

December 10, 2008

## **VIA HAND DELIVERY**

The Honorable Joel Ario Insurance Commissioner Commonwealth of Pennsylvania Insurance Department 1311 Strawberry Square Harrisburg, PA 17120

Attention: Chuck Romberger

RE: Bureau Filing No. C-356 - April 1, 2009 Loss Cost Filing

Dear Commissioner Ario:

On behalf of the members of the Pennsylvania Compensation Rating Bureau (PCRB), I am filing herewith workers compensation loss costs, rating values and rules proposed to be **effective 12:01 a.m., April 1, 2009** with respect to new and renewal policies having normal anniversary rating dates on or after that date.

This filing proposes an overall average increase in loss costs (prior to application of the assessment for the Office of the Small Business Advocate, Pennsylvania Construction Classification Premium Adjustment Program loadings, Merit Rating Plan off-balance and Certified Safety Committee loadings) of 0.70 percent effective April 1, 2009.

This letter and its attachments present a discussion and explanation of the filing's supporting analysis and conclusions based thereon and are presented in the following topical sequence:

- Summary
- Principal Findings and Conclusions
- Recognition of Effects of Prior Legislation
- Loss Development
- Trend
- Indicated Change in Loss Costs
- Employer Assessment Factor and Loss Cost Loadings
- Experience Rating Plan Procedures and Parameters
- Optional Retrospective Loss Development Factors
- Classification Loss Cost Relativities

- Hepatitis C Loss Cost Surcharges
- Excess Loss (Pure Premium) Factors, State and Hazard Group Relativities and Loss Elimination Ratios
- Manual Language Revisions

#### **SUMMARY**

In preparing and reviewing supporting information for this filing, the PCRB has attempted to identify and estimate the relative contributions to the filed overall loss cost indication arising from several factors. The resulting attribution of effects upon the overall loss cost indication is set forth below:

1)	Changes in indemnity loss experience from provisions in approved April 1, 2008 loss costs	1.001672
2)	Changes in medical loss experience from provisions in approved April 1, 2008 loss costs	0.968863
3)	Changes in indemnity trend rate and period from provisions in approved April 1, 2008 loss costs	1.032152
4)	Changes in medical trend rate and period from provisions in approved April 1, 2008 loss costs	1.005306
5)	Indicated change in loss costs effective April 1, 2009 (1) x (2) x (3) x (4)	1.0070

Line 5) above combines the separate effects described in Lines 1) through 4) by compounding the individual increases or reductions in loss cost indications, resulting in the proposed loss cost increase of 0.70 percent (1.0070 - 1.0000 = + 0.0070).

The PCRB has generally employed procedures and analyses consistent with those supporting previous annual rating value filings for purposes of Bureau Filing No. C-356. In selected portions of this filing, however, the methodologies used to review available experience and/or the approaches ultimately selected for use in preparing the filing do differ from recent PCRB practices. The following areas of Filing No. C-356 are identified as having the more significant departures from methodologies of previous filings:

#### Hazard Group Assignments

The National Council on Compensation Insurance, Inc. (NCCI) has recently expanded their hazard group assignments from four to seven. This change allows more homogeneous groupings of classifications according to the potential for serious loss arising from the types of business assigned to a given hazard group. In the interest of maintaining consistency with practices in other jurisdictions and to accomplish a similar improvement in the differentiation of loss potential based on hazard group assignment, the PCRB is proposing an expansion of the previous four hazard groups (I through IV) into seven hazard groups (A through G).

Recognizing that some carriers may prefer or even need to retain four hazard groups for processing purposes, the PCRB is following the convention established by NCCI in allowing a translation from the new seven hazard groups to a set of four alternative hazard groups. This translation will be accomplished by combining Hazard Groups A and B into Hazard Group 1, combining Hazard Groups C and D into Hazard Group 2, combining Hazard Groups E and F into Hazard Group 3 and labeling Hazard Group G as Hazard Group 4.

Work pertaining to hazard group assignments in this filing is principally shown in Exhibit 24a. Additional portions of the filing's supporting materials reflecting and/or affected by these changes include but may not be limited to Exhibits 23, 24, 25, 28 and the "Index and Supporting Classification Exhibits".

# Excess Loss Factors and Loss Elimination Ratios

One of the key areas of application for hazard groups is in the promulgation and publication of excess loss factors. Consistent with the above-referenced expansion of hazard groups in Pennsylvania, the PCRB has developed excess loss factors for each of the new seven hazard groups and for the new set of four consolidated hazard groups. In the computation of those excess loss factors a number of analytical changes were employed, notably the following:

In previous filings the PCRB has developed and trended indemnity losses by type of injury but had developed and trended medical losses in the aggregate. For Filing No. C-356 the PCRB has developed and trended medical losses by type of injury.

As a means of smoothing results obtained from fitting selected curves to size-of-loss distributions by type of injury and weighting the results for each hazard group, the PCRB has also employed a step of fitting curves through average claim values across all hazard groups for each type of injury. This step is a new refinement to procedures previously employed.

Work pertaining to excess loss factors in this filing is principally shown in Exhibit 23. Work pertaining to loss elimination ratios in this filing is principally shown in Exhibit 25. Additional portions of the filing's supporting materials may reflect and/or be affected by these changes.

#### • State and Hazard Group Relativities

In Filing No. C-356 the PCRB has used NCCI countrywide average claim severities as the credibility-weighted complement to average claim size by Pennsylvania hazard group. In previous filings the statewide indicated average claim size for Pennsylvania had been assigned the complement of hazard group average claim size in these calculations.

Work pertaining to state and hazard group relativities in this filing is principally shown in Exhibit 24. Additional portions of the filing's supporting materials may reflect and/or be affected by these changes.

# <u>Employer Assessment</u>

In previous filings the PCRB has derived the PCRB membership's share of budgetary provisions for such items as the Administration Fund and the Supersedeas Fund. For Filing No. C-356, the Bureau of Workers Compensation has provided those PCRB membership share amounts directly to the PCRB, and we have used them without further adjustment or allocation.

Work pertaining to hazard group assignments in this filing is principally shown in Exhibit 13. Additional portions of the filing's supporting materials reflecting and/or affected by these changes include but may not be limited to the Brown Book, Page 2.

# Claim Frequency Trend

As has been the case in many previous PCRB filings, an extensive review of available claim frequency data was conducted in support of Filing No.I C-356. In prior filings exponential trends in claim frequency were selected based on specified numbers of prior policy year data points. The review of claim frequency data done for this filing disclosed a tendency for improvements in claim frequency to occur at diminishing levels in recent years. That observation led to the selection of a curve form consistent with that observed pattern. In essence, the nature of available data for this filing was different from that used in prior filings, leading to an approach most compatible with all available current information.

Work pertaining to hazard group assignments in this filing is principally shown in Exhibit 8. Additional portions of the filing's supporting materials reflecting and/or affected by these changes include but may not be limited to Exhibits 6, 10, 12 and the Brown Book, Pages 18 and 19.

# PRINCIPAL FINDINGS AND CONCLUSIONS

The following comments summarize the most important considerations and concepts pertinent to each of the specific factors contributing to the overall loss cost indication as set forth above.

Changes in Indemnity Loss Experience from Provisions in Approved April 1, 2008 Loss Costs

The PCRB's analysis of the most recent available experience data for indemnity benefits produces estimates of loss costs slightly higher than the expectations underlying the current schedule of PCRB rating values. For this filing, the PCRB has again adjusted available historical indemnity data to be consistent with provisions of Act 57 of 1996 (Act 57) and applied benefit on-level factors to adjust historical indemnity data to a post-Act 44 of 1993 basis (Act 44) before proceeding with our loss development and trend analyses.

Besides statutory changes, indemnity experience is affected by a variety of additional factors. These include ongoing interpretation and administration of various provisions of the Workers Compensation Act. The initiation and/or continuation of various accident prevention and loss

management programs by the Commonwealth, insurers and employers may affect loss experience. Economic conditions and fraud detection, prosecution and/or prevention initiatives have potential direct and indirect influences on the workers compensation system of the Commonwealth and its costs. Circumstances in the administrative system by means of which claims for work-related injuries and illnesses are processed and disputes pertaining thereto are resolved may alter system experiences and costs. These and other similar considerations are reflected in experience data and are thereby incorporated into the loss development analyses performed in conjunction with each PCRB loss cost filing.

The net effect of all factors that have affected indemnity loss experience in the current filing would be to increase the overall loss cost indication by approximately 0.17 points.

# Changes in Medical Loss Experience from Provisions in Approved April 1, 2008 Loss Costs

Consistent with the approach adopted in prior recent filings, the PCRB has continued to state medical loss experience on a post-Act 44 basis. While the PCRB's analysis of medical loss experience suggests that the favorable effects of Act 44 on workers compensation medical costs in Pennsylvania remain substantially in place, a separate analysis of the direct effects of that important legislation on current and prospective loss cost levels is not possible with historical data organized and adjusted as has been done for several previous filings to date.

While certain provisions of the Workers Compensation Act and supporting administrative system are specific to medical benefits instead of indemnity benefits, medical losses are also generally subject to influence by the same system considerations as enumerated above for indemnity losses. The PCRB's most recent evaluation of medical loss experience shows a decrease in loss cost levels from those contemplated in the April 1, 2008 filing, resulting in an incremental decrease in the overall loss cost indication of approximately 3.11 points.

# <u>Changes in Indemnity Trend Rate and Period from Provisions in Approved April 1, 2008</u> <u>Loss Costs</u>

In the April 1, 2008 Loss Cost Filing, the PCRB's trend provisions were based upon separate analyses of claim frequency and claim severity experience for the Pennsylvania workers compensation system.

Based on available data from internal sources, the PCRB had established loss ratio trends that projected observed claim frequency trends through the midpoint of Policy Year 2005. The April 1, 2008 filing then anticipated that further improvement in claim frequency would continue at an annual trend rate of –6.4 percent, based on observed claim frequency trend over the policy year period 1999-2005 inclusive.

For this filing, the PCRB has updated the available information from internal sources pertaining to claim frequency that was used in previous filings and has applied the most recent available data to its trend analysis.

The most recent available data continues to show improvements in claim frequency but at a rate that has been slowing over the past few years. In recognition of this feature of the experience data, PCRB has applied a curve-fitting technique to historical claim frequencies to project future claim frequencies to the mid-point of the policy period for which the new rating values are proposed. The curve form used for this purpose is as shown below:

y = 1/(a + b \* x) where

y = claim frequency,

- a = a constant based on a least-squares fit to the most recent seven years of claim frequency data, and
- x = The policy year for which claim frequency is being determined, with Policy Year 2000 = 1, Policy Year 2001 = 2, etc.

This curve form produces continuing improvements in claim frequency over the forecast period for this filing but at decreasing rates of change year-over-year. For the overall trend projection in this filing, the effective annual rate of claim frequency change is -4.9 percent.

Components of trend other than claim frequency, collectively referred to herein as "severity trend" for sake of brevity, have been reviewed using commonly accepted and applied trend models applied to the PCRB's estimated ultimate on-level loss ratios, adjusted for effects of previous changes in claim frequency. Testing done by the PCRB in regard to this trend analysis indicates that goodness-of-fit results for indemnity experience is improved significantly by virtue of the separation of trend into frequency and severity components instead of treating loss ratios alone.

The trend models thus produced show indemnity severity trends, which had declined to an annual rate of approximately +3.3 percent in last year's filing, has remained stable at that same level (+3.3 percent) for this filing.

On balance, the selected future claim frequency trend and the indicated indemnity claim severity trend, applied in this filing to the mid-point of the proposed schedule of loss costs, would support an increase of approximately 3.22 points from those approved effective April 1, 2008.

# <u>Changes in Medical Trend Rate and Period from Provisions in Approved April 1, 2008</u> <u>Loss Costs</u>

The claim frequency trend discussed above with respect to indemnity benefits has also been applied for medical benefits. Medical severity ratios have been separately analyzed based on the same experience period used for indemnity benefits.

The severity trend model selected for this filing shows medical severity trends somewhat lower than those present in the information supporting the April 1, 2008 Loss Cost Filing (+7.1 percent per year), averaging approximately +5.8 percent per year in this analysis.

On balance, the selected continuation of favorable claim frequency trend and nominally decreasing medical claim severity trend applied in this filing to the mid-point of the proposed schedule of loss costs would increase the proposed loss costs from those approved effective April 1, 2008 by approximately 0.53 points.

# RECOGNITION OF EFFECTS OF PRIOR LEGISLATION

The predominant legislative changes which must be recognized in preparing and reviewing this filing are Act 44 of 1993 and Act 57 of 1996.

Act 44 included the medical cost containment features listed below:

- Implementation of a reimbursement mechanism related to the Medicare system of compensating providers of medical goods and services.
- Authorization of administrative systems that provide both utilization review and peer review of the necessity, appropriateness and reasonableness of fees for medical services.
- Authorization for coordinated care organizations intended to provide comprehensive medical services that recognize timely return to work for injured workers as a primary objective of the workers compensation system.
- Extension of the period of time within which employers may direct injured workers to use medical practitioners selected from a listing of qualified practitioners provided by the employer from 14 to 30 days.

In preparing its April 1, 1999 Loss Cost Filing, the PCRB first adopted an approach of stating experience incurred prior to the implementation of this law on an effective "post-Act 44" basis. Prior to adopting this approach, the PCRB had performed extensive testing of this approach and comparison of results obtained thereby to alternative methods incorporated in previous loss cost filings. This filing continues the procedures first implemented with the April 1, 1999 filing. This analytical approach precludes a new and independent evaluation of the continuing effects of Act 44 on loss costs for each filing. However, it also has many substantial benefits, including efficiency, tractability and the elimination of otherwise remaining requirements to "adjust" the most recent and critical calendar years' experience for effects of law changes occurring several years ago.

In its February 1, 1997 Loss Cost Filing, the PCRB had estimated effects of three key provisions of Act 57 on prospective loss costs. Those provisions were as follow:

- Section 204 Allows for offsets to workers compensation indemnity benefits otherwise payable to recognize Social Security old age benefits, certain employer-funded pension benefits and/or severance benefits.
- Section 306 Applies the American Medical Association Guides for the Evaluation of Permanent Impairment to determinations of which cases will be qualified for total disability benefits and, alternatively, which cases will be treated as permanent partial disability cases.

 Section 309 - Revises the procedures applicable to the establishment of workers' wages for purposes of determining indemnity benefit rates.

In each loss cost filing submitted subsequent to February 1, 1997, various technical updates and/or revisions to the original estimates of effects of this legislation have been incorporated as appropriate.

For reasons analogous to those supporting adjustment of prior medical experience to a post-Act 44 basis in preparing the April 1, 1999 Loss Cost Filing, the PCRB adopted a comparable approach for indemnity experience in the April 1, 2000 Loss Cost Filing as respects Act 57. As was the case in the transition for medical experience, the PCRB had previously extensively tested its adjustment of prior data for sensitivity and had verified the equivalence of this approach to the prior procedure. That prior procedure continued to adjust experience incurred after the effective date of the law to a pre-Act 57 basis, producing preliminary filing estimates and then applying savings factors to arrive at a final loss cost indication.

It should be understood that the transition of the PCRB's filing analyses from "pre-law" to "post-law" bases for Acts 44 and 57 does not remove or reduce the favorable impacts of these two important pieces of workers compensation legislation from the filing indications. Neither does this change signal deterioration in the PCRB's perspective about the magnitude of the effects that these laws have had and continue to have on Pennsylvania loss costs. Rather, these analytical changes simply allow the effects of these laws to be incorporated more directly and efficiently into ongoing loss cost filings' supporting information.

The Table I prepared from reported financial data in support of this filing and stated on a post-Act 44 basis for medical losses and a post-Act 57 basis for indemnity losses, as described above, is shown in Exhibit 5 of the enclosures to this filing. Details of adjustment of reported indemnity and medical data is provided in Exhibit 5. As respects the small effects of Act 44 on indemnity losses, the PCRB elected for the first time in preparing its April 1, 2006 filing to adjust historical indemnity loss data for the effects of that legislation. This approach, which has also been applied in preparing this filing, treats the indemnity revisions enacted with Act 44 in the same fashion as previous filings have addressed the medical provisions of Act 44 and the indemnity changes of Act 57, thereby eliminating the need for application of a subsequent savings factor.

#### LOSS DEVELOPMENT

While the establishment of appropriate levels of loss costs is ultimately a prospective process, a great deal of the supporting analysis and information required in this endeavor pertains to the estimation of loss experience for PRIOR policy periods. Proper evaluation of previous loss experience establishes reference points from which projections of future loss cost requirements can be made and in the context of which such projections can be reviewed for reasonableness. In simple terms, future loss cost needs cannot reasonably be estimated without first establishing what prior loss cost experience has been.

In preparing this filing and particularly in regard to the estimation of policy year loss ratios, the PCRB has been mindful of numerous technical and analytical considerations. Among the pertinent processes and procedures applied to this filing are the standards set forth in the Casualty Actuarial Society's "Statement of Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves" (Principles). A discussion of those Principles, as they pertain to analysis supporting this filing, is included as a separate enclosure with this filing. In this filing the PCRB has applied both case-incurred loss development and the longest-term paid loss development method possible with available data in its analysis of loss experience for prior policy periods. In addition, as was the case for each April 1 loss cost filing since 2002, the PCRB has included loss estimates derived by averaging results from a case-incurred loss development method and for this filing. This last approach is one alternative (and in some respects a particularly direct) way of balancing the potentially different results from caseincurred and paid loss development methods than the combined development approaches previously applied. Results of these loss development methods are set forth in detail in Exhibits 6, 7 and 10 of the enclosures. This analysis and conclusions drawn therefrom are further described below:

<u>Indemnity Losses</u> – As has now been the case in many previous PCRB filings, a relatively broad range of results was obtained from the application of the loss development approaches described above to indemnity losses. The case-incurred loss development method gave lower estimates of policy year losses than did the long-term paid loss development method.

The PCRB believes that compromise and release and/or other case settlement activity continue to be important factors within the most recent years' of available loss development experience. In recent loss cost filings the PCRB has reported that, in many cases, compromise and release settlement amounts were being recorded either exclusively as indemnity amounts or with a disproportionately large allocation to indemnity, when compared to the anticipated future liabilities prior to the recognition and application of the compromise and release settlement. This appeared to result from various system limitations and/or coding procedures in evidence for many (but not all) carriers. The PCRB has expressed the opinion that, as a result of this tendency, indemnity loss development might be artificially inflated, while medical loss development might be artificially deflated to an undeterminable extent. As discussed in previous PCRB filings, progress toward developing a broad ability to account separately for indemnity and medical components of compromise and release settlements still appeared, at last report, to be forthcoming only on a fragmented and gradual basis.

As the indications derived from supporting information for this filing using this averaging process fall, as would be expected, in the mid-range of estimates produced for each policy year, the PCRB has again selected these average indications as the basis for this filing's analysis of appropriate loss cost indications.

<u>Medical Losses</u> - As has been the case in other recent PCRB loss cost filings, the results produced when applying the loss estimation methods described above to medical losses are much closer together than is the case for indemnity benefits. (See Page 10.2 of Exhibit 10 of the enclosures to this filing for a graph illustrating some of these differences.) Consistent with

the above discussion of loss development for indemnity losses, the PCRB has also selected estimates of prior policy year medical losses, based on the average of a case-incurred loss development approach and the longest-term paid loss development method supported by currently available financial data (a paid-to-20th report method) for use in this filing.

# **TREND**

<u>Indemnity Trend</u> - Insurance experience available for analysis in promulgating loss costs is necessarily limited to policy periods <u>previously completed</u>. On the other hand, the loss costs being determined will apply to some <u>future</u> period. As can readily be seen in the preceding review of policy year loss ratios for this filing, insurance experience often reflects substantive changes over time in response to various economic, legal and social changes. As a result, the establishment of an appropriate overall loss cost change must recognize the time period that is interposed between the historical experience and the application of the new loss costs. This recognition is provided through "trend" analysis, a means of measuring any persistent, systemic changes in experience expected to occur in that interim period of time.

One commonly-applied method of establishing a provision for trend is to attempt to measure year-to-year changes occurring in historical information using mathematical techniques. Based on such measurements, a selected measure(s) is/are applied for the period of time required to connect the available prior experience to the prospective pricing period. The mathematical approaches most often used in this regard involve the fitting of selected curves through the observed historical data and basing the average change or trend rate on the characteristics of the curve(s) that best fit that prior experience.

Two curves usually considered in this type of analysis are a straight line (or "linear" model) and an "exponential" model. The linear model is based on a determination of the constant <u>amount</u> of change in loss ratios which best fits the observed historical data; the exponential model is based on a determination of the constant <u>percentage</u> change in loss ratios which best fits the observed historical data.

In preparing each of the last ten Pennsylvania loss cost filings (beginning with April 1, 1999 and continuing through April 1, 2008), the PCRB has separated its trend analysis into two component parts: claim frequency and severity factors. Based on detailed analysis of both internal and outside data (when available and credible) pertaining to these phenomena (and, in particular, pertaining to claim frequency), the PCRB has selected methods and/or parameters to estimate trends for each of these component parts. This approach has sometimes allowed the PCRB to capitalize on available external data pertaining to injury and illness counts and claim frequency and ultimately provided a basis for selection of prospective loss ratio trends based on specific analysis and review of claim frequency data and experience.

The trend provisions incorporated into the April 1, 2008 filing were premised on claim frequency and severity trends as measured within historical PCRB data, effectively assuming that those trends would continue through the prospective rating period for both indemnity and medical losses.

Based on separate measures of policy year loss ratio trend and claim frequency trend, implied severity trends have been identified in the supporting information for this filing. An exponential trend model, based on the seven policy years from 2000 through 2006 inclusive, was selected for use in this filing as the measure of historical indemnity severity ratio trend. The indicated indemnity severity trend inherent in PCRB indemnity experience is equivalent to an annual increase of approximately +3.3 percent per year, the same rate obtained in a similar analysis one year ago.

The PCRB's most pertinent information pertaining to claim frequency compares indemnity claims incurred to expected losses at a constant (current) loss cost level. The expected losses used to compute claim frequencies in the PCRB's internal data respond to changes in the mix of employments being insured and for which claims are being reported and also incorporate ongoing changes in wage levels in Pennsylvania. As there has been a tendency for the Pennsylvania economy to become more service-oriented and less focused on manufacturing and contracting, this shift has itself contributed to lower claim counts over time.

Historical claim frequency data shows a protracted and persistent trend of declining claim frequencies now extending back for at least 16 years. Setting aside a brief period of three policy years (1994 – 1996) during which the observed declines approached or exceeded double-digit rates of decline, the long-term trends in claim frequency have fallen in a relatively narrow range. Since the extraordinary double-digit declines noted above ended in 1996, claim frequency continued to fall at annual rates generally in the six percent per year range for most experience periods extending through Policy Year 2005.

For this filing, claim frequency data is available through Policy Year 2006. In reviewing historical changes in claim frequency, the PCRB has now noted that the rate of improvement in claim frequency has been slowing over the past few years. This phenomenon is illustrated in the series of claim frequency changes taken from Exhibit 8 of this filing and reproduced for reference below:

Policy Years Included	Average Annual Rate of Change in Claim Frequency*
2000 - 2006 (7 years)	-6.1%
2001 - 2006 (6 years)	-6.0%
2002 - 2006 (5 years)	-6.1%
2003 - 2006 (4 years)	-5.6%
2004 - 2006 (3 years)	-5.5%
2005 - 2006 (2 years)	-3.4%

<sup>\*</sup> Based on PCRB Unit Statistical Data Excluding Large Deductible Business

As a further observation about recent changes in the rate of improvement in claim frequency, the PCRB notes that the three smallest declines in claim frequency since 1994 (as shown on Page 3 of Exhibit 8) all happened within the last five years shown on that page.

Based on a review of past changes in claim frequency, PCRB has fitted a curve through the most recent seven years of claim frequency data. The curve form used in this analysis was as shown following:

y = 1/(a + b \* x) where

y = claim frequency,

- a = a constant based on a least-squares fit to the most recent seven years of claim frequency data, and
- x = The policy year for which claim frequency is being determined, with Policy Year 2000 = 1, Policy Year 2001 = 2, etc.

This curve form produces successively smaller improvements in claim frequency as time goes on, thus emulating the behavior observed in the most recent four data points shown above. Across the entire period of trend projections for this filling, this fitted curve produces an average annual decrease of 4.9 percent in claim frequency.

The PCRB would point out that, regardless of the respective component(s) that may be producing changes in trend, loss cost indications are relatively sensitive to such changes. Even a relatively nominal deterioration in claim frequency and/or claim severity trend(s) from the provisions incorporated in this filing could render the indemnity trend used for this filing significantly understated.

<u>Medical Trend</u> - The PCRB has proceeded in a manner as respects medical trends similar to that described above for indemnity trend in preparing this filing.

An exponential trend model, based on the seven policy years from 2000 through 2006 inclusive, was selected for use in this filing as the measure of historical medical severity ratio trend. This model gives significant credence to changes in policy year loss ratios seen in recent years in Pennsylvania.

For this filing, this trend model produces an effective trend model in which on-level medical severity ratios are increasing at a rate of approximately +5.8 percent per year. The same claim frequency trend as was used for indemnity benefits has been applied to medical losses.

The comments offered above with respect to indemnity losses regarding the sensitivity of loss cost indications and the potential effects of even relatively small adverse changes in claim frequency or claim severity trends are equally applicable to medical losses.

#### INDICATED CHANGE IN LOSS COSTS

Exhibit 12 enclosed in support of this filing presents the derivation of indicated changes in collectible loss costs effective April 1, 2009. The indicated change in collectible loss costs is derived based on estimates of prior policy year loss ratios, including the effects of Act 44

on both indemnity and medical benefits and of Act 57 on indemnity benefits. These estimated policy year loss ratios are then trended forward to the mid-point of the proposed loss costs (April 1, 2010). The loss ratio thus estimated is 1.0070. Since in the PCRB's loss cost filings the target loss ratio is 1.0000, this result supports the proposed 0.70 percent increase in current loss costs for the policy period beginning April 1, 2009.

Recognizing expected changes in experience modifications during the period for which the proposed loss costs will apply, the average change proposed in manual loss costs is a decrease of 0.51 percent. By industry group the proposed average changes in manual loss costs effective April 1, 2009 are:

Manufacturing -0.24% Contracting -0.32% All Other -0.68%

These indicated changes to manual loss costs were derived by industry group on Page 1 of Exhibit 12, using information regarding the historical operation of the Experience Rating Plan (see Exhibits 18 and 19 of the enclosures to this filing). Anticipated collectible premium ratios are compared to provisions in current rates, with the ratios used to adjust the proposed change in collectible loss costs to appropriate manual levels on the bottom of Page 1 of the Exhibit 12.

#### EMPLOYER ASSESSMENT FACTOR AND LOSS COST LOADINGS

In each recent loss cost filing, the PCRB has reviewed experience pertinent to the employer assessment factor to be applied to Pennsylvania workers compensation business in accordance with Act 57 of 1997. Exhibit 13 enclosed presents a summary of the PCRB's determination of the appropriate employer assessment factor. Due primarily to the impact of increased budgetary provisions for the Administration Fund, the proposed employer assessment provision is 0.0241, as compared to the currently-approved provision of 0.0226.

The provision for assessments supporting the Office of the Small Business Advocate, which continues to be part of proposed PCRB loss costs, is proposed to remain at 0.0001.

PCRB loss costs continue to include adjustments for the effects of the Merit Rating Plan and the Certified Safety Committee Program. The Merit Rating Plan increment factor is proposed to be 0.0029, nominally less than the 0.0031 value approved effective April 1, 2008. The Certified Safety Committee Program increment factor is proposed to change from 0.0110 to 0.0114. These proposed values are shown in Exhibit 13 and are separately derived in Exhibits 15 and 16.

This filing also proposes to update classification loss costs to reflect indicated loadings for the Pennsylvania Construction Classification Premium Adjustment Program (PCCPAP).

Since 1991 the PCCPAP program has been in effect for designated construction classifications. This program offers tabular premium credits to employers subject to those specified classifications that demonstrate the payment of wages above certain threshold

levels. The PCCPAP program had been revised effective January 1, 2002 to eliminate adjustment of experience modifications in recognition of the effects of PCCPAP credits as the approved means of avoiding providing redundant credits. The adjustment of experience modifications had been seen as a potential impediment to participation in the program. The revised plan makes adjustment within the computation of the credits themselves for the effect of high wages on experience modifications. Manual loss costs for each construction classification then incorporate "offsets" intended to recover the premium credits given to higher-wage employers from all employers insured in each construction classification. Thus, the PCCPAP program is intended to be "revenue-neutral" and should reallocate premium obligations between low- and high-wage employers without either increasing or reducing the overall amount of premium collected in these classifications.

For this filing the PCRB has been able to analyze participation in this program and the level of credits generally obtained by participating employers in each classification using the most recent available experience. Results of that analysis and proposed PCCPAP loads on loss costs by classification are included as Exhibit 14 of the enclosures to this filing.

Available experience, as summarized on Exhibit 14, produces a revised average indicated PCCPAP offset of 3.42 percent of loss costs, up nominally from the current average of 3.35 percent.

The proportion of construction industry premiums and payrolls represented by eligible employers seeking and/or qualifying for credit under the plan has decreased slightly in the most recent available experience. Those risks that did qualify for PCCPAP credits produced somewhat higher average credits than had been the case in the recent past.

In addition, Exhibit 14 reveals that there continue to be material differences between construction classifications in terms of the portion of employers receiving PCCPAP credits and/or the level of credits provided to such employers. Proposed offsets range from 0.10 percent in Code 662, Appliance Service or Repair, to 9.89 percent in Code 649, Ceiling Installation.

## **EXPERIENCE RATING PLAN PARAMETERS**

The Experience Rating Plan provides a prospective means of recognizing differences in loss potential between employers. This recognition is accomplished by means of a comparison of each qualifying employer's loss and exposure experience over a specified period of time (experience period) to the average experience of all employers engaged in similar businesses.

As part of each loss cost filing, the PCRB reviews the results of its Experience Rating Plan and proposes certain updates or revisions to the plan as are deemed necessary or appropriate to maintain the effective operation of the plan.

Effective April 1, 2004, the Experience Rating Plan was materially revised. Changes adopted at that time included a revised credibility table (generally assigning increased credibility to smaller risks' experience and lower credibility to larger risks' experience than had the legacy

Experience Rating Plan) and a new loss limitation procedure in which all losses were limited to a flat amount of \$42,500 (instead of employing a sliding scale of loss limitations that increased with risk size). In addition, a 25 percent limitation was imposed on the extent to which an employer's experience modification could change (up or down) in any one year.

Recognizing the significant changes recently adopted with respect to the Experience Rating Plan, the PCRB has constructed the analytical exhibits pertaining to this plan and offered in support of this filing by applying the revised Experience Rating Plan to prior rating periods. This approach effectively demonstrates what the performance of the new plan would have been, rather than displaying what the performance of the legacy plan actually was.

Exhibit 18a of the enclosures to this filing presents a detailed analysis of results of the new Experience Rating Plan within each industry group over the most recent available five years. These analyses are set forth in tabular form by premium size group and experience modification range by year. Exhibit 19 of this filing presents summaries of collectible premium ratios and detail of the derivation of expected loss cost factors supporting the Experience Rating Plan parameters proposed in this filing. Exhibit 18a is constructed to show the results of the Experience Rating Plan before the application of capping procedures to individual employer modifications.

Effective April 1, 2006 the PCRB modified the previously-adopted capping procedures so that, if an employer's indicated modification was below 1.000 but the capped modification was above 1.000, then a unity modification (a modification factor of 1.000) would be applied.

Exhibit 18b presents a summary page of data comparable to the summary in Exhibit 18a but constructed to reflect results of experience rating after the effects of all currently-approved capping procedures.

The changes in collectible premium ratios presented on Exhibit 19 must be accounted for in establishing manual levels of loss costs, as shown on the bottom portion of Page 1 of Exhibit 12.

Final Experience Rating Plan parameters proposed in this filing are shown in Exhibit 27 and Exhibit 28.

# **OPTIONAL RETROSPECTIVE LOSS DEVELOPMENT FACTORS**

Because loss valuations tend to change (and generally to increase) over time, some retrospective rating plans provide for application of development factors to preliminary loss reports in computing retrospective premiums. The PCRB has historically presented appropriate voluntary loss development factors based on aggregate PCRB experience as part of its filings for use by carriers and insureds in negotiating and agreeing upon their retrospective rating plans.

Exhibit 26 of the enclosures to this filing shows the PCRB's proposed optional retrospective loss development factors on an unlimited basis. In addition, the PCRB includes in its Manual reference to the formula for adjusting unlimited loss development factors to limited bases by reference to the ELFs described above. That formula is also shown in Exhibit 26 for reference.

# **CLASSIFICATION LOSS COST RELATIVITIES**

Workers compensation insurance is written under a classification system that provides varying rating values for different types of businesses, based on the risk of loss inherent in those businesses subject to each distinct classification. As a result, any overall loss cost indication must ultimately be apportioned to each individual classification with due recognition given to the comparative experience of employers subject to each classification.

In preparing individual classification loss costs for this filing, the PCRB has continued to apply pricing procedures established as a result of a 1994 study of the classification plan conducted in cooperation with the Insurance Department, Milliman & Robertson, Inc. and the Commonwealth Contractors' Coalition. These procedures have been used and approved in several previous PCRB loss cost filings.

Exhibit 17 of the enclosures to this filing provides an overview of the classification loss cost formulae utilized in preparation of this filing. These procedures are consistent with previously-submitted and approved methods.

The PCRB has elected for purposes of this loss cost filing to apply "swing limits" or allowable fluctuations in classification loss costs of 25 points above and below the average loss cost change within each industry group. In addition, the PCRB applies a testing procedure to identify potential significant reversals in classification loss cost changes relative to overall average indications year-after-year and intervenes where such indicated changes exceed selected amounts. These swing limits apply to "pure" loss costs, which include an adjustment for the operation of the Experience Rating Plan. The values so determined are subsequently adjusted to include appropriate provisions for the following items:

- Offsets for net Merit Rating Plan credits
- Offsets for Pennsylvania Construction Classification Premium Adjustment Program credits
- Offsets for Certified Safety Committee credits
- Assessment for the Office of the Small Business Advocate

The Index to Classification Exhibits and the accompanying Class Book in the filing enclosures present detail of the experience and loss cost indications derived for each classification in this filing. Within the Index to Classification Exhibits, certain parametric components of the classification loss cost review process are presented, and the bases for establishing credibility tables applicable to both payroll and expected losses are provided. Summary unit statistical data pertinent to the classification experience analysis is also included as Exhibits 20a, 20b and 20c of the enclosures to this filing.

Item 8 within the Index to Classification Exhibits presents identification of several classifications in which some form of selection or other intervention in the statistical procedures generally applied to the determination of classification loss costs was deemed appropriate. The bases for loss cost selection include special pricing procedures (for example, the explosives, aircraft and temporary staffing classifications), allocation of loss costs between ratable and non-ratable components, recognition of statutory provisions for occupational disease benefits, combinations of separately-defined codes for purposes of determining loss costs and/or responses to data reassignments occurring during the latter stages of classification pricing analysis.

Item 11 of the Index to Classification Exhibits presents "Supplemental Class Book Pages" detailing the derivation of loss costs for classifications treated in combination or subject to reassignments of data from/to another class(es). The Class Book presents detail of the experience and loss cost indications derived for each individual classification in this filing, performed without special consideration using the proposed procedures.

The loss costs developed in accordance with the procedures set forth on Exhibit 17 and presented in portions of the Index to Classification Exhibits and the Class Book exclude the following considerations previously discussed in this letter:

- PCCPAP offsets from Exhibit 14
- Merit Rating Plan credit offsets derived in Exhibit 15
- Offsets for Certified Safety Committee credits derived in Exhibit 16
- Assessment loading for the Office of the Small Business Advocate shown in Exhibit 13

The loss costs prior to application of these latter considerations may be thought of as "pure" loss costs and are the values to which the loss cost change limitations or "swing limits" have been applied.

For this filing, consideration was given to past filings' changes by classification relative to average or overall indications in making final rating value selections. This procedure mitigated what otherwise would have been substantial fluctuations above and below average levels between successive filings for a limited number of classifications.

Exhibit 28 in support of this filing presents a complete table of proposed loss costs and expected loss factors pertinent to the Experience Rating Plan. Exhibit 29 presents both summary results and classification detail of the PCRB's tests of proposed loss costs against intended levels. Finally, Exhibit 30 depicts in graphic form the distribution of percentage changes in classification loss costs on both an indicated and proposed basis. Classifications subject to capping are also identified.

#### **HEPATITIS C LOSS COST SURCHARGES**

HB 1633, enacted in December 2001, established a rebuttable presumption of work-related causality for Hepatitis C, if contracted by professional and volunteer firefighters, volunteer ambulance corps personnel, volunteer rescue and lifesaving squad personnel, emergency services personnel and paramedics.

For the April 1, 2003 Loss Cost Filing, the PCRB researched available public documentation and some selected independent reports provided by their authors toward the objective of establishing a benchmark set of surcharges to reflect the increased claims potential precipitated by HB 1633. Selected surcharge amounts were included with that filing for the following classification codes:

Code 807, Non-Volunteer Ambulance Services Code 985, Salaried Police or Firefighters Code 993, Volunteer Ambulance Corps Code 994, Volunteer Fire Companies

After review of the April 1, 2003 filing by the Insurance Department, surcharge amounts originally proposed for the above-cited classifications were amended to reflect available information regarding the incidence of Hepatitis C in the general U.S. population. For the loss cost filings made since 2003, procedures consistent with those approved levels of surcharges were retained, and those procedures are continued for purposes of this filing.

# EXCESS LOSS (PURE PREMIUM) FACTORS, STATE AND HAZARD GROUP RELATIVITIES AND LOSS ELIMINATION RATIOS

PCRB loss cost filings typically include rating values pertinent to various rating plans affected by the size of loss for individual claims or occurrences insured there under. Some such plans provide limitations applicable to the amount(s) of loss that can be used in computing a retrospective premium. Other portions of this analysis facilitate the application of standard tables to Pennsylvania business.

The NCCI recently adopted a set of seven hazard groups (designated as Hazard Groups A through G), which provided for more homogeneous groupings of classifications according to the potential for more serious losses arising from the businesses included in each hazard group than had the previous hazard group assignments (consisting of only four hazard groups, (I through IV).) For this filing PCRB has proposed a revised, expanded set of hazard groups intended to be as consistent with those of NCCI as possible, given the many and sometimes profound differences in classification plans in effect in Pennsylvania and NCCI jurisdictions, respectively.

Exhibit 24a accompanying this filing presents material related to the establishment of the new Pennsylvania hazard groups and the procedure for translating those new hazard groups into a set of four hazard groups for use on an elective basis by carriers preferring the simpler set of hazard groups and/or having system considerations arising from the expansion of hazard group assignments from four to seven.

Exhibit 22 shows empirical size-of-loss distributions for Pennsylvania workers compensation business. Actual excess loss indications for loss levels below \$500,000 were combined with excess loss indications derived by fitting either Single Parameter Pareto Distributions or Lognormal Distributions to empirical data by type of loss (death, permanent total, permanent partial and temporary total).

Exhibit 23 shows the derivation of excess loss (pure premium) factors from the loss distributions produced in Exhibit 22. Average claim size by hazard group and type of injury were used, together with incurred loss weights by type of injury within each hazard group, to derive excess loss factors at selected size-of-loss limits by hazard group for Hazard Groups A through G and for the translated set of four Hazard Groups 1 through 4. Excess loss factors consistent with PCRB's 2008 filing but reflecting the revised Hazard Groups A through G and 1 through 4 were produced for purposes of comparison to show the effects of new data and procedural changes in the derivation of excess loss factors.

Exhibit 24 presents the derivation of state and hazard group relativities for Hazard Groups A through G and 1 through 4 in the proposed filing.

Exhibit 25 provides loss elimination ratios consistent with specified deductible levels subject to mandatory offer for coverage in Pennsylvania. These loss elimination ratios were also provided for Hazard Groups A through G and 1 through 4, consistent with the excess loss factors noted above. Some computational steps were required to derive loss elimination ratios for \$1,000 deductibles because PCRB's approved Statistical Plan allows "bulk reporting" of losses below \$2,000 per claim.

# MANUAL LANGUAGE REVISIONS

Proposed Manual language to accomplish the changes described briefly below is included in this filing.

# • Designated Auditable Payrolls

The filing proposes updates to several of these values for the continuing effects of wage inflation, including specifically the following:

<u>Executive officers</u> - the maximum auditable payroll is proposed to change from \$1,950 to \$2,000 per week.

<u>Taxicab operators for leased cab</u> - the annual auditable payroll, absent available payroll records, proposed to change from \$38,950 to \$40,350.

<u>Salaried police or firefighters</u> - the minimum auditable payroll proposed to change from \$3,900 to \$4,050 per year.

Specific Manual language proposed in support of the above changes is provided under cover of a staff memorandum dated November 14, 2008 which accompanies this filing.

This filing, Bureau Filing No. C-356, fully and fairly reflects the most recent available experience indications in Pennsylvania, together with all initial and continuing effects of both Act 44 and Act 57. The PCRB respectfully requests a timely review of this filing toward the objective of its implementation, as proposed, on a new and renewal basis effective April 1, 2009. In requesting review of this filing, the PCRB is especially hopeful that adequate and appropriate advance notice of final loss costs and related rating values may be given to all participants in the Pennsylvania marketplace. Such notice would, of course, be assisted by as prompt and expeditious a review of this matter as possible. Toward that objective, the PCRB will be pleased to answer any questions or provide any available supplementary information which you or your staff may require.

Sincerely,

Timothy L. Wisecarver President

TLW/ka

Enclosures: **Brown Book** 

Actuarial and Classification & Rating Committees Minutes

Discussion of Casualty Actuarial Society's "Statement or Principles Regarding Property and Casualty Loss and Loss Adjustment Expense Reserves"

Index and Supporting Classification Exhibits

Class Book

Timothy L. Wisecawer

Exhibit	5	Table I - Summary of Financial Call Data
Exhibit	6	Paid & Incurred Loss Development & Trend
Exhibit	7	Tail Factors for Loss Development
Exhibit	8	Claim Frequencies
Exhibit	9a	Measures of Goodness of Fit in Trend Calculations Using Loss Ratios
Exhibit	9b	Measures of Goodness of Fit in Trend Calculations Using Sever

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Exhibit 10	Graphs of Indemnity and Medical Loss Ratios
Exhibit 11a	Retrospective Test of Trend Projections for Loss Ratios
Exhibit 11b	Retrospective Test of Trend Projections for Severity Ratios
Exhibit 12	Indicated Change in Loss Costs
Exhibit 13	Loss-Based Assessments and Employer Assessment Factor

Exhibit 14 Pennsylvania Construction Classification Premium Adjustment Program ("PCCPAP")

Merit Rating Plan Off-Balance Indications Exhibit 15

Pennsylvania Certified Safety Committee Program Offset Exhibit 16

Exhibit 17 Loss Cost Formulae

Exhibit 18a	Review of Experience Rating Plan Results - Uncapped Experience Modification Values			
Exhibit 18b	Review of Experience Rating Plan Results – Capped Experience Modification Values			
Exhibit 19	Review of Experience Rating Plan Parameters			
Exhibit 20a	Table II			
Exhibit 20b	Table III			
Exhibit 20c	Table IV			
Exhibit 22	Empirical Pennsylvania Loss Distribution			
Exhibit 23	Proposed Excess Loss (Pure Premium) Factors			
Exhibit 24	State & Hazard Group Relativities			
Exhibit 24a	Classification Hazard Group Reassignment			
Exhibit 25	Loss Elimination Ratios			
Exhibit 26	Retrospective Development Factors			
Exhibit 27	Table B			
Exhibit 28	Loss Costs and Expected Loss Factors			
Exhibit 29	Tests of Indicated & Selected Loss Costs			
Exhibit 30	Distribution of Loss Cost Percentage Changes			
Exhibit 31	Hepatitis C Surcharge			
Staff Memorandum of November 14, 2008 - Proposed Revisions to Designated Auditable Payrolls				