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March 10, 2000

CIRCULAR LETTER TO ALL MEMBER COMPANIES

Re: Workers Compensation Insurance
Item B-1365 - 2000 Update to Retrospective
Rating Plan Parameters

The Bureau has adopted and the North Carolina Commissioner of Insurance has approved a proposal to update the Expected Loss Ranges and the State And Hazard Group Severity Relativities of the Retrospective Rating Plan.

The attached Filing Memorandum describes the changes which have been approved to become effective July 1, 2000, applicable to new and renewal business only.

Very truly yours,

Jerry G. Hamrick

Workers Compensation Manager

JGH:dg

Enclosure

C-00-7

FILING MEMORANDUM

ITEM R-1365—2000 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS

(To be effective 12:01 a.m. on July 1, 2000 applicable to new and renewal business only.)

PURPOSE

The purpose of this filing is to update the Expected Loss Ranges and State and Hazard Group Severity Relativities of the Retrospective Rating Plan.

BACKGROUND

Retrospective Rating is a plan for adjusting the risk premium of 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: $\mathbf{R = (B + cL)t}$, where

R =	
B =	Retrospective Premium, subject to minimum and maximum amounts
c =	Basic Premium
L =	Loss Conversion Factor, generally reflecting loss adjustment expense
t =	
	Actual incurred loss during the effective policy period
	Tax Multiplier

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 carriers. It also includes an insurance charge to compensate for the times losses exceed an amount leading to the maximum premium, but reduced by the average savings resulting from the times losses are less than an amount leading to the minimum premium. The source of the values used to determine the charges and savings is the Table of Insurance Charges.

Expected Loss Ranges

The Table of Insurance Charges contains the excess ratios needed to quantify the insurance charge and savings described above. The ratio of actual losses to expected losses, the entry ratio, is used to look up the values in the Table. The charges depend not only on the maximum and minimum subject losses, but also on the size of the insured. The variation in the loss ratios, hence the charges, of the larger employers who expect many losses should be much lower than the variation for smaller employers.

As inflation increases claim size, there is an apparent growth in the size of the insured employers, but no real change in loss ratio distributions. To correct for the impact of loss size inflation, NCCI is proposing that the Table of Expected Loss Ranges be updated for the trend in average size of loss since the last time such an update was made (Item R-1350, "1998 Table of Insurance Charges"). The current Table of Expected Loss Ranges already included an estimate of actual trend to 10/94 and an assumption of no trend after 10/94. To calculate the new size ranges we trended the current size ranges using an estimated actual severity trend from 10/94 to 10/96 of 5.0% and estimated future severity trend from 10/96 to 7/1/2001 of 1.0% per year.

State and Hazard Group Relativities

The variation in the loss ratios of employers in the lower hazard groups should be smaller than the variation for employers in the higher hazard groups. The State and Hazard Group Relativity Factors adjust for this difference by placing lower hazard group employers in a higher Expected Loss Size Range and higher hazard group employers in a lower Expected Loss Size Range than would otherwise be the case. This adjustment affects the selection of the column of the Table of Insurance

Charges, which then impacts the basic premium portion of the retrospective policy premium. The State and Hazard Group Relativities should be updated regularly due to changes in the circumstances (changes in state statutory benefit levels, inflation, etc.) underlying each state's severity.

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PROPOSAL

It is proposed that the Table of Expected Loss Ranges be updated for the trend in average size of loss since the last time such an update was made. The proposed ranges can be found in Exhibit III.

It is further proposed that the State and Hazard Group Relativities of the Retrospective Rating Plan be updated for each state. Exhibit I provides a description of the development of the relativities. As explained in the exhibit, individual state severities, as well as countrywide severities are used in the calculation of the relativities. The proposed relativities can be found in Exhibit II

It is proposed that these changes are to be effective 12:01 a.m., on July 1, 2000, for use by companies affiliated with NCCI for Large Accounts License, Service, and Maintenance, applicable to new and renewal business only.

IMPACT

The proposed 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 because risks would have an apparent growth as seen by increasing expected losses, but no real change in their loss ratio distributions.

Retrospective rating should produce premium that is equitably distributed to all insured employers, but on average close to the guaranteed cost in the approved rate. The object of the update to the State and Hazard Group Relativities of the Retrospective Rating Plan is to maintain the aggregate expected balance, but the impact will vary slightly for individual insured employers. Thus, insurance charges and premiums will be higher for some insureds and lower for others, depending on their state and hazard group assignments. For most of the insured employers electing retrospective rating, the impact on final premium from these changes will be quite small.

The improved equitability from this change will result in slightly lower average insurance charges for some states, and slightly higher for others. However, this statewide impact will be negligible. The program is designed to be revenue neutral countrywide.

IMPLEMENTATION

The attached exhibits outline the changes necessary in the *Retrospective Rating Plan Manual for Workers Compensation and Employers Liability Insurance*.

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EXHIBIT I

DEVELOPMENT OF STATE AND HAZARD GROUP RELATIVITIES

Step 1. Individual state severities are calculated 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, we regard 155,000 claims as fully credible, and use the square root rule to compute partial credibilities.

Step 3. Credibility weighted severities for each state and hazard group are produced. A new countrywide average severity is calculated by taking the weighted average of the formula state severities using claim counts as weights.

Step 4. The relativities are calculated by dividing the countrywide severity by the individual state and hazard group severities.

Example: State X					
Step 1	**Hazard Group**		**State X**		**Countrywide**
Severities					17,155
	1		21,361	23,085	18,894
	2			33,771	29,974
	3			45,265	43,752
	4				
Step 2	**Claim Count**		**59,672**		
	Credibility	=	(59,672/155,000)0.5 = 0.62		
Step 3	**Hazard Group**		**State X**		
					= 0.62 x 21,361 + 0.38 x 17,155
Cred. Wtd.		1	19,763		
Severities		2	32,328		
		3	21,429		
		4	44,690		
	Countrywide Overall: 23,381				
Step 4	**Hazard Group**		**State X**		
					= 23,381/19,763
Relativities	1			1.18	
	2			1.09	
	3			0.72	
	4			0.52	

Note: The underlying data source for the above calculations is the Unit Statistical Plan (USP), excluding medical only claims. The USP data for each state is adjusted accordingly, as reflected in the data underlying the Excess Loss Factor (ELF) calculation.

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EXHIBIT II

NORTH CAROLINA

RETROSPECTIVE RATING PLAN

Hazard Group Differentials

EFFECTIVE JULY 1, 2000

Hazard Group I	Hazard Group II	Hazard Group III	Hazard Group IV
1.13	1.00	0.62	0.43

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EXHIBIT III

2000 - TABLE OF EXPECTED LOSS RANGES

The following Table of Expected Loss Ranges is effective July 1, 2000

Expected Loss Group	Range Rounded Values			Expected Loss Group	Range Rounded Values			Expected Loss Group	Range Rounded Values		
95	402	-	626	65	33631	-	36323	35	419451	-	470946
94	627	-	927	64	36324	-	39232	34	470947	-	528766
93	928	-	1224	63	39233	-	42371	33	528767	-	602953
92	1225	-	1618	62	42372	-	45763	32	602954	-	693056
91	1619	-	2106	61	45764	-	49426	31	693057	-	796625
90	2107	-	2542	60	49427	-	53394	30	796626	-	915671
89	2543	-	3069	59	53395	-	57731	29	915672	-	1088470
88	3070	-	3563	58	57732	-	62333	28	1088471	-	1301574
87	3564	-	4135	57	62334	-	67161	27	1301575	-	1556401
86	4136	-	4797	56	67162	-	72363	26	1556402	-	1918720
85	4798	-	5424	55	72364	-	77967	25	1918721	-	2441627
84	5425	-	6133	54	77968	-	84304	24	2441628	-	3107041
83	6134	-	6926	53	84305	-	91180	23	3107042	-	3970253
82	6927	-	7706	52	91181	-	98620	22	3970254	-	5080315
81	7707	-	8574	51	98621	-	106663	21	5080316	-	6500743
80	8575	-	9537	50	106664	-	115100	20	6500744	-	8318316
79	9538	-	10611	49	115101	-	124185	19	8318317	-	10644071
78	10612	-	11710	48	124186	-	134052	18	10644072	-	14600542
77	11711	-	12892	47	134053	-	145841	17	14600543	-	21594085
76	12893	-	14195	46	145842	-	158667	16	21594086	-	31937480
75	14196	-	15598	45	158668	-	172621	15	31937481	-	47235279
74	15599	-	17078	44	172622	-	188637	14	47235280	-	69860602
73	17079	-	18696	43	188638	-	206410	13	69860603	-	103323273
72	18697	-	20470	42	206411	-	225858	12	103323274	-	161740386
71	20471	-	22346	41	225859	-	248980	11	161740387	-	255938066
70	22347	-	24374	40	248981	-	275148	10	255938067	-	404996525
69	24375	-	26585	39	275149	-	304065	9	404996526	-	& over
68	26586	-	28825	38	304066	-	336022				
67	28826	-	31135	37	336023	-	373583				

66	31136	- -	33630	36	373584	- -	419450