# Delaware Compensation Rating Bureau, Inc.



August 12, 2011

#### **VIA OVERNIGHT DELIVERY**

The Honorable Karen Weldin-Stewart, CIR-ML Insurance Commissioner Insurance Department State of Delaware 841 Silver Lake Boulevard Dover, DE 19904-2465

Attention: Gene Reed

RE: Bureau Filing No. 1105

Workers Compensation Residual Market Rate and Voluntary Market Loss Cost Filing Proposed Effective December 1, 2011 (Selected Portions Effective June 1, 2012)

Dear Commissioner Weldin-Stewart:

On behalf of the members of the Delaware Compensation Rating Bureau, Inc. (DCRB), I am filing herewith proposed revisions to:

- Delaware's Residual Market Plan for workers compensation insurance
- Loss costs and related rating values for use in the voluntary workers compensation insurance market in Delaware
- Amendments to selected Manual rules and forms in Delaware

This filing is made in compliance with provisions of H.B. 241, workers compensation insurance legislation enacted in 1993. Most of these revisions are proposed to be **effective** on a new and renewal basis for workers compensation insurance policies with normal anniversary rating dates on or after 12:01 a.m., **December 1, 2011**. The portions of this filing updating the table of qualifying wages and credits for the Delaware Construction Classification Premium Adjustment Program are proposed to be **effective** on a new and renewal basis for workers compensation policies with normal anniversary rating dates on or after 12:01 a.m., **June 1, 2012**.

The following narrative will provide you with a summary discussion of the content, background and supporting information for this filing. Attachments to this letter comprise the balance of the filing and provide pertinent detail information regarding the proposed residual market rates, voluntary market loss costs, rating values, supplementary rate information and classification procedures and supporting information for this filing.

#### I: CONTENT OF THE FILING

The DCRB continues to be mindful of provisions of the Court of Chancery Memorandum Decision and Order dated July 24, 2009 and of the requirements of that decision as it applies to this filing. Accordingly, the proposed residual market rates, voluntary market loss costs and minimum premiums by classification submitted herewith <u>do</u> include the mandated reductions, which represent five percent of December 1, 2008 rating values. Those proposed rating values are shown in the accompanying Exhibits 41, 46 and 47. The DCRB would point out that the December 1, 2008, December 1, 2009 and December 1, 2010 filings each incorporated mandated reductions of six percent of December 1, 2008 rating values and that, effective with the December 1, 2012 DCRB filing, no further reductions will be required pertaining to the Court of Chancery decision.

The reductions required by the Court of Chancery decision are unrelated to the DCRB's ongoing compilations and analysis of workers compensation experience data in Delaware. Application of those reductions, in fact, first requires that a set of rating values be established that would be applicable <u>but for</u> the Court of Chancery decision. Accordingly, the following discussion of this filing and its supporting information and the extensive complement of exhibits which serves as the supporting information for this filing do, and necessarily must, generally <u>exclude</u> consideration of the Court of Chancery decision but for the concluding Exhibits 41, 46 and 47 noted above.

The DCRB is providing this commentary as assurance to the Commissioner that the Court of Chancery decision <u>is</u> reflected in this filing and as explanation of <u>how</u> that recognition was accomplished, so that a review of the filing and its supporting information can be accomplished without otherwise possible confusion about the interpretation and/or application of various parts of the filing documentation.

The Chancery Court's July 24, 2009 Memorandum Opinion and Order mandates reduction of residual market rates and voluntary market loss costs over a period of four years beginning December 1, 2008 in the cumulative amount of 23 percent of December 1, 2008 rate levels as a means of transferring savings on claims predating the implementation of medical cost containment provisions of Senate Bill 1 from insurers to employers.

The Opinion and Order's mandate poses serious and abiding conflicts for the DCRB in terms of its statutory responsibilities and for DCRB staff in terms of professional Standards of Practice applicable to the promulgation of insurance rates. Accordingly, the DCRB hereby advises your office as follows:

- The rating values submitted herewith do not comply with applicable Standards of Practice of the Casualty Actuarial Society (CAS), in part because they are not expected to be adequate to provide for the cost of providing insurance during the policy period to which they will apply. In addition to Principle 1 of the CAS Statement of Principles Regarding Ratemaking, the prospective adequacy of such rating values is required under the Delaware Code (T. 18., §2604(a)).
- The rating values submitted herewith are also not limited to prospective loss costs as defined and required by T. 18., §2610(b)(1) of the Delaware Code and as specified in the first sentence of the Principles Section of the CAS Statement of Principles Regarding Ratemaking.

#### **A: RESIDUAL MARKET RATES**

Delaware law requires that a "residual market plan" be filed with the Insurance Commissioner by the advisory organization. Residual market coverage is provided under the auspices of the Delaware Workers Compensation Insurance Plan (Plan). Employers unable to obtain workers compensation insurance in the voluntary market may apply to the Plan, whereupon an insurance carrier is assigned to administer coverage for that employer, either as a servicing carrier on behalf of the Plan or on a direct-assignment basis.

Historically, rates for the Plan have been promulgated based on statewide experience. Since August 1, 1997, employers insured in the Plan which are eligible for experience rating and which produce an experience modification greater than 1.000 in accordance with the approved Experience Rating Plan have been subject to a surcharge program. This surcharge program is intended to provide incentives for employers to improve their workers compensation loss experience and/or to secure workers compensation coverage from the voluntary market. In the DCRB's residual market rate and voluntary market loss cost filings since the inception of the surcharge program, the expected amounts of such Plan surcharges were accounted for in the form of nominal offsets to proposed voluntary market loss costs. This filing proposes to continue the practice of using statewide experience for purposes of deriving the indicated overall residual market rate change. The filing also proposes to maintain a Plan surcharge program sensitive to individual risk experience and to reduce voluntary market loss costs to the extent necessary to offset the expected amount of Plan surcharges thus generated. The average change in collectible rate level for the residual market prior to the effect of Plan surcharges proposed in this filing is an increase of 22.30 percent.

The components of the proposed overall change in residual market rates are set forth following, in descending order of their impact on the filing indication:

### Component Analysis of Indicated December 1, 2011 Change in Residual Market Rates

(1)	Indicated change in rates from 2009 claim frequency increase	1.1108084
(2)	Indicated change in rates from other expenses	1.0485997
(3)	Indicated change in rates from limited medical loss experience	1.0300879
(4)	Indicated change in rates from limited indemnity loss ratio trend	1.0231069
(5)	Indicated change in rates from July 1, 2012 benefit change	1.0046000
(6)	Indicated change in rates from limited indemnity loss experience	1.0043823
(7)	Indicated change in rates from excess medical loss provision	1.0036870
(8)	Indicated change in rates from excess indemnity loss provision	1.0008670
(9)	Indicated change in rates from loss adjustment expenses	1.0008106
(10)	Indicated change in rates from loss-based assessments	0.9991694
(11)	Indicated change in rates from limited medical loss ratio trend	0.9829340
	Indicated overall change in rates (1) $x$ (2) $x$ (3) $x$ (4) $x$ (5) $x$ (6) $x$ (7) $x$ (8) $x$ (9) $x$ (10) $x$ (11) rounded to 4 decimal places	1.2230

In preparing the above decompositions of the proposed overall change in residual market rates into discrete components, it was necessary to serially measure the impact of the change in each component of interest, while keeping all other variables constant. In this exercise, nominal differences in the attributed impact of most specific variables occur when the sequence of calculating the effects is changed. Thus, the above values are reasonable representations of the observed impacts of each variable, but some differences in results could be obtained through alternative analytical approaches. Such differences would be offsetting, however, and would not affect the overall rate level change itself.

Among the numerous factors for which the DCRB has accounted as contributing to the proposed rate level change, the 2009 claim frequency increase is the most significant single item and accounts for approximately half of the total residual market rate increase indication. Other components of the residual market rate change which individually exceed an effect of one percent on the residual market rate change are other expenses, limited medical loss experience and limited indemnity loss ratio trend. As can be seen above, nine of the 11 factors quantified with respect to the residual market rate level change indication cause some level of increase, and only one of the 11 factors (limited medical loss ratio trend) contributes any significant offset to the overall increase indication.

#### **B: VOLUNTARY MARKET LOSS COSTS**

Since the enactment of H.B. 241 in 1993, Delaware law has applied a "loss cost" approach to pricing of workers compensation insurance written in the voluntary market. Under this system, the advisory organization (i.e., the DCRB) filings are limited to prospective loss costs, policy forms, uniform classification and experience rating plans and rules, and supporting information relating thereto. Advisory organization filings specifically exclude provisions for profit or for expenses other than loss-adjustment expenses and loss-based assessments. Provisions for profit and expenses other than loss-adjustment expenses and loss-based assessments are incorporated into voluntary market workers compensation rates by virtue of competitive filings made by each insurer. Insurer expense filings may adopt by reference, with or without deviation, loss costs filed by the advisory organization or the rates and supplementary information filed by another insurer.

Consistent with past practice, in this filing the DCRB has derived indicated changes in voluntary market loss costs directly from the proposed residual market rate change discussed above. This derivation is accomplished by removing from those rate proposals the combined effects of all provisions for profit and expenses other than loss-adjustment expenses and loss-based assessments. As a result, like the proposed changes in Plan rates, these proposed revisions in overall voluntary market loss costs are based on statewide experience.

The proposed premium structure for residual market rates in this filing is shown on the following page, with comparative values from the approved current rates for ease of reference.

<u>ltem</u>	Current Provision  As a Percent of Premium	Proposed Provision As a Percent of Premium
Loss	64.48	60.51
Loss-Adjustment Expense	9.92	10.50
Commission	5.76	4.80
Other Acquisition	2.85	2.38
General Expenses	3.03	3.38
Premium Discount	8.25	8.53
State Premium Tax	2.00	2.00
Other State Taxes	0.38	0.37
Uncollectible Premium	2.50	2.00
Administrative Assessment*	2.48	2.42
Workers Compensation Fund	3.00	3.50
Underwriting Profit	(4.65)	(0.39)

<sup>\*</sup> Denotes loss-based assessment

Under Delaware law, loss-adjustment expenses and loss-based assessments are included in the loss costs filed by the DCRB. Thus, in combination, the provisions for loss, loss-adjustment expense and loss-based assessments account for 73.43 percent of the DCRB's proposed Plan rates (60.51 + 10.50 + 2.42 = 73.43). The DCRB's proposed voluntary market loss costs in this

filing are thus based on rating values computed by multiplying the proposed Plan rates (before application of some applicable surcharges) by a factor of 0.7343. This approach produces an average indicated increase in voluntary market loss costs of 16.81 percent that can be computed as follows:

$$1.2230 \times .7343 / .7688 = 1.1681$$

In the above equation, 0.7343 is the portion of <u>proposed</u> residual market rates attributable to loss costs, loss-adjustment expense and loss-based assessments, and 0.7688 is the portion of <u>current</u> residual market rates attributable to loss costs, loss-adjustment expense and loss-based assessments (i.e., 64.48 + 9.92 + 2.48 = 76.88).

The proposed increase in voluntary market loss costs is attributable to the same factors previously identified in the discussion of residual market rates, except that the effects of expense provisions other than loss-adjustment expense and loss-based assessments do not apply to loss costs.

It is important to note that the net effect of the proposed loss costs on ultimate prices for employers that will be insured in the voluntary market (the majority of all insured risks) may differ significantly from employer-to-employer and from insurer-to-insurer. Workers compensation insurance prices for these employers will be a function of individual carrier decisions as respects profit and expense provisions. Further, each carrier may elect to use the DCRB's loss costs by reference, to deviate from those loss costs, to file independent loss costs or to use loss costs filed by another insurer by reference. In addition, employers may obtain their future workers compensation insurance from a different insurance carrier than the carrier providing their current policy, further expanding the range of possible price changes that individual risks may experience. This complexity is a natural consequence of the competitive pricing system implemented under H.B. 241 in Delaware and is analogous to circumstances in many other states also having adopted competitive pricing systems for workers compensation insurance.

Taking into account the required reductions under the Chancery Court Memorandum Opinion and Order, residual market rates proposed in this filing reflect reductions below indicated levels averaging 5.30 percent from current levels (equivalent to 5.00 percent of December 1, 2008 rate levels) and voluntary market loss costs reflect reductions below indicated levels averaging 5.60 percent of December 1, 2008 levels (also equivalent to 5.00 percent of December 1, 2008 loss cost levels). For individual classifications these reductions, as previously calculated, filed by the DCRB and approved by the Insurance Commissioner, will vary above or below these average levels depending on changes in each classification's rating values since December 1, 2008.

#### C: RESIDUAL MARKET SURCHARGE

Experience of employers insured under the Plan in Delaware has historically presented an aggregate loss ratio higher than that of employers insured in the voluntary market. Consistent with that observation, the loss ratio of Plan accounts was higher than that of voluntary business by more than 25 percent in the period 2004–2008.

During the late 1980s and early 1990s, Delaware had seen persistent increases in the portion of the market insured in the Plan. In previous response to these concerns, the DCRB filed and the Insurance Commissioner approved a Plan surcharge program in 1997 that incorporated the following features:

- Surcharges are limited to risks eligible for experience rating and only apply to risks with debit experience modifications (i.e., those employers with demonstrably worse than average experience).
- To avoid redundant or inequitable penalties, surcharges are applied only to the extent that
  each employer is not fully credible in the Experience Rating Plan. This procedure assesses
  larger proportional surcharges to small employers, who are largely protected from the effects
  of their own experience in the Experience Rating Plan, but reduces surcharges applicable to
  larger employers whose premiums significantly respond to their own loss records.
- Surcharges are limited to the debit portion of each risk's experience modification. This
  limitation provides a smooth transition from non-rated to experience-rated risks and/or from
  small experience rating credits to small experience rating debits.

The surcharge expressed as a factor to be applied to standard premium is computed using the following formula:

0.50 x (1.000 - risk credibility in the Experience Rating Plan)

As noted above, Plan loss ratios continue to be higher than those of the voluntary market. The portion of the Delaware workers compensation market insured under the Plan began to increase in 2000 and continued to rise substantially through 2004. Since then, the residual market share has declined from a peak of approximately 22 percent. For this filing, the Plan market share is estimated at 4.88 percent. This estimate is based on the most recent available policy year, 2010, and represents the sixth year in succession in which the Plan market share appears to have decreased compared to the previous year, although the rate of decrease has slowed noticeably in 2010 compared to prior years.

This filing retains the above-described Plan surcharge program as a disincentive for employers to have their Delaware workers compensation insurance coverage placed in the Plan.

The DCRB estimates that the above-described surcharge program will produce an average surcharge for subject risks of approximately 22.5 percent of premium. Recognizing that some employers insured in the Plan do not qualify for experience rating and that other employers insured in the Plan qualify for experience rating but produce credit modifications, the surcharges produced by the proposed procedure would represent approximately 8.8 percent of total Plan premium.

The full amount of this surcharge premium is recognized in the promulgation of proposed voluntary market loss costs for this filing. This approach allows a reduction of manual loss costs by approximately 0.45 percent and essentially produces three different benchmark loss cost levels underlying workers compensation insurance rates in Delaware. These different underlying loss cost levels are as defined below:

- 1. Plan risks subject to surcharges (highest level depending on individual risk experience)
- 2. Plan risks not subject to surcharges (based on statewide average experience)
- 3. Voluntary market risks (based on statewide average experience reduced by offset for surcharges applied to first group above)

The DCRB believes that this Plan surcharge proposal remains an equitable and reasonable step toward reducing Plan subsidies and providing meaningful disincentives for placement of employers in the Plan. We are encouraged that, since the 2005 authorization of the establishment of a Carrier Pricing Benchmark application on the DCRB's website (assisting producers and/or employers in identifying alternative sources for workers compensation insurance and the benchmark rating values in effect for each licensed carrier by risk classification) and the 2006 approval from the Insurance Department and Delaware Department of Labor for publication of Plan depopulation reports on its website as a further means of addressing the size of the Plan in Delaware, Plan volumes have been decreasing. These and other possible future endeavors will be focused on maintaining the Delaware Insurance Plan at as small a portion of the overall workers compensation market as possible.

#### D: MANUAL LANGUAGE AND AUDITABLE PAYROLLS

This filing includes proposals to update prevailing Manual language in Delaware. A brief synopsis of those proposals is set forth following for ease of reference.

#### Delaware Construction Classification Premium Adjustment Program (DCCPAP)

It is proposed to update the reference to calendar quarter(s) used as the basis for determining qualifying wages for the DCCPAP and to update the table of qualifying wages underpinning that program consistent with recent changes in the Statewide Average Weekly wage in Delaware.

<u>Corporate Officer Weekly Minimum and Maximum Payrolls to be Audited in Delaware and</u> Premium Determination for Sole Proprietors or Partners

Also based on changes in the Statewide Average Weekly Wage since the DCRB's last revisions to auditable payrolls, this filing proposes a nominal change to Manual language related to auditable payrolls (the maximum weekly payroll applicable to corporate officers and to sole proprietors and partners absent records of actual remuneration).

#### **E: OTHER FILING PROVISIONS**

In addition to proposed Plan rates, voluntary market loss costs and residual market surcharges, this filing addresses a number of rating values, programs, rules and procedures which are integral parts of the Delaware workers compensation insurance system. In general, the filing's proposals simply reflect parametric changes in various rating values consistent with the most recent available Delaware experience. Detailed information supporting each of these proposals is provided elsewhere in this filing. Brief synopses of each of these issues and their purposes are provided immediately following for reference purposes.

<u>ITEM</u>	<u>PROPOSAL</u>	<u>PURPOSE</u>
DCCPAP Program	Revise manual rating value offsets & wage table	Maintain revenue balance of program

NOTE:	The table of qualifying wages and credits for DCCPAP is proposed to be	
	effective June 1, 2012.	

Minimum premium (residual market)	Update minimum premium parameters	Update values for wage inflation
Excess loss factors	Update ELFs	Maintain accuracy of rating values per current data
Excess loss premium factors	Update ELPFs	Maintain accuracy of rating values per current data
Experience Rating Plan	Update rating values	Reflect current experience
Retrospective rating	Revise optional development factors and tax multiplier	Reflect current experience
Small Deductible Program	Revise existing premium credit and loss elimination ratio schedules	Reflect current experience
Workplace Safety Program	Revise manual rating value offsets	Maintain revenue balance in program

ITEM PROPOSAL PURPOSE

Merit Rating Plan Revise manual rating Maintain revenue

value offsets balance in program

Minimum and Maximum Revise current values Updates values for

Corporate Officer Payrolls wage inflation

### **II: SUPPORTING INFORMATION FOR THE FILING**

Attached exhibits and materials provide technical support for each of the proposals advanced in this filing. For purposes of understanding and in order to highlight some of the more important aspects of the technical analysis that the DCRB has undertaken in the preparation of this filing, the following discussion will address each of the listed topics in turn:

- A: Effects of large losses on experience analysis
- B: Estimation of limited policy year ultimate loss and loss adjustment expense ratios
- C: Trend provisions for limited loss experience
- D: Determination of the proper permissible loss ratio for proposed residual market rates
- E: Considerations pertaining to the approved Experience Rating Plan in Delaware

These subject areas embrace the primary determinants of the proposed changes in residual market rates and voluntary market loss costs.

#### A: EFFECTS OF LARGE LOSSES ON EXPERIENCE ANALYSIS

Workers compensation benefits include partial wage replacement during periods of inability to work, various forms of permanent disability awards, and payment of costs of medical and rehabilitative services necessary to gain maximum medical improvement from the effects of work-related injuries and illnesses. In concert, these benefits and, in particular, medical benefits can produce extremely large obligations in individual cases. Claims incurring benefits totaling millions of dollars can and do occur. The analysis performed by the DCRB in reviewing prevailing residual market rates and voluntary market loss costs must include reasonable provisions for the potential for such occurrences but attempts to avoid being unduly impacted by the occurrence (or absence) of rare or unusual claims. Historically, the DCRB has considered the extent to which large claims have been present in Delaware experience and has employed various techniques designed to accomplish these stated objectives. The DCRB's prior filings had, on occasion, excluded a specific policy year from the determination of prospective trend factors when the policy year in question contained an unusually large loss, since such a policy year would tend to overstate future trends if it were to be included as a new trend point, and it would subsequently understate those trends if it were included as an old trend point.

In its annual experience filings effective December 1, 2004 and later, the DCRB has applied procedures that perform loss development and trend analyses on a "limited" basis and then account for the expectation that claims exceeding the selected limit would occur from time-to-time by adding an excess loss factor to the rate level analysis.

This filing has again approached loss development and trend analysis on a limited loss basis. This work was initially performed with loss amounts stated prior to the estimated effects of Senate Bill 1 (SB1). Prior to determining the effect of loss limitation on the indicated rating value changes, the loss limit was adjusted to be stated on a post-SB1 basis. The methods and steps applied to that purpose are outlined briefly below:

- The December 1, 2004 loss limit (\$1,500,000) and the associated excess loss factor (0.757) were taken as a key reference point for determination of appropriate loss limitations for this filing.
- Approved excess loss factor tables prior to December 1, 2004 were used to establish loss limitations consistent with an excess loss factor of 0.0757.
- An annual trend rate was computed for the series of loss limits established in the previous step described above.
- Loss limits were interpolated for each policy period prior to December 1, 2004 based on the trend in loss limits through December 1, 2004.
- Loss limitations consistent with an excess loss factor of 0.0757 for filings through December 1, 2010 were used to derive a post-2004 annual trend rate.
- Loss limits were projected for each policy period subsequent to December 1, 2004 based on the trend in loss limits through December 1, 2010.
- A series of loss limitations was selected for previous policy years consistent with the
  trend through December 1, 2004, applied retrospectively from that date, and consistent
  with the trend from December 1, 2004 through December 1, 2010 applied prospectively
  from December 1, 2004, such that losses were capped at successively lower levels for
  older policy years, recognizing the impacts of wage and price inflation and potential
  changes in utilization over time. For policy years prior to 1983, a constant loss limitation
  of \$395,600 was applied.
- Reported paid and case-incurred losses were adjusted as needed to limit underlying loss data to the selected limitations by policy year.
- Loss development analysis was performed using the limited loss data produced above.
- Trend analysis was accomplished by dividing the observed limited loss ratios into separate components for claim frequency and claim severity, and prospective trends were selected for each component.
- A loss limitation was selected for the prospective rating period based on the post-2004 projections. This selection was \$2,630,000 on a pre-SB1 basis. This loss limitation was then adjusted to a post-SB1 basis, which resulted in a loss limitation of \$2,221,303.

- The percent of losses that the selected loss limitations would be expected to remove from Delaware experience was determined.
- Trended limited loss ratios were adjusted to an unlimited basis by application of an excess loss factor, from which point the rate level analysis could proceed in the usual fashion.

Limiting losses in the course of the filing analysis and accounting separately for expected losses in excess of the effect of the applied limit(s) is a viable means of tempering the potential effects of relatively rare, large claims on rating value change indications. The intent of this approach is to smooth year-to-year results without either raising or lowering rating values over the longer term. In any given filing, the use of a limited loss approach may give either higher or lower results than would a counterpart unlimited method. While other methods could also be considered for this purpose, the DCRB believes that a limited loss technique is the most appropriate available approach to the current filing.

Discussion of the DCRB's estimation of policy year ultimate loss and loss-adjustment expense ratios and trend provisions following below are offered and should be read in the context of the loss limitation procedure outlined above.

# B: ESTIMATION OF POLICY YEAR ULTIMATE LOSS AND LOSS ADJUSTMENT EXPENSE RATIOS

Much of the analytical effort required in workers compensation insurance ratemaking is devoted to the evaluation of loss experience from prior periods of time. The following points are important in considering this aspect of workers compensation ratemaking:

- Results of past experience form a vitally important base of knowledge from which prospective estimates pertinent to ratemaking are generally made.
- Because workers compensation losses may be paid out over an extended period of time
  after the occurrence of an accident and the filing of a claim, results of recent periods of
  experience must themselves be estimated before ratemaking analysis based on those prior
  periods of time may proceed.

The DCRB has considered the matter of estimating ultimate policy year loss and loss-adjustment expense ratios at length in the preparation of this filing. Various actuarial methods were tested prior to the final selection of estimates used in support of this filing. In evaluating results of these methods, information gleaned from the DCRB's Unit Statistical Plan data was also taken into account.

In estimating ultimate policy year loss ratios for indemnity benefits, the paid loss development and case-incurred loss development methods gave similar results across all policy years. Differences between these approaches were less than five percent in all but three policy years.

In seven policy years the case-incurred loss development method gave a higher result than did paid loss development, while in 13 policy years the reverse was true. Adding the indemnity loss ratio estimates for the two methods across the 20 most recent policy years gave totals that were different by less than 0.8 percent.

Review of Unit Statistical Plan data showed claim closure rates that did not exhibit notable patterns of either accelerating or slowing down in the most recent available period.

With the benefit of extensive staff review and discussion by both the Actuarial and Classification and Rating Committees, the DCRB has based estimates of ultimate indemnity losses in the filing on the average of the case-incurred loss development method and paid-loss development applied over as long a development period as is available from the DCRB's data, with case-incurred loss development used for the remaining development to an ultimate basis.

This filing's indemnity loss development methodology has been used as the basis for the DCRB's annual rating value filings made each year since and including 2002.

Estimated ultimate medical losses were significantly more sensitive to the choice of loss development method than was the case for indemnity losses. For medical loss estimates, differences between these estimates exceeded five percent in 14 of the 20 most recent completed policy years, and the case-incurred loss development method gave higher results in 19 of the 20 most recent policy years. Adding the medical loss ratio estimates for the two methods across the 20 most recent policy years gave totals that were different by approximately 7.1 percent, with the case-incurred method's total being the higher of the two.

In applying its loss development methods the DCRB has again used the following procedures to smooth fluctuations arising due to the limited volume of data available for the analysis:

- Use of four-year average loss development factors
- Smoothing of loss development factors using various mathematical models and curves fitted through the observed multi-year averages
- Using trend procedures which rely on multi-year averages rather than individual year ultimate loss and loss-adjustment expense ratios

A comparison of results of loss development methods used in the filing may be seen on the enclosed Exhibit 2 at the top of Page 2.5 for indemnity loss and at the top of Page 2.17 of the same exhibit for medical loss.

#### C: TREND PROVISIONS

Historical data available for ratemaking relates to prior periods ending some time before the preparation of a filing. Often the available historical data will exhibit a propensity to change in some general fashion over time. Each DCRB filing applies to a prospective period of time beginning well after the end of the available historical data. Thus, it is necessary to account for

any anticipated continuation of (or deviation from) observed historical tendencies for loss ratios to change over time during the period between the end of the available data and the policy period to which the proposed rates will apply. This accounting is accomplished using various forms of "trend" analysis.

In support of each of its rating value filings submitted in the Years 2002 – 2010 inclusive, the DCRB adopted a trend approach that separated policy year loss ratio trends into "severity" and "frequency" components. As this alternative approach provides greater detail about significant features of Delaware workers compensation experience and allows more informed and specific judgments about probable future experience, the DCRB has also applied this approach to the preparation of this filing. The procedure used and results thus obtained are described further below.

Policy year on-level ultimate loss ratios were adjusted to a series of "severity ratios" by removing the effects of actual observed changes year-to-year in the frequency of indemnity claims per unit of expected loss at a constant DCRB rate level. The series of severity ratios thus obtained are representative of the policy year loss ratios that would have applied absent any change in underlying claim frequency and, thus, may be thought of as a series of indices of claim severity. Loss ratio trends, then, are derivable as the combined result of separately determined trend provisions applicable to claim frequency and claim severity.

The DCRB's review of claim frequency trend took note of a significant difference in the change in claim frequency for Policy Year 2009, the most recent available year, compared to the several policy years preceding 2009. While the claim frequency changes measured over the prior seven policy years averaged a reduction of 8.6 percent per year, in 2009 the claim frequency actually increased by 1.5 percent. The DCRB was mindful that other jurisdictions had recently announced various measures of claim frequency that had showed increases in the most recent available periods, including the National Council on Compensation Insurance, Inc. (NCCI) and California. The most current indications of wage changes reported in Delaware seemed to indicate that wage growth might be recovering after a period of relative stagnation, and counts of first reports of injury tabulated by the Delaware Department of Labor showed a brief increase comparable to that reflected in the DCRB's data followed by a return to periods of decreasing claim frequency per unit of payroll.

In light of the stark difference in the change in claim frequency occurring in 2009 compared to prior periods, the DCRB elected the following approach to measurement and forecasting of claim frequency trend for this filing:

As a measure of claim frequency trend prior to January 1, 2009, the DCRB used a seven-point exponential trend model fitted through observed claim frequencies for the Policy Years 2002 through 2008. That approach produced an annual claim frequency trend of -8.6 percent.

For the claim frequency change to be attributed to Policy Year 2009, the DCRB elected to use the observed value of +1.5 percent.

For claim frequency trend after January 1, 2010, the DCRB has applied the same claim frequency trend as was measured for the Policy Years 2002 through 2008 inclusive, an 8.6 percent annual reduction.

Collectively, these steps give Policy Year 2009 full weight as a historical event but no weight in determining the applicable claim frequency trend either before or after that specific period of time. All things considered, the DCRB feels that this approach is supported by available DCRB and external data and provides a balance between response to actual experience and stability in future projections in light of an apparently unusual individual year of experience.

In estimating claim severity trends, the DCRB applied both linear and exponential trend models to the policy year severity ratios produced by the loss development methods referred to previously. Indemnity and medical ratios were treated separately, and for each method the linear and exponential models were applied to all possible numbers of policy years from four through ten.

A variety of techniques were employed to evaluate the reasonableness of results of each trend calculation. Statistical goodness-of-fit tests were applied, residual differences between predicted and actual data points were computed, and graphic depictions of selected series of severity ratios were prepared and reviewed.

For indemnity benefits, a review of alternative trend model indications, including graphic presentations of indemnity loss and severity ratios over the past several years for selected models, supported the selection of an exponential trend model applied to the most recent available seven policy year severity ratios. Accordingly, the DCRB used a seven-year exponential trend model applied to indemnity claim severity ratios for the Policy Years 2003 – 2009 inclusive and derived an annual trend rate of +2.6 percent.

Indemnity loss ratios for this filing were then trended to the midpoint of the prospective rating value period by applying the above-described annual rates of change in claim severity and claim severity in concert to each of the most recent four policy year severity ratios to produce separate estimates of indemnity claim severity ratios as of December 1, 2012 (the midpoint of the rating period to which the proposed rates and loss costs will apply). The filing is based on the average trended policy year indemnity loss and loss-adjustment expense ratio thus obtained, effectively the average trended indication for the most recent four policy years in combination.

For medical benefits, the same trend analysis as was applied for indemnity loss was also used. While the DCRB's measure of claim frequency uses only indemnity claims, the vast majority of medical benefits are attributable to indemnity cases, and many prior filings have also used this approach.

The adjudication of the DCRB's December 1, 2009 filing had required an adjustment to medical trend based on the Insurance Department's expectation that such trend would be more favorable after the implementation of the Delaware medical fee schedule than they had been before that transition. The trend adjustment so required was in the amount of a 1.8 percent reduction in annual loss ratio or claim severity trend.

While the DCRB could not and cannot estimate whether or the extent to which the provisions of Senate Bill 1 will affect medical trend, the opinion that some mitigation of medical trends should be applied upon the implementation of the medical fee schedule was widely held by

the Department and its consultants in their review of the 2009 filing. After considering analytical and administrative alternatives, the DCRB elected to incorporate the mandated improvement in medical trend from the 2009 filing's adjudication in the December 1, 2010 filing indication. In a similar fashion, and again without conceding either the amount or direction of influences of Senate Bill 1, the DCRB has included the adjustment of medical severity trend to the preparation of this filing.

Since the medical fee schedule became fully operational on or about September 1, 2008 in Delaware, the DCRB applied this change in medical trend to time periods extending after September 1, 2008. Up to that point in time the DCRB used a seven-point exponential trend fit through policy year medical claim severity ratios from Policy Years 2003 – 2009 inclusive, resulting in an annual trend rate of +8.5 percent. After September 1, 2008, the 1.8 point decrement in that trend resulted in an annual medical claim severity trend of +6.7 percent.

The filing is based on the average trended policy year medical loss and loss-adjustment expense ratio obtained from the most recent four available policy years, with the claim frequency and claim severity trends described above applied for the respective time periods needed to project each policy year to the mid-point of the rating period, December 1, 2012.

# D: DETERMINATION OF PROPER PERMISSIBLE LOSS RATIO FOR PROPOSED PLAN RATES

The use of methodologies that explicitly recognize investment income in concert with anticipated cash flows, benefit costs and expense needs in preparing workers compensation rate filings is well established. The precise manner in which these methods may be applied in the preparation of such filings, however, differs from jurisdiction-to-jurisdiction. The DCRBs approach in previous filings has been to use such methods to directly compute a permissible loss and loss adjustment expense ratio consistent with an independently-established target rate-of-return. This approach has previously been approved by the Insurance Department and has been retained for the development of this filing as well.

The prospective determination of an appropriate overall rate-of-return, which workers compensation insurers should be entitled to earn given the risk they assume in underwriting this line of business, is accomplished by a variety of economic analyses which are generally based on expected returns of businesses subject to risk levels comparable to that of underwriting workers compensation insurance. These methodologies next proceed by establishing a set of cash flows representing the various transactions related to the underwriting of workers compensation insurance. These cash flows include the expected patterns for the receipt of premiums, payment of losses and expenses, use of tax credits and/or payment of tax obligations, and maintenance of surplus funds in support of the business. Expense needs to which the expense cash flows will apply are determined based on historical experience.

Estimates of the probable investment results that an insurer underwriting workers compensation insurance may expect to achieve were made by reviewing existing insurer investment portfolios and prevailing investment returns on various forms of investments held therein. Applying these

estimates to the cash flows previously established allows an explicit presentation of the effects of investment income throughout the life of a book of workers compensation policies and an estimated accounting of the value of that income to the insurer.

Based on the set of cash flows determined to apply to prospective policies and the estimated parameters of investment yields, federal tax laws, etc., these methods model all expected cash flows over the entire period during which payments attributable to a given policy period are expected to continue. For any given loss provision in rates, the present value of these cash flows can then be consolidated and compared to the target rate-of-return. The loss provision accomplishing a balance between the expected and target rates-of-return then becomes the basis for the permissible loss ratio. Within the concept of the Internal Rate of Return (IRR) Model used by the DCRB, the loss provision includes provision for amounts generally related to losses such as loss-adjustment expense and loss-based assessments.

The recognition of investment income in this analysis allows for a lower profit provision from underwriting than would otherwise be possible. This filing proposes an underwriting "profit" provision of -0.39 percent, i.e., an underwriting loss of approximately four-tenths of one percent. This proposed underwriting profit provision is significantly higher than the underwriting loss contemplated in current residual market rates (-4.65 percent), due primarily to an increase in the cost of capital since the DCRB's previous filing and which was not accompanied by a commensurate improvement in investment results for the mix of assets held by workers compensation insurers.

For this filing, the DCRB has retained an independent economic consultant to perform the above-described analyses. Results of this work are presented in complete detail in attachments to this filing letter but are also summarized for ease of reference following:

#### **INTERNAL RATE OF RETURN MODEL INPUTS & RESULTS**

December 1, 2011 Residual Market Rate Filing

(1) Target Rate of Return	+9.11%
(2) Indicated Expense Provisions	
(a) Commissions	+4.80%
(b) Other Acquisition	+2.38%
(c) General	+3.38%
(d) Premium Discount	+8.53%
(e) State Premium Tax	+2.00%
(f) Uncollectible Premium	+2.00%
(g) Other State Taxes	+0.37%
(h) Workers Compensation Fund Assessment	+3.50%
(3) Investment Income	
(a) Pre-Tax Return on Assets Net of	
Investment Expenses	+4.47%
(b) Post-Tax Return on Assets Net of	
Investment Expenses	+3.57%

(4) Profit & Contingencies

-0.39%

(5) Permissible Loss Ratio

+73.43% \*

\*73.43% includes loss (60.51%), loss-adjustment expense (10.50%) and loss-based assessment (2.42%)

#### E: CONSIDERATIONS PERTAINING TO THE APPROVED EXPERIENCE RATING PLAN

The DCRB reviews the performance of the Experience Rating Plan as part of its analysis supporting each annual rating value filing submitted to the Insurance Department. Fluctuations in results of the plan, in particular movement in the average experience modification produced by the plan, are measured and accounted for in the derivation of proposed changes in manual rates and loss costs, so that the Experience Rating Plan can reallocate premium obligations among insureds based on the merits of their past experience but not either increase or reduce the total amount of premium indicated by the DCRB's benchmark filings of residual market rates and voluntary market loss costs.

In preparing this filing the DCRB observed that the average experience modification produced by the Experience Rating Plan had begun to increase significantly in 2006 and had increased again in 2007 and 2008 (the most recent year for which complete exposure, premium and loss data is available). Because the processes underlying the DCRB's filings and maintenance of the Experience Rating Plan are intended to maintain a relatively stable balance within that plan, the DCRB undertook specific and extensive review of the plan and its recent results to better understand the dynamics of the recent shifts in plan results.

One approach which was employed in this endeavor was to develop an alternative, somewhat simpler, method of computing expected loss rate factors. This work was done to test the reasonableness of the existing method. When applied to the December 1, 2010 filing, the results obtained were reasonably close to those originally filed by the DCRB. Also of note was the fact that the alternative method would have produced somewhat <u>lower</u> expected loss rate factors than those currently approved in Delaware. The implication of this analysis was that the alternative method, while reasonable on its face, would have produced even <u>higher</u> experience modifications than the actual approved plan. Thus, the alternative approach was not further considered as a possible method for use in this filing.

The DCRB studied the distributions of risks by modification range from Policy Years 2007 and 2008 and identified several areas which were contributing to the overall shift in experience modifications. Those areas included the following:

Risks with experience modifications at or below 0.60: (This group declined somewhat in 2008 compared to 2007.)

Risks with experience modifications above 1.40: (This group increased noticeably in 2008 compared to 2007.)

Risks with experience modifications higher than 1.20 and below 1.31: (This group grew in 2008 compared to 2007.)

Risks which had received credit experience modifications (modifications less than 1.000) in 2007 and then received debit experience modifications (modifications greater than 1.000) in 2008: (While the DCRB's routine report of experience rating results did not disclose the population of this group, the DCRB was able to obtain a comprehensive listing of such risks from its information technology group.)

The DCRB reviewed a sampling of individual experience rating worksheets from each of the above groups in an attempt to identify features of the Experience Rating Plan that might have contributed unduly or unexpectedly to either the decline in the most favorable experience ratings or the increases in relatively adverse experience ratings observed in 2008. What this review consistently found, however, was that the risks reviewed had presented notably worse experience records for the 2008 rating than had been the case in 2007, either because the newest year added to the experience period in 2008 was a relatively poor year for the insured, or the oldest year of experience used in 2007 and dropped from the 2008 ratings was an unusually favorable year for the insured, or because loss valuations for the two years used in both the 2007 and 2008 ratings were noticeably higher for the 2008 rating valuation than they were for the 2007 rating. These conditions would be expected to precipitate increases in experience modifications, and thus the review effort was not able to identify any feature(s) of the Experience Rating Plan that might be adjusted and the extent of adjustment that might be appropriate to temper the recent increases in average experience modification.

The Experience Rating Plan was discussed at some length during the joint meeting of the DCRB's Actuarial Committee and Classification & Rating Committee held on August 8, 2011 to discuss the DCRB's analysis in support of this filing. Concerns were expressed regarding the unexpected, unexplained and unintended shifts in recent experience modifications under the plan, and DCRB staff came away from the meeting seeking additional information that might be useful in considering the final form of this filing given the available history of the Experience Rating Plan.

A resource that had not previously been applied to the purpose of analyzing the Experience Rating Plan was identified in subsequent staff discussions. This resource (called the "Market Profile Report") initially tracks policies issued, accounting for the full spectrum of available pricing programs as applied to estimated exposures for every insured. When Unit Statistical Reports become available, those are used to replace the original policy estimates in the Market Profile Reports.

As presently configured, this resource does not allow separation of experience into the industry groups which are monitored separately in the DCRB's analysis of the Experience Rating Plan. This feature may be susceptible to improvement in support of future filings. In addition, the more recent policy periods in the Market Profile Reports (which use policy information) do not include loss data and so cannot be applied to an analysis of the equity or accuracy of the Experience Rating Plan. This feature of the data will not change going forward. However, the Market Profile Reports do provide much more current indications of the average experience modification than the programs historically used to review the Experience Rating Plan, and the DCRB has now applied this resource to that purpose.

Comparative results from the historical reports and the Market Profile Reports are summarized below. The figures shown are "collectible premium ratios," which are the reciprocal of the average effective experience modification for the periods shown.

	DCRB Filing Exhibit 20	Market Profile Reports
Policy <u>Year</u>	Collectible Premium <u>Ratio</u>	Collectible Premium <u>Ratio</u>
2006	0.952	0.955
2007	0.934	0.931
2008	0.867	0.869
2009	n/a	0.855
2010	n/a	0.872
2011*	n/a	0.866

<sup>\* -</sup> Partial year only

The above tabulation demonstrates the close agreement between the data source used to produce Exhibit 20 for the filing and the older periods in the Market Profile Report. Further, the above data suggests that the increases in experience modifications (and decreases in collectible premium ratios) seen through Policy Year 2008 have been very stable since then.

The DCRB expects and intends to perform additional review and analysis of the Experience Rating Plan on an ongoing basis. Based on work done to date and the results presented above, the DCRB revised the derivation of manual rating values that had been presented to the Actuarial Committee and the Classification & Rating Committee for purposes of this filing. The revision thus made was to select the Policy Year 2008 collectible premium ratios by industry group as the basis for our proposed Manual rating values, instead of the three-year average customarily applied. This selection appears to be very consistent with current results of the Experience Rating Plan. This approach resulted in Manual residual market rates approximately 6.6 percentage points lower than those presented to the Committees on August 8 and produce voluntary market loss costs approximately 6.3 percentage points lower than those presented to the Committees. These steps are intended and expected to support the proposed collectible rate and loss cost changes but will provide more current and accurate recognition of the probable impact of experience rating for the forthcoming rating period.

In conformance with provisions of Forms and Rates Bulletin No. 1, as amended April 15, 1992, two copies of the cover letter of this filing are provided with each set of supporting materials. The cover letter identifies the line of insurance (workers compensation), the effective date of the filing (generally December 1, 2011 with selected portions effective June 1, 2012) and the name and telephone number of the person to be contacted by the Insurance Department in regard to the filing (Timothy L. Wisecarver, 215-320-4413). An interrogatory in the format provided with the referenced forms and rates bulletin has been completed and is included herewith. Two CDs, each containing a copy of the entire filing in pdf format, are also enclosed.

In addition, the following materials accompany this filing letter and present supplementary rating information and supporting information pertinent to the proposals advanced in this filing.

- 1. Record of Meeting Actuarial and Classification & Rating Committees, August 8, 2011. Note that these minutes are in the process of being reviewed and approved by the two committees and accepted by the Governing Board. If there are any changes resulting from this process, a revised final copy will be promptly forwarded to the Insurance Department.
- 2. Summary of material for modification of experience (Brown Book)
- 3. The following exhibits taken from the Actuarial and Classification & Rating Committees' August 8, 2011 meeting agenda package or prepared or modified in consideration of discussions at that meeting:

Exhibit 1 Exhibit 1a Exhibit 1b Exhibit 2	Limited Losses Limited Losses	Table I - Summary of Financial Call Data Excess Loss Ratios and Loss Limitations Table I Reported Losses in Excess of Loss Limitations Paid and Incurred Loss Development and Trend
Exhibit 2a Exhibit 3		Graphs of Selected Loss Development Projections Measures of Goodness-of-Fit in Trend Calculations Using Severity Ratios
Exhibit 5 Exhibit 6	Limited Losses	Graphs of Ultimate and Trended Experience Components Retrospective Test of Trend Projections Using Severity Ratios
Exhibit 7		Closure Rates, Payout Ratios and Average Claim Costs
Exhibit 8		Expense Study
Exhibit 9		Internal Rate of Return Model
Exhibit 10		Effect of 7/1/12 Benefit Change
Exhibit 11		Expense Loading
Exhibit 12		Indicated Change in Residual Market Rates and Voluntary Market Loss Costs
Exhibit 13		Experience Rating Plan Performance
Exhibit 14		Delaware Construction Classification Premium Adjustment Program
Exhibit 15		Rate and Loss Cost Formulae
Exhibit 16		Small Deductible Program
Exhibit 17a		Empirical Delaware Loss Distribution
Exhibit 17b		Excess Loss Pure Premium Factors
Exhibit 17c		Excess Loss Pure Premium Factors with Adjustment for ALAE
Exhibit 17d		Excess Loss Premium Factors
Exhibit 17e		Excess Loss Premium Factors with Adjustment for ALAE
Exhibit 19		Delaware Insurance Plan
Exhibit 20		Review of Experience Rating Plan Parameters
Exhibit 21		Table B
Exhibit 22a		Table II - Unit Statistical Data
Exhibit 22b		Table III - Unit Statistical Data

Exhibit 22c Exhibit 23 Exhibit 24 Exhibit 25 Exhibit 27 Exhibit 28 Exhibit 29 Exhibit 30 Exhibit 31a Exhibit 31b Exhibit 41 Exhibit 43 Exhibit 45 Exhibit 45	Table IV - Unit Statistical Data Claim Frequencies Retrospective Development Factors Tax Multiplier Manual Rates, Loss Costs and Expected Loss Rates Index and Supporting Classification Exhibits Class Book Delaware Workplace Safety Program & Merit Rating Program Distribution of Residual Market Rate Changes Summary of Indicated and Proposed Residual Market Rates by Class Code Summary of Indicated and Proposed Residual Market Rates by Percentage Change Manual Rates, Loss Costs and Expected Loss Rates (including 6 percent Reductions required by Court of Chancery Decision) 5 Percent reductions to voluntary market loss costs, residual market rates and residual market minimum premiums reflecting Court of Chancery Decision Voluntary market reductions for selected exemption levels applied to the 5 percent annual reductions Percentage differences between December 1, 2011 rates and loss costs including and excluding effects of Court of Chancery Decision
Exhibit 47	Percentage changes from current rates and loss costs by classification. Both the current and proposed rating values reflect the Court of Chancery Decision
Exhibit 1 Unlimited Losses Exhibit 2 Unlimited Losses Exhibit 2a Unlimited Losses Exhibit 3 Unlimited Losses Exhibit 6 Unlimited Losses	Table I – Summary of Financial Call Data Paid and Incurred Loss Development and Trend Graphs of Selected Loss Development Projections Measures of Goodness of Fit in Trend Calculations Using Severity Ratios Retrospective Test of Trend Projections for Severity Ratios

Proposed Manual Language Pertaining to Calendar Quarters Used to Determine Qualifying Wages for Delaware Construction Classification Premium Adjustment Program

Proposed Manual Language Pertaining to Auditable Payrolls

Completed Copies of the Following Property & Casualty Filing Forms Filing Fee Form State-Specific Requirements Property & Casualty Transmittal Document Rate/Rule Filing Schedule

## III: SUMMARY

In preparing this filing, the DCRB has carefully considered current Delaware experience and has applied a variety of actuarial and economic analytical techniques that collectively support the proposals advanced herein.

DCRB staff will be pleased to cooperate with and assist the Insurance Department in its prompt consideration of these proposals.

Sincerely,

Timothy L. Wisecarver

Timothy L. Wisecown

President

TLW/kg Enclosures