1405 2012 Update to Retrospective Rating Plan Parameters - Expected Loss Ranges and State Hazard Group Differentials  
**Project Name/Number:** /

## Filing at a Glance

Company: NCCI  
Product Name: R-1405 2012 Update to Retrospective Rating Plan Parameters - Expected Loss Ranges and State Hazard Group Differentials  
State: Missouri  
TOI: 16.0 Workers Compensation  
Sub-TOI: 16.0004 Standard WC  
Filing Type: Rule  
Date Submitted: 06/01/2012  
SERFF Tr Num: NCCI-128411037  
SERFF Status: Closed-APPROVED  
State Tr Num:  
State Status: APPROVED  
Co Tr Num: R-1405  
Effective Date: 01/01/2013  
Requested (New):  
Effective Date: 01/01/2013  
Requested (Renewal):  
Author(s): Lesley O'Brien, Alison Herwig, Frank Gnolfo, Roy Wood, Dennis Kokulak, Robert Dalton  
Reviewer(s): Karen Rimel (primary)  
Disposition Date: 06/22/2012  
Disposition Status: APPROVED  
Effective Date (New): 01/01/2013  
Effective Date (Renewal): 01/01/2013  
State Filing Description:

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## General Information

Project Name: Status of Filing in Domicile:  
 Project Number: Domicile Status Comments:  
 Reference Organization: Reference Number:  
 Reference Title: Advisory Org. Circular:  
 Filing Status Changed: 06/22/2012  
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 Created By: Frank Gnolfo Submitted By: Frank Gnolfo  
 Corresponding Filing Tracking Number:  
 State TOI: 16.0 Workers Compensation State Sub-TOI: 16.0004 Standard WC

### Filing Description:

This item updates Appendix A - Table of Expected Loss Ranges and the Hazard Group Differentials (commonly referred to as Relativities) in NCCI's 2009 Edition of the Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual).

## Company and Contact

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### Filing Company Information

NCCI CoCode: State of Domicile: Florida  
 901 Peninsula Corporate Circle Group Code: Company Type:  
 Boca Raton, FL 33487 Group Name: State ID Number:  
 (561) 893-3186 ext. [Phone] FEIN Number: 65-0439698

## Filing Fees

Fee Required? No  
 Retaliatory? No  
 Fee Explanation:

## State Specific

NAIC Number: RO99985  
 Have you reviewed the General Instructions document? (yes/no)(General Instructions updated 9/14/07): Yes  
 If this is a rate filing, was rate data added on the rate/rule schedule? (yes/no): No

SERFF Tracking #:

NCCI-128411037

State Tracking #:

Company Tracking #:

R-1405

State:

Missouri

Filing Company:

NCCI

TOI/Sub-TOI:

16.0 Workers Compensation/16.0004 Standard WC

Product Name:

R-1405 2012 Update to Retrospective Rating Plan Parameters - Expected Loss Ranges and State Hazard Group Differentials

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## Correspondence Summary

### Dispositions

Status	Created By	Created On	Date Submitted
APPROVED	Karen Rimel	06/22/2012	06/22/2012

SERFF Tracking #:

NCCI-128411037

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## Disposition

Disposition Date: 06/22/2012

Effective Date (New): 01/01/2013

Effective Date (Renewal): 01/01/2013

Status: APPROVED

Comment:

Rate data does NOT apply to filing.

Schedule	Schedule Item	Schedule Item Status	Public Access
Supporting Document	Filing Memorandum	REVIEWED	Yes
Rate	Exhibit 1	APPROVED	Yes
Rate	Exhibit 2	APPROVED	Yes
Rate	Exhibit 3	APPROVED	Yes

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R-1405

**State:** Missouri **Filing Company:** NCCI**TOI/Sub-TOI:** 16.0 Workers Compensation/16.0004 Standard WC**Product Name:** R-1405 2012 Update to Retrospective Rating Plan Parameters - Expected Loss Ranges and State Hazard Group Differentials**Project Name/Number:** /

## Rate/Rule Schedule

Item No.	Schedule Item Status	Exhibit Name	Rule # or Page #	Rate Action	Previous State Filing Number	Attachments
1	APPROVED 06/22/2012	Exhibit 1	Appendix A	Replacement	R-1403	R-1405 Exhibit 1.pdf
2	APPROVED 06/22/2012	Exhibit 2	State Hazard Group	Replacement	R-1403	R-1405 Exhibit 2.pdf
3	APPROVED 06/22/2012	Exhibit 3	Development	Replacement	R-1403	R-1405 Exhibit 3 (MO).pdf

**ITEM R-1405—2012 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS  
— EXPECTED LOSS RANGES AND STATE HAZARD GROUP RELATIVITIES**

**EXHIBIT 1**

**RETROSPECTIVE RATING PLAN MANUAL—2009 EDITION  
APPENDIX A**

**2013—TABLE OF EXPECTED LOSS RANGES**

**(Applies in: AK, AL, AR, AZ, CO, CT, DC, 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)**

Expected Loss Group	Range Rounded Values	Expected Loss Group	Range Rounded Values	Expected Loss Group	Range Rounded Values
95	1,153 — 1,800	65	96,674 — 104,413	35	1,205,738 — 1,353,767
94	1,801 — 2,664	64	104,414 — 112,772	34	1,353,768 — 1,519,973
93	2,665 — 3,520	63	112,773 — 121,799	33	1,519,974 — 1,733,229
92	3,521 — 4,653	62	121,800 — 131,548	32	1,733,230 — 1,992,236
91	4,654 — 6,051	61	131,549 — 142,079	31	1,992,237 — 2,289,951
90	6,052 — 7,309	60	142,080 — 153,483	30	2,289,952 — 2,632,157
89	7,310 — 8,821	59	153,484 — 165,953	29	2,632,158 — 3,128,882
88	8,822 — 10,240	58	165,954 — 179,182	28	3,128,883 — 3,741,462
87	10,241 — 11,886	57	179,183 — 193,057	27	3,741,463 — 4,473,981
86	11,887 — 13,787	56	193,058 — 208,012	26	4,473,982 — 5,515,490
85	13,788 — 15,593	55	208,013 — 224,126	25	5,515,491 — 7,018,621
84	15,594 — 17,628	54	224,127 — 242,337	24	7,018,622 — 8,931,401
83	17,629 — 19,908	53	242,338 — 262,103	23	8,931,402 — 11,412,761
82	19,909 — 22,151	52	262,104 — 283,489	22	11,412,762 — 14,603,708
81	22,152 — 24,645	51	283,490 — 306,608	21	14,603,709 — 18,686,828
80	24,646 — 27,417	50	306,609 — 330,862	20	18,686,829 — 23,911,565
79	27,418 — 30,504	49	330,863 — 356,977	19	23,911,566 — 30,597,107
78	30,505 — 33,660	48	356,978 — 385,341	18	30,597,108 — 41,970,253
77	33,661 — 37,058	47	385,342 — 419,230	17	41,970,254 — 62,073,665
76	37,059 — 40,803	46	419,231 — 456,098	16	62,073,666 — 91,806,463
75	40,804 — 44,839	45	456,099 — 496,209	15	91,806,464 — 135,781,024
74	44,840 — 49,089	44	496,210 — 542,249	14	135,781,025 — 200,819,054
73	49,090 — 53,743	43	542,250 — 593,337	13	200,819,055 — 297,009,777
72	53,744 — 58,844	42	593,338 — 649,243	12	297,009,778 — 464,933,744
71	58,845 — 64,233	41	649,244 — 715,710	11	464,933,745 — 735,711,389
70	64,234 — 70,065	40	715,711 — 790,930	10	735,711,390 — 1,164,190,072
69	70,066 — 76,421	39	790,931 — 874,056	9	1,164,190,073 — & over
68	76,422 — 82,857	38	874,057 — 965,918		
67	82,858 — 89,499	37	965,919 — 1,073,888		
66	89,500 — 96,673	36	1,073,889 — 1,205,737		

**ITEM R-1405—2012 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND STATE HAZARD GROUP DIFFERENTIALS**

**EXHIBIT 2**

**RETROSPECTIVE RATING PLAN MANUAL—2009 EDITION**

**STATE SPECIAL RATING VALUES**

**1. HAZARD GROUP DIFFERENTIALS**

(Applies in: AK, AL, AR, AZ, CO, CT, DC, 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	1.64	1.24	1.09	0.99	0.85	0.69	0.54
AL	1.62	1.22	1.08	0.97	0.84	0.67	0.51
AR	1.81	1.37	1.21	1.09	0.93	0.75	0.58
AZ	1.87	1.41	1.24	1.11	0.95	0.76	0.56
CO	1.88	1.43	1.28	1.15	0.99	0.81	0.64
CT	1.52	1.13	1.00	0.90	0.77	0.62	0.48
DC	1.75	1.32	1.16	1.05	0.90	0.72	0.56
GA	1.50	1.13	1.00	0.90	0.77	0.62	0.47
HI	2.02	1.52	1.35	1.22	1.05	0.85	0.68
IA	1.70	1.28	1.14	1.02	0.88	0.71	0.55
ID	1.73	1.32	1.18	1.07	0.94	0.77	0.61
IL	1.24	0.94	0.85	0.77	0.66	0.54	0.44
IN	1.84	1.40	1.26	1.14	1.00	0.82	0.65
KS	1.77	1.35	1.20	1.08	0.93	0.75	0.59
KY	1.74	1.31	1.15	1.04	0.89	0.71	0.54
LA	1.36	1.02	0.90	0.82	0.70	0.57	0.45
MD	1.59	1.19	1.05	0.94	0.81	0.65	0.50
ME	1.72	1.29	1.15	1.04	0.90	0.73	0.58
MI	1.79	1.35	1.21	1.10	0.95	0.78	0.61
MO	1.86	1.43	1.28	1.15	0.99	0.81	0.63
MS	1.80	1.36	1.21	1.09	0.94	0.76	0.60
MT	1.71	1.30	1.14	1.03	0.88	0.70	0.53
NC	1.30	0.98	0.87	0.78	0.67	0.54	0.42
NE	1.69	1.29	1.14	1.03	0.88	0.71	0.56
NH	1.52	1.14	1.01	0.92	0.79	0.64	0.51
NM	1.65	1.25	1.11	1.00	0.86	0.70	0.55
NV	1.67	1.26	1.11	1.00	0.85	0.68	0.52
OK	1.51	1.15	1.02	0.91	0.78	0.63	0.50
OR	2.25	1.69	1.50	1.35	1.16	0.94	0.74
RI	1.91	1.44	1.27	1.15	0.99	0.80	0.63
SC	1.64	1.25	1.11	1.00	0.86	0.70	0.55
SD	1.70	1.29	1.14	1.03	0.88	0.71	0.55
TN	1.53	1.16	1.04	0.93	0.81	0.66	0.52
TX	2.40	1.84	1.65	1.47	1.27	1.03	0.78
UT	1.75	1.32	1.16	1.05	0.90	0.73	0.55
VT	1.68	1.27	1.12	1.01	0.87	0.71	0.56
WI	1.65	1.24	1.11	1.00	0.86	0.71	0.55
WV	1.91	1.45	1.28	1.15	0.98	0.79	0.62

ITEM R-1405—2012 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERG  
— EXPECTED LOSS RANGES AND STATE HAZARD GROUP RELATIVITIES

EXHIBIT 3

DEVELOPMENT OF MISSOURI HAZARD GROUP DIFFERENTIALS/RELATIVITIES  
FOR HAZARD GROUPS A TO G

- Step 1.** Historical experience is trended, on-leveled, and developed to estimate the severities for each hazard group.
- Step 2.** The severities are weighted with the countrywide severities by hazard group using a credibility that varies by state. For this purpose, 155,000 claims are regarded as fully credible and the square root rule is used to compute partial credibilities.
- Step 3.** Credibility weighted severities for each state hazard group are produced. A new countrywide average severity is calculated by taking the weighted average of the formula for state severities using claim counts as weights.
- Step 4.** The relativities are calculated by dividing the countrywide severity by the individual state hazard group severities. The final relativities are derived by capping the indicated relativities at a 15.0% increase or decrease from the prior update.

<u>Step 1</u>	<u>Hazard Group</u>	<u>Missouri</u>	<u>Countrywide</u>
Severities	A	28,247	32,849
	B	36,375	43,281
	C	40,294	49,211
	D	44,831	54,488
	E	51,744	63,398
	F	63,341	78,350
	G	81,488	99,220

<u>Step 2</u>	Claim Count	=	59,785
	Credibility	=	$(59,785 / 155,000)^{0.5} = 0.621$

<u>Step 3</u>	<u>Hazard Group</u>	<u>Missouri</u>
Credibility	A	29,991 = $(0.621)(28,247) + (0.379)(32,849)$
Weighted	B	38,992
Severities	C	43,673
	D	48,491
	E	56,160
	F	69,029
	G	88,207
	Countrywide Overall:	55,818

<u>Step 4</u>	<u>Hazard Group</u>	<u>Relativities</u>
Relativities	A	1.86 = $55,818 / 29,991$
	B	1.43
	C	1.28
	D	1.15
	E	0.99
	F	0.81
	G	0.63

Note: The underlying data source for the above calculations is NCCI's *Statistical Plan Manual for Workers Compensation and Employers Liability Insurance (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 Factor (ELF) calculation.



SERFF Tracking #:

NCCI-128411037

State Tracking #:

Company Tracking #:

R-1405

State:

Missouri

Filing Company:

NCCI

TOI/Sub-TOI:

16.0 Workers Compensation/16.0004 Standard WC

Product Name:

R-1405 2012 Update to Retrospective Rating Plan Parameters - Expected Loss Ranges and State Hazard Group Differentials

Project Name/Number:

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## Supporting Document Schedules

<b>Satisfied - Item:</b>	Filing Memorandum
<b>Comments:</b>	
<b>Attachment(s):</b>	R-1405 Filing Memorandum.pdf
<b>Item Status:</b>	REVIEWED
<b>Status Date:</b>	06/22/2012

## FILING MEMORANDUM

### ITEM R-1405—2012 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND STATE HAZARD GROUP DIFFERENTIALS

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#### PURPOSE

This item updates Appendix A—Table of Expected Loss Ranges and the Hazard Group Differentials (commonly referred to as Relativities) in NCCI's 2009 Edition of the *Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance (Retrospective Rating Plan Manual)*.

#### BACKGROUND

The Retrospective Rating Plan adjusts a risk's premium for a policy according to the loss experience during the effective period of the policy. At the simplest level, an insured's retrospective premium is determined by the formula  $R = (b + cL) * T$ , where:

R	=	Retrospective premium, subject to minimum and maximum amounts
b	=	Basic premium
c	=	Loss conversion factor, generally reflecting loss adjustment expense
L	=	Actual incurred loss during the effective policy period
T	=	Tax multiplier

The retrospective premium, R, 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 premium. The net insurance charge reflects the charge to compensate for the possibility that R will exceed the maximum premium amount. It also reflects the savings resulting from the possibility that R 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.

#### Expected Loss Ranges

Appendix B—Table of Insurance Charges 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 look up 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 insured. This is because the expected variation in losses is lower for larger employers.

As inflation increases claim size, there is an apparent growth in the size of the insured, measured in expected losses, but no real growth in the size of the insured, measured in the expected number of claims. To correct for the impact of loss size inflation, NCCI is proposing that Appendix A—Table of Expected Loss Ranges be updated for the trend in average size of loss. The last time such an update was made was in 2011 (Item R-1403). The current Table of Expected Loss Ranges is based on a projected annual increase in average loss size of 5.5% from March 5, 2008 to January 1, 2013. NCCI has observed an actual annualized growth in average loss size of 7.7% from March 5, 2008 to March 22, 2009, and projects an annual growth in

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## FILING MEMORANDUM

### **ITEM R-1405—2012 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND STATE HAZARD GROUP DIFFERENTIALS**

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average loss size of 5.5% from March 22, 2009 to January 1, 2014. The new table incorporates both of these observed and projected changes in severity.

#### **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 Appendix B—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, inflation, etc.) underlying each state's severity.

#### **PROPOSAL**

It is proposed that the changes, as described in the Background section above, to Appendix A—Table of Expected Loss Ranges and the Hazard Group Differentials/Relativities be effective at 12:01 a.m. on January 1, 2013, applicable to new and renewal voluntary policies only (except for Hawaii). Please note that this item is not being filed in Virginia at this time. The proposed changes in this item will be included in the Virginia loss cost filing.

**Exception:** In Hawaii, this item will be implemented at 12:01 a.m. on January 1, 2013, applicable to new and renewal voluntary policies only. The effective date is determined upon regulatory approval of the individual carrier's election to adopt these changes.

#### **Florida State-Specific**

It is proposed that Florida revise Part 4-B—Table of Expected Loss Ranges and the Hazard Group Differentials to NCCI's 1984 Edition of the *Retrospective Rating Plan Manual* since the 2009 Edition has not yet been approved in Florida.

#### **IMPACT**

##### **Expected Loss Ranges**

The proposed changes to the Expected Loss Ranges are necessary to maintain the aggregate expected balance between the retrospectively rated premium and the guaranteed cost premium. If these ranges were not updated, there would be a natural slippage caused by inflation over time because risks would have an apparent growth in size as seen by increasing expected losses, but no real growth in size as seen by their expected number of claims. These changes are expected to be revenue-neutral.

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## FILING MEMORANDUM

### **ITEM R-1405—2012 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS—EXPECTED LOSS RANGES AND STATE HAZARD GROUP DIFFERENTIALS**

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#### **Hazard Group Differentials**

Retrospective rating should produce premium that is equitably distributed to all insured employers, but, on average, close to the guaranteed cost premium. The objective of this change is to maintain the aggregate expected balance, although the impact will vary slightly for each insured employer. For most insured employers electing retrospective rating, the impact on final premium from these changes is expected to be minimal. The improved equity afforded by retrospective rating from this change will result in slightly higher insurance charges for a small subset of insureds, and no change to the insurance charges for the majority of insureds. The statewide impact will be negligible. The program is designed to be revenue-neutral countrywide.

#### **IMPLEMENTATION**

In order to implement this item, the attached exhibits detail the changes required in NCCI's 2009 Edition of the *Retrospective Rating Plan Manual*. As explained in these exhibits, individual state severities, as well as countrywide severities, are used in the calculation of the relativities. The following is a summary of the exhibits included in this item filing package:

- **Exhibit 1** contains the Table of Expected Loss Ranges
- **Exhibit 2** contains the State Hazard Group Differentials
- **Exhibit 3** contains a description of the development of the differentials/relativities

In all states except Hawaii, this item will be implemented effective at 12:01 a.m. on January 1, 2013, applicable to new and renewal voluntary policies only. In Hawaii, this item will be implemented at 12:01 a.m. on January 1, 2013, applicable to new and renewal voluntary policies only. The effective date is determined upon regulatory approval of the individual carrier's election to adopt these changes.

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