May 15, 2000

BUREAU CIRCULAR NO. 735

To All Members of the Bureau:

Re: **PREMIUM ALGORITHM - BUREAU FILING NO. 0005**
EFFECTIVE ON AN OPTIONAL BASIS JULY 1, 2000
EFFECTIVE ON A MANDATORY BASIS JANUARY 1, 2002

The Bureau has filed and the Insurance Commissioner has approved the development of a premium algorithm that will set forth specifically the sequence and arithmetic calculation of workers compensation premium. Such calculations have become increasingly detailed and complex by virtue of the growing number and variety of special pricing programs applicable to workers compensation insurance created by virtue of both legislative enactment and competitive initiative, which has increased an interest in accounting for and analyzing the impacts of certain of these available programs. This new program will be **effective on an optional basis July 1, 2000** and on a **mandatory basis** for new and renewal policies with normal anniversary rating dates on or after **January 1, 2002**. The addition to the Basic Manual is shown below. *Please note that all references to Pennsylvania have been filed with and approved by the Pennsylvania Insurance Commissioner.*

SECTION 1

RULE VI - RATING VALUES AND
PREMIUM DETERMINATION

H. PREMIUM ALGORITHM

Pennsylvania and Delaware Premium Algorithm Preface:
    Optional use upon July 1, 2000. Mandatory use for policies effective on or after January 1, 2002.

The computation of workers compensation premium includes a broad complement of potential rating values, pricing programs and other similar or related variables. To the extent that these component parts of premium determination may be applied in a prescribed sequence and using defined formulas and/or relationships, several potential benefits arise including the following:
- Competitive differences within the marketplace can be more clearly defined and consistently applied;

- Similarly situated risks can receive comparable treatment with respect to specific rating values, pricing programs or other factors, increasing the equity of the marketplace;
- Analysis of the effects of various components of overall premium determination can be better understood and more intelligently compared across carriers, states and/or time;
- In the event that new pricing programs or other factors are introduced in the future, the defined existing formulas can provide a consistent basis for the development of programs and system procedures within the workers compensation industry.

Pennsylvania and Delaware Workers Compensation Premium Algorithm

Premium Calculation Algorithm

Line #	Item Name	Associated Statistical Code	Line #	Source & Derivation
(1)	Classification	XXXX	(1)	Carrier value
(2)	Exposure	XXXX	(2)	Risk characteristic
(3)	Carrier Rating Value	XXXX	(3)	Carrier value
(4)	Classification Manual Premium		(4)	(2)/100x(3) if classification has payroll exposure. Special procedures apply to non-payroll classes
(5)	Total Policy Manual Premium		(5)	Sum of (4) for all classifications on the policy
(6)	Employer Liability Increased Limits Factor	9807	(6)	Carrier value
(7)	Employer Liability Increased Limits Premium Charge	9807	(7)	(5)x[(6) expressed as a decimal]
(8)	Minimum Premium Employer Liability Increased Limits	9848	(8)	Carrier value
(9)	Minimum Premium Employer Liability Increased Limits Premium Charge	9848	(9)	[(8)-(7)] if (7)<(8) and (6),>0, otherwise zero
(10)	Subject Deductible Credit Percentage	9664	(10)	Carrier value
(11)	Subject Deductible Premium Credit	9664	(11)	[(5)+(7)+(9)]x(-10) expressed as a decimal
(12)	Waiver of Subrogation Charge **(DE)**	0930	(12)	Carrier value - subject to experience modification
(13)	Waiver of Subrogation Premium **(DE)**	0930	(13)	Value from Line (12)
(14)	Total Subject Premium		(14)	[(5)+(7)+(9)+(11)+(13)]
(15)	Experience Modification	9898	(15)	Zero for non-experience-rated risks
(16)	Modified Premium		(16)	(14)x(15)
(17)	Merit Rating Credit Factor	9885	(17)	Zero if Merit Rating Credit does not apply
(18)	Merit Rating Credit	9885	(18)	(14)x[(-17) expressed as a decimal
(19)	Merit Rating Neutral Factor	9884	(19)	Zero if Merit Rating Neutral Adjustment (no credit or debit) does not apply
(20)	Merit Rating Neutral Factor	9884	(20)	(14)x(19)[expressed as a decimal]
(21)	Merit Rating Debit Factor	9886	(21)	Zero if Merit Rating Debit does not apply
(22)	Merit Rating Charge	9886	(22)	(14)x(21)[expressed as a decimal]
(23)	Premium After Experience Modification or Merit Rating		(23)	(16) if Experience-Rated, (14)+[(18) or (20) or (22)] if Merit-Rated, (14) if Non-Rated
(24)	Occupational Disease Exposure	0067	(24)	Portion of payroll exposure subject to OD hazard
(25)	Occupational Disease Loading	0067	(25)	Carrier value
(26)	Occupational Disease Premium	0067	(26)	(24)/100x(25) [based on applicable OD exposure]
(27)	Supplemental Radiation Exposure	9985	(27)	Portion of payroll exposure subject to radiation hazard
(28)	Supplemental Radiation Loading	9985	(28)	Carrier value
(29)	Supplemental Radiation Premium	9985	(29)	(27)/100x(28) [based on applicable radiation exposure]
(30)	Occupational Disease Increased Limits Factor	9807	(30)	Carrier value
(31)	Occupational Disease Increased Limits Premium Charge	9807	(31)	[(26)+(29)]x[(30)) expressed as a decimal]
(32)	Occupational Disease Increased Limits Minimum Premium	9848	(32)	Carrier value
(33)	Occupational Disease Increased Limits Minimum Premium Charge	9848	(33)	[(32)-(31)] if (31) < (32) and (30) > 0, otherwise zero

Line #	Item Name	Associated Statistical Code	Line #	Source & Derivation
(34)	Aircraft Seat Surcharge	9108	(34)	Carrier value
(35)	Aircraft Seat Surcharge Exposure (# of seats)	9108	(35)	Actual number of seats for insured risk
(36)	Aircraft Seat Surcharge Indicated Premium	9108	(36)	(34)x(35)
(37)	Aircraft Seat Surcharge Maximum Premium	9108	(37)	Carrier value
(38)	Aircraft Seat Surcharge Premium Charge	9108	(38)	(37) if (36) > (37), otherwise (36)
(39)	Premium Before Schedule Rating		(39)	(23)+(26)+(29)+(31)+(33)+(38)
(40)	Schedule Rating Plan Adjustment Factor	9887/9889	(40)	Carrier value - use 9887 for schedule credits and 9889 for schedule debits.
(41)	Schedule Rating Plan Premium Adjustment	9887/9889	(41)	(39)x[(40) expressed as a decimal]. For schedule credits Line (40) will be negative.
(42)	Certified Safety Committee Credit Factor **(PA)**	9890	(42)	Credit applies if insured is certified and has remaining year(s) of eligibility
(43)	Certified Safety Committee Premium Credit **(PA)**	9890	(43)	[(39)+(41)]x[(-42) expressed as a decimal]
(44)	Workplace Safety Program Credit Factor **(DE)**	9880	(44)	Credit applies if insured qualifies
(45)	Workplace Safety Program Premium Credit **(DE)**	9880	(45)	[(39)+(41)]x[(-44) expressed as a decimal]
(46)	Construction Classification Premium Adjustment Program Credit Factor	9046	(46)	Based on wage level(s), application to rating organization
(47)	Construction Classification Premium Adjustment Program Premium Credit	9046	(47)	[(39)+(41)]x[(-46) expressed as a decimal]
(48)	Drug-Free Workplace Factor **(DE)**	9846	(48)	Carrier value
(49)	Drug-Free Workplace Credit **(DE)**	9846	(49)	[(39)+(41)+(45)+(47)]x(-48) expressed as a decimal]
(50)	Managed Care Factor **(DE)**	9874	(50)	Carrier value
(51)	Managed Care Credit **(DE)**	9874	(51)	[(39)+(41)+(45)+(47)+(49)]x[(-50) expressed as a decimal]
(52)	Package Credit Factor **(DE)**	9721	(52)	Carrier value
(53)	Package Credit **(DE)**	9721	(53)	[(39)+(41)+(45)+(47)+(49)+(51)]x[(-52) expressed as a decimal]
(54)	Premium After Managed Care and Package Credit If Applicable		(54)	[(39)+(41)+(43)+(45)+(47)+(49)+(51)+(53)]
(55)	Assigned Risk Surcharge Factor **(DE)**	0277	(55)	May apply to some or all assigned risks based on plan and characteristics of individual insured
(56)	Assigned Risk Premium Surcharge **(DE)**	0277	(56)	(54)x[(55) expressed as a decimal]
(57)	Deductible Credit Factor	9663	(57)	Carrier value
(58)	Deductible Premium Credit	9663	(58)	[(54)+(56)]x[(-57) expressed as a decimal]
(59)	Loss Constant	0032	(59)	Carrier value - may vary based on risk premium size
(60)	Loss Constant Charge	0032	(60)	Line (59) if applicable
(61)	Short Rate Cancellation Factor	0931	(61)	Carrier value - zero if short rate cancellation does not apply
(62)	Short Rate Premium	0931	(62)	[(54)+(56)+(58)+(60)]x[(61)-1.0000] if (61) > 0, otherwise zero
(63)	Expense Constant	0900	(63)	Carrier value
(64)	Expense Constant Charge	0900	(64)	Line (63) if applicable
(65)	Minimum Premium	0990	(65)	Carrier value
(66)	Minimum Premium Charge	0990	(66)	If (65)>[(54) +(56)+(58)+(60)+(62)+(64)], (65) -[(54)+(56)+(58)+(60)+(62)+(64)], otherwise zero
(67)	Unit Statistical Report Total Standard Premium		(67)	[(54)+(56)+(58)+(60)+(62)+(66)]
(68)	Premium Discount Amount	0063/0064	(68)	Carrier value based on [(54)+(56)+(58)+(60)+(62)+(64)+(66)]
(69)	Total Premium		(69)	(64)+(67)-(68)
(70)	Employer Assessment Factor Pursuant to Act 57 of 1997 **(PA)**	0938	(70)	Bureau value for the specific purpose of computing employer assessments

Line # (71)	Item Name	Associated Statistical Code	Line # (71)	Source & Derivation
	Employer Assessment Amount Pursuant to Act 57 of 1997 **(PA)**	0938		[(69)-(11)-(58)]x(70) NOTE: Cells (11) and (58) are credits. Subtracting these credits as shown effectively adds the premium reduction given for deductible coverage back into the premium for purposes of calculating employer assessments.

Questions concerning the premium algorithm should be directed to Bruce Decker, Vice President - Public Information & Statistical Reporting, at Extension 223 or bdecker@dcrb.com.

Manual reprints will be distributed in the usual manner.

Timothy L. Wisecarver
President

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