

# Pennsylvania Compensation Rating Bureau

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July 23, 2001

#### **BUREAU CIRCULAR NO. 1421**

To All Members of the Bureau:

# Re: EXCESS LOSS (PURE PREMIUM) FACTORS, STATE AND HAZARD GROUP RELATIVITIES, LOSS ELIMINATION RATIOS, TABLE OF EXPECTED LOSS RANGES EFFECTIVE OCTOBER 1, 2001

The Pennsylvania Compensation Rating Bureau has filed and the Insurance Commissioner has approved revisions to excess loss (pure premium) factors (ELFs), state and hazard group relativities, loss elimination ratios (LERs) and the Table of Expected Loss Ranges **effective 12:01 a.m., October 1, 2001** with respect to new and renewal business only.

Revisions to the subject rating values were deferred when the PCRB prepared and submitted its April 1, 2001 loss cost filing in order to allow additional analysis and verification of the proposed values and their supporting methodology. The review was completed and filed with the Insurance Commissioner in June 2001.

Excess loss pure premium factors (ELFs) recognize employers' elections to limit the amount of individual accidents on retrospective rating plan options negotiated with their insurers. Since losses in excess of the selected limit are omitted from the determination of final retrospective premiums, insurers must collect an insurance charge for the expected value of those loss limitations in order to maintain the actuarial balance of the retrospective rating options. ELFs are multiplied times standard premium to determine the applicable excess loss charges and will vary by loss limitation and hazard group of the employer's governing classification.

State and hazard group relativities are parameters used to refine the application of a common table of insurance charges and savings to multiple jurisdictions under retrospective rating plans. These factors are computed based on loss severities in each state and are applied to expected losses prior to determining the expected loss size range used in obtaining insurance charges and savings from the countrywide Table M.

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Loss elimination ratios (LERs) are required under Act 44 for specified selections of deductible coverage that must be offered subject to insurer underwriting standards. These small deductible plans operate on a per claim basis, as distinguished from the per accident or occurrence basis underlying excess loss factors; otherwise the LERs would be complementary values to the ELFs (i.e., 1.0 – ELF) at common loss limitations.

The National Council on Compensation Insurance, Inc. (NCCI) routinely updates the Table of Expected Loss Ranges for the effects of inflation. NCCI has most recently performed such an update in its Item Filing R-1371. The PCRB has obtained permission from NCCI to adopt the new expected loss size ranges for use in Pennsylvania in order to maintain consistency with other jurisdictions countrywide.

The derivation of ELFs, state and hazard group relativities and LERs all rest in primary part on an analysis of loss distributions. The PCRB has updated its empirical loss distribution using the most recent available data. These distributions have been used to promulgate the proposed ELFs and LERs which were submitted to the Insurance Department. Indicated ELFs using procedures developed by the NCCI were utilized as supporting information for this filing.

As state and hazard group relativities are intended to reflect comparisons between jurisdictions (rather than absolute levels of state-specific experience), the PCRB elected to apply the prescribed national procedure for purposes of establishing these relativities for Pennsylvania.

Exhibits showing ELFs, state and hazard group relativities, LERs and the Table of Expected Loss Ranges are attached. Questions concerning any of these can be directed to Michael J. Doyle, Chief Actuary, at Extension 213 or mdoyle@pcrb.com.

Timothy L. Wisecarver President

kg D Attachment

Remember to visit our web site at www.pcrb.com for more information about this and other topics.

# PENNSYLVANIA Effective Date : October 1, 2001 Excess Loss Pure Premium Factors

| Hazard | Group | Э |
|--------|-------|---|
|--------|-------|---|

|              |        | Hazard G | roup   |        |
|--------------|--------|----------|--------|--------|
| Loss         |        |          |        |        |
| Limit        | I      | II       | III    | IV     |
| \$10,000     | 0.700  | 0.720    | 0.787  | 0.833  |
| \$15,000     | 0.648  | 0.666    | 0.752  | 0.797  |
| \$20,000     | 0.601  | 0.620    | 0.712  | 0.769  |
| \$25,000     | 0.560  | 0.582    | 0.684  | 0.743  |
| \$30,000     | 0.525  | 0.554    | 0.657  | 0.720  |
| \$35,000     | 0.496  | 0.526    | 0.631  | 0.701  |
| \$40,000     | 0.469  | 0.499    | 0.610  | 0.682  |
| \$50,000     | 0.430  | 0.460    | 0.569  | 0.641  |
| \$75,000     | 0.349  | 0.377    | 0.490  | 0.566  |
| \$100,000    | 0.295  | 0.324    | 0.432  | 0.512  |
| \$125,000    | 0.250  | 0.279    | 0.384  | 0.461  |
| \$150,000    | 0.217  | 0.244    | 0.340  | 0.419  |
| \$175,000    | 0.192  | 0.216    | 0.305  | 0.379  |
| \$200,000    | 0.171  | 0.193    | 0.273  | 0.342  |
| \$225,000    | 0.151  | 0.170    | 0.245  | 0.307  |
| \$250,000    | 0.134  | 0.152    | 0.218  | 0.277  |
| \$275,000    | 0.122  | 0.138    | 0.199  | 0.253  |
| \$300,000    | 0.111  | 0.125    | 0.180  | 0.230  |
| \$325,000    | 0.100  | 0.114    | 0.164  | 0.210  |
| \$350,000    | 0.093  | 0.105    | 0.152  | 0.194  |
| \$375,000    | 0.086  | 0.097    | 0.141  | 0.180  |
| \$400,000    | 0.079  | 0.090    | 0.131  | 0.167  |
| \$425,000    | 0.075  | 0.085    | 0.123  | 0.157  |
| \$450,000    | 0.071  | 0.081    | 0.116  | 0.151  |
| \$475,000    | 0.067  | 0.076    | 0.111  | 0.143  |
| \$500,000    | 0.064  | 0.073    | 0.105  | 0.136  |
| \$600,000    | 0.056  | 0.063    | 0.091  | 0.118  |
| \$700,000    | 0.050  | 0.056    | 0.080  | 0.104  |
| \$800,000    | 0.046  | 0.051    | 0.074  | 0.095  |
| \$900,000    | 0.042  | 0.047    | 0.068  | 0.087  |
| \$1,000,000  | 0.0396 | 0.0444   | 0.0640 | 0.0822 |
| \$2,000,000  | 0.0246 | 0.0268   | 0.0374 | 0.0470 |
| \$3,000,000  | 0.0188 | 0.0210   | 0.0279 | 0.0348 |
| \$4,000,000  | 0.0162 | 0.0172   | 0.0231 | 0.0284 |
| \$5,000,000  | 0.0135 | 0.0151   | 0.0199 | 0.0242 |
| \$6,000,000  | 0.0119 | 0.0135   | 0.0177 | 0.0215 |
| \$7,000,000  | 0.0102 | 0.0119   | 0.0166 | 0.0193 |
| \$8,000,000  | 0.0096 | 0.0102   | 0.0150 | 0.0182 |
| \$9,000,000  | 0.0089 | 0.0096   | 0.0135 | 0.0167 |
| \$10,000,000 | 0.0080 | 0.0087   | 0.0126 | 0.0160 |
|              |        |          |        |        |

#### PENNSYLVANIA SMALL DEDUCTIBLE PROGRAM EFFECTIVE DATE: OCTOBER 1, 2001

#### Loss Elimination Ratios

| Deductible | Hazard Group            |  |  |  |
|------------|-------------------------|--|--|--|
| Level      | I II III IV             |  |  |  |
|            |                         |  |  |  |
| \$ 1,000   | 7.9% 7.6% 4.1% 2.0%     |  |  |  |
| \$ 5,000   | 22.6% 21.7% 16.0% 12.4% |  |  |  |
| \$ 10,000  | 30.8% 29.3% 21.7% 17.6% |  |  |  |

## PENNSYLVANIA STATE AND HAZARD GROUP RELATIVITIES EFFECTIVE DATE : OCTOBER 1, 2001

| Hazard Group | Factor |
|--------------|--------|
| 1            | 1.014  |
| II           | 0.939  |
| III          | 0.693  |
| IV           | 0.548  |

# Pennsylvania Compensation Rating Bureau

## 2001 - TABLE OF EXPECTED LOSS RANGES

The following Table of Expected Loss Ranges is effective October 1, 2001

## NCCI ITEM R - 1371 - 2001 UPDATE TO RETROSPECTIVE RATING PLAN PARAMETERS

| 94     672     994     64     38939     42056     34       93     995     1312     63     42057     45422     33       92     1313     1735     62     45423     49058     32  | Range<br>Rounded \( \) 449651 504855 566838 646367 742957 |                                      |
|--|---|--------------------------------------|
| 95     430     671     65     36053     38938     35       94     672     994     64     38939     42056     34       93     995     1312     63     42057     45422     33       92     1313     1735     62     45423     49058     32 | 449651<br>504855<br>566838<br>646367<br>742957            | 504854<br>566837<br>646366<br>742956 |
| 94     672     994     64     38939     42056     34       93     995     1312     63     42057     45422     33       92     1313     1735     62     45423     49058     32  | 504855<br>566838<br>646367<br>742957                      | 566837<br>646366<br>742956           |
| 94     672     994     64     38939     42056     34       93     995     1312     63     42057     45422     33       92     1313     1735     62     45423     49058     32  | 504855<br>566838<br>646367<br>742957                      | 566837<br>646366<br>742956           |
| 93     995     1312     63     42057     45422     33       92     1313     1735     62     45423     49058     32   | 566838<br>646367<br>742957                                | 646366<br>742956                     |
| 92 1313 1735 62 45423 49058 32   | 646367<br>742957  | 742956                               |
|  | 742957  |                                      |
|  |   | 853981                               |
| 91 1736 2257 61 49059 52985 31   |   | 000001                               |
|  |   |                                      |
| 90 2258 2725 60 52986 57238 30   | 853982  | 981599                               |
| 89 2726 3290 59 57239 61888 29   | 981600  | 1166840                              |
| 88 3291 3819 58 61889 66821 28 1   | 166841  | 1395287                              |
| 87 3820 4433 57 66822 71996 27 1   | 395288  | 1668462                              |
| 86 4434 5142 56 71997 77572 26 1   | 668463  | 2056868                              |
|  |   |                                      |
| 85 5143 5815 55 77573 83581 25 2   | 056869  | 2617424                              |
| 84 5816 6574 54 83582 90374 24 2   | 617425  | 3330748                              |
| 83 6575 7424 53 90375 97745 23 3   | 330749  | 4256111                              |
| 82 7425 8260 52 97746 105720 22 4  | 256112  | 5446097                              |
| 81 8261 9191 51 105721 114342 21 5   | 446098  | 6968796                              |
|  |   |                                      |
| 80 9192 10224 50 114343 123387 20 6  | 968797  | 8917234                              |
|  | 917235  | 11410444                             |
| 78 11376 12553 48 133127 143703 18 11  | 410445  | 15651781                             |
| 77 12554 13820 47 143704 156342 17 15  | 651782  | 23148859                             |
|  | 148860  | 34236979                             |
|  |   |                                      |
| 75 15217 16721 45 170092 185049 15 34  | 236980  | 50636219                             |
|  | 636220  | 74890565                             |
|  | 890566  | 110762548                            |
|  | 762549  | 173385693                            |
|  | 385694  | 274365607                            |
|  |   |                                      |
| 70 23955 26129 40 266907 294958 10 274   | 365608  | 434156275                            |
|  | 156276  | & over                               |
| 68 28500 30900 38 325959 360215  |   | 2. 270.                              |
| 67 30901 33376 37 360216 400481  |   |                                      |
| 66 33377 36052 36 400482 449650  |   |                                      |

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