COAL MINE COMPENSATION RATING BUREAU
OF PENNSYLVANIA

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November 24, 2015

The Honorable Teresa D. Miller
Insurance Commissioner
Pennsylvania Insurance Department
1311 Strawberry Square
Harrisburg, PA 17120

Attention: Mark Lersch, Director Bureau of Property & Casualty

RE: Proposal CM-3-2015
Revised Loss Costs for Traumatic, State Occupational Disease
And Federal Occupational Disease
To Be Effective: April 1, 2016

Dear Commissioner Miller:

Enclosed for your review and approval is the annual filing of Loss Costs by the Coal Mine Compensation Rating Bureau of Pennsylvania ("Bureau"). This filing is made in accordance with Article VII of the Pennsylvania Workers' Compensation Act.

Exhibit I-A-M displays the proposed changes by classification and by coverage. Overall, the proposed change in Manual Loss Costs is +4.1%. By coverage, the proposal requests a change of +7.4% for Traumatic, a change of 0.0% for State Occupational Disease ("SOD") and a change of -10.5% for Federal Occupational Disease ("FOD").

The Proposed Traumatic Loss Costs are increasing overall by $0.35 ($5.10 – $4.75). The overall increase is being driven by the following considerations:

- Indemnity Loss Development Factors changed modestly ranging from a -1.4% change for Accident Year 2012 to a +1.6% change for Accident Year 2014.
- Indemnity Loss Trend Annual Factor decreased from +0.3% to +0.1%. Consequently, Indemnity Loss Trend Factors decreased from -0.5% to -1.3%.
- Medical Loss Development Factors slightly increased for all years (e.g., by +2.1% for Accident Year 2010 to +3.5% for Accident Year 2014).
- Medical Loss Trend Annual Factor decreased from +1.6% to +0.5%. Consequently, Medical Loss Trend Factors decreased from -3.0% to -7.1%.
- Unanticipated increases in reported losses for Accident Year 2013.
- The replacement of Accident Year 2009 experience with Accident Year 2014 experience in the five (5) year Traumatic Loss Cost analysis.
    - For the April 1, 2015 filing, the Accident Year 2009 Loss Cost was estimated to be $2.94 which included the 0.711 Frequency Adjustment Factor.
    - For the April 1, 2016 filing, the Accident Year 2014 Loss Cost is estimated to be $5.26.

The Proposed SOD Loss Costs are not changing overall (i.e., $0.67 to $0.67). However, the Loss Costs are being revised by classification. The overall experience is being driven by the following considerations.

- For all classes combined, claim frequency changed by -9.5%.
- For all classes combined, claim severity changed by +3.7%.
- Since Loss Costs changes were capped at +/-25% in the April 1, 2015 filing for one or more classes, the overall change does not equal the product of the frequency and severity changes.

The Proposed FOD Loss Costs are decreasing overall by $0.09 ($0.77 – $0.86). The overall decrease is being driven by the loss experience of the Bituminous Underground classification.

- For all classes combined, Basic claim frequency changed by -11.9%.
- For all classes combined, Excess claim frequency changed by -8.2%.
- For all classes combined, Basic claim severity changed by +2.3%.
- For all classes combined, Excess claim severity changed by -1.6%.
- Since Loss Costs changes were capped at +/-25% in the April 1, 2015 filing for one or more classes, the overall change does not equal the product of the frequency and severity changes.

This Proposal consists of this cover letter, the enclosed Actuarial Report and Filing Exhibits. The Filing Exhibits were prepared for the Bureau by Mr. Peter A. Bennett who has extensive experience in this regard. This cover letter and Actuarial Report follow the organization that was used in last year's filing. The Filing Exhibits are unchanged from last year's filing, except where noted in the Summary of Significant Changes section of the Actuarial Report.

We ask for your approval of this filing on or before February 1, 2016. An approval in this timeframe facilitates the required notices and advanced issuance of revised employer rate cards, noting the applicable loss costs and rating plan values.

The Bureau and its consultants will be pleased to discuss any issues raised by the Department. Please feel free to contact me if additional information or discussion is necessary.

Sincerely,

Charles A. Romberger
Executive Director

Enclosures:
1) Three (3) printed copies of the filing (Cover letter, Actuarial Report and Filing Exhibits)
2) One (1) electronic copy of the filing on CD in PDF file format
3) One (1) electronic copy of the filing Exhibits on CD in Excel file format

Actuarial Report
Regarding the CMCRB's April 1, 2016 Loss Cost Filing

Introduction

I, Charles A. ("Chuck") Romberger, am the Executive Director of the Coal Mine Compensation Rating Bureau of Pennsylvania ("CMCRB"). I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. I offer this report in support of the CMCRB's proposed April 1, 2016 Loss Cost Filing. In this filing, the CMCRB proposes revisions to Loss Costs for Traumatic, State Occupational Disease ("SOD") and Federal Occupational Disease ("FOD") classifications under the CMCRB's jurisdiction to be effective April 1, 2016.

This report and the associated filing exhibits present information that demonstrate the fairness and reasonability of the proposed loss costs and show the CMCRB's continued use of accepted actuarial procedures and application of sound actuarial judgment.

I note that Mr. Peter A. Bennett participated in the preparation of this report and the associated Filing Exhibits. Mr. Bennett has extensive experience in this regard.

The remainder of this report consists of the following sections:

- The Executive Summary provides a discussion about the overall changes in Loss Costs and the sources of those changes contained in this filing by coverage (i.e., Traumatic, SOD and FOD). It also identifies "Other Items" that are typically of interest (e.g., the Employer Assessment Factor).

- The Summary of Significant Changes identifies and briefly discusses the significant changes in methods and assumptions from the CMCRB's prior loss cost filing.

- The Discussion of Filing Exhibits addresses the content of all of the Filing Exhibits and is arranged in Filing Exhibit order.

- The Disclosures section identifies and briefly discusses topics that broadly apply to all areas of this report and that present considerations or limitations related to the use of these findings.

Sincerely,

Charles A. Romberger, ACAS, MAAA, CPCU, ARM
Executive Director, CMCRB

Executive Summary

This report and the associated filing exhibits provide the CMCRB's proposal for loss costs to be effective on April 1, 2016, which is twelve (12) months from the last approved loss costs. The proposed loss costs are based on the annual review of data by coverage (i.e., Traumatic, SOD, and FOD – Basic and Excess) and by classification for the ten (10) coal mine classifications under the CMCRB's jurisdiction.

For all classifications combined, this filing proposes the following changes in loss costs by coverage and in Total (i.e., all coverages combined). This information can also be found on Exhibit I-A-M, Page 2 (Grand Total section).

	Current Loss Cost	Proposed Loss Cost	Change in Loss Costs
Traumatic	$ 4.75	$ 5.10	+7.4%
SOD	0.67	0.67	0.0%
FOD (Basic & Excess)	0.86	0.77	-10.5%
Total	$6.28	$6.54	+4.1%

The remainder of this Executive Summary provides a discussion section for each type of coverage and a discussion section for "Other Items".

Traumatic Loss Costs

The Current Traumatic Loss Cost for all classes combined is $4.75 based on 2014 payroll distribution. The Proposed level is $5.10 or a change of +7.4%.

The key drivers of the change to Traumatic Loss Costs can be identified by comparing Exhibit V-B Page 1 for the April 1, 2016 filing to the April 1, 2015 filing. These drivers include:

- Indemnity Loss Development Factors changed modestly ranging from a -1.4% change for Accident Year 2012 to a +1.6% change for Accident Year 2014.
- Medical Loss Development Factors slightly increased for all years (e.g., by +2.1% for Accident Year 2010 to +3.5% for Accident Year 2014).
- Indemnity Loss Trend Annual Factor decreased slightly from +0.3% to +0.1%. Consequently, Indemnity Loss Trend Factors decreased from -0.5% to -1.3%.
- Medical Loss Trend Annual Factor decreased from +1.6% to +0.5%. Consequently, Medical Loss Trend Factors decreased from -3.0% to -7.1%.
- Unanticipated increases in reported losses for Accident Year 2013.
- The replacement of Accident Year 2009 experience with Accident Year 2014 experience in the five (5) year Traumatic Loss Cost analysis.
    - For the April 1, 2015 filing, the Accident Year 2009 Loss Cost was estimated to be $2.94 which included the 0.711 Frequency Adjustment Factor.
    - For the April 1, 2016 filing, the Accident Year 2014 Loss Cost is estimated to be $5.26.

- Since the Accident Year 2014 Payroll is considerably higher than the Payroll for the other five years under consideration, more weight is associated with the Accident Year 2014 experience.

These drivers impact the Indemnity indications more than the Medical indications. The Indemnity indication changed by +13.0%, from $2.54 to $2.87; while the Medical indication changed by +7.0%, from $1.85 to $1.98. The Total Traumatic indication changed by +10.5%, from $4.39 to $4.85. (The Total indication may not equal the sum of the parts due to rounding.)

Credibility and capping procedures are applied on Exhibit V-A Page 1 to the Indicated Unloaded Loss Costs to produce the Proposed Unloaded Loss Costs which are also displayed on Exhibit II. Exhibit II shows the Proposed Unloaded Loss Costs Percent Change (after Credibility and Capping) to be +9.3%. This includes capping the change to the Bituminous Prep Plant Class at +25.0%.

State Occupational Disease (SOD) Loss Costs

The Current State Occupational Disease Loss Cost for all classes combined is $0.67 based on 2014 payroll distribution. The Proposed level is $0.67 or a change of 0.0%.

The key drivers of this change can be identified by comparing Exhibit III for the April 1, 2016 filing to the April 1, 2015 filing. These drivers include:

- For all classes combined, claim frequency changed by -9.5%.
  - Claim frequency decreased for all classes except Anthracite Underground.
- For all classes combined, claim severity changed by +3.7%.
  - Claim severity increased for all classes.
- For April 1, 2015, the Indicated Change for the Bituminous Underground Loss Cost of +44.4% was capped at +25.0%. Consequently, the net change in Proposed Loss Costs does not equal the product of the claim frequency change and claim severity change. Also, the net change in Proposed Loss Costs does not equal the product of the claim frequency change and claim severity change because these three values do not all carry the same number of significant digits.

Federal Occupational Disease (FOD) – Basic/Excess – Loss Costs

The Current Federal Occupational Disease Basic/Excess Loss Cost for all classes combined is $0.86 based on 2014 payroll distribution. The Proposed level is $0.77 or a change of -10.5%.

The Federal component of the filing consists of two parts, the Federal Basic and the Federal Excess as follows:

	Current Loss Cost	Proposed Loss Cost	Change in Loss Costs
Basic	$ 0.75	$ 0.67	-10.7%
Excess	0.11	0.10	-9.1%
Total	$0.86	$0.77	-10.5%

The Proposed Loss Costs are shown in Column (5) of Exhibit IV-A separately for Basic and Excess and in Total. The Current (or Approved Unloaded) Loss Costs are shown in Total (i.e., Basic and Excess combined) in Column (2) of Exhibit IV-A. The Total Current Loss Cost is split between Basic and Excess components using the Basic and Excess Loss Costs from Column (5) of Exhibit IV-A from the prior filing as weights.

The key drivers of this change can be identified by comparing Exhibit IV-A for the April 1, 2016 filing to the April 1, 2015 filing. These drivers include:

- For all classes combined, Basic claim frequency changed by -11.9%.
- For all classes combined, Excess claim frequency changed by -8.2%.
- For all classes combined, Basic claim severity changed by +2.3%.
- For all classes combined, Excess claim severity changed by -1.9%.
- The net change in Proposed Loss Costs does not equal the product of the claim frequency change and claim severity change because these three values do not all carry the same number of significant digits.

Other Items

- The Small Business Advocate Assessment Ratio remains at 0.0001. (See Exhibit XI-A.) This amount is loaded into the CMCRB's Manual Loss Costs.
- The Employer Assessment Factor changes from 1.65% (or 0.0165) to 1.70% (or 0.0170). (See Exhibit XI-B.) This amount is not loaded into the CMCRB's Manual Loss Costs, but is treated as a separate calculation in the determination of policy premium. This amount is the estimated provision for Pennsylvania's Administrative Fund, Subsequent Injury Fund, Supersedeas Fund and Uninsured Employer Guaranty Fund.
- The overall Catastrophe Loss Cost provision changes from $0.13 to $0.11. (See Exhibit XII-A.) The provision varies by classification. These amounts are loaded into the CMCRB's Manual Loss Costs.
- The Experience Rating Plan parameters require a change to the Off-Balance Factor from 0.9980 to 0.9922. (See Exhibit XIII.) This factor is not included in the CMCRB's Manual Loss Costs, but is incorporated into the Experience Rating Plan's Rating Formula.
- The Merit Rating Plan Off-Balance Factor changes from 1.0005 to 1.0002. (See Exhibit XIV-A, Page 1.) This amount is loaded into the CMCRB's Manual Loss Costs.
- The Safety Committee Credit Off-Balance Factor changes from 1.0184 to 1.0125. (See Exhibit XIV-B.) This amount is loaded into the CMCRB's Manual Loss Costs.

Summary of Significant Changes from Last Year's Filing

On Pages 4 and 6 of Exhibit IV-B, Payrolls per $1,000,000 were replaced with actual Payrolls in Columns 2 and 8.

On Exhibit V-F Summary, the HB 1846 Adjustment Factor was included for the derivation of Traumatic Medical Trend Factors. This adjustment was not included in the CMCRB's original April 1, 2015 Filing on November 26, 2014, but it was included in the CMCRB's revision of December 19, 2014.

On Exhibit V-K Supplemental, in addition to extending the methodology used for the April 1, 2015 Filing to include Accident Year 2014, an additional statistic was added (i.e., the Geometric Mean for 2006 – 2014, excluding 2010).

On Exhibit X-A-1, Traumatic and SOD payroll increased by about $91 million or 31% from 2013 to 2014. However, FOD payroll decreased slightly because the entities that produced the large Traumatic and SOD increases remained self-insured for FOD exposures.

Most Filing Exhibits were updated from the CMCRB's prior loss cost filing either by adding the data for the newest available Accident Year and deleting the data for the oldest Accident Year or by just adding the data for the newest available Accident Year.

Discussion of Filing Exhibits

Many of the Filing Exhibits provide various totals and subtotals that are derived using current estimates of Developed Payrolls and/or Miner Years as weights. These totals and subtotals may differ from totals and subtotals shown in prior filings as the weights can and do change.

Exhibit I – Current and Proposed Loss Costs

The I-A-M pages provide comparisons of the currently Approved Manual Loss Costs and the Proposed Manual Loss Costs by classification.

The I-A-UL pages provide comparisons of the currently Approved Unloaded Loss Costs and the Proposed Unloaded Loss Costs in the same format as the I-A-M pages. However, I-A-UL also includes a third page that presents the loss cost limitations by classification and by coverage.

The I-B pages present the Proposed Unloaded Loss Costs after limitations (see the I-A-UL discussion above), the loading of the Catastrophe Loss Costs, the application of the various Off-Balance factors and the Proposed Loaded Loss Costs (or Proposed Manual Loss Costs).

In addition to providing Loss Costs by classification and by coverage, the pages in Exhibit I also provide various totals and subtotals that are derived using the Developed Payrolls for the most recent Accident Year as weights.

Exhibit II – Traumatic Loss Cost Indications

This page presents the currently Approved Unloaded Loss Costs, the Indicated Unloaded Loss Costs and the Proposed Unloaded Loss Costs by classification. Changes from the currently Approved Unloaded Loss Costs to the Indicated Unloaded Loss Costs are capped or limited to +/- 25% to derive the Proposed Unloaded Loss Costs by classification.

This page also displays various totals and subtotals that are derived using the Developed Payrolls for the most recent Accident Year as weights.

Exhibit III – State Occupational Disease Loss Cost Indications

This page presents the currently Approved Unloaded Loss Costs, the Indicated Loss Costs (the Indicated Loss Costs are the products of the Indicated Average Frequencies and the Indicated Average Severities) and the Proposed Loss Costs by classification. The Proposed Loss Costs equal the Indicated Loss Costs because all Indicated Changes are within +/-25%.

This page also displays various totals and subtotals that are derived using the Developed Payrolls for the most recent Accident Year as weights.

Exhibit IV – Federal Occupational Disease Loss Cost Indications

A. This page presents the currently Approved Unloaded Loss Costs, the Indicated Loss Costs (the Indicated Loss Costs are the sums of the products of the Indicated Average Frequencies and the Indicated Average Severities for FOD Basic and FOD Excess) and the Proposed Loss Costs (i.e., Loss Costs w/ Limitation 25%) by classification. The Proposed Loss Costs equal the Indicated Loss Costs because all Indicated Changes are within +/-25%.

   This page also displays various totals and subtotals that are derived using the Developed Payrolls for the most recent Accident Year as weights.

B. Page 1 displays the derivation of the FOD Basic Claim Frequencies. This process begins with the Indicated Claim Frequencies on a Miner Year basis developed in Exhibit IV-B Page 3. The Indicated Claim Frequencies are credibility weighted with the currently Approved FOD Basic Claim Frequencies trended (although the trend is 0%) to the current valuation level developed in Exhibit IV-B Page 4. After the application of credibility, the Credibility Weighted Indicated FOD Basic Claim Frequencies are converted to a Developed Payroll basis because the CMCRB publishes Loss Costs on a Payroll basis.

   The Total of the Expected Awarded Claims for All Classes is assigned as the full credibility standard. The credibility factor for each classification is obtained as the ratio of the Expected Awarded Claims of a given class to the full credibility standard raised to the ½ power.

   Page 2 displays the derivation of the FOD Excess Claim Frequencies. The Indicated Claim Frequencies are developed in Exhibit IV-B Page 5. The currently Approved FOD Excess Claim Frequencies are developed in Exhibit IV-B Page 6. Otherwise, this page works like Page 1.

   Page 3 displays the derivation of the FOD Basic Claim Frequencies on a Miner Year Basis. This process involves weighting the Modeled Indications from Exhibit VIII-F with the Experience Indications from Exhibit VIII-B-2. The weights are 25% for the Modeled Indications and 75% for the Experience Indications.

   Page 4 displays the conversions of the Approved FOD Basic Claim Frequencies from the prior filing that are on a Payroll basis to a Miner Year basis.

   Page 5 displays the derivation of the FOD Excess Claim Frequencies on a Miner Year Basis. This process involves weighting the Modeled Indications from Exhibit VII-L with the Experience Indications from Exhibit VII-B-2. The weights are 25% for the Modeled Indications and 75% for the Experience Indications.

   Page 6 displays the conversions of the Approved FOD Excess Claim Frequencies from the prior filing that are on a Payroll basis to a Miner Year basis.

   These pages provide various totals and subtotals that are derived using Developed

Payrolls and/or Estimated Miner Years as weights as indicated.

Exhibit V – Traumatic Loss Information

This section of the filing produces the Proposed Traumatic Unloaded Loss Costs by classification.

A. Page 1 displays the derivation of the Proposed Traumatic Unloaded Loss Costs by classification. This process begins with the Indicated Traumatic Loss Costs developed in Exhibit V-B. The Indicated Traumatic Unloaded Loss Costs are credibility weighted with the currently Approved Traumatic Unloaded Loss Costs trended to the current valuation level. After the application of credibility, the Indicated Traumatic Unloaded Loss Costs are further limited to changes of +/-25% to produce the Proposed Traumatic Unloaded Loss Costs.

   In addition to providing Traumatic Loss Costs by classification, this page also provides various totals and subtotals that are derived using the Developed Payroll shown in the column with these totals and subtotals as weights.

   The credibility procedure assigns full credibility (i.e., 100% credibility or 1.00) to three (3) of the Four Major Classifications (i.e., Underground Bituminous, Surface Anthracite and Surface Bituminous). For the six (6) minor classifications, the credibility factor for each classification is obtained as the ratio of the Five Year Expected Losses of a given class to Five Year Expected Losses for Surface Bituminous raised to the ½ power.

   The complement of the credibility is assigned to the currently Approved Traumatic Unloaded Loss Cost adjusted (or trended) to the current valuation level. The adjustment or on-level factor is the weighted average of the Indemnity and Medical Trends contained in this filing, weighted by the five (5) year Indemnity and Medical Ultimate Losses from Exhibit V-B, Page 1.

   Page 2 shows the derivation of the Indicated Traumatic Unloaded Loss Cost for the Underground Anthracite classification. This value is derived by a different process since this classification has virtually no experience for the five (5) most recent Accident Years. This is the same procedure that was used in last year's filing.

B. These pages show the derivation of the Indicated Traumatic Unloaded Loss Costs by Classification. This process begins with the Reported Losses separately shown for Indemnity and Medical for the five (5) most recent Accident Years. It applies Loss Development and Trend Factors to adjust Reported Losses to Ultimate Losses. Finally, it compares Ultimate Losses to Developed Payroll to produce indicated Loss Costs by Accident Year and in Total. (Page 1 shows the Total for All Classifications Combined. Pages 2, 6, and 14 show subtotals for the noted classification groupings.)

In prior filings, the inclusion of claims in excess of $1,250,000 has been limited on these pages. For this filing, there were not any claims that exceeded this threshold to require use of this limitation.

C. These pages show the derivation of the Selected Age-to-Age Loss Development Factors separately for Traumatic Indemnity and Medical Incurred Losses. The Selected Factors are based on the Derived Development Factors which are developed on Pages V-D-2 and V-E-2 for Indemnity and Medical respectively. The Selected Age-to-Age Factors are Accumulated in Column 8 to produce Selected Age-to-Ultimate Loss Development Factors. The Age-to-Ultimate Factors include a "tail" provision for loss development beyond 20th report level.

For Indemnity Incurred Losses, the Age-to-Ultimate Factors changed as follows for:

- 1:2 (1st report to ultimate) +1.6%,
- 2:3 (2nd report to ultimate) -0.5%,
- 3:4 (3rd report to ultimate) -1.4%,
- 4:5 (4th report to ultimate) +0.3% and
- 5th report to ultimate and beyond in the range of -0.4% to -0.2%.

For Medical Incurred Losses, the Age-to-Ultimate Factors changed as follows for:

- 1:2 (1st report to ultimate) +3.5%,
- 2:3 (2nd report to ultimate) +2.1%,
- 3:4 (3rd report to ultimate) +2.5%,
- 4:5 (4th report to ultimate) +2.3% and
- 5th report to ultimate and beyond in the range of +0.3% to +2.1%.

D. These pages show the development of the Derived Traumatic Indemnity Loss Development Age-to-Age factors and include the development of the Tail Factor.

Page 1 is the same as VI-A-4. The Age-to-Age factors from this page are used on V-D-2. For additional information, please refer to the discussion for VI-A-4.

Page 2 shows the (Actual) Age-to-Age Factors and the Derived (or Modeled) Age-to-Age Factors for Traumatic Indemnity Incurred Losses. Examination of the Age-to-Age factors suggested that the factors from the first four (4) periods should be accepted without adjustment and that the factors for the remaining periods should be replaced with modeled or derived factors. The same determination was made for last year's filing.

The CMCRB decided that a linear model was reasonable and found to produce acceptable results. Similar to the model fitting approach in last year's filing, several assumptions were used to produce the model.

- The model needed to have a slight downward slope and to accept that loss development beyond some point in time was going to be zero (i.e., that loss development factors beyond some point would be 1.0000).

- The model needed to produce factors such that the upward accumulation of the derived factors would equal the upward accumulation of the actual factors from the experience period (i.e., period 5 through 19). The accumulation of these fifteen (15) factors is 15.01180, producing an average of 1.00079.
- The model would be linear and have the form y (t) = x – at.
- The model needed to have a value equal to the average of the experience data at the midpoint of the period that produced the data. Expressed algebraically,
  the midpoint of the period is 12 and
  the average of the experience period is 1.00079, so
  y (12) = 1.00079.
- Development beyond 10 years after the end of the experience period would not be expected. Again, expressed algebraically,
  the period associated with this assumption is 29 and
  the value of the function is 1.0001, so
  y (29) = 1.0001. (Beyond period 29, all factors are assumed to be 1.0000.)
- These conditions result in the following system of equations:
  y (12) = 1.00079 = x - (a) (12) and
  y (29) = 1.0001 = x - (a) (29).
- The solution for this system of equations was found to be:
  a = 0.000040 and
  x = 1.0012714.
- Given these values, y (5) is determined to be 1.0011 = 1.0012714 – (0.000040)(5). (Note that rounding can have a slight impact on the calculations.) This value is entered on Line 5 of Column (5). The following numbers in this column are generated by subtracting 0.000040.
- The Modeled Factors from periods 20 through 29 in Column (10) are accumulated upward in Column (11) to produce the CMCRB tail factor. The CMCRB tail factor is then averaged with the PCRB tail factor to produce the Selected tail factor.

Page 3 provides the Age-to-Age Indemnity Incurred Loss Development Factors from the most recent PCRB filing. The Tail Factor (or "20 to Ult" Factor) from this page is used on V-D-2. The PCRB Age-to-Age Factors are compared to the CMCRB Age-to-Age Factors on V-C-1.

E. These pages show the development of the Derived Traumatic Medical Loss Development Age-to-Age factors and include the development of the Tail Factor.

Page 1 is the same as VI-B-4. The Age-to-Age factors from this page are used on V-E-2. For additional information, please refer to the discussion for VI-B-4.

Page 2 shows the (Actual) Age-to-Age Factors and the Derived (or Modeled) Age-to-Age Factors for Traumatic Medical Incurred Losses. Examination of the Age-to-Age factors suggested that the factors from the first two (2) periods should be accepted without adjustment and that the factors for the remaining periods should be replaced with modeled or derived factors. The same determination was made for last year's filing.

To begin, the CMCRB's Age-to-Age Factors were averaged with the PCRB's Age-to-Age Factors for the periods 10 to 19 to produce Adjusted Age-to-Age Factors. The CMCRB's Age-to-Age Factors were used for periods 3 through 9.

Next, the CMCRB decided that a model of the form y (t) = (x) (a^{t-3}) was reasonable and found to produce acceptable results. Similar to the model fitting approach in last year's filing, several assumptions were made to derive the fitted model.

- The geometric mean of the product of the Adjusted Age-to-Age Factors from periods 3 through 19 was calculated and found to be 1.0080828. (There are 17 factors from t=3 to t=19 so the geometric mean is (1.0150 x 1.0108 x …. x 1.0095) ^ (1/17)).
- The length of the development period beyond the end of the experience period was chosen to be 19 years. Development is not expected at the 39th report level and beyond. Development factors beyond 38th report are assumed to be 1.0000. The development factor for period 38 is assumed to be 1.0001.
- The model needed to produce factors such that the upward accumulation of the derived factors would equal the upward accumulation of the actual factors from period 3 through 19. This accumulation is 1.1467.
- The model needed to have a value equal to the geometric average of the experience data at the midpoint of the period that produced the data. Since the data that is being used runs from t=3 to t=19 the midpoint is at t=11. Thus, y (11) = 1.0080828.
- These conditions result in the following system of equations:

  $$y(11) = 1.0080828 = (x)(a^{8}) \text{ and}$$
  $$y(38) = 1.0001 = (x)(a^{35}).$$
- The solution for this system of equations was found to be:

  a = 0.9997056 and
  x = 1.01046034.
- At this point, the value 1.0105 is entered on Line 3 (for Period 3) of Column 6. The Factor for Period 4 is obtained as (1.0105) times (0.9997056). The factor 'a' is applied to each of the succeeding Factors until Period 38 is reached. The system is very sensitive to the precision of the parameters. If the initial choices are abbreviated, the goals may not be met (e.g., the accumulated value may not be 1.1467 and/or the last point may not be 1.0001).
- The Modeled Factors from periods 20 through 38 in Column (9) are accumulated upward in Column (10) to produce the CMCRB (derived) tail factor. The CMCRB tail factor is then averaged with the PCRB tail factor to produce the Selected tail factor.

Page 3 provides the Age-to-Age Medical Incurred Loss Development Factors from the most recent PCRB filing. The Tail Factor (or "20 to Ult" Factor) from this page is used on V-E-2. The PCRB Age-to-Age Factors are compared to the CMCRB Age-to-Age Factors on V-C-2.

F. This page shows the selected Traumatic Annual Trend Factors separately for Indemnity and Medical losses that are derived on Exhibit V-G. Since the Annual Trend Factors are

applied separately to the five (5) most recent Accident Years, the page also shows the Trend Period for each of those five (5) years and the Trend Factor for each Accident Year.

In addition to traditional trend factors and calculations, this page allows for a Frequency Adjustment Factor and HB 1846 Adjustment Factor. The CMCRB believes that the most five (5) most recent Accident Years are all on the same level for claim frequency, so the Frequency Adjustment Factors are all unity. The derivation and need (or lack of need) for the Frequency Adjustment Factors are covered in the discussion for Exhibit V-K Supplemental.

The CMCRB continues to utilize the HB 1846 Adjustment Factor that was included with its December 19, 2014 revision to the April 1, 2015 filing. This factor reduced medical losses by 1.16% based on the medical cost saving provisions of House Bill 1846 of 2014. This estimate of savings is based on Exhibit 34 included by the PCRB with PCRB Filing No. C-365 dated December 12, 2014.

G. This page provides a summary of the various Traumatic Annual Trend Factor components (i.e., severity and frequency) and estimates that were considered and the selected Traumatic Annual Trend Factors separately for Indemnity and Medical losses. Exhibit V-G is a summary of Exhibit V-K. If needed, the Selected Final Trend is capped at +/- 3 points from the Selected Final Trend in the most recently approved filing.

H. Page 1 provides a summary of the Traumatic Indemnity Losses. Page 2 provides a summary of the Traumatic Medical Losses. The data on these pages support calculations on the Exhibit V-I pages.

I. Exhibit V-I is comprised of six (6) pages. Each page is used to estimate one of the trend parameters that are considered as follows:
   - Page 1 – Traumatic Indemnity Loss Severity Trend
   - Page 2 – Traumatic Medical and Medical Only Loss Severity Trend
   - Page 3 – Traumatic Medical Only Loss Severity Trend
   - Page 4 – Traumatic Indemnity Claim Frequency Trend
   - Page 5 – Traumatic Indemnity Claim Frequency Trend Net of Wage Trend
   - Page 6 – Traumatic Medical excluding Medical Only Loss Severity Trend

   Each of these six (6) pages is provided for three (3) different scenarios as follows:
   - Summary – these pages show the data under consideration for each parameter, the result for each parameter from Exhibit V-K which averages the 12 estimates that are considered, a graph of the data indicated and an algebraic expression of the line of best fit.
   - Estimates 01-06 – these pages show the data under consideration for each parameter and the following six (6) estimates:
     - Estimates 01 & 02 are based on the ten (10) most recent Accident Years.
     - Estimates 03 & 04 are based on the nine (9) most recent Accident Years.

- Estimates 05 & 06 are based on the eight (8) most recent Accident Years.

- Estimates 07-12 – these pages show the data under consideration for each parameter and the following six (6) estimates:
  - Estimates 07 & 08 are based on the nine (9) most recent Accident Years before the most recent Accident Year.
  - Estimates 09 & 10 are based on the eight (8) most recent Accident Years before the most recent Accident Year.
  - Estimates 11 & 12 are based on the seven (7) most recent Accident Years before the most recent Accident Year.

The twelve (12) estimates utilize a geometric average, a regression analysis, a 3-year moving average and the various experience periods listed above. These estimates also utilize data with certain extreme values limited as noted on each page.

Additionally, see Exhibit V-K Supplement for a discussion about Traumatic Indemnity Claim Frequency Trend considerations.

J. On these pages, individual Traumatic claims that exceed $1,250,000 after loss development are proportioned based on reported medical and indemnity. Each page is devoted to an individual Traumatic claim. The CMCRB believes that limiting these claims helps to stabilize the trend indications.

Page 1 shows data for a large claim for Accident Year 2007 that is limited in the current filing. Page 2 shows data for a large claim for Accident Year 2012 that was limited in last year's filing. This claim is not limited for this filing to be effective April 1, 2016, since the Total Developed Losses for this claim fall under the threshold ($1,250,000) at this evaluation.

K. Exhibit V-K summarizes the twelve (12) estimates of each trend parameter under consideration from the various pages of Exhibit V-I. The three (3) Medical Severity trend indications are averaged by the weighting method noted.

Exhibit V-K Supplemental provides the supplemental Traumatic Indemnity Claim Frequency analysis that the CMCRB performed. Considering Exhibit V-I, Page 4, the CMCRB noted that Claim Frequencies indicated that three (3) eras exist in the data for Accident Year 2005 through 2014: (1) 2005, (2) 2006 to 2009 and (3) 2010 to 2014. (Note that 2005 was part of an era that included 2003 and 2004.) Since the CMCRB believes that it is not appropriate to apply customary trend estimation techniques that assume data continuity to data that behaves in a step-wise fashion, the CMCRB chose to analyze Adjusted Claim Frequencies for 2006 through 2014. The CMCRB determined the Selected Frequency Trend from this supplemental analysis. The CMCRB notes that it performed similar analyses for the April 1, 2014 filing and April 1, 2015 filing.

Exhibit VI – Traumatic Loss Development

The CMCRB notes that Act 44 of 1993 and Act 57 of 1996 significantly affected Traumatic

Indemnity and Medical benefit levels and claim settlement practices (and consequently Traumatic Loss Development data reported to the CMCRB). The CMCRB calculates and applies adjustments to address these effects to its reported loss development data in the various pages of Exhibit VI and briefly discusses the more significant aspects of its work below.

A. Page 1 displays Reported Traumatic Indemnity Incurred Losses by Accident Year and by Report Level, Act 57 Indemnity Law Adjustment Factors and Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level.

   Page 2 displays Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level, Claim Settlement Level Additives and Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level and Claim Settlement Level.

   Page 3 displays Reported Traumatic Indemnity Incurred Losses by Accident Year and by Report Level, the Sum of Act 57 Indemnity Law Adjustment Factors and Claim Settlement Level Additives and Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level and Claim Settlement Level.

   Page 4 displays Reported Traumatic Indemnity Incurred Losses adjusted to Act 57 Law Level and Claim Settlement Level by Accident Year and by Report Level. It also shows the report-to-report Development factors, as well as the averaging and selection of report-to-report factors (i.e., the Average of Middle Four).

   Pages 5a, 5b and 5c display the summary and derivation of the Traumatic Indemnity Claim Settlement Adjustment Factors.

   When calculating loss development factors, the primary premise is that the loss development factors must be in direct relationship with the losses being developed. The CMCRB uses data for the five (5) most recent Accident Years when calculating indicated Traumatic Loss Costs by classification (see Exhibit V-B) and notes that this data (or these five (5) years) are all on a post Act 57 Law and Claim Settlement level. Since the historical Loss Development data is not all consistently on this same level, the adjustments identified above are used to restate the historical Loss Development data to a post Act 57 Law and Claim Settlement level. In this way, both the losses to be developed from the five (5) most recent Accident Years and the loss development factors are on the same level or basis.

   The CMCRB notes that Act 57 reduced Indemnity benefits in various ways. The more significant provisions of Act 57 involved changes to the AMA Guidelines, Social Security Offsets, Pension Offsets and Wage Level Offsets. The changes to Indemnity benefits are addressed by the Act 57 Indemnity Law Adjustment factors.

   The CMCRB also notes that Act 57 permitted and recommended the settlement of Traumatic claims. The changes in claim settlement practices are addressed by the Claim Settlement Level Additives (or adjustments).

The CMCRB observes that both sets of adjustments seem to be well known and accepted. Furthermore, these adjustments become less relevant each year as more data is reported directly on a post Act 57 basis.

B. Page 1 displays Reported Traumatic Medical Incurred Losses by Accident Year and by Report Level, Act 44 Medical Law Adjustment Factors and Reported Traumatic Medical Incurred Losses adjusted to Act 44 Law Level.

Page 2 displays Act 44 Medical Law Adjustment Factors, Claim Settlement Adjustment Additions and the Sum of these adjustments.

Page 3 displays Reported Traumatic Medical Incurred Losses by Accident Year and by Report Level, the Sum of Act 44 Medical Law Adjustment Factors and Claim Settlement Adjustment Additions and Reported Traumatic Medical Incurred Losses adjusted to Act 44 Law and Claim Settlement Levels.

Page 4 displays Reported Traumatic Medical Incurred Losses adjusted to Act 44 Law and Claim Settlement Levels by Accident Year and by Report Level. It also shows the report-to-report Development factors, as well as the averaging and selection of report-to-report factors (i.e., the Average of Middle Four).

Page 5 provides the derivation of the Medical Claim Settlement Adjustment Factors which are used on Page 2.

When calculating loss development factors, the primary premise is that the loss development factors must be in direct relationship with the losses being developed. The CMCRB uses data for the five (5) most recent Accident Years when calculating indicated Traumatic Loss Costs by classification (see Exhibit V-B) and notes that this data (or these five (5) years) are all on a post Act 44 Law and Claim Settlement level. Since the historical Loss Development data is not all consistently on this same level, the adjustments described above are used to restate the historical Loss Development data to a post Act 44 Law and Claim Settlement level. In this way, both the losses to be developed from the five (5) most recent Accident Years and the loss development factors are on the same level or basis.

C. Page 1 displays Reported Traumatic Indemnity Incurred Claims by Accident Year and by Report Level. It also shows the report-to-report Claim Count Development factors, the averaging and selection of report-to-report factors, the Cumulative Claim Count Development factors and the estimated Ultimate Claim Counts for each Accident Year.

Page 2 displays Reported Traumatic Medical Only Incurred Claims by Accident Year and by Report Level. Otherwise, the format follows the format of Page 1.

Page 3 displays Reported Traumatic Medical Only Incurred Losses by Accident Year and by Report Level. The format is similar to Pages 1 and 2, except that only ten (10) report levels are displayed.

D. Page 1 presents the Summary of Adjustments to Traumatic Medical Loss Development Factors related to Act 44. Pages 2 through 13 provide the derivation of these Adjustments by Accident Year. Page 14 provides a sample payment pattern.

F. This page presents the Traumatic Indemnity and Medical Paid Loss information by Accident Year and Report Level arranged in traditional loss development format. The CMCRB has only collected Paid Loss information for the period displayed.

Exhibit VII – SOD and FOD Excess Severity and Frequency

A. These five (5) pages show the Average SOD and FOD Excess Severities prior to adjustments for Act 57, adjustments for Act 57 and after adjustments for Act 57. One page is provided for each of the Four Standard Classes and for the Other Classes combined.

These pages display severity values (i.e., Average Amounts and/or Totals) that are summaries of the individual claim detail found in Exhibit VII-E, Exhibit IX-A and Exhibit VII-G. These pages average the Base Scenario with the All Permanent Partial Scenario using weights of 100% and 0% respectively, since no claims have been reported as Permanent Partial.

Sections “a” (After AMA Guidelines), “b” (Social Security Offset/Onset) and “c” (Pension Offset/Onset) are addressed in the discussion for Exhibit IX-A. (See Exhibit IX-A for a discussion about these amounts.)

Section “d” (Combined Social Security and Pension Offsets/Onsets) recognizes the condition that the full amount of the pension is available as an Offset to the SOD benefit with the constraint that the SOD benefit minus the Social Security and Private Pension Offsets must not be less than zero.

Section “e” (Wage Level Decrease/Increase) is no longer used.

Section “f” (Combined Social Security, Pension and Wage Level) presents percentages that are equivalent to the percentages in Section “d” since Section “e” is no longer used.

Section “g” (Combined Dollar Effect) summarizes the effect in dollars of the various Offsets and Onsets calculated on these pages.

B-1. Exhibit VII-B-1-A displays the derivation of the SOD Claim Frequencies by Classification on a Developed Payroll basis. This process begins with the Indicated Claim Frequencies on a Miner Year basis developed in Exhibit VII-B-2. The Indicated Claim Frequencies are credibility weighted with the currently Approved SOD Claim

Frequencies trended (although the trend is 0%) to the current valuation level developed in Exhibit VII-B-1-B. After the application of credibility, the Credibility Weighted Indicated SOD Claim Frequencies are converted to a Developed Payroll basis because the CMCRB publishes Loss Costs on a Payroll basis.

The Total of the Expected Awarded Claims for All Classes is assigned as the full credibility standard. The credibility factor for each classification is obtained as the ratio of the Expected Awarded Claims of a given class to the full credibility standard raised to the ½ power.

Exhibit VII-B-1-B displays the conversions of the Approved SOD Claim Frequencies from the prior filing that are on a Payroll basis to a Miner Year basis.

Both of these pages provide various totals and subtotals that are derived using Developed Payrolls or Estimated Miner Years as weights as indicated in the Source notes. The totals and subtotals may differ from prior filings as the weights can and do change.

B-2. The objective of these pages is to compare estimates of the Expected Ultimate Awarded Claims to a suitable exposure base. These pages display data on the number of SOD Claims that have been Reported, Awarded or Denied, or that are Pending by Classification and with Subtotals and a Grand Total. Additionally, the IBNR Claim estimates from Exhibit VII-C are also displayed. IBNR and Pending claims are multiplied by an Award Ratio, since all reported claims do not result in payment awards.

For the exposure base, Developed Payrolls are converted to Estimated Miner Years. Subsequently, Claim Frequencies are calculated on a Miner Year (per 100 Miner Years) basis which began with the filing for April 1, 2011.

Converting Developed Payrolls to Estimated Miner Years, the (Wage) Adjustment Factors are needed since our data shows that workers in certain Bituminous Classes (i.e., Underground, Prep Plant and Co-Gen) were paid at a higher rate than workers in other classes. (See Exhibit X-G for this analysis.) The use of a single factor for all classes would overestimate the number of Miner Years in the cited classes and underestimate the number of Miner Years in other classes had a single factor been used to adjust the SAWW in the conversion process.

The totals and subtotals that are displayed are additions of the Classes listed and may slightly differ from the results derived using the formula in the Source notes.

Federal Excess Frequencies are also calculated on these pages as the products of the State Frequencies times a Federal Excess Award Ratio of 40%. This ratio has been used since the April 1, 2004 filing (and possibly earlier) and remains comparable to the ratio of FOD Excess Awarded and Pending Claims to SOD Awarded and Pending Claims.

C. Pages 1 through 4 (i.e., Exhibit VII-C-1 through VII-C-4) display SOD Reported Claims for the Four (4) Major Classifications. Page 5 (i.e., Exhibit VII-C-5) displays SOD

Reported Claims for the six (6) Other Classifications combined. Page 6 (i.e., Exhibit VII-C-6) shows SOD Reported Claims for All Classifications combined.

These pages show the procedure used to calculate Incurred But Not Reported (IBNR) Claims. Incremental Changes in Reported Claims are calculated and then converted to a percentage of Developed Payroll (in $Millions). The actual experience is averaged and then smoothed by ordering the actual data from largest to smallest.

For the six (6) Other Classifications, the All Classifications estimates were used to arrive at the base IBNR. Pages 7 and 8 (i.e., Exhibit VII-C-7 and VII-C-8) show the IBNR calculations for the Other Classifications. Adjustment Factors were used for each of the Other Classifications to lower the expected probability of having a SOD claim since the Other Classifications have produced fewer SOD claims and lower SOD claim frequencies than the All Classifications experience with one exception. The Adjustment Factor for Anthracite Prep Plant was maintained at unity (i.e., no adjustment) because this Class has produced more claims and higher claim frequencies than the rest of the Other Classifications.

D. Reserved for Future Use

E. This exhibit consists of six (6) subsections (i.e., a, b, c, d, e and f). Each subsection consists of five (5) pages (one page for each of the Four Standard Classes and one page for the Other Classes combined). The subsections show the following severities or severity adjustments:
   a – SOD – Before Act 57
   b – SOD – Social Security Offset
   c – SOD – Private Pension Offset
   d – Federal Excess OD – Before Offsets
   e – Federal Excess OD – After Social Security Offset
   f – Federal Excess OD – After Social Security and Private Pension Offsets

   These pages display the individual claim detail from Exhibit IX-A by status (i.e., Awarded-Permanent, Awarded-Commuted/Compromised, and Pending.) Since Pending claims could be resolved by Commutation or Compromise, the probability of Commutation/Compromise is assigned to the Pending claims based on the mix of Commuted/Compromised claims in the Awarded claims. The severity for the expected Commuted/ Compromised claims within the Pending claims is then adjusted by the difference between the Average Awarded Commuted/Compromised Severity and the Average Awarded Permanent Severity. This adjustment results in a lower SOD cost and a higher FOD Excess cost.

F. Reserved for Future Use

G. Page 1 displays the Smoothed Average Weekly Wages for the Four Standard Classes from Exhibit VII-H and the process to convert these Wages to a post-Act 57 level, where needed. The post-Act 57 Wages are used in the Occupational Disease Severity Model.

The top of Page 2 shows the calculation of the Act 57 Wage Level Offset or the Wage Level decrease associated with Act 57. The Wage Level Changes included in Act 57 are expected to reduce State benefit levels and consequently increase Federal Excess benefit levels. The wage distribution is from the 120 State OD claims provided by CMCRB for the CM-1-1998 filing, with judgmental trending to estimate the distribution of wages among miners during the projected effective period of the loss costs. The average benefit levels before and after the changes were developed by PCRB.

The bottom of Page 2 shows the development of the 12.5% Pension Offset factor. This adjustment is made because not all miners are eligible for a private pension and not all private pension payments are subject to offset.

H. These pages show the development of the Projected Average SOD Wage Level for each of the Four Standard Classes. For each class, an average ratio of the Reported (or Actual) SOD Average Wage to the Statewide Average Weekly Wage is calculated. The product of the ratio for each class and the projected Statewide Average Weekly Wage results in a Projected Average SOD Wage Level for each class. The Wage History for 1990 through 2014 (the most recent year that data is available) is then smoothed for use in the indexation process in Exhibit VII-G.

I. Reserved for Future Use

J. Page 1 shows the historical Social Security Cost of Living Adjustments (COLA), the 3-year, 5-year, 10-year and All-year averages of these amounts and the Selected Annual Change. Page 2 shows the projection of the Monthly Wage Amounts Bend Points and the Annual Social Security Wage Base used to calculate the Primary Insurance Amount (PIA) or Social Security benefit. These amounts are projected to one (1) year past the proposed effective date, which is the average accident date of the proposed loss costs. Page 3 provides examples as to how the bend points and maximum are used.

K. Reserved for Future Use.

L. These pages model changes to Claiming activity (i.e., Claim Awarding and Reopening) for FOD Excess Claims that are related to Federal Black Lung Regulation revisions that were issued on January 19, 2001. Generally, the reasoning for these calculations and assumptions follows the reasoning for Exhibit VIII-F, which is presented later in the commentary for Exhibit VIII-F. The differences in the calculations and assumptions between Exhibit VII-L and Exhibit VIII-F are discussed as follows.

Exhibit VII-L uses data for the most recent twenty (20) years whereas Exhibit VIII-F only uses data for the most recent ten (10) years. Since the CMCRB believes that different assumptions should apply to the pre-2001 years and the post-2000 year, the different or additional assumptions and calculations on these pages include the following:

- Pending Awarded Ratios – the Award Ratio of 30% applies to all years.
- Denied Reopened Ratios

    - The Reopened Ratio of 5% applies to the post-2000 years.
    - A Reopened Ratio of 15% applies to the pre-2001 years.
- Denied Awarded
    - The Award Ratio of 100% applies to the post-2000 years.
    - An Award Ratio of 20% applies to the pre-2001 years.
- IBNR Award Ratios – the IBNR Award Ratios that are shown on each page are the ratios of the Ultimate Awarded Claims (Col. 8) and the Reported Claims (Col. 1) from the Grand Total data on page 13 for the pre-2001 years and post-2000 years respectively.
- All of these assumptions have been maintained since the April 1, 2009 filing.

The IBNR amounts in Column 10 are 40% of the SOD IBNR Amounts from Exhibit VII-C. (The reasoning for and history of this assumption was provided under Exhibit VII-B-2 above.)

Exhibit VIII – FOD Basic Severity and Frequency

A. This page provides a summary of the individual claim details that are shown in Exhibit IX-B for the Federal Basic Severities separately for each of the Four Standard Classes, the Four Standard Classes Combined, the Other Classes Combined and All Classes Combined.

B-1. Reserved for Future Use.

B-2. The objective of these pages is to compare estimates of the Expected Ultimate Awarded Claims to a suitable exposure base. These pages display data on the number of FOD Basic Claims that have been Reported, Awarded or Denied, or that are Pending by Classification and with Subtotals and a Grand Total. Additionally, the IBNR Claim estimates from Exhibit VIII-C are also displayed. IBNR and Pending claims are multiplied by an Award Ratio, since all reported claims do not result in payment awards.

For the exposure base, Developed Payrolls are converted to Estimated Miner Years. Subsequently, Claim Frequencies are calculated on a Miner Year (per 100 Miner Years) basis which began with the filing for April 1, 2011.

Converting Developed Payrolls to Estimated Miner Years, the (Wage) Adjustment Factors are needed since our data shows that workers in certain Bituminous Classes (i.e., Underground, Prep Plant and Co-Gen) were paid at a higher rate than workers in other classes. (See Exhibit X-G for this analysis.) The use of a single factor for all classes would overestimate the number of Miner Years in the cited classes and underestimate the number of Miner Years in other classes had a single factor been used to adjust the SAWW in the conversion process.

The totals and subtotals that are displayed are additions of the Classes listed and may slightly differ from the results derived using the formula in the Source notes.

C. Pages 1 through 4 (i.e., Exhibit VIII-C-1 through VIII-C-4) display FOD Basic Reported Claims for the Four (4) Major Classifications. Page 5 (i.e., Exhibit VIII-C-5) displays FOD Basic Reported Claims for the six (6) Other Classifications combined. Page 6 (i.e., Exhibit VIII-C-6) shows FOD Basic Reported Claims for All Classifications combined. (FOD Excess Reported Claims are addressed in Exhibits VII-B-2 and VII-L.)

   These pages show the procedure used to calculate Incurred But Not Reported (IBNR) Claims. Incremental Changes in Reported Claims are calculated and then converted to a percentage of Developed Payroll (in $Millions). The actual experience is averaged and then smoothed by ordering the actual data from largest to smallest.

   For the six (6) Other Classifications, the All Classifications estimates were used to arrive at the base IBNR. Pages 7 and 8 (i.e., Exhibit VIII-C-7 and VIII-C-8) show the IBNR calculations for the Other Classifications. Adjustment Factors were used for each of the Other Classifications to lower the expected probability of having a FOD Basic claim since the Other Classifications have produced fewer FOD Basic claims and lower FOD Basic claim frequencies than the All Classifications experience. The adjustment factors were not changed this year.

D. This page displays the Table of the Monthly Federal Black Lung Benefits from 1981 to the present. It also shows the changes in benefits from year to year and the selected change rates that were used to project FOD losses to the average accident date anticipated for the proposed filing.

E. Reserved for Future Use.

F. These pages model changes to Claiming activity (i.e., Claim Awarding and Reopening) for Federal Basic OD Claims that are related to Federal Black Lung Regulation revisions that were issued on January 19, 2001. These revisions changed the procedures and criteria for obtaining Federal Black Lung Benefits resulting in the natural expectation that the frequency of Federal Black Lung claims would increase. Some of the regulatory changes involved limiting evidence and time to contest, broadening the definition of Black Lung disease, weakening the criteria for determining disability, offering new claim status (as opposed to subsequent and reopened status) to claims, and changing attorney and witness fees.

   These changes were expected to increase claim frequencies in the post-2000 years to a greater level than had been previously observed and to increase the claim frequencies in the pre-2001 years as well. Most parties agreed that frequencies, severities and costs generally would increase under these revisions. Even the U.S. Department of Labor conceded that costs would rise between 15% and 60%.

   For the post-2000 years, the CMCRB believes that Pending claims will be awarded at a higher rate than previously observed, so Pending claims are assumed to have an Award Ratio of 30%. Similarly, the CMCRB also believes that some Denied claims will be re-opened and awarded under the more liberal standards of proof, so 5% of Denied claims

are assumed to be Reopened with a subsequent Award Ratio of 100%. These assumptions were first included in the April 1, 2009 filing. The derivation and history of these parameters has been discussed in prior filings, so a brief discussion is provided below.

For the years 1989 to 1999 as of August 2000, the following claim statuses were noted: 122 Awarded, 121 Pending, 447 Denied and 690 Reported.

The claim statuses for 121 Pending claims were updated as of August 2007. The following updated claim statuses were noted: 22 Awarded, 21 Pending, 76 Denied and 2 "Other".

This data implies an Award Ratio of 22.45% which is equal to (22) divided by (22+76). This ratio serves as an estimate of the percentage of Pending claims that will be ultimately Awarded.

The claim statuses for the 447 Denied claims were also updated as of August 2007. The following updated claim statuses were noted: 6 Awarded, 12 Pending and 429 Denied.

This data implies an Award Ratio for Denied Claims of about 2% which is equal to (8.7) divided by (447). The numerator of 8.7 is equal to (6) plus (12) x (22.45%). This ratio serves as an estimate of the percentage of Denied claims that will be ultimately Awarded.

The IBNR Award Ratio that is shown on each page is the ratio of the Total Ultimate Awarded Claims (Col. 8) and the Total Reported Claims (Col. 1) from the Grand Total data on page 13.

Exhibit IX – Individual Claim Detail for SOD and FOD Claim Severities

A. These pages display the Individual Claim Detail for State and FOD Excess claim severities separately for the Four Standard Classes and for the Other Classes combined. The Individual Claim Details come from the CMCRB's Occupational Disease Severity Model ("Model"). Benefit amounts are accumulated over the lifetime of the miner (and spouse, if applicable) with mortality factors included in the calculation. For SOD and FOD Excess, this Model evaluates claims both on a Permanent Total basis and on a Permanent Partial basis.

To estimate the value of each claim, each claim is assumed to occur during the midpoint of the proposed filing period. This assumption requires that the historical wage amount recorded for each claim be adjusted to the midpoint of the proposed filing period. Details of these adjustments are presented in Exhibit VII-H.

These pages first display claim values (or projected benefits) for a "Base" scenario (i.e., before the impact of Act 57) for SOD (including Medical) and FOD Excess. These

values are associated with the Awarded and Pending claims reported to the CMCRB for exposure years 1990 through 2014. For the Base Scenario, all claims are calculated with lifetime SOD Indemnity (Benefit) payments (i.e., Permanent Total basis) except for the Commuted or Compromised claims.

These pages also display claim values for an "All Permanent Partial" scenario. For this scenario, Commuted, Compromised, and Widow Only claims are unchanged from the Base Scenario, but all other claims are re-evaluated with 630 weeks of State payments. Values for the All Permanent Partial scenario are calculated because the implementation of American Medical Association (AMA) Guidelines to evaluate the percentage of disability was expected to reduce the portion of claims evaluated as Permanent Total. For this scenario, all claims other than Commuted, Compromised, or Widow Only were calculated with only 630 weeks of SOD Indemnity (Benefit) payments.

The 630-week duration was calculated as follows:

The AMA Guidelines do not apply prior to the expiration of an initial 104-week benefit period. With timely filing for review, timely occurrence of the hearing and timely issuance of a decision, a floor of 604 weeks exists (104 + 500). The actual period will be longer than this 604-week floor. It is estimated that the anticipated average benefit period for claims reviewed under the AMA Guidelines will exceed the floor by one-half of a year, or 26 weeks. Therefore, the All Permanent Partial Scenario was based upon 630 weeks (104 +26 +500).

These pages display Social Security Offsets/Onsets. These Offsets/Onsets are based on the Social Security Formulas – Historic Primary Insurance Amounts (PIA) and Projections in Exhibit VII-J. The decrease (or Offset) to SOD benefits is 50% of the miner's Social Security retirement benefit, limited to the amount of the SOD benefit. This adjustment results in a decrease to SOD Indemnity benefits and an increase to FOD Excess Indemnity benefits.

These pages also display Pension Offsets/Onsets. These Offsets/Onsets are based on the Pension Offset percentage calculated in Exhibit VII-G Page 2. The full amount of the pension is available as an Offset to the SOD benefit, with the constraint that the SOD benefit minus the Social Security and Private Pension Offsets must not be less than zero. This adjustment results in a decrease to SOD Indemnity benefits and an increase to FOD Excess Indemnity benefits.

Four (4) provisions in Act 57 of 1996 were expected to reduce SOD benefits (and Traumatic benefits). These provisions involved the:

1. AMA Guidelines
2. Social Security Offsets/Onsets
3. Pension Offsets/Onsets and
4. Wage Level Offsets/Onsets.

Consequently, the CMCRB has annually submitted estimates for SOD Loss Costs that reflect the anticipated savings from these provisions. Correspondingly, but not in the same proportions, the CMCRB has submitted estimates for FOD Excess Loss Costs that reflect the anticipated additional costs from these provisions that would be shifted to Federal secondary claims since the cross-over point for Federal benefits would occur quicker or earlier than under the old law.

This filing continues the process of phasing out some of the SOD Offsets and some of the FOD Excess Onsets.

- AMA Guidelines – While the CMCRB continues to calculate both a Permanent Total (or Base) scenario and an All Permanent Partial scenario, the Base scenario now receives 100% of the weight in the averaging of these two values. The weight given to the All Permanent Partial scenario has been reduced to zero since no such claims have emerged.

- Social Security and Pension Offsets/Onsets – The CMCRB continues to use the original assumptions for these provisions due to the absence of actual claim data in this regard.

- Wage Level Offsets/Onsets – The CMCRB annually updates the offset/onset amount in Exhibit VII-G Page 1. The SOD Offset percentage decreased from 1.4338% to 1.3765%. Correspondingly, the FOD Excess Onset decreased as shown on Exhibit VII-A.

B. These pages display the Individual Claim Detail for Federal Basic OD claim severities separately for the Four Standard Classes and for the Other Classes. The Individual Claim Details come from the CMCRB's Occupational Disease Severity Model ("Model"). Benefit amounts are accumulated over the lifetime of the miner (and spouse, if applicable) with mortality factors included in the calculation.

These pages (Exhibit IX-A and IX-B) provide a source for the claim severity figures in Exhibits VII and VIII. No changes, except updates, were made in any of the formula used to run the Model. For example, the input parameters used to calculate the Medical Severities on these pages were updated to reflect inflation considerations.

Exhibit X – Payrolls – Developments and Adjustments

A. Developed and Adjusted Payrolls are displayed by year, by coverage and by classification. Payrolls occasionally differ by coverage for the reasons addressed in Exhibit X-C.

B. Developed Traumatic Payrolls are extended at current loss cost level to calculate on-level Loss Cost Premium by year for eleven (11) years and by classification on Page 1. Rating values from the CMCRB's latest loss cost filing are shown on Pages 2 and 3.

C. Developed Traumatic Payrolls are first adjusted to obtain Developed SOD Payroll by showing the amount of Anthracite Underground payroll that is assigned to the Bituminous Underground classification related to the UAE decision on Pages 4 and 5. Otherwise, Developed Traumatic Payrolls are equal to Developed SOD Payrolls.

   Then, Developed SOD Payrolls are adjusted to obtain Developed FOD Payroll on Pages 1 through 3. The Federal Exempt Reported Payroll is the Traumatic Payroll for insureds that purchase State Act coverage (Traumatic and SOD), but that select to self-insure for FOD coverage. Also, Developed SOD Payrolls are further adjusted to obtain Developed FOD Payrolls for Executive Officers, Sole proprietors and Partners of Partnerships that elected not to purchase State Act coverage. These individuals can elect not to purchase State Act coverage, but cannot elect not to purchase FOD coverage.

D. Reported Payrolls by classification are projected to Developed Payrolls using the Development Factors calculated in Exhibit X-E. Developed Payrolls are the CMCRB's estimated ultimate or final payroll level for each Accident Year.

E. Payroll Development Factors are calculated first from report-to-report level and then from report-to-ultimate level.

F. SOD and FOD Claim Frequencies from the CMCRB's latest loss cost filing are shown.

G. Reported Average Weekly Wages for Coal Classes are indexed to the Statewide Average Weekly Wage (SAWW). These indexes are used in the calculation of SOD and FOD Claim Frequencies.

Exhibit XI – Special Assessments

A. The fiscal year budget for the Office of Small Business Advocate is compared to the insurance carrier paid losses to produce the Small Business Advocate Assessment Ratio. This amount is loaded into the CMCRB's Manual Loss Costs.

B. The fiscal year budgets for the listed Funds are compared to the Employer Assessment Premium Base to produce the Employer Assessment Factor. This amount is not loaded into the CMCRB's Manual Loss Costs, but is treated as a separate calculation in the determination of policy premium. This amount is the estimated provision for Pennsylvania's Administrative Fund, Subsequent Injury Fund, Supersedeas Fund and Uninsured Employer Guaranty Fund.

Exhibit XII – Catastrophe Provision

The CMCRB caps or limits losses for individual Traumatic claims at $1,250,000 in the Traumatic Loss Cost Indications by classification in Exhibit V-B which uses data for the five (5) most recent Accident Years. In this exhibit, the CMCRB calculates provisions for these large losses using data for the twenty (20) most recent Accident Years. The CMCRB expresses these considerations as loss costs which provide for potential future catastrophic

loss events. These amounts, which vary by classification, are loaded into the CMCRB's Manual Loss Costs.

A. The overall catastrophe provision (or Loss Costs) is distributed among the ten (10) Traumatic classifications based on the Developed Payrolls for the most recent Accident Year and the noted Hazard Weights.

B. The Number of Excess Claims and Excess Loss Dollars in excess of $1,250,000 are summarized by Accident Year. The current Accident Year Developed Payroll is compared to the Average Catastrophe Excess Loss over the twenty (20) most recent Accident Years to develop the Catastrophe Loss Cost.

C. Information for the individual Traumatic losses that exceed the $1,250,000 threshold is shown including the trend factor used to bring losses to the current loss level. (For the April 1, 2016 filing, all losses in the twenty (20) most recent Accident Years are reported on a Post-Act 44 basis and do not require an Act 44 adjustment.) The Statewide Average Weekly Wage Index is used as the Trend factor and is applied to both Indemnity and Medical Losses. The use of this index seems appropriate since Indemnity losses are a direct function of wages and Act 44 restricts changes in Medical costs to the change in the Statewide Average Weekly Wage.

D. Trend Factors (or factors that are used to bring historical Indemnity and Medical losses to current loss level) for Indemnity and Medical losses are calculated based on the Statewide Average Weekly Wage (SAWW) that is published for Pennsylvania. The CMCRB projects the SAWW to the average accident date associated with the requested effective date for this filing based on the review of the yearly changes that are shown.

E. The Number of Excess Claims and Excess Loss Dollars in excess of $1,250,000 are summarized by classification (or Class Code).

Exhibit XIII – Traumatic Experience Rating Plan

The CMCRB proposes to maintain the major features of the Traumatic Experience Rating Plan and to update the associated plan parameters. The major features are:

- The primary limiting value for basic ratable losses remains at $50,000 per occurrence.
- The secondary limiting value for excess ratable losses remains at $150,000 per occurrence.
- The eligibility requirement of at least $300,000 in modified Traumatic payroll during the three (3) year experience is maintained.
- The shape of the Credibility Table is also unchanged.

A. Page 1 shows the derivation of the Expected Loss Costs (or Values) based on the Unloaded Loss Costs and the Split of Total Losses by Layer. The proposed total limits loss costs were unloaded for loss-based assessments, the Small Business Advocate, Merit Rating Off-Balance, Safety Committee Off-Balance, Catastrophe Loading, loss development and trend to calculate the expected losses by layer. These unloaded, de-

trended, undeveloped loss costs were then divided into layers based on the six-year average of actual losses by layer at the same maturity (report) level.

Page 2 shows the calculations for the weighted loss development and loss trend factors. These factors are used on page 1.

Page 3 shows the basic and ratable excess credibility amounts by size of risk (i.e., modified 3-year payroll) based on the proposed overall Unloaded Loss Cost. The primary layer table tracks the shape of the PCRB table converted from expected losses to Payroll using the proposed overall Unloaded Loss Cost underlying this filing. The table for the excess ratable layer was also updated based on the proposed overall Unloaded Loss Cost underlying this filing.

B. These pages provide comparisons of the current Experience Mods (as calculated and released by the CMCRB with last year's filing) to the proposed Experience Mods, by file number. In total, there are few new experience-rated accounts. Some accounts which were experience rated last year were not eligible this year. The Experience Rating Plan's Off-Balance factor was calculated to be 0.9922. Each indicated mod was adjusted by this off-balance factor so that the Plan is revenue neutral.

C. The CMCRB caps indicated Experience Mod increases and decreases at 0.35. This page shows files that are affected by this capping.

Additionally, the CMCRB plans to continue the capping of Experience Mods for small accounts (which is part of the currently approved Experience Rating Plan) as follows:

Less than $499,999 in payroll	max mod 1.20
$500,000 to $749,999 in payroll	max mod 1.30
$750,000 to $999,999 in payroll	max mod 1.40

Exhibit XIV – Merit Rating and Safety Committee Credit Off-Balance Calculations

A. Page 1 shows the calculation of the Merit Rating Plan Off-Balance Factor, which is equal to the ratio of proposed Unloaded Loss Cost Premium to the proposed Unloaded Loss Cost Premium after Merit Rating Credits and Surcharges. Page 2 shows Developed Payroll for the most recent Accident Year in total and separately for Experience Rated, Merit Rated and Manual Rates risks. For Merit Rated risks, the Payroll is also shown separately for Merit Credit and Merit Surcharged risks.

B. This page shows the calculation of the Safety Committee Credit Off-Balance Factor. This factor is equal to the ratio of proposed Unloaded Loss Cost Premium to proposed Unloaded Loss Cost Premium after Safety Committee credits.

Disclosures

The CMCRB offers the following disclosures (i.e., potential constraints or limitations) concerning the conclusions in this report specifically related to potential risk and/or uncertainty. The Proposed Loss Costs do not include any provision for the risk and/or uncertainty that may be inherent in these reserve estimates or in these loss cost projections. While the CMCRB understands that the applicable Statements of Principles promulgated by the Casualty Actuarial Society advocate for a provision for uncertainty, the CMCRB believes that its approach is acceptable and reasonable, because individual carriers can decide whether or not to include a provision for uncertainty in the determination of their loss cost multipliers.

Although this report complies with applicable Actuarial Standards of Practice and Statements of Principles, users of this report should be aware that the projections in this report involve estimates that are inherently uncertain. This uncertainty stems from a dependence of the amount of future claims payments on facts and circumstances that are unknown at this time. Some of these unknown facts and circumstances may involve, but may not necessarily be limited to, the following:

- Changes in claim reserving practices or settlement practices,
- Changes in the legal, regulatory, economic or social environments,
- Statistical variation from the projected expected values – especially given the fairly modest size of the CMCRB's database and
- Future emergence of new classes of losses or types of losses that are not sufficiently represented in the historical database.

Additionally, the CMCRB believes that the conclusions in this report are consistent with the combined experience of all carriers in the CMCRB's database. However, the CMCRB acknowledges that the experience of the CMCRB's individual members companies may be different (or may be perceived to be different) from the aggregate experience of the CMCRB's total membership.

Please direct any questions concerning this report to:

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Coal Mine Compensation Rating Bureau
Current and Proposed Loss Costs
Manual Including Loadings

	2014 Developed Payroll	(1) Approved Loss Cost Manual	(2) Proposed Loss Cost Manual	(3) Percent Change
Underground Anthracite:				
Traumatic (1010)	$258,809	$20.36	$22.06	8.3%
State O.D. (1011)	258,809	5.10	5.27	3.3%
*Federal Basic/Ex (0160)	258,809	12.68	12.87	1.5%
Total	xx	38.14	40.20	5.4%
Underground Bituminous:				
Traumatic (1001)	$235,444,691	$5.78	$6.13	6.1%
State O.D. (1002)	235,444,691	0.68	0.73	7.4%
*Federal Basic/Ex (0158)	148,066,216	0.81	0.72	-11.1%
Total	xx	7.27	7.58	4.3%
Surface Anthracite:				
Traumatic (1012)	$20,496,172	$9.21	$11.00	19.4%
State O.D. (1016)	20,496,172	2.29	1.97	-14.0%
*Federal Basic/Ex (0153)	18,868,872	3.31	3.11	-6.0%
Total	xx	14.81	16.08	8.6%
Surface Bituminous:				
Traumatic (1014)	$54,137,563	$2.21	$2.31	4.5%
State O.D. (1013)	54,137,563	0.15	0.15	0.0%
*Federal Basic/Ex (0156)	55,347,009	0.50	0.50	0.0%
Total	xx	2.86	2.96	3.5%
Four Standard Classifications:				
Traumatic	$310,337,235	$5.40	$5.80	7.4%
State O.D.	310,337,235	0.70	0.71	1.4%
*Federal Basic/Ex	222,540,906	0.96	0.88	-8.3%
Total	xx	7.06	7.39	4.7%

*Federal Basic and Excess are after the Federal Administrative / Law Change

Sources: Payroll from Exhibit X-A
Column (1) Loss Costs (Approved 4/1/2015) - Exhibit X-B-2
Column (2) Proposed - Exhibit I-B, pages 1 and 2
Column (3) Traumatic Column (2) / Column (1)
OD Exhibit III and IV-A

Coal Mine Compensation Rating Bureau
Current and Proposed Loss Costs
Manual Including Loadings

		2014 Developed Payroll	(1) Approved Loss Cost Manual	(2) Proposed Loss Cost Manual	(3) Percent Change
Coke:					
	Traumatic (1469)	$4,464,398	$5.82	$5.08	-12.7%
	State O.D. (1017)	4,464,398	0.12	0.13	8.3%
	*Federal Basic/Ex (0154)	4,464,398	0.11	0.09	-18.2%
	Total	xx	6.05	5.30	-12.4%
Auger:					
	Traumatic (1015)	$876,196	$15.94	$15.31	-4.0%
	State O.D. (1019)	876,196	0.25	0.26	4.0%
	*Federal Basic/Ex (0157)	930,810	0.40	0.34	-15.0%
	Total	xx	16.59	15.91	-4.1%
Co-Gen Anthracite:					
	Traumatic (1021)	$9,279,611	$2.46	$2.78	13.0%
	State O.D. (1022)	9,279,611	0.37	0.33	-10.8%
	*Federal Basic/Ex (0181)	8,565,937	0.49	0.46	-6.1%
	Total	xx	3.32	3.57	7.5%
Co-Gen Bituminous:					
	Traumatic (1023)	$11,451,621	$1.09	$1.18	8.3%
	State O.D. (1024)	11,451,621	0.40	0.44	10.0%
	*Federal Basic/Ex (0182)	11,451,621	0.35	0.30	-14.3%
	Total	xx	1.84	1.92	4.3%
Prep Plant Anthracite:					
	Traumatic (1025)	$8,100,471	$4.89	$5.07	3.7%
	State O.D. (1026)	8,100,471	2.69	2.37	-11.9%
	*Federal Basic/Ex (0183)	6,452,662	1.17	1.06	-9.4%
	Total	xx	8.75	8.50	-2.9%
Prep Plant Bituminous:					
	Traumatic (1027)	$43,762,160	$1.18	$1.45	22.9%
	State O.D. (1028)	43,762,160	0.29	0.26	-10.3%
	*Federal Basic/Ex (0184)	32,023,187	0.45	0.38	-15.6%
	Total	xx	1.92	2.09	8.9%
Other Classifications:					
	Traumatic	$77,934,457	$2.14	$2.31	7.9%
	State O.D.	77,934,457	0.55	0.51	-7.3%
	*Federal Basic/Ex	63,888,615	0.49	0.42	-14.3%
	Total	xx	3.18	3.24	1.9%
Grand Total:					
	Traumatic	$388,271,692	$4.75	$5.10	7.4%
	State O.D.	388,271,692	0.67	0.67	0.0%
	*Federal Basic/Ex	286,429,521	0.86	0.77	-10.5%
	Total	xx	6.28	6.54	4.1%

*Federal Basic and Excess are after the Federal Administrative / Law Change

Sources: Payroll from Exhibit X-A
Column (1) Loss Costs (Approved 4/1/2015) - Exhibit X-B-2
Column (2) Proposed - Exhibit I-B, pages 1 and 2
Column (3) Traumatic Column (2) / Column (1)
OD Exhibit III and IV-A

Coal Mine Compensation Rating Bureau
Current and Proposed Loss Costs
Unloaded Manual

	2014 Developed Payroll	(1) Approved Unloaded Manual	(2) Indicated Unloaded Manual	(3) Proposed Unloaded Manual	(4) Percent Change
Underground Anthracite:					
Traumatic (1010)	$258,809	$19.75	$21.61	$21.61	9.4%
State O.D. (1011)	258,809	5.10	5.27	5.27	3.3%
*Federal Basic/Ex (0160)	258,809	12.68	12.87	12.87	1.5%
Total	xx	37.53	39.75	39.75	5.9%
Underground Bituminous:					
Traumatic (1001)	$235,444,691	$5.44	$5.88	$5.88	8.1%
State O.D. (1002)	235,444,691	0.68	0.73	0.73	7.4%
*Federal Basic/Ex (0158)	148,066,216	0.81	0.72	0.72	-11.1%
Total	xx	6.93	7.33	7.33	5.8%
Surface Anthracite:					
Traumatic (1012)	$20,496,172	$9.01	$10.84	$10.84	20.3%
State O.D. (1016)	20,496,172	2.29	1.97	1.97	-14.0%
*Federal Basic/Ex (0153)	18,868,872	3.31	3.11	3.11	-6.0%
Total	xx	14.61	15.92	15.92	9.0%
Surface Bituminous:					
Traumatic (1014)	$54,137,563	$2.14	$2.26	$2.26	5.6%
State O.D. (1013)	54,137,563	0.15	0.15	0.15	0.0%
*Federal Basic/Ex (0156)	55,347,009	0.50	0.50	0.50	0.0%
Total	xx	2.79	2.91	2.91	4.3%
Four Standard Classifications:					
Traumatic	$310,337,235	$5.11	$5.59	$5.59	9.4%
State O.D.	310,337,235	0.70	0.71	0.71	1.4%
*Federal Basic/Ex	222,540,906	0.96	0.88	0.88	-8.3%
Total	xx	6.77	7.18	7.18	6.1%

*Federal Basic and Excess are after the Federal Administrative / Law Change

Sources: Payroll from Exhibit X-A
Column (1) Exhibit X-B Page 2
Column (2) Indicated Loss Cost - Exh. II, col(3) (Traumatic); Exh. III, col(5) (State O.D.); Exh. IV-A, col(5) (Federal O.D. After Adm/Law)
Column (3) Proposed Loss Cost - Exh. II, col(4) (Traumatic); Exh. III, col(8) (State O.D.); Exh. IV-A, col(7) (Federal O.D. After Adm/Law)
Column (4) Exhibit II, III or IV-A

Coal Mine Compensation Rating Bureau
Current and Proposed Loss Costs
Unloaded Manual

		2014 Developed Payroll	(1) Approved Unloaded Manual	(2) Indicated Unloaded Manual	(3) Proposed Unloaded Manual	(4) Percent Change
Coke:						
	Traumatic (1469)	$4,464,398	$5.68	$5.00	$5.00	-12.0%
	State O.D. (1017)	4,464,398	0.12	0.13	0.13	8.3%
	*Federal Basic/Ex (0154)	4,464,398	0.11	0.09	0.09	-18.2%
	Total	xx	5.91	5.22	5.22	-11.7%
Auger:						
	Traumatic (1015)	$876,196	$15.54	$15.05	$15.05	-3.2%
	State O.D. (1019)	876,196	0.25	0.26	0.26	4.0%
	*Federal Basic/Ex (0157)	930,810	0.40	0.34	0.34	-15.0%
	Total	xx	16.19	15.65	15.65	-3.3%
Co-Gen Anthracite:						
	Traumatic (1021)	$9,279,611	$2.38	$2.73	$2.73	14.7%
	State O.D. (1022)	9,279,611	0.37	0.33	0.33	-10.8%
	*Federal Basic/Ex (0181)	8,565,937	0.49	0.46	0.46	-6.1%
	Total	xx	3.24	3.52	3.52	8.6%
Co-Gen Bituminous:						
	Traumatic (1023)	$11,451,621	$1.04	$1.15	$1.15	10.6%
	State O.D. (1024)	11,451,621	0.40	0.44	0.44	10.0%
	*Federal Basic/Ex (0182)	11,451,621	0.35	0.30	0.30	-14.3%
	Total	xx	1.79	1.89	1.89	5.6%
Prep Plant Anthracite:						
	Traumatic (1025)	$8,100,471	$4.77	$4.99	$4.99	4.6%
	State O.D. (1026)	8,100,471	2.69	2.37	2.37	-11.9%
	*Federal Basic/Ex (0183)	6,452,662	1.17	1.06	1.06	-9.4%
	Total	xx	8.63	8.42	8.42	-2.4%
Prep Plant Bituminous:						
	Traumatic (1027)	$43,762,160	$1.13	$1.75	$1.41	25.0%
	State O.D. (1028)	43,762,160	0.29	0.26	0.26	-10.3%
	*Federal Basic/Ex (0184)	32,023,187	0.45	0.38	0.38	-15.6%
	Total	xx	1.87	2.39	2.05	9.6%
Other Classifications:						
	Traumatic	$77,934,457	$2.07	$2.45	$2.26	9.2%
	State O.D.	77,934,457	0.55	0.51	0.51	-7.3%
	*Federal Basic/Ex	63,888,615	0.49	0.42	0.42	-14.3%
	Total	xx	3.11	3.38	3.19	2.6%
Grand Total:						
	Traumatic	$388,271,692	$4.50	$4.96	$4.92	9.3%
	State O.D.	388,271,692	0.67	0.67	0.67	0.0%
	*Federal Basic/Ex	286,429,521	0.86	0.77	0.77	-10.5%
	Total	xx	6.03	6.40	6.36	5.5%

*Federal Basic and Excess are after the Federal Administrative / Law Change

Sources: Payroll from Exhibit X-A
Column (1) Exhibit X-B Page 2
Column (2) Indicated Loss Cost - Exh. II, col(3) (Traumatic); Exh. III, col(5) (State O.D.); Exh. IV-A, col(5) (Federal O.D. After Adm/Law)
Column (3) Proposed Loss Cost - Exh. II, col(4) (Traumatic); Exh. III, col(8) (State O.D.); Exh. IV-A, col(7) (Federal O.D. After Adm/Law)
Column (4) Exhibit II, III or IV-A

Coal Mine Compensation Rating Bureau
Current and Proposed Loss Costs
Unloaded Manual

Calculation of Proposed Unloaded Loss Costs

Underground Anthracite

Traumatic (1010)		Indicated loss cost.
State O.D. (1011)		Indicated loss cost.
*Federal O.D. (0160)	Basic/Ex	Indicated loss cost.

Underground Bituminous

Traumatic (1001)		Indicated loss cost.
State O.D. (1002)		Indicated loss cost.
*Federal O.D. (0158)	Basic/Ex	Indicated loss cost.

Surface Anthracite

Traumatic (1012)		Indicated loss cost.
State O.D. (1016)		Indicated loss cost.
*Federal O.D. (0153)	Basic/Ex	Indicated loss cost.

Surface Bituminous

Traumatic (1014)		Indicated loss cost.
State O.D. (1013)		Indicated loss cost.
*Federal O.D. (0156)	Basic/Ex	Indicated loss cost.

Coke

Traumatic (1469)		Indicated loss cost.
State O.D. (1017)		Indicated loss cost.
*Federal O.D. (0154)	Basic/Ex	Indicated loss cost.

Auger

Traumatic (1015)		Indicated loss cost.
State O.D. (1019)		Indicated loss cost.
*Federal O.D. (0157)	Basic/Ex	Indicated loss cost.

Co-Gen Anthracite

Traumatic (1021)		Indicated loss cost.
State O.D. (1022)		Indicated loss cost.
*Federal O.D. (0181)	Basic/Ex	Indicated loss cost.

Co-Gen Bituminous

Traumatic (1023)		Indicated loss cost
State O.D. (1024)		Indicated loss cost.
*Federal O.D. (0182)	Basic/Ex	Indicated loss cost.

Prep Plant Anthracite

Traumatic (1025)		Indicated loss cost.
State O.D. (1026)		Indicated loss cost.
*Federal O.D. (0183)	Basic/Ex	Indicated loss cost.

Prep Plant Bituminous

Traumatic (1027)		Indicated unloaded loss cost limited to 25% (Exhibit II).
State O.D. (1028)		Indicated loss cost.
*Federal O.D. (0184)	Basic/Ex	Indicated loss cost.

*Federal Basic and Excess are after the Federal Administrative / Law Change

Coal Mine Compensation Rating Bureau
Manual Loss Cost Loaded (after Capping)
For Catastrophe, Off-Balances, and Assessment
Proposed to Become Effective 4-1-2016

	2014 Developed Payroll	(1) Proposed Loss Cost Before Loading	(2) Catastrophe Loss Cost	(3) Loss Cost Including Catastrophe	(4) Loss Cost Including Off-Balance[a]	(5) Loss Cost Inc. Off-Balance[a] & Assessment[b]
Underground Anthracite:						
Traumatic (1010)	$258,809	$21.61	$0.17	$21.78	$22.06	$22.06
State O.D. (1011)	258,809	5.27				5.27
*Federal Basic/Ex (0160)	258,809	12.87				12.87
Total	xx	39.75				40.20
Underground Bituminous:						
Traumatic (1001)	$235,444,691	$5.88	$0.17	$6.05	$6.13	$6.13
State O.D. (1002)	235,444,691	0.73				0.73
*Federal Basic/Ex (0158)	148,066,216	0.72				0.72
Total	xx	7.33				7.58
Surface Anthracite:						
Traumatic (1012)	$20,496,172	$10.84	$0.02	$10.86	$11.00	$11.00
State O.D. (1016)	20,496,172	1.97				1.97
*Federal Basic/Ex (0153)	18,868,872	3.11				3.11
Total	xx	15.92				16.08
Surface Bituminous:						
Traumatic (1014)	$54,137,563	$2.26	$0.02	$2.28	$2.31	$2.31
State O.D. (1013)	54,137,563	0.15				0.15
*Federal Basic/Ex (0156)	55,347,009	0.50				0.50
Total	xx	2.91				2.96
Four Standard Classifications:						
Traumatic	$310,337,235	$5.59	$0.13	$5.72	$5.80	$5.80
State O.D.	310,337,235	0.71				0.71
*Federal Basic/Ex	222,540,906	0.88				0.88
Total	xx	7.18				7.39

*Federal Basic and Excess are after the Federal Administrative / Law Change

Sources: Payroll from Exhibit X-A
Column (1) Proposed Loss Cost Before Loading - Exhibit II for Traumatic, Exhibit III for State OD, and Exhibit IV for Federal OD.
Column (2) Catastrophe - Exhibit XII-A
Column (3) (1)+(2)
Columns (4)(a) & (5)(a) Off-balances applied to Traumatic only

	Exper. Rating	1.0000
Exhibit XIV-A	Merit Rating	1.0002
Exhibit XIV-B	Safety Rating	1.0125
	Combined	1.0127

(5)(b) Loss-based Assessment factor in present rates
applied to Traumatic & State OD loss costs =1.0001

Coal Mine Compensation Rating Bureau
Manual Loss Cost Loaded (after Capping)
For Catastrophe, Off-Balances, and Assessment
Proposed to Become Effective 4-1-2016

	2014 Developed Payroll	(1) Proposed Loss Cost Before Loading	(2) Catastrophe Loss Cost	(3) Loss Cost Including Catastrophe	(4) Loss Cost Including Off-Balance[a]	(5) Loss Cost Inc. Off-Balance[a] & Assessment[b]
Coke:						
Traumatic (1469)	$4,464,398	$5.00	$0.02	$5.02	$5.08	$5.08
State O.D. (1017)	4,464,398	0.13				0.13
*Federal Basic/Ex (0154)	4,464,398	0.09				0.09
Total	xx	5.22				5.30
Auger:						
Traumatic (1015)	$876,196	$15.05	$0.07	$15.12	$15.31	$15.31
State O.D. (1019)	876,196	0.26				0.26
*Federal Basic/Ex (0157)	930,810	0.34				0.34
Total	xx	15.65				15.91
Co-Gen Anthracite:						
Traumatic (1021)	$9,279,611	$2.73	$0.02	$2.75	$2.78	$2.78
State O.D. (1022)	9,279,611	0.33				0.33
*Federal Basic/Ex (0181)	8,565,937	0.46				0.46
Total	xx	3.52				3.57
Co-Gen Bituminous:						
Traumatic (1023)	$11,451,621	$1.15	$0.02	$1.17	$1.18	$1.18
State O.D. (1024)	11,451,621	0.44				0.44
*Federal Basic/Ex (0182)	11,451,621	0.30				0.30
Total	xx	1.89				1.92
Prep Plant Anthracite:						
Traumatic (1025)	$8,100,471	$4.99	$0.02	$5.01	$5.07	$5.07
State O.D. (1026)	8,100,471	2.37				2.37
*Federal Basic/Ex (0183)	6,452,662	1.06				1.06
Total	xx	8.42				8.50
Prep Plant Bituminous:						
Traumatic (1027)	$43,762,160	$1.41	$0.02	$1.43	$1.45	$1.45
State O.D. (1028)	43,762,160	0.26				0.26
*Federal Basic/Ex (0184)	32,023,187	0.38				0.38
Total	xx	2.05				2.09
Other Classifications:						
Traumatic	$77,934,457	$2.26	$0.02	$2.28	$2.31	$2.31
State O.D.	77,934,457	0.51				0.51
*Federal Basic/Ex	63,888,615	0.42				0.42
Total	xx	3.19				3.24
Grand Total:						
Traumatic	$388,271,692	$4.92	$0.11	$5.03	$5.09	$5.10
State O.D.	388,271,692	0.67				0.67
*Federal Basic/Ex	286,429,521	0.77				0.77
Total	xx	6.36				6.54

*Federal Basic and Excess are after the Federal Administrative / Law Change

Sources: Payroll from Exhibit X-A
Column (1) Proposed Loss Cost Before Loading - Exhibit II for Traumatic, Exhibit III for State OD, and Exhibit IV for Federal OD.
Column (2) Catastrophe - Exhibit XII-A
Column (3) (1)+(2)
Columns (4)(a) & (5)(a) Off-balances applied to Traumatic only

	Experience Rating	1.0000
Exhibit XIV-A	Merit Rating	1.0002
Exhibit XIV-B	Safety Rating	1.0125
	Combined	1.0127

(5)(b) Loss-based Assessment factor in present rates
applied to Traumatic & State OD loss costs =1.0001

PAB

COAL MINE COMPENSATION RATING BUREAU **Exhibit II**

TRAUMATIC LOSS COST INDICATIONS

Proposed Unloaded Loss Costs

Classification		Code	(1) 2014 Developed Payroll	(2) Approved Unloaded Loss Cost (Eff 4/01/2015)	(3) Indicated Unloaded Loss Cost	(4) Proposed Unloaded Loss Cost (Exh V-A-1)	(5) Percent Change
Underground:	Anthracite	1010	$258,809	19.75	21.61	21.61	9.4%
	Bituminous	1001	235,444,691	5.44	5.88	5.88	8.1%
Surface:	Anthracite	1012	20,496,172	9.01	10.84	10.84	20.3%
	Bituminous	1014	54,137,563	2.14	2.26	2.26	5.6%
Four Standard Classes			310,337,235	5.11	5.59	5.59	9.4%
Other Classes	Coke	1469	4,464,398	5.68	5.00	5.00	-12.0%
	Auger	1015	876,196	15.54	15.05	15.05	-3.2%
Co-Gen:	Anthracite	1021	9,279,611	2.38	2.73	2.73	14.7%
	Bituminous	1023	11,451,621	1.04	1.15	1.15	10.6%
Prep Plants:	Anthracite	1025	8,100,471	4.77	4.99	4.99	4.6%
	Bituminous	1027	43,762,160	1.13	1.75	1.41	25.0%
Other Classes			77,934,457	2.07	2.45	2.26	9.2%
All Classes Combined			388,271,692	4.50	4.96	4.92	9.3%

Sources: Column (1) Exhibit X-A
Column (2) Unloaded Loss Cost-Exhibit X-B,pg.2
Column (3) Exhibit V-A-1 Col.(7)
Column (4) Exhibit V-A-1 Col.(10)
Column (5) Exhibit V-A-1 Col.(9)

COAL MINE COMPENSATION RATING BUREAU
STATE OCCUPATIONAL DISEASE LOSS COST

Exhibit III

Classification	(1) 2014 Developed Payroll	(2) Approved Unloaded Loss Cost	(3) Indicated Average Freq. per $1 mill.	(4) Indicated Average Severity	(5) Indicated Loss Cost (Rate)	(6) Indicated Change	(7) Proposed Change	(8) Proposed Loss Cost
Underground								
1011 Anthracite	$258,809	$5.10	0.070451	$748,478	$5.27	3.3%	3.3%	$5.27
1002 Bituminous	$235,444,691	$0.68	0.019040	$382,233	0.73	7.4%	7.4%	0.73
Surface								
1016 Anthracite	$20,496,172	$2.29	0.044627	$440,411	1.97	-14.0%	-14.0%	1.97
1013 Bituminous	$54,137,563	0.15	0.003533	$432,209	0.15	0.0%	0.0%	0.15
Four Standard Classes	$310,337,235	$0.70			$0.71	1.4%	1.4%	$0.71
1017 Coke	$4,464,398	0.12	0.002908	432,209	0.13	8.3%	8.3%	0.13
1019 Auger	$876,196	0.25	0.005941	432,209	0.26	4.0%	4.0%	0.26
Co-Gen								
1022 Anthracite	$9,279,611	0.37	0.007465	440,411	0.33	-10.8%	-10.8%	0.33
1024 Bituminous	$11,451,621	0.40	0.010079	432,209	0.44	10.0%	10.0%	0.44
Prep Plant								
1026 Anthracite	$8,100,471	2.69	0.053818	440,411	2.37	-11.9%	-11.9%	2.37
1028 Bituminous	$43,762,160	0.29	0.006047	432,209	0.26	-10.3%	-10.3%	0.26
Other Classes	$77,934,457	$0.55			$0.51	-7.3%	-7.3%	$0.51
All Classes Combined	$388,271,692	$0.67			$0.67	0.0%	0.0%	$0.67

Sources: Column (1): Exhibit X-A
Column (2): Exhibit X-B Page 2
Column (3): Exhibit VII-B-1, Column (10)
Column (4): Four Standard Classes - Exhibit VII-A, pages 1 through 4
Coke, Auger, Prep Plant Bituminous and Co-Gen Bituminous = Surface Bituminous
Prep Plant Anthracite, Co-Gen Anthracite = Surface Anthracite
Column (5): [Column (3) times Column (4)] divided by 10,000.
Column (6): [Column (5) divided by Column (2)] minus 1.0
Column (7): Column (6) limited to +/- 25%.
Column (8): Column (2) times [1.000+Column(7)] and rounded.

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE LOSS COST INDICATION

Classification		(1) 2014 Developed Payroll	(2) Approved Unloaded Loss Cost	(3) Average Freq. per $1 mill.	(4) Indicated Average Severity	(5) Loss Cost (Rate)	(6) Indicated Change	(7) Loss Cost w/ Limitation 25%	(8) % Change w/Limitation 25%
Underground									
Anthracite:	Basic			0.303631	418,037	12.69			
	Excess			0.040910	44,426	0.18			
	Total	$258,809	$12.68			12.87	1.5%	$ 12.87	1.5%
Bituminous:	Basic			0.014026	397,281	0.56			
	Excess			0.007223	220,867	0.16			
	Total	$148,066,216	$0.81			0.72	-11.1%	$ 0.72	-11.1%
Surface									
Anthracite:	Basic			0.096864	309,276	3.00			
	Excess			0.018032	61,779	0.11			
	Total	$18,868,872	$3.31			3.11	-6.0%	$ 3.11	-6.0%
Bituminous:	Basic			0.015963	302,188	0.48			
	Excess			0.001397	170,092	0.02			
	Total	$55,347,009	$0.50			0.50	0.0%	$ 0.50	0.0%
Four Standard Classes	Basic					0.76			
	Excess					0.12			
	Total	$222,540,906	$0.96			0.88	-8.3%	$ 0.88	-8.3%
Coke	Basic			0.002444	302,188	0.07			
	Excess			0.001218	170,092	0.02			
	Total	$4,464,398	$0.11			0.09	-18.2%	$ 0.09	-18.2%
Auger	Basic			0.009771	302,188	0.30			
	Excess			0.002511	170,092	0.04			
	Total	$930,810	$0.40			0.34	-15.0%	$ 0.34	-15.0%
Co-Gen									
Anthracite:	Basic			0.014356	309,276	0.44			
	Excess			0.002766	61,779	0.02			
	Total	$8,565,937	$0.49			0.46	-6.1%	$ 0.46	-6.1%
Bituminous:	Basic			0.008034	302,188	0.24			
	Excess			0.003450	170,092	0.06			
	Total	$11,451,621	$0.35			0.30	-14.3%	$ 0.30	-14.3%
Prep Plants									
Anthracite:	Basic			0.029507	309,276	0.91			
	Excess			0.024354	61,779	0.15			
	Total	$6,452,662	$1.17			1.06	-9.4%	$ 1.06	-9.4%
Bituminous:	Basic			0.011153	302,188	0.34			
	Excess			0.002368	170,092	0.04			
	Total	$32,023,187	$0.45			0.38	-15.6%	$ 0.38	-15.6%
Other Classes	Basic					0.37			
	Excess					0.05			
	Total	$63,888,615	$0.49			0.42	-14.3%	$ 0.42	-14.3%
All Classes Combined	Basic					0.67			
	Excess					0.10			
	Total	$286,429,521	$0.86			0.77	-10.5%	$ 0.77	-10.5%

Sources: Column (1): Exhibit X-A
Column (2): X-B Page 2
Column (3): Exhibit IV-B page 1 col. (10) (Basic) and Exhibit IV-B page 2 col. (10) (Excess)
Column (4): Four Standard Classes - Exhibit VIII-A (Basic) and Exhibit VII-A, Pages 1 through 4 (Federal Excess).
Coke, Auger, Prep Plant Bituminous and Co-Gen Bituminous = Surface Bituminous
Prep Plant Anthracite, Co-Gen Anthracite = Surface Anthracite
Column (5): [Column (3) times Column (4)] divided by 10,000.
Column (6): [Column (5) divided by Column (2)] minus 1.0
Column (7): Column (2) x [1+Column (8)]
Column (8): Column (6) Limited to +-25%

COAL MINE COMPENSATION RATING BUREAU

Federal Basic Occupational Disease Classification Frequency (Basic)

Classification		Class Code	(1) Estimated Miner Years 2005-2014	(2) Claim Frequency Per 100 Miner Years Approved (Eff 4/1/2015)	(3) Trended to 4/1/2016	(4) Indicated (Eff 4/1/2016)	(5) Credibility Expected Awarded Claims	(6) Credibility Factor	(7) Claim Frequency Indicated w/ Credibility	(8) Change in Indication After Cred.	(9) Payroll 2005-2014	(10) Frequency Per $1M Payroll
Underground:	Anthracite	0160	278.2	1.440893	1.440893	1.032910	4.009	0.262	1.334001	-7.4%	12,222,685	0.303631
	Bituminous	0158	17,967.3	0.110699	0.110699	0.073027	19.890	0.583	0.088736	-19.8%	1,136,688,633	0.014026
Surface:	Anthracite	0153	3,683.4	0.479983	0.479983	0.412165	17.680	0.550	0.442683	-7.8%	168,336,759	0.096864
	Bituminous	0156	15,300.2	0.062358	0.062358	0.085969	9.541	0.404	0.071896	15.3%	689,126,572	0.015963
Four Standard Classifications			37,229.1	0.137309	0.137309	0.119073	51.120		0.126140		2,006,374,649	0.023406
	Coke	0154	1,800.0	0.010525	0.010525	0.012234	0.189	0.057	0.010622	0.9%	78,232,153	0.002444
	Auger	0157	256.1	0.044560	0.044560	0.025382	0.114	0.044	0.043717	-1.9%	11,457,961	0.009771
Co-Gen:	Anthracite	0181	1,884.5	0.070228	0.070228	0.033503	1.323	0.150	0.064719	-7.8%	84,958,858	0.014356
	Bituminous	0182	1,511.3	0.050580	0.050580	0.044364	0.764	0.114	0.049871	-1.4%	93,816,130	0.008034
Prep Plants:	Anthracite	0183	1,321.0	0.149508	0.149508	0.064947	1.975	0.184	0.133949	-10.4%	59,968,148	0.029507
	Bituminous	0184	4,035.4	0.072698	0.072698	0.062631	2.934	0.224	0.070443	-3.1%	254,869,609	0.011153
Other Classes			10,808.3	0.067542	0.067542	0.046005	7.299		0.063734		583,302,859	0.011810
Total			48,037.4	0.121611	0.121611	0.102632	58.419		0.112099		2,589,677,508	0.020794

Source: Column (1) 2005-2014 Miner Years; Exhibit VIII-B-2, pgs 1-3
Column (2) Approved Claim Frequency (Eff 4/1/2015) converted to Miner Years.
-See Exhibit IV-B-4, Col.(10)
Column (3) Approved claim freqency trended to 4/1/2016@ 0.0%
Column (4) Indicated Freqency - Exhibit IV-B-3, col.(5)
Column (5) Expected Awarded Claims = (1) x (2) / 100
Column (6) Factor Z = [(5) divided by 58.419]^(0.5)
Column (7) =(4)*(6)+((3)*(1-(6))
Column (8) =(7)/(2)-1
Column (9) 2005-2014 Payrolls Exhibit X-A
Column (10) = (7) X (1) / [(9) * 10,000]

Columns (2),(3),(4) & (7) totals and subtotals are weighted with 10 year estimated miner years.

COAL MINE COMPENSATION RATING BUREAU

Federal Excess Occupational Disease Classification Frequency (Excess)

Classification		Class Code	(1) Estimated Miner Years 2005-2014	(2) Claim Frequency Per 100 Miner Years: Approved (Eff 4/1/2015)	(3) Trended to 4/1/2016	(4) Indicated (Eff 4/1/2016)	(5) Credibility: Expected Awarded Claims	(6) Factor	(7) Claim Frequency Indicated w/ Credibility	(8) Change in Indication After Cred.	(9) Payroll 2005-2014	(10) Claim Freq. Per $1M Payroll
Underground:	Anthracite	0160	278.2	0.193142	0.193142	0.119087	0.537	0.181	0.179738	-6.9%	12,222,685	0.040910
	Bituminous	0158	17,967.3	0.046923	0.046923	0.045204	8.431	0.715	0.045694	-2.6%	1,136,688,633	0.007223
Surface:	Anthracite	0153	3,683.4	0.092069	0.092069	0.070796	3.391	0.454	0.082411	-10.5%	168,336,759	0.018032
	Bituminous	0156	15,300.2	0.006906	0.006906	0.004488	1.057	0.253	0.006294	-8.9%	689,126,572	0.001397
Four Standard Classifications			37,229.1	0.036036	0.036036	0.031555	13.416		0.034136		2,006,374,649	0.006334
	Coke	0154	1,800.0	0.005522	0.005522	0.002602	0.099	0.078	0.005294	-4.1%	78,232,153	0.001218
	Auger	0157	256.1	0.011617	0.011617	0.002688	0.030	0.043	0.011233	-3.3%	11,457,961	0.002511
Co-Gen:	Anthracite	0181	1,884.5	0.013810	0.013810	0.003166	0.260	0.126	0.012469	-9.7%	84,958,858	0.002766
	Bituminous	0182	1,511.3	0.021259	0.021259	0.022385	0.321	0.140	0.021417	0.7%	93,816,130	0.003450
Prep Plants:	Anthracite	0183	1,321.0	0.123906	0.123906	0.081536	1.637	0.315	0.110559	-10.8%	59,968,148	0.024354
	Bituminous	0184	4,035.4	0.017817	0.017817	0.004122	0.719	0.209	0.014955	-16.1%	254,869,609	0.002368
Other Classes			10,808.3	0.028371	0.028371	0.015683	3.066		0.025413		583,302,859	0.004709
Total			48,037.4	0.034312	0.034312	0.027984	16.482		0.032173		2,589,677,508	0.005968

Source: Column (1) 2005-2014 Miner Years; Exhibit VIII-B-2, pgs 1-3
Column (2) Approved Claim Frequency (Eff 4/1/2015) converted to Miner Years.
-See Exhibit IV-B-6, Col.(10)
Column (3) Approved claim freqency trended to 4/1/2016 @ 0.0%
Column (4) Indicated Freqency - Exhibit IV-B-5 col.(5)
Column (5) Expected Awarded Claims = (1) x (3) / 100
Column (6) Factor Z = [(5) / 16.482]^(.5)
Column (7) = (4)*(6)+((3)*(1-(6))
Column (8) =(7)/(2)-1
Column (9) 2005-2014 Payrolls Exhibit X-A
Column (10) = (7) X (1) / [(9) * 10,000]

Columns (2),(3),(4) & (7) totals and subtotals are weighted with 10 year estimated miner years.

PAB

File: C:\Clients\Coal Mine\2015 Rate Filing\XL\[04-B.xlsm]IV-B-2

Effective Date - April 01, 2016

Run Date: 11/15/15 17:25

Checksum:7,769,219,150.835700

Coal Mine Compensation Rating Bureau

Federal Basic Occupational Disease Classification Frequency

Classification		Class Code	(1) Estimated Miner Years Year 2014	(2) Approved Basic Freq. Equivalent Per 100 Miner Years 4/1/2015	(3) Modeled Indication	(4) Experience Indication	(5) Weighted Average of Cols. (3) & (4)	(6) Percent Change
Underground:	Anthracite	0160	5.1	1.440893	0.956239	1.058467	1.032910	-28.31%
	Bituminous	0158	2,123.1	0.110699	0.179690	0.037473	0.073027	-34.03%
Surface:	Anthracite	0153	371.9	0.479983	0.297535	0.450375	0.412165	-14.13%
	Bituminous	0156	1,090.8	0.062358	0.103788	0.080029	0.085969	37.86%
Four Standard Classifications			3,590.9	0.136150	0.169941	0.094613	0.113445	
	Coke	0154	88.0	0.010525	0.013765	0.011723	0.012234	16.24%
	Auger	0157	18.3	0.044560	0.031182	0.023449	0.025382	-43.04%
Co-Gen:	Anthracite	0181	168.8	0.070228	0.046087	0.029308	0.033503	-52.29%
	Bituminous	0182	164.2	0.050580	0.056623	0.040278	0.044364	-12.29%
Prep Plants:	Anthracite	0183	127.2	0.149508	0.083969	0.058606	0.064947	-56.56%
	Bituminous	0184	459.2	0.072698	0.084483	0.055347	0.062631	-13.85%
	Other Classes		1,025.7	0.072440	0.066622	0.044742	0.050212	
		Total	4,616.6	0.121995	0.146986	0.083533	0.099396	-18.52%

Source: Column (1) 2014 Estimated Miner Years Exhibit VIII-B-2
Column (2) Approved 4/1/2015 Exhibit IV-B-4 Col(10)
Column (3) From Model Exhibit VIII-F Pages 1-13
Column (4) Experience Exhibit VIII-B-2, page 1,2&3
Column (5) = (0.25)*Col.(3)+ (0.75)*Col.(4)
Column (6) Percentage (5)/(2) -1

Totals and subtotals are weighted by Miner Years.

COAL MINE COMPENSATION RATING BUREAU
Federal Basic Occupational Disease Classification Frequency

Classification		Class Code	(1) Approved Claim Freq. 4/1/2015	(2) Payroll 2004-2013	(3) Estimated Awarded Claims 2004-2013 (1) x (2)	(4) Estimated Miner Years 2005-2014	(5) Estimated Miner Years 2014	(6) Adjustment Factor	(7) Average Weekly Wage 2004	(8) Payroll 2004	(9) Estimated Miner Years 2004-2013	(10) Approved Frequency Equivalent Per 100 Miner Years
Underground:	Anthracite	0160	0.334437	13,309,197	4.451088	278.2	5.1	1.047	690	1,345,321	308.9	1.440893
	Bituminous	0158	0.017906	1,034,696,317	18.527272	17,967.3	2,123.1	1.439	690	46,073,900	16,736.6	0.110699
Surface:	Anthracite	0153	0.107978	161,827,618	17.473823	3,683.4	371.9	1.047	690	12,359,731	3,640.5	0.479983
	Bituminous	0156	0.014194	689,996,861	9.793815	15,300.2	1,090.8	1.047	690	56,217,298	15,705.9	0.062358
Four Standard Classifications				1,899,829,993		37,229.1	3,590.9			115,996,250	36,391.9	
	Coke	0154	0.002493	85,816,881	0.213941	1,800.0	88.0	1.047	690	12,049,126	2,032.7	0.010525
	Auger	0157	0.010230	11,585,950	0.118524	256.1	18.3	1.047	690	1,058,799	266.0	0.044560
Co-Gen:	Anthracite	0181	0.016029	83,744,435	1.342340	1,884.5	168.8	1.047	690	7,351,514	1,911.4	0.070228
	Bituminous	0182	0.008382	88,738,992	0.743810	1,511.3	164.2	1.439	690	6,374,483	1,470.6	0.050580
Prep Plants:	Anthracite	0183	0.033842	57,922,139	1.960201	1,321.0	127.2	1.047	690	4,406,653	1,311.1	0.149508
	Bituminous	0184	0.011804	236,306,623	2.789363	4,035.4	459.2	1.439	690	13,460,201	3,836.9	0.072698
Other Classes				564,115,020		10,808.3	1,025.7			44,700,776	10,828.7	
Total				2,463,945,013		48,037.4	4,616.6			160,697,026	47,220.6	

Source:
(1) From Approved Filing Eff. 4/1/2015 See Exhibit X-F
(2) Exhibit X-A-1 (Federal OD payroll)
(3) = (1)x(2) / 1,000,000
(4) Exhibit VIII-B-2
(5) Exhibit VIII-B-2
(6) Exhibit X-G
(7) Exhibit XII-D
(8) Exhibit X-A-1 (Federal OD payroll)
(9) =(4)-(5)+(8)/((6)x(7)x52)
(10) = {(3)/(9)}x100

Coal Mine Compensation Rating Bureau

Federal Excess Occupational Disease Classification Frequency

Classification		Class Code	(1) Estimated Miner Years 2014	(2) Approved Frequency Per 100 Miner Years 4/1/2015	(3) Modeled Indication	(4) Experience Indication	(5) Weighted Average of Cols. (3) & (4)	(6) Percent Change
Underground:	Anthracite	0160	5.1	0.193142	0.004243	0.157368	0.119087	-38.34%
	Bituminous	0158	2,123.1	0.046923	0.037702	0.047704	0.045204	-3.66%
Surface:	Anthracite	0153	371.9	0.092069	0.083737	0.066482	0.070796	-23.11%
	Bituminous	0156	1,090.8	0.006906	0.000877	0.005692	0.004488	-35.01%
Four Standard Classifications			3,590.9	0.039651	0.031236	0.037043	0.035591	-10.24%
	Coke	0154	88.0	0.005522	0.000160	0.003416	0.002602	-52.88%
	Auger	0157	18.3	0.011617	0.000496	0.003419	0.002688	-76.86%
Co-Gen:	Anthracite	0181	168.8	0.013810	0.002419	0.003415	0.003166	-77.07%
	Bituminous	0182	164.2	0.021259	0.004267	0.028424	0.022385	5.30%
Prep Plants:	Anthracite	0183	127.2	0.123906	0.116244	0.069967	0.081536	-34.20%
	Bituminous	0184	459.2	0.017817	0.002402	0.004695	0.004122	-76.87%
Other Classes			1,025.7	0.029700	0.016595	0.016245	0.016332	-45.01%
		Total	4,616.6	0.037440	0.027983	0.032422	0.031312	-16.37%

Source: Column (1) 2014 Estimated Miner Years Exhibit VIII-B-2 pp. 1-3
Column (2) Approved 4/1/2015 Exhibit IV-B-6 Col(10)
Column (3) From Model Exhibit VII-L Pages 1-13
Column (4) Exhibit VII-B-2, page 1,2&3 (Federal Excess Frequency)
Column (5) = (.25)*Col.(3)+ (.75)*Col.(4)
Column (6) Percentage (5)/(2) -1

Totals and subtotals are weighted with Miner Years

COAL MINE COMPENSATION RATING BUREAL

Federal Excess Occupational Disease Classification Frequency

Classification		Class Code	(1) Approved Claim Freq. Per $1M Payroll 4/1/2015	(2) Payroll 2004-2013	(3) Estimated Awarded Claims 2004-2013 (1) x (2)	(4) Estimated Miner Years 2005-2014	(5) Estimated Miner Years 2014	(6) Adjustment Factor	(7) Average Weekly Wage 2004	(8) Payroll 2004	(9) Estimated Miner Years 2004-2013	(10) Frequency Per 100 Miner Years
Underground:	Anthracite	0160	0.044829	13,309,197	0.596638	278.2	5.1	1.047	690	1,345,321	308.9	0.193142
	Bituminous	0158	0.007590	1,034,696,317	7.853345	17,967.3	2,123.1	1.439	690	46,073,900	16,736.6	0.046923
Surface:	Anthracite	0153	0.020712	161,827,618	3.351774	3,683.4	371.9	1.047	690	12,359,731	3,640.5	0.092069
	Bituminous	0156	0.001572	689,996,861	1.084675	15,300.2	1,090.8	1.047	690	56,217,298	15,705.9	0.006906
Four Standard Classifications				1,899,829,993		37,229.1	3,590.9			115,996,250	36,392	
	Coke	0154	0.001308	85,816,881	0.112248	1,800.0	88.0	1.047	690	12,049,126	2,032.7	0.005522
	Auger	0157	0.002667	11,585,950	0.030900	256.1	18.3	1.047	690	1,058,799	266.0	0.011617
Co-Gen:	Anthracite	0181	0.003152	83,744,435	0.263962	1,884.5	168.8	1.047	690	7,351,514	1,911.4	0.013810
	Bituminous	0182	0.003523	88,738,992	0.312627	1,511.3	164.2	1.439	690	6,374,483	1,470.6	0.021259
Prep Plants:	Anthracite	0183	0.028047	57,922,139	1.624542	1,321.0	127.2	1.047	690	4,406,653	1,311.1	0.123906
	Bituminous	0184	0.002893	236,306,623	0.683635	4,035.4	459.2	1.439	690	13,460,201	3,836.9	0.017817
Other Classes				564,115,020		10,808.3	1,025.7			44,700,776	10,828.7	
Total				2,463,945,013		48,037.4	4,616.6			160,697,026	47,220.6	

Source:
(1) From Approved Filing Eff. 4/1/2015 See Exhibit X-F
(2) Exhibit X-A-1
(3) = (1)x(2) / 1,000,000
(4) Exhibit VIII-B-2
(5) Exhibit VIII-B-2
(6) CMCRB data, last 10 years. See Exhibit X-G
(7) Exhibit XII-D
(8) Exhibit X-A-1
(9) =(4)-(5)+(8)/((6)x(7)x52)
(10) = {(1)x(2)/(9)}x100

COAL MINE COMPENSATION RATING BUREAU
Traumatic Loss and Classification Credibility

Classification		Code	(1) 5 Year Payroll	2014 Payroll	(2) Loss Cost/Unloaded Approved (Eff 4/01/2015)	(3) Approved on Level	(4) Indicated (Eff 04/01/2016)	(5) Credibility Five Year Expected Losses	(6) Credibility Factor	(7) Indicated w/ Credibility Indicated Loss Cost	(8) Indicated Change	(9) Proposed Change after Limitation	(10) Proposed Loss Cost	(11) Proposed Change Excluding Trend
Underground:	Bituminous	1001	$812,777,408	$235,444,691	$5.44	$5.46	5.88	44,215,091	1.00	5.88	8.1%	8.1%	5.88	7.8%
Surface:	Anthracite	1012	$104,571,791	20,496,172	9.01	9.04	10.84	9,421,918	1.00	10.84	20.3%	20.3%	10.84	20.0%
	Bituminous	1014	$350,524,977	54,137,563	2.14	2.15	2.26	7,501,235	1.00	2.26	5.6%	5.6%	2.26	5.3%
Three Major Classifications			1,267,874,176	310,078,426	4.82	4.83	5.29	61,138,244						
	Coke	1469	$24,029,157	4,464,398	5.68	5.70	4.07	1,364,856	0.43	5.00	-12.0%	-12.0%	5.00	-12.2%
Co-Gen:	Anthracite	1021	$48,096,529	9,279,611	2.38	2.39	3.26	1,144,697	0.39	2.73	14.7%	14.7%	2.73	14.4%
	Bituminous	1023	$48,690,362	11,451,621	1.04	1.04	1.48	506,380	0.26	1.15	10.6%	10.6%	1.15	10.2%
Prep Plants:	Anthracite	1025	$38,035,945	8,100,471	4.77	4.78	5.20	1,814,315	0.49	4.99	4.6%	4.6%	4.99	4.3%
	Bituminous	1027	$173,649,576	43,762,160	1.13	1.13	2.35	1,962,240	0.51	1.75	54.9%	25.0%	1.41	24.4%
	Auger	1015	$4,692,754	876,196	15.54	15.59	13.86	729,254	0.31	15.05	-3.2%	-3.2%	15.05	-3.4%
Subtotal (6)			337,194,323	77,934,457	2.23	2.24	2.96	7,521,742					2.41	
Underground:	Anthracite	1010	$769,941	258,809	19.75	19.81	23.40 [a]	152,063	0.14	21.61 [b]	9.4%	9.4%	21.61	9.1%
Subtotal (7)			337,964,264	78,193,266	2.27	2.28	3.00	7,673,805						
Total (Based on 5-year Payroll)			$1,605,838,440		4.29	4.30	4.81	$68,812,049		4.73				
Total (Based on 2014 Payroll, see Exhibit II)				$388,271,692	4.50					4.96	10.2%	9.3%	4.92	

Source: (1) Exhibit V-B
(2) Unloaded Loss Cost Current (Eff 4/01/2015) Exhibit X-B page 2
(3) = (2) X Trend =(2) X(1.003)
1.003=Weighted average of 1.005 and 1.001
Weights derived from 5 year Medical (31,811,158) and Indemnity (46,038,620) ultimate losses. Exhibit V-B, pg. 1
(4) Exhibit V-B except Underground Anthracite for which see Ex V-A-2
(5) Expected Losses = Column (1) times Column (2) divided by 100
(6) Factor Z = [(5) divided by 7,501,235]^(1/2)
(7) [Column (4) times Column (6)] plus [Column (3) times (1.0 minus Column (6))]
(8) Col.(7) / Col.(2) -1.0
(9) Loss costs changes limited to +25% increase , -25% decrease
(10) When Col. (8) equals Col. (9), then Col. (7).
Otherwise, Col. (2) * [1 + (9)].
(11) Col.(10)/1.003/Col.(2)-1.000

(a) Underground Anthracite Indicated Loss Cost from V-A-2
(b) Average of Col. (3) and Col. (4).
(c) Average of Col.(3) and Proposed (limited, indicated) Loss Cost from V-A-2

Calculation of Anthracite Underground Loss Cost

	Indicated	Proposed
Multiplicative Method (Anthracite: Underground vs. Surface)		
Differential Factor from Study	2.66	2.66
Indicated Anthracite Surface Loss Cos	10.84 *	10.84 *
Indicated Anthracite Underground Loss Cost	28.83	28.83
Comparative Hazard Method #1 (Anthracite vs. Bituminous)		
Differential Factor from Study	2.41	2.41
Indicated Bituminous Underground Loss Cost	5.88 *	5.88 *
Indicated Anthracite Underground Loss Cost	14.17	14.17
Comparative Hazard Method #2 (Surface vs. Underground)		
Differential Factor from Study	2.51	2.51
Indicated Anthracite Surface Loss Cost	10.84 *	10.84 *
Indicated Anthracite Underground Loss Cost	27.21	27.21
Average	23.40	23.40

* Souce: Exhibit V-A-1

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
All Classifications Combined (10 Classes)

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	7,301,176	1.0147	1.0068	7,458,881	2.77
2011	8,373,419	1.0455	1.0058	8,805,185	2.71
2012	8,319,223	1.0904	1.0048	9,114,823	2.80
2013	6,028,932	1.3085	1.0038	7,918,836	2.66
2014	5,950,691	2.1351	1.0028	12,740,895	3.28
5 Years	$35,973,441			$46,038,620	2.87
Medical					
2010	4,604,796	1.1957	1.0222	5,628,187	2.09
2011	5,609,134	1.2079	1.0172	6,891,808	2.12
2012	5,404,121	1.2205	1.0121	6,675,538	2.05
2013	3,927,444	1.2474	1.0071	4,933,877	1.66
2014	5,513,027	1.3906	1.0020	7,681,748	1.98
5 Years	$25,058,522			$31,811,158	1.98

Indemnity & Medical	(6) Developed Payroll				
2010	269,231,509			13,087,068	4.86
2011	324,841,755			15,696,993	4.83
2012	326,110,586			15,790,361	4.85
2013	297,382,898			12,852,713	4.32
2014	388,271,692			20,422,643	5.26
5 Years	$1,605,838,440			$77,849,778	4.85

Source: (1) Sum of Exhibit V-B, pages 2 and 6 - column (1)
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Sum of Exhibit V-B, pages 2 and 6 - column (6)

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Three 100% Credibility Classifications (3 Classes)

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	6,507,978	1.0147	1.0068	6,648,550	3.11
2011	7,402,488	1.0455	1.0058	7,784,190	3.03
2012	6,918,074	1.0904	1.0048	7,579,677	2.95
2013	5,084,797	1.3085	1.0038	6,678,740	2.90
2014	5,453,624	2.1351	1.0028	11,676,636	3.77
5 Years	$31,366,961			$40,367,793	3.18
Medical					
2010	4,003,399	1.1957	1.0222	4,893,132	2.29
2011	4,604,083	1.2079	1.0172	5,656,926	2.20
2012	4,542,178	1.2205	1.0121	5,610,808	2.18
2013	3,053,863	1.2474	1.0071	3,836,436	1.67
2014	4,784,250	1.3906	1.0020	6,666,284	2.15
5 Years	$20,987,773			$26,663,586	2.10

Indemnity & Medical	(6) Developed Payroll				
2010	213,694,310			11,541,682	5.40
2011	256,742,192			13,441,116	5.24
2012	257,141,248			13,190,485	5.13
2013	230,218,000			10,515,176	4.57
2014	310,078,426			18,342,920	5.92
5 Years	$1,267,874,176			$67,031,379	5.29

Source: (1) Sum of Exhibit V-B, pages 3,4 and 5 - column (1)
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Sum of Exhibit V-B, pages 3,4 and 5 - column (6)

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Underground Bituminous 1001

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	4,931,957	1.0147	1.0068	5,038,487	3.98
2011	4,915,465	1.0455	1.0058	5,168,926	3.45
2012	4,549,628	1.0904	1.0048	4,984,727	3.23
2013	3,011,628	1.3085	1.0038	3,955,690	2.70
2014	4,604,733	2.1351	1.0028	9,859,094	4.19
5 Years	$22,013,411			$29,006,924	3.57
Medical					
2010	3,041,559	1.1957	1.0222	3,717,529	2.93
2011	2,872,569	1.2079	1.0172	3,529,456	2.36
2012	3,444,274	1.2205	1.0121	4,254,602	2.76
2013	1,730,764	1.2474	1.0071	2,174,284	1.48
2014	3,646,387	1.3906	1.0020	5,080,807	2.16
5 Years	$14,735,553			$18,756,678	2.31

Indemnity & Medical	(6) Developed Payroll				
2010	126,687,464			8,756,016	6.91
2011	149,633,528			8,698,382	5.81
2012	154,412,040			9,239,329	5.99
2013	146,599,685			6,129,974	4.18
2014	235,444,691			14,939,901	6.35
5 Years	$812,777,408			$47,763,602	5.88

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Surface Anthracite 1012

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	1,284,914	1.0147	1.0068	1,312,668	9.18
2011	1,120,337	1.0455	1.0058	1,178,106	5.60
2012	1,189,369	1.0904	1.0048	1,303,113	4.96
2013	1,556,432	1.3085	1.0038	2,044,330	9.11
2014	558,262	2.1351	1.0028	1,195,283	5.83
5 Years	$5,709,314			$7,033,500	6.73
Medical					
2010	457,489	1.1957	1.0222	559,163	3.91
2011	728,471	1.2079	1.0172	895,055	4.26
2012	549,302	1.2205	1.0121	678,535	2.58
2013	860,649	1.2474	1.0071	1,081,196	4.82
2014	782,690	1.3906	1.0020	1,090,586	5.32
5 Years	$3,378,601			$4,304,535	4.12

Indemnity & Medical	(6) Developed Payroll				
2010	14,295,288			1,871,831	13.09
2011	21,034,600			2,073,161	9.86
2012	26,295,907			1,981,648	7.54
2013	22,449,824			3,125,526	13.93
2014	20,496,172			2,285,869	11.15
5 Years	$104,571,791			$11,338,035	10.84

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

PAB

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Surface Bituminous 1014

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	291,107	1.0147	1.0068	297,395	0.41
2011	1,366,686	1.0455	1.0058	1,437,158	1.67
2012	1,179,077	1.0904	1.0048	1,291,837	1.69
2013	516,737	1.3085	1.0038	678,720	1.11
2014	290,629	2.1351	1.0028	622,259	1.15
5 Years	$3,644,236			$4,327,369	1.23
Medical					
2010	504,351	1.1957	1.0222	616,440	0.85
2011	1,003,043	1.2079	1.0172	1,232,415	1.43
2012	548,602	1.2205	1.0121	677,671	0.89
2013	462,450	1.2474	1.0071	580,956	0.95
2014	355,173	1.3906	1.0020	494,891	0.91
5 Years	$2,873,619			$3,602,373	1.03

Indemnity & Medical	(6) Developed Payroll				
2010	72,711,558			913,835	1.26
2011	86,074,064			2,669,573	3.10
2012	76,433,301			1,969,508	2.58
2013	61,168,491			1,259,676	2.06
2014	54,137,563			1,117,150	2.06
5 Years	$350,524,977			$7,929,742	2.26

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Seven Less Than 100% Credibility Classifications (7 Classes)

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	793,198	1.0147	1.0068	810,331	1.46
2011	970,931	1.0455	1.0058	1,020,995	1.50
2012	1,401,149	1.0904	1.0048	1,535,147	2.23
2013	944,135	1.3085	1.0038	1,240,096	1.85
2014	497,067	2.1351	1.0028	1,064,260	1.36
5 Years	$4,606,480			$5,670,829	1.68
Medical					
2010	601,397	1.1957	1.0222	735,054	1.32
2011	1,005,051	1.2079	1.0172	1,234,882	1.81
2012	861,943	1.2205	1.0121	1,064,730	1.54
2013	873,581	1.2474	1.0071	1,097,441	1.63
2014	728,777	1.3906	1.0020	1,015,464	1.30
5 Years	$4,070,749			$5,147,571	1.52

Indemnity & Medical	(6) Developed Payroll				
2010	55,537,199			1,545,385	2.78
2011	68,099,563			2,255,877	3.31
2012	68,969,338			2,599,877	3.77
2013	67,164,898			2,337,537	3.48
2014	78,193,266			2,079,724	2.66
5 Years	$337,964,264			$10,818,400	3.20

Source: (1) Sum of Exhibit V-B, pages 7-13 - column (1)
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Sum of Exhibit V-B, pages 7-13 - column (6)

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Coke 1469

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	19,717	1.0147	1.0068	20,143	0.37
2011	322,939	1.0455	1.0058	339,591	9.44
2012	0	1.0904	1.0048	0	0.00
2013	138,166	1.3085	1.0038	181,477	3.79
2014	0	2.1351	1.0028	0	0.00
5 Years	$480,822			$541,211	2.25
Medical					
2010	62,830	1.1957	1.0222	76,794	1.41
2011	249,668	1.2079	1.0172	306,761	8.52
2012	2,816	1.2205	1.0121	3,479	0.06
2013	35,484	1.2474	1.0071	44,577	0.93
2014	3,561	1.3906	1.0020	4,962	0.11
5 Years	$354,359			$436,573	1.82

Indemnity & Medical	(6) Developed Payroll				
2010	5,435,658			96,937	1.78
2011	3,599,086			646,352	17.96
2012	5,738,105			3,479	0.06
2013	4,791,910			226,054	4.72
2014	4,464,398			4,962	0.11
5 Years	$24,029,157			$977,784	4.07

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Auger 1015

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	195,903	1.0147	1.0068	200,134	24.81
2011	84,253	1.0455	1.0058	88,597	7.53
2012	38,979	1.0904	1.0048	42,707	5.28
2013	11,448	1.3085	1.0038	15,037	1.47
2014	2,150	2.1351	1.0028	4,603	0.53
5 Years	$332,733			$351,078	7.48
Medical					
2010	134,579	1.1957	1.0222	164,488	20.39
2011	30,464	1.2079	1.0172	37,430	3.18
2012	66,406	1.2205	1.0121	82,029	10.15
2013	9,542	1.2474	1.0071	11,987	1.17
2014	2,603	1.3906	1.0020	3,627	0.41
5 Years	$243,594			$299,561	6.38

Indemnity & Medical	(6) Developed Payroll				
2010	806,696			364,622	45.20
2011	1,176,255			126,027	10.71
2012	808,208			124,736	15.43
2013	1,025,399			27,024	2.64
2014	876,196			8,230	0.94
5 Years	$4,692,754			$650,639	13.86

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

PAB

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Co-Gen Anthracite 1021

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	131,153	1.0147	1.0068	133,986	1.58
2011	37,158	1.0455	1.0058	39,074	0.33
2012	499,138	1.0904	1.0048	546,873	5.32
2013	94,879	1.3085	1.0038	124,621	1.49
2014	5,165	2.1351	1.0028	11,059	0.12
5 Years	$767,493			$855,613	1.78
Medical					
2010	54,777	1.1957	1.0222	66,951	0.79
2011	13,608	1.2079	1.0172	16,720	0.14
2012	173,221	1.2205	1.0121	213,974	2.08
2013	207,406	1.2474	1.0071	260,555	3.12
2014	111,856	1.3906	1.0020	155,858	1.68
5 Years	$560,868			$714,058	1.48

Indemnity & Medical	(6) Developed Payroll				
2010	8,481,228			200,937	2.37
2011	11,720,035			55,794	0.48
2012	10,273,004			760,847	7.40
2013	8,342,651			385,176	4.61
2014	9,279,611			166,917	1.80
5 Years	$48,096,529			$1,569,671	3.26

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Co-Gen Bituminous 1023

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	12,131	1.0147	1.0068	12,393	0.14
2011	6,299	1.0455	1.0058	6,624	0.07
2012	65,117	1.0904	1.0048	71,344	0.79
2013	23,877	1.3085	1.0038	31,362	0.30
2014	38,275	2.1351	1.0028	81,950	0.72
5 Years	$145,699			$203,673	0.42
Medical					
2010	31,159	1.1957	1.0222	38,084	0.44
2011	40,514	1.2079	1.0172	49,779	0.55
2012	153,048	1.2205	1.0121	189,055	2.09
2013	33,928	1.2474	1.0071	42,622	0.41
2014	141,232	1.3906	1.0020	196,790	1.72
5 Years	$399,881			$516,330	1.06

Indemnity & Medical	(6) Developed Payroll				
2010	8,732,701			50,477	0.58
2011	9,102,411			56,403	0.62
2012	9,047,745			260,399	2.88
2013	10,355,884			73,984	0.71
2014	11,451,621			278,740	2.44
5 Years	$48,690,362			$720,003	1.48

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

PAB

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Prep Plants Anthracite 1025

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	274,348	1.0147	1.0068	280,274	4.86
2011	163,586	1.0455	1.0058	172,021	2.38
2012	113,881	1.0904	1.0048	124,772	1.44
2013	239,909	1.3085	1.0038	315,114	3.81
2014	57,116	2.1351	1.0028	122,290	1.51
5 Years	$848,840			$1,014,471	2.67
Medical					
2010	187,366	1.1957	1.0222	229,007	3.97
2011	97,784	1.2079	1.0172	120,145	1.66
2012	72,640	1.2205	1.0121	89,730	1.03
2013	341,944	1.2474	1.0071	429,569	5.20
2014	67,315	1.3906	1.0020	93,795	1.16
5 Years	$767,049			$962,246	2.53

Indemnity & Medical	(6) Developed Payroll				
2010	5,762,086			509,281	8.84
2011	7,236,583			292,166	4.04
2012	8,671,140			214,502	2.47
2013	8,265,665			744,683	9.01
2014	8,100,471			216,085	2.67
5 Years	$38,035,945			$1,976,717	5.20

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Prep Plants Bituminous 1027

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	159,946	1.0147	1.0068	163,401	0.62
2011	139,446	1.0455	1.0058	146,636	0.42
2012	684,034	1.0904	1.0048	749,451	2.19
2013	435,856	1.3085	1.0038	572,485	1.67
2014	394,361	2.1351	1.0028	844,358	1.93
5 Years	$1,813,643			$2,476,331	1.43
Medical					
2010	130,686	1.1957	1.0222	159,730	0.61
2011	73,013	1.2079	1.0172	89,709	0.26
2012	393,812	1.2205	1.0121	486,463	1.42
2013	245,277	1.2474	1.0071	308,131	0.90
2014	402,210	1.3906	1.0020	560,432	1.28
5 Years	$1,244,998			$1,604,465	0.92

Indemnity & Medical	(6) Developed Payroll				
2010	26,313,130			323,131	1.23
2011	35,155,068			236,345	0.68
2012	34,211,729			1,235,914	3.61
2013	34,207,489			880,616	2.57
2014	43,762,160			1,404,790	3.21
5 Years	$173,649,576			$4,080,796	2.35

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

Coal Mine Compensation Rating Bureau
Traumatic Loss Cost Indication
Underground Anthracite - 1010

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	0	1.0147	1.0068	0	0.00
2011	217,250	1.0455	1.0058	228,452	207.45
2012	0	1.0904	1.0048	0	0.00
2013	0	1.3085	1.0038	0	0.00
2014	0	2.1351	1.0028	0	0.00
5 Years	$217,250			$228,452	29.67
Medical					
2010	0	1.1957	1.0222	0	0.00
2011	500,000	1.2079	1.0172	614,338	557.86
2012	0	1.2205	1.0121	0	0.00
2013	0	1.2474	1.0071	0	0.00
2014	0	1.3906	1.0020	0	0.00
5 Years	$500,000			$614,338	79.79

Indemnity & Medical	(6) Developed Payroll				
2010	5,700			0	0.00
2011	110,125			842,790	765.31
2012	219,407			0	0.00
2013	175,900			0	0.00
2014	258,809			0	0.00
5 Years	$769,941			$842,790	109.46

Source: (1) CMCRB Database as of 04-30-2015
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit X-D

Five Other Classifications [Page 6 less Pages 8&13] - (5 Classes)

Accident Year	(1) Reported Losses	(2) Loss Development	(3) Trend Factor	(4) Ultimate Losses	(5) Loss Cost
Indemnity					
2010	597,295	1.0147	1.0068	610,197	1.12
2011	669,428	1.0455	1.0058	703,946	1.05
2012	1,362,170	1.0904	1.0048	1,492,440	2.20
2013	932,687	1.3085	1.0038	1,225,059	1.86
2014	494,917	2.1351	1.0028	1,059,656	1.38
5 Years	$4,056,497			$5,091,298	1.53
Medical					
2010	466,818	1.1957	1.0222	570,566	1.04
2011	474,587	1.2079	1.0172	583,114	0.87
2012	795,537	1.2205	1.0121	982,701	1.45
2013	864,039	1.2474	1.0071	1,085,455	1.65
2014	726,174	1.3906	1.0020	1,011,837	1.31
5 Years	$3,327,155			$4,233,673	1.27

Indemnity & Medical	(6) Developed Payroll				
2010	54,724,803			1,180,763	2.16
2011	66,813,183			1,287,060	1.93
2012	67,941,723			2,475,141	3.65
2013	65,963,599			2,310,514	3.51
2014	77,058,261			2,071,493	2.69
5 Years	$332,501,569			$9,324,971	2.80

Source: (1) Exhibit V-B, page 6 minus page 8,column (1) minus page 13,column (1)
(2) Exhibit V-C
(3) Exhibit V-F
(4) (1) times (2) times (3)
(5) (4) divided by (6) times 100
(6) Exhibit V-B, page 6 minus page 13 - column (6)

PAB

Coal Mine Compensation Rating Bureau
Indemnity & Funeral Traumatic Loss Development
Selected Loss Development Factors

(1) Development Period	(2) Average of Middle Four	(3) PCRB Factor	(4) CMCRB vs. PCRB Comparison	(5) Derived Development Factor	(6) Selected Factor	(7) Differences Average vs Selected	(8) Accumulated Selected Factor
1:2	1.6317	1.4044	0.2273	1.6317	1.6317	0.0000	2.1351
2:3	1.2000	1.1033	0.0967	1.2000	1.2000	0.0000	1.3085
3:4	1.0429	1.0249	0.0180	1.0429	1.0429	0.0000	1.0904
4:5	1.0304	1.0053	0.0251	1.0304	1.0304	0.0000	1.0455
5:6	0.9931	1.0008	-0.0077	1.0011	1.0011	-0.0080	1.0147
6:7	1.0067	1.0042	0.0025	1.0010	1.0010	0.0057	1.0136
7:8	1.0034	1.0033	0.0001	1.0010	1.0010	0.0024	1.0126
8:9	0.9951	1.0041	-0.0090	1.0009	1.0009	-0.0058	1.0116
9:10	0.9986	1.0009	-0.0023	1.0009	1.0009	-0.0023	1.0106
10:11	0.9989	1.0025	-0.0036	1.0009	1.0009	-0.0020	1.0097
11:12	1.0036	1.0034	0.0002	1.0008	1.0008	0.0028	1.0088
12:13	1.0016	1.0013	0.0003	1.0008	1.0008	0.0008	1.0080
13:14	1.0021	0.9986	0.0035	1.0007	1.0007	0.0014	1.0072
14:15	1.0024	1.0014	0.0010	1.0007	1.0007	0.0017	1.0065
15:16	1.0032	1.0021	0.0011	1.0007	1.0007	0.0025	1.0058
16:17	0.9975	1.0005	-0.0030	1.0006	1.0006	-0.0031	1.0051
17:18	1.0009	1.0010	-0.0001	1.0006	1.0006	0.0003	1.0045
18:19	1.0027	1.0012	0.0015	1.0005	1.0005	0.0022	1.0039
19:20	1.0020	1.0018	0.0002	1.0005	1.0005	0.0015	1.0034
20:Ult	xx	1.0030	xx	1.0029	1.0029		1.0029

Sources:
- (1) Reports spanned by age-to-age factors
- (2) Exhibit V-D Page 1 and VI-A Page 4
- (3) Exhibit V-D-3
- (4) Col.(2) - Col.(3)
- (5) Exhibit V-D-2
- (6) Selected equal to Col.(5) adjusted to balance
- (7) Col.(2) - Col.(6)
- (8) Upward accumulation of Col.(6)

Coal Mine Compensation Rating Bureau
Medical Traumatic Loss Development
Selected Loss Development Factors

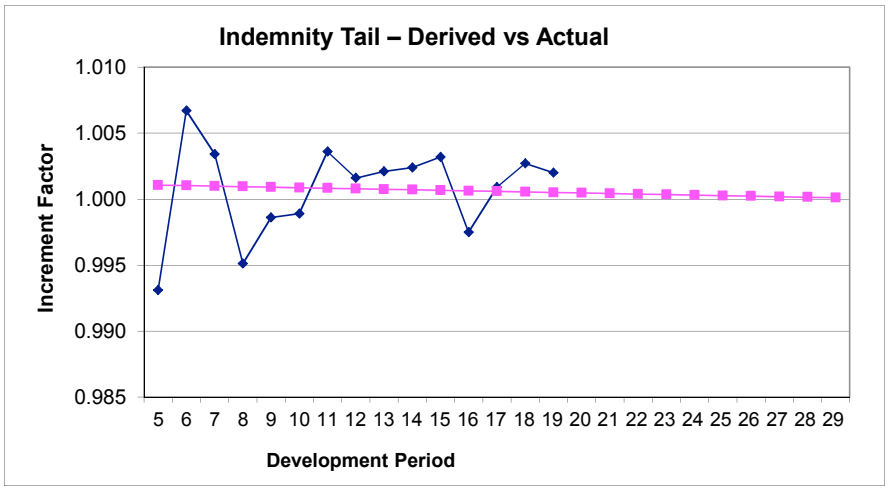
(1) Development Period	(2) Average of Middle Four	(3) PCRB Factor	(4) CMCRB vs. PCRB Comparison	(5) Derived Development Factor	(6) Selected Factor	(7) Differences Average vs Selected	(8) Accumulated Selected Factor
1:2	1.1148	1.0867	0.0281	1.1148	1.1148	0.0000	1.3906
2:3	1.0220	1.0301	-0.0081	1.0220	1.0220	0.0000	1.2474
3:4	1.0150	1.0071	0.0079	1.0105	1.0105	0.0045	1.2205
4:5	1.0108	1.0046	0.0062	1.0102	1.0102	0.0006	1.2079
5:6	1.0087	1.0099	-0.0012	1.0099	1.0099	-0.0012	1.1957
6:7	1.0020	1.0019	0.0001	1.0096	1.0096	-0.0076	1.1840
7:8	1.0078	1.0094	-0.0016	1.0093	1.0093	-0.0015	1.1728
8:9	1.0079	1.0134	-0.0055	1.0090	1.0090	-0.0011	1.1620
9:10	1.0107	1.0029	0.0078	1.0087	1.0087	0.0020	1.1517
10:11	1.0118	1.0077	0.0041	1.0084	1.0084	0.0034	1.1418
11:12	1.0131	1.0053	0.0078	1.0081	1.0081	0.0050	1.1323
12:13	1.0036	1.0052	-0.0016	1.0078	1.0078	-0.0042	1.1232
13:14	1.0042	1.0072	-0.0030	1.0075	1.0075	-0.0033	1.1145
14:15	1.0066	1.0081	-0.0015	1.0072	1.0072	-0.0006	1.1062
15:16	1.0028	1.0088	-0.0060	1.0069	1.0069	-0.0041	1.0983
16:17	1.0005	1.0117	-0.0112	1.0066	1.0066	-0.0061	1.0908
17:18	1.0133	1.0136	-0.0003	1.0063	1.0063	0.0070	1.0836
18:19	1.0001	1.0067	-0.0066	1.0060	1.0060	-0.0059	1.0768
19:20	1.0112	1.0077	0.0035	1.0057	1.0057	0.0055	1.0704
20:Ult.		1.0749		1.0643	1.0643		1.0643

Sources:
- (1) Reports spanned by age-to-age factors
- (2) Exhibit V-E Page 1 and VI-B-4
- (3) Exhibit V-E-3
- (4) Col.(2) - Col.(3)
- (5) Exhibit V-E-2 Col.(6)
- (6) Selected equal to Col.(5) adjusted to balance
- (7) Col.(2) - Col.(6)
- (8) Upward accumulation of Col.(6)

Exhibit V-D-1 is the same as VI-A-4

Coal Mine Compensation Rating Bureau
Indemnity Tail – Derived vs Actual

(1) Development Period	(2) Age-to-Age Factor	(3) Derived Factor	(4) Accumulated Age-to-Age Fac.	(5) Model Factors	(6) Accumulated Model Factors	(7) Derived Factor	(8) Accumulated Derived Factor	(9) Tail Devel. Period	(10) Model Factors	(11) Accumulated Model Factors
1	1.6317	1.6317	2.1289	1.6317	xx	xx	xx			
2	1.2000	1.2000	1.3047	1.2000	xx	xx	xx			
3	1.0429	1.0429	1.0873	1.0429	xx	xx	xx			
4	1.0304	1.0304	1.0425	1.0304	xx	xx	xx			
5	0.9931	1.0011	1.0118	1.0011	1.0118	1.0011	1.0118			
6	1.0067	1.0010	1.0188	1.0010	1.0108	1.0010	1.0108			
7	1.0034	1.0010	1.0120	1.0010	1.0097	1.0010	1.0097			
8	0.9951	1.0009	1.0086	1.0009	1.0087	1.0009	1.0087			
9	0.9986	1.0009	1.0136	1.0009	1.0078	1.0009	1.0078			
10	0.9989	1.0009	1.0150	1.0009	1.0069	1.0009	1.0069			
11	1.0036	1.0008	1.0161	1.0008	1.0060	1.0008	1.0060			
12	1.0016	1.0008	1.0125	1.0008	1.0052	1.0008	1.0052			
13	1.0021	1.0007	1.0108	1.0007	1.0044	1.0007	1.0044			
14	1.0024	1.0007	1.0087	1.0007	1.0036	1.0007	1.0036			
15	1.0032	1.0007	1.0063	1.0007	1.0029	1.0007	1.0029			
16	0.9975	1.0006	1.0031	1.0006	1.0023	1.0006	1.0023			
17	1.0009	1.0006	1.0056	1.0006	1.0016	1.0006	1.0016			
18	1.0027	1.0005	1.0047	1.0005	1.0011	1.0005	1.0011			
19	1.0020	1.0005	1.0020	1.0005	1.0005	1.0005	1.0005			
20		1.0005						20	1.0005	1.0029
21		1.0004						21	1.0004	1.0024
22		1.0004						22	1.0004	1.0020
23		1.0003						23	1.0003	1.0016
24		1.0003						24	1.0003	1.0012
25		1.0003						25	1.0003	1.0009
26		1.0002						26	1.0002	1.0007
27		1.0002						27	1.0002	1.0004
28		1.0001						28	1.0001	1.0003
29		1.0001						29	1.0001	1.0001



Source:

(1) Development Period: e.g."1" = 12 months to 24 months
(2) Exhibit V-D-1 and VI-A-4
(3) 1 thru 4 Col.(2)
5 thru 19 Col. (7)
20 thru 29 Col. (10)
(4) = Accumulation of Col.(2)
(5) From Model: Refer to Written Report
(6) Accumulation of Col.(5)
(7) Col.(5) adjusted
(8) Accumulation of Col.(7)
(9) Tail Development Period
(10) Final Tail Calculation
(11) Accumulation of Col. (10)

CMCRB tail factor	1.0029
PCRB tail factor	1.0030
Selected Tail Factor	1.0029

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Indemnity & Funeral Loss Development Tail Factor
PCRB Development and Tail Factors

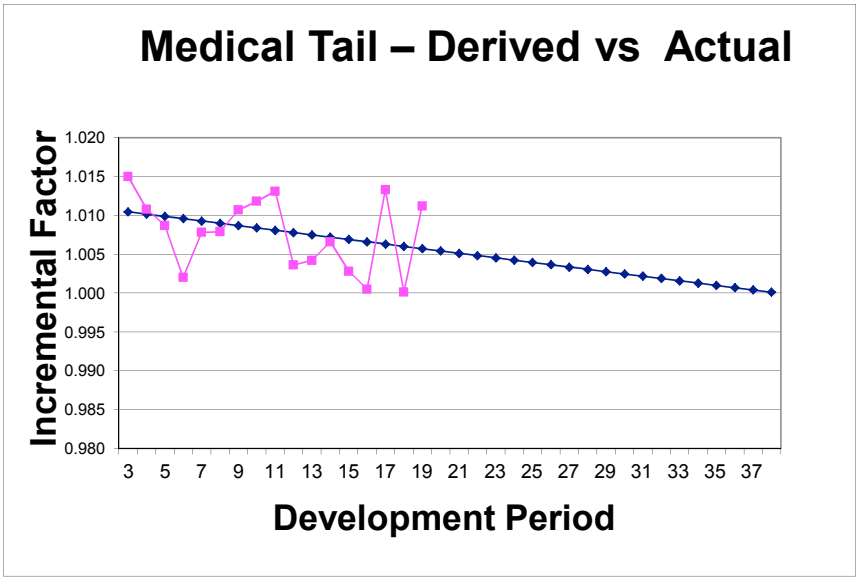
(1) Span of Maturities	(2) Age-to-Age Incurred Loss Factors	(3) Span of Maturities	(4) Cumulative Incurred Loss Factors
1 to 2	1.4044	1 to Ult	1.6452
2 to 3	1.1033	2 to Ult	1.1714
3 to 4	1.0249	3 to Ult	1.0618
4 to 5	1.0053	4 to Ult	1.0360
5 to 6	1.0008	5 to Ult	1.0305
6 to 7	1.0042	6 to Ult	1.0297
7 to 8	1.0033	7 to Ult	1.0254
8 to 9	1.0041	8 to Ult	1.0220
9 to 10	1.0009	9 to Ult	1.0178
10 to 11	1.0025	10 to Ult	1.0169
11 to 12	1.0034	11 to Ult	1.0144
12 to 13	1.0013	12 to Ult	1.0109
13 to 14	0.9986	13 to Ult	1.0096
14 to 15	1.0014	14 to Ult	1.0110
15 to 16	1.0021	15 to Ult	1.0096
16 to 17	1.0005	16 to Ult	1.0075
17 to 18	1.0010	17 to Ult	1.0070
18 to 19	1.0012	18 to Ult	1.0060
19 to 20	1.0018	19 to Ult	1.0048
20 to Ult	1.0030	20 to Ult	1.0030
20 to 21	1.0003		
21 to 22	0.9996		
22 to 23	1.0015		
23 to 24	0.9992		
24 to 25	1.0005		
25 to 26	1.0000		
Beyond	1.0019		

Source:
PCRB Loss Cost Filing effective April 1, 2015 - Exhibit 6, page 6.2
* The 20:Ult Factor is the product of PCRB factors beyond 19:20.

Exhibit V-E-1 is the same as VI-B-4

Coal Mine Compensation Rating Bureau
Medical Tail – Derived vs Actual

(1) Development Period	(2) Average Age-toAge Factor	(3) PCRB Factors	(4) Adjusted Age-to-Age Factor	(5) Accumulated Adjusted Age-to-Age Factor	(6) Derived Development Factor	(7) Accumulated Derived Factor	(8) Tail Development Period	(9) Derived Development Factor	(10) Accumulation of Derived Subsequent Factors
1	1.1148		1.1148	1.3064	1.1148	1.3064	20	1.0054	1.0536
2	1.0220		1.0220	1.1719	1.0220	1.1719	21	1.0051	1.0480
3	1.0150		1.0150	1.1467	1.0105	1.1467	22	1.0048	1.0426
4	1.0108		1.0108	1.1297	1.0102	1.1348	23	1.0045	1.0376
5	1.0087		1.0087	1.1176	1.0099	1.1234	24	1.0042	1.0330
6	1.0020		1.0020	1.1080	1.0096	1.1124	25	1.0039	1.0286
7	1.0078		1.0078	1.1058	1.0093	1.1019	26	1.0036	1.0246
8	1.0079		1.0079	1.0972	1.0090	1.0917	27	1.0033	1.0208
9	1.0107		1.0107	1.0886	1.0087	1.0820	28	1.0030	1.0174
10	1.0118	1.0077	1.0098	1.0771	1.0084	1.0727	29	1.0028	1.0144
11	1.0131	1.0053	1.0092	1.0667	1.0081	1.0638	30	1.0025	1.0116
12	1.0036	1.0052	1.0044	1.0570	1.0078	1.0553	31	1.0022	1.0091
13	1.0042	1.0072	1.0057	1.0524	1.0075	1.0471	32	1.0019	1.0069
14	1.0066	1.0081	1.0074	1.0464	1.0072	1.0393	33	1.0016	1.0050
15	1.0028	1.0088	1.0058	1.0388	1.0069	1.0319	34	1.0013	1.0035
16	1.0005	1.0117	1.0061	1.0328	1.0066	1.0248	35	1.0010	1.0022
17	1.0133	1.0136	1.0135	1.0265	1.0063	1.0181	36	1.0007	1.0012
18	1.0001	1.0067	1.0034	1.0129	1.0060	1.0118	37	1.0004	1.0005
19	1.0112	1.0077	1.0095	1.0095	1.0057	1.0057	38	1.0001	1.0001



CMCRB derived tail factor	1.0536
PCRB tail factor	1.0749
Selected	1.0643

Sources: (1) Development period:e.g. "1" =12 months to 24 months
(2) Exhibit VI-B-4
(3) PCRB Factors (Exhibit V-E-3)
(4) (1) thru (9): Col. (2)
(10) thru (19): average of Col. (2) and Col. (3)
(5) Accumulation of (4)
(6) See (4) above plus refer to written report.
(7) Accumulation of (6)
(8) Tail Factor Development Periods
(9) Final Tail Calculation
(10) Upward accumulation of Col. (9)

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Medical Loss Development Tail Factor
PCRB Development and Tail Factors

(1) Span of Maturities	(2) Age-to-Age Incurred Loss Factors	(3) Span of Maturities	(4) Cumulative Incurred Loss Factors
1 to 2	1.0867	1 to Ult.	1.3711
2 to 3	1.0301	2 to Ult.	1.2617
3 to 4	1.0071	3 to Ult.	1.2249
4 to 5	1.0046	4 to Ult.	1.2162
5 to 6	1.0099	5 to Ult.	1.2107
6 to 7	1.0019	6 to Ult.	1.1988
7 to 8	1.0094	7 to Ult.	1.1965
8 to 9	1.0134	8 to Ult.	1.1854
9 to 10	1.0029	9 to Ult.	1.1697
10 to 11	1.0077	10 to Ult.	1.1663
11 to 12	1.0053	11 to Ult.	1.1574
12 to 13	1.0052	12 to Ult.	1.1513
13 to 14	1.0072	13 to Ult.	1.1454
14 to 15	1.0081	14 to Ult.	1.1372
15 to 16	1.0088	15 to Ult.	1.1280
16 to 17	1.0117	16 to Ult.	1.1182
17 to 18	1.0136	17 to Ult.	1.1053
18 to 19	1.0067	18 to Ult.	1.0904
19 to 20	1.0077	19 to Ult.	1.0832
20 to Ult.	1.0749	20 to Ult.	1.0749
20 to 21	1.0091		
21 to 22	1.0066		
22 to 23	1.0071		
23 to 24	1.0046		
24 to 25	1.0080		
25 to 26	1.0097		
Beyond	1.0277		

Source:
PCRB Loss Cost Filing effective April 1, 2015 - Exhibit 6, page 6.14
* The 20:Ult Factor is the product of PCRB factors beyond 19:20.

Coal Mine Compensation Rating Bureau

Summary

Traumatic Loss Trend

Indemnity, Funeral and Medical for All Classes Combined

Trend Factors

Indemnity and Funeral

Annual Percentage Change: 0.1%

Accident Year	Trend Period - Years		Annual Percentage Change	Formula	Trend Factor	Frequency Adjustment Factor	HB 1846 Adjustment Factor	Adjusted Trend Factor
2010	7-1-10 to 4-1-2017	6.75	0.1%	(1 + 0.001) ^ 6.75	1.0068	1.000	1.0000	1.0068
2011	7-1-11 to 4-1-2017	5.75	0.1%	(1 + 0.001) ^ 5.75	1.0058	1.000	1.0000	1.0058
2012	7-1-12 to 4-1-2017	4.75	0.1%	(1 + 0.001) ^ 4.75	1.0048	1.000	1.0000	1.0048
2013	7-1-13 to 4-1-2017	3.75	0.1%	(1 + 0.001) ^ 3.75	1.0038	1.000	1.0000	1.0038
2014	7-1-14 to 4-1-2017	2.75	0.1%	(1 + 0.001) ^ 2.75	1.0028	1.000	1.0000	1.0028

Medical and Medical Only

Annual Percentage Change: 0.5%

Accident Year	Trend Period - Years		Annual Percentage Change	Formula	Trend Factor	Frequency Adjustment Factor	HB 1846 Adjustment Factor	Adjusted Trend Factor
2010	7-1-10 to 4-1-2017	6.75	0.5%	(1 + 0.005) ^ 6.75	1.0342	1.000	0.9884	1.0222
2011	7-1-11 to 4-1-2017	5.75	0.5%	(1 + 0.005) ^ 5.75	1.0291	1.000	0.9884	1.0172
2012	7-1-12 to 4-1-2017	4.75	0.5%	(1 + 0.005) ^ 4.75	1.0240	1.000	0.9884	1.0121
2013	7-1-13 to 4-1-2017	3.75	0.5%	(1 + 0.005) ^ 3.75	1.0189	1.000	0.9884	1.0071
2014	7-1-14 to 4-1-2017	2.75	0.5%	(1 + 0.005) ^ 2.75	1.0138	1.000	0.9884	1.0020

Source: Annual Percentage Change - Exhibit V-K

Frequency adjustment factor is from V-K Supplemental

Coal Mine Compensation Rating Bureau

Summary

Traumatic Loss Trend
Indemnity, Funeral and Medical for All Classes Combined
Trend Factor Selections

	Indemnity	Medical	
Exh. V-I Combined Trend			
a. Severity			
Indemnity -page 1	1.030	---	Weight
Total Medical - page 2	---	1.033	*50%*
Medical Only - page 3	---	1.042	*10%*
Lost Time Medical - page 6	---	1.034	*40%*
Weighted Average	1.030	1.034	
Selected Severity Trend	1.030	1.034	
b.Frequency			
Combined Freq. And Wage - page 4	0.931	0.931	
Frequency- page 5	0.957	0.957	
Wage Inflation Exh. XII-D	1.0275	1.0275	
Combined(Freq./Wage)	0.931	0.931	
Average	0.931	0.931	
Selected Frequency Trend	0.972	0.972	
c. Total(Freq. And Sev. Combined)	1.001	1.005	
Approved Filing(Effective 04-01-2015)	1.003	1.016	
Selected Final Trend (Effective 04-01-2016) *	1.001	1.005	

Source:
Combined Trend: Exhibit V-I,pp.1-6
* Trend Change Limited to +/- 3.0 points, when necessary.

Traumatic Loss Trend
Indemnity and Funeral losses for All Classes Combined

Year	(1) Indemnity Case Incurred Losses	(2) Loss Development Factors	(3) Ultimate Losses	(4) Loss Cost Premium
2005	12,368,018	1.0097	12,487,988	8,390,074
2006	5,372,852	1.0106	5,429,804	8,309,843
2007	6,933,809	1.0116	6,727,809 *	9,275,671
2008	9,542,759	1.0126	9,662,998	10,973,877
2009	5,295,524	1.0136	5,367,543	10,110,621
2010	7,301,176	1.0147	7,408,503	11,588,244
2011	8,373,419	1.0455	8,754,410	14,063,953
2012	8,319,223	1.0904	9,071,281	14,722,555
2013	6,028,932	1.3085	7,888,858	13,497,013
2014	5,950,691	2.1351	12,705,320	18,410,635

Sources:

(1) Exhibit V-D,pg.1 or Exhibit VI-A,pg.4
(2) Exhibit V-C-1 Column (8)
(3) =(1)x(2)
(4) Exhibit X-B

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

Traumatic Loss Trend
Medical and Medical Only Losses for All Classes Combined

Year	(1) Medical Case Incurred Losses	(2) Loss Development Factors	(3) Ultimate Losses	(4) Loss Cost Premium
2005	4,356,915	1.1418	4,974,726	8,390,074
2006	3,507,194	1.1517	4,039,235	8,309,843
2007	5,950,133	1.1620	5,570,055 *	9,275,671
2008	3,811,253	1.1728	4,469,838	10,973,877
2009	2,946,694	1.1840	3,488,886	10,110,621
2010	4,604,796	1.1957	5,505,955	11,588,244
2011	5,609,134	1.2079	6,775,273	14,063,953
2012	5,404,121	1.2205	6,595,730	14,722,555
2013	3,927,444	1.2474	4,899,094	13,497,013
2014	5,513,027	1.3906	7,666,415	18,410,635

Sources:

(1) Exhibit V-E,pg.1 or Exhibit VI-B,pg.4
(2) Exhibit V-C-2 Column (8)
(3) =(1)x(2)
(4) Exhibit X-B

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

Traumatic Loss Trend

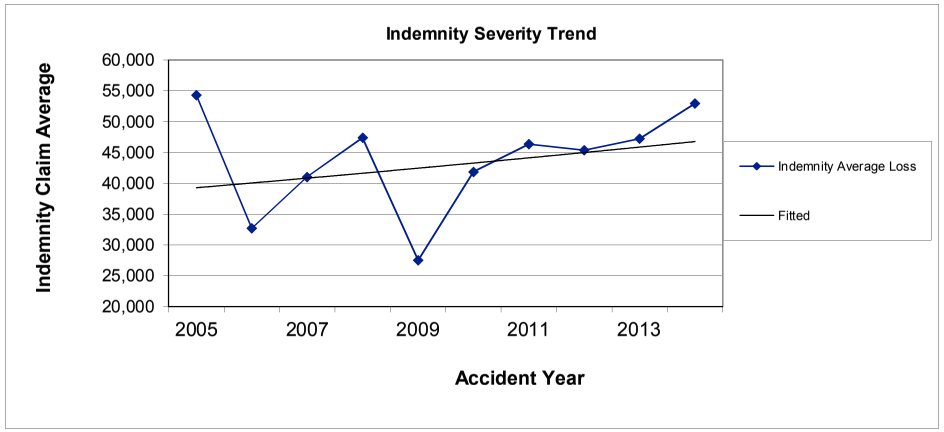
Indemnity and Funeral losses for All Classes Combined

Severity Trend

Year	(1) Ultimate Losses	(2) Claim Counts	(3) Average Loss	(4) Annual Average Loss Change
2005	12,487,988	230	54,296	
2006	5,429,804	166	32,710	-39.8%
2007	6,727,809 *	164	41,023	25.4%
2008	9,662,998	204	47,368	15.5%
2009	5,367,543	195	27,526	-41.9%
2010	7,408,503	177	41,856	52.1%
2011	8,754,410	189	46,320	10.7%
2012	9,071,281	200	45,356	-2.1%
2013	7,888,858	167	47,239	4.2%
2014	12,705,320	240	52,939	12.1%

Indemnity Severity Trend Factor: 1.030
Source: Summary Exhibit (V-K)

Fitted=38519.7692 x e^(0.0194*(YEAR-2004))



Sources:
(1) Exhibit V-H page 1,Column (3)
(2) Exhibit VI-C-1
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

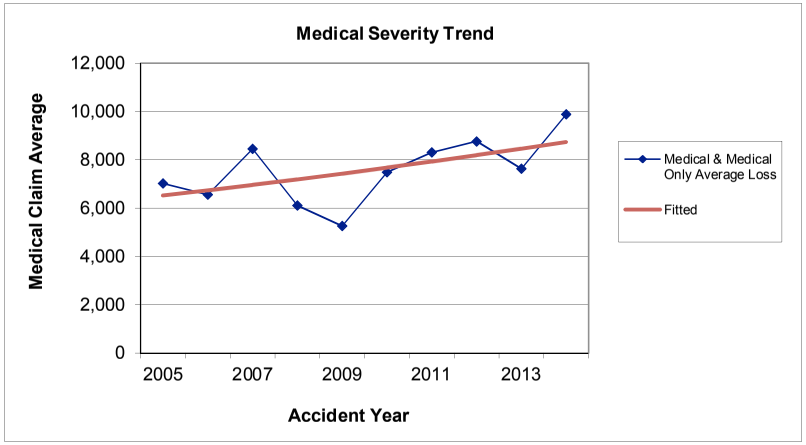
Traumatic Loss Trend
Medical and Medical Only Losses for All Classes Combined

Severity Trend

Year	(1) Ultimate Losses	(2) Claim Counts	(3) Average Loss	(4) Annual Average Loss Change
2005	4,974,726	709	7,017	
2006	4,039,235	616	6,557	-6.6%
2007	5,570,055 *	659	8,452	28.9%
2008	4,469,838	732	6,106	-27.8%
2009	3,488,886	664	5,254	-14.0%
2010	5,505,955	736	7,481	42.4%
2011	6,775,273	816	8,303	11.0%
2012	6,595,730	753	8,759	5.5%
2013	4,899,094	642	7,631	-12.9%
2014	7,666,415	776	9,879	29.5%

Medical Severity Trend Factor: 1.033
Source: Summary Exhibit (V-K)

Fitted=6164.7448 x e^(0.0339*(YEAR-2004))



Sources:
(1) Exhibit V-H page 2,Column (3)
(2) Exhibit VI-C-1 + Exhibit VI-C-2
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

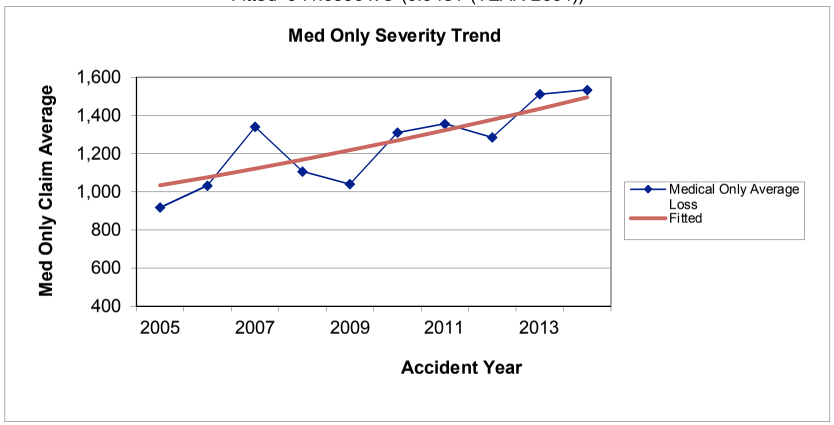
Traumatic Loss Trend
Medical Only Losses for All Classes Combined

Severity Trend

Year	(1) Ultimate Claim Counts	(2) Ultimate Incurred Losses	(3) Average Loss	(4) Annual Average Loss Change
2005	479	439,463	917	
2006	450	464,210	1,032	12.5%
2007	495	663,201	1,340	29.8%
2008	528	584,120	1,106	-17.5%
2009	469	487,454	1,039	-6.1%
2010	559	732,324	1,310	26.1%
2011	627	850,074	1,356	3.5%
2012	553	709,906	1,284	-5.3%
2013	475	717,723	1,511	17.7%
2014	536	822,236	1,534	1.5%

Med. Only Severity Trend Factor: 1.042
Source: Summary Exhibit (V-K)

Fitted=941.6339 x e^(0.0481*(YEAR-2004))



Sources:
(1) Exhibit VI-C-2
(2) Exhibit VI-C-3
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

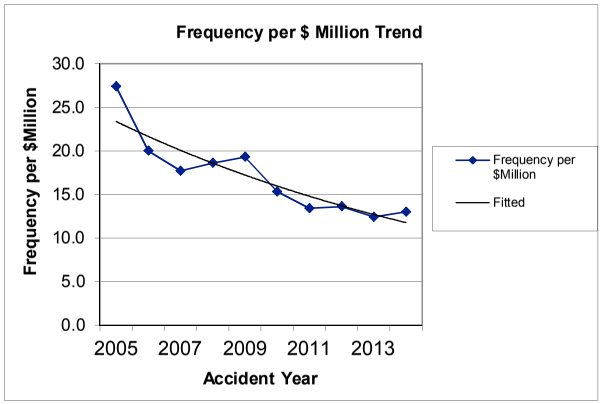
Traumatic Loss Trend
Indemnity and Funeral losses for All Classes Combined

Frequency Trend

Year	(1) Ultimate Claim Counts	(2) Loss Cost Premium	(3) Frequency per($M)	(4) Annual Average Loss Change
2005	230	8,390,074	27.4	
2006	166	8,309,843	20.0	-27.0%
2007	164	9,275,671	17.7	-11.5%
2008	204	10,973,877	18.6	5.1%
2009	195	10,110,621	19.3	3.8%
2010	177	11,588,244	15.3	-20.7%
2011	189	14,063,953	13.4	-12.4%
2012	200	14,722,555	13.6	1.5%
2013	167	13,497,013	12.4	-8.8%
2014	240	18,410,635	13.0	4.8%

Frequency per $Million Trend: 0.931
Source: Summary Exhibit (V-K)

Fitted=25.2181 x e^(-0.0763*(YEAR-2004))



Sources:
(1) Exhibit V-I - Col. 2
(2) Exhibit X-B
(3) (1) / (2) x 1,000,000
(4) (Current Freq. / Prior Freq. -1.0) x 100'

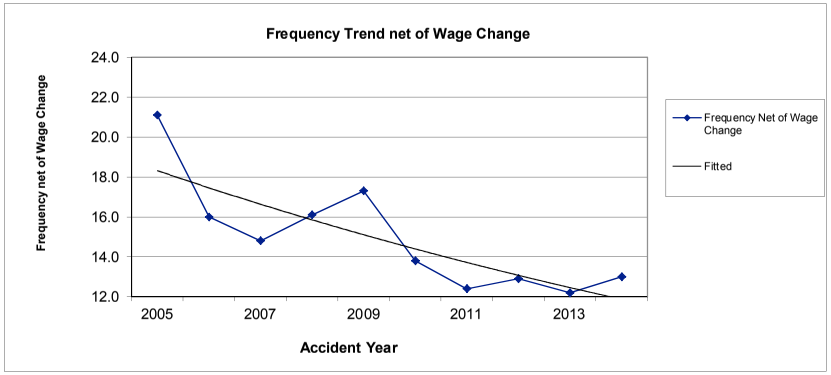
Traumatic Loss Trend
Indemnity and Funeral losses for All Classes Combined

Frequency Trend Net of Wage Trend

Year	(1) Loss Cost Premium	(2) Statewide Average Weekly Wage	(3) On 2014 Level	(4) Loss Cost Premium on 2014 Level	(5) Claim Count	(6) Adjusted Frequency per($M)	(7) Annual Frequency Change
2005	8,390,074	716	1.302	10,923,876	230	21.1	
2006	8,309,843	745	1.251	10,395,614	166	16.0	-24.2%
2007	9,275,671	779	1.196	11,093,703	164	14.8	-7.5%
2008	10,973,877	807	1.155	12,674,828	204	16.1	8.8%
2009	10,110,621	836	1.115	11,273,342	195	17.3	7.5%
2010	11,588,244	845	1.103	12,781,833	177	13.8	-20.2%
2011	14,063,953	858	1.086	15,273,453	189	12.4	-10.1%
2012	14,722,555	888	1.050	15,458,683	200	12.9	4.0%
2013	13,497,013	917	1.016	13,712,965	167	12.2	-5.4%
2014	18,410,635	932	1.000	18,410,635	240	13.0	6.6%

Frequency net of Wage Change Trend: 0.957
Source: Summary Exhibit (V-K)

Fitted=19.2269 x e^(-0.0482*(YEAR-2004))



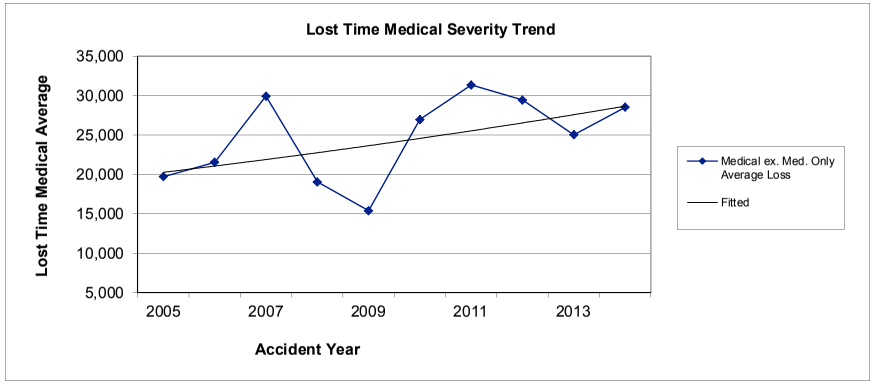
Soures:
(1) Exhibit X-B
(2) Exhibit XII-D
(3) 2014 is 1.000. Values for other years divided into 2014 value to determine factor
(4) (1) x (3)
(5) Exhibit VI-C-1
(6) (5) / (4) * 1,000,000
(7) (Current Freq./Prior Freq.-1.0)x100

Traumatic Loss Trend
Medical (excl. Medical Only Losses) for All Classes Combined

Year	(1) Ultimate Medical Losses Incurred	(2) Med. Only Ultimate Incurred Losses	(3) Ult. Med. On Lost Time Claims	(4) Claim Counts	(5) Average Loss	(6) Annual Average Loss Change
2005	4,974,726	439,463	4,535,263	230	19,719	
2006	4,039,235	464,210	3,575,025	166	21,536	9.2%
2007	5,570,055 *	663,201	4,906,854	164	29,920	38.9%
2008	4,469,838	584,120	3,885,718	204	19,048	-36.3%
2009	3,488,886	487,454	3,001,432	195	15,392	-19.2%
2010	5,505,955	732,324	4,773,631	177	26,970	75.2%
2011	6,775,273	850,074	5,925,199	189	31,350	16.2%
2012	6,595,730	709,906	5,885,824	200	29,429	-6.1%
2013	4,899,094	717,723	4,181,371	167	25,038	-14.9%
2014	7,666,415	822,236	6,844,179	240	28,517	13.9%

Lost Time Medical Trend 1.034
Source: Summary Exhibit (V-K)

Fitted=19506.5705 x e^(0.0385*(YEAR-2004))



Source:
(1) Exh.V-H,Page 2
(2) Exh. VI-C-3
(3) (1)-(2)
(4) Exh. VI-C-1
(5) (3)/(4)
(6) (Current Avg. Loss /Prior Avg. Loss-1.0)x100

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

Allocation of Claim 43059 Between Indemnity and Medical
Accident Year 2007

	Reported Incurred	Percent Distribution	Loss Development Factor	Developed Losses
Indemnity	550,051	21.6%	1.0116	556,432
Medical	2,000,000	78.4%	1.1620	2,324,000
Total	2,550,051	100.0%		2,880,432

Developed Incurred is greater than catastrophe limit so capping and allocation is necessary.

Total Reported Indemnity (2007) = 6,933,809

	(1) Incurred	(2) LDF	(3) = (1)x(2)
Total	6,933,809	1.0116	7,014,241
This claim	550,051	1.0116	556,432
	Total excluding this claim =		6,457,809

Maximum Claim Size	% Indemnity	Limited Indemnity
1,250,000	21.6%	270,000

Total Indemnity including this limited claim = 6,727,809

Total Reported Medical (2007) = 5,950,133

	(1) Incurred	(2) LDF	(3) = (1)x(2)
Total	5,950,133	1.1620	6,914,055
This claim	2,000,000	1.1620	2,324,000
	Total excluding this claim =		4,590,055

Maximum Claim Size	% Medical	Limited Medical
1,250,000	78.4%	980,000

Total Medical including this limited claim = 5,570,055

Allocation Of Claim 46135 Between Indemnity and Medical
Accident Year 2012

	Reported Incurred	Percent Distribution	Loss Development Factor	Developed Losses
Indemnity	246,748	24.3%	1.0904	269,054
Medical	768,314	75.7%	1.2205	937,727
Total	1,015,062	100.0%		1,206,781

Developed Incurred is less than catastrophe limit so capping and allocation is not necessary.

Traumatic Loss Trend
Summary of Estimates

			Ests. 1&2	Ests. 3&4	Ests. 5&6	Ests. 7&8	Ests.9&10	Ests.11&12	Average	
V-I-1	Trad	Indm	100.8%	105.5%	103.9%	99.6%	104.8%	102.8%	*102.9%*	Severity
	MA	Indm	101.8%	103.1%	104.7%	101.4%	102.8%	104.6%	*103.1%*	Severity
									103.0%	*Average*
V-I-2	Trad	Med	103.7%	104.8%	103.5%	101.7%	102.6%	100.7%	*102.8%*	Severity
	MA	Med	102.6%	103.7%	105.8%	101.9%	103.2%	105.7%	*103.8%*	Severity
									103.3%	*Average*
V-I-3	Trad	Med	105.4%	104.7%	102.9%	105.6%	104.8%	102.7%	*104.4%*	Severity
	MA	Med	104.0%	103.7%	104.4%	104.0%	103.6%	104.4%	*104.0%*	Severity
									104.2%	*Average*
V-I-4	Trad	Frequency	92.4%	94.3%	94.8%	91.2%	93.3%	93.6%	*93.3%*	Frequency
	MA	Frequency	92.9%	94.0%	93.2%	91.9%	93.0%	91.7%	*92.8%*	Frequency
									93.1%	*Average*
V-I-5	Trad	Frequency	95.0%	96.9%	97.2%	94.0%	96.0%	96.1%	*95.9%*	Frequency
	MA	Frequency	95.7%	96.7%	95.4%	94.8%	95.7%	93.9%	*95.4%*	Frequency
									95.7%	*Average*
V-I-6	Trad	Med	104.1%	103.6%	101.6%	103.5%	102.9%	100.4%	*102.7%*	Severity
	MA	Med	102.2%	102.7%	105.2%	103.2%	104.0%	107.4%	*104.1%*	Severity
									103.4%	*Average*

Average Frequency Indication

Trad	Trad Freq	92.4%	94.3%	94.7%	91.3%	93.4%	93.6%	*93.3%*
MA	MA Freq	93.0%	94.1%	93.0%	92.1%	93.1%	91.5%	*92.8%*
								93.1%

Indicated Frequency from "Exh. V-K Supplemental" analysis*
97.2% =1 - 2.8%

Selected Frequency Increase/Decrease *97.2%* *

	Indemnity	Medical
Selected Freq Factor	*97.2%*	*97.2%*
Selected Sev. Factor	*103.0%*	*103.4%* **
Composite Trend Factor	*100.1%*	*100.5%*
Approved 4-01-15	*100.3%*	*101.6%*
Selected 4-01-16	*100.1%* ***	*100.5%* ***

* Selected Frequency based on Exh. V-K Supplemental

** The Medical Sev. Trend factor is the Weighted average of Exhs. V-I-2,V-I-3 & V-I-6.
The respective weights are 50%,10%,& 40%.

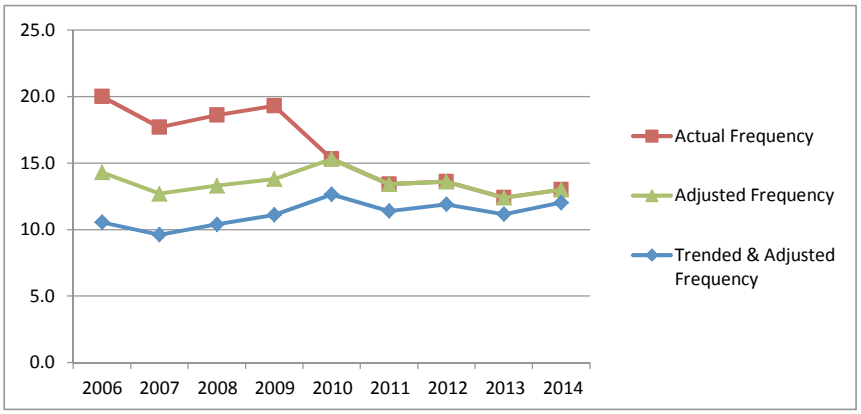
*** Limited to a maximum change of +-3.0 points, when necessary.

Coal Mine Compensation Rating Bureau
Traumatic - Indemnity and Medical - Frequency Trend

Supplemental

Year	(1) Actual Frequency	(2) Frequency Adjustment Factor	(3) Adjusted Frequency	(4) Change from Prior Year	(5) Trend Period	(6) Trended & Adjusted Frequency
2006	20.0	0.716	14.3		10.75	10.6
2007	17.7	0.716	12.7	0.888	9.75	9.6
2008	18.6	0.716	13.3	1.047	8.75	10.4
2009	19.3	0.716	13.8	1.038	7.75	11.1
2010	15.3	1.000	15.3	1.109	6.75	12.6
2011	13.4	1.000	13.4	0.876	5.75	11.4
2012	13.6	1.000	13.6	1.015	4.75	11.9
2013	12.4	1.000	12.4	0.912	3.75	11.1
2014	13.0	1.000	13.0	1.048	2.75	12.0

A) Geometric Mean (2006 - 2014) of Column 4	-1.2%
B) Regression (2006 - 2014) of Column 3	-0.7%
Average of (A) & (B)	-1.0%
C) Geometric Mean (2006 -2014, ex 2010)	-2.8%
D) Average of (A), (B) & (C)	-1.6%
Selected Frequency Trend	-2.8%



The data for years 2006 through 2014 appears to have two eras - the first from 2006 to 2009 and the second from 2010 to 2014. Neither era is of sufficient length to be used to produce a reliable estimate of trend. To remedy this, it was decided to adjust the data so that all points would be from the same era. This was accomplished by adjusting the data from 2006 - 2009 so that it would have the same average value as that of the period 2010-2014. The ratio of the second period to the first period was found to be 0.716=13.54 / 18.90.

Source: Column 1: Column (3) of Exhibit V-I Page 4 Summary
Column 2: For 2006 - 2009, 0.716 = 13.54 / 18.90
For 2010 - 2014, 1.000 = 13.5 / 13.5
Column 3: Column (1) times Column (2)
Column 4: Current Column (3) value divided by Prior Column (3) value
Column 5: Trend Period from each Accident Year to the Project Average Accident Date
Column 6: Column (3) times [(1 + Selected Frequency Trend)^Column (5)]

Traumatic Loss Trend
Indemnity and Funeral losses for All Classes Combined

Severity Trend

Year	(1) Ultimate Losses	(2) Claim Counts	(3) Average Loss	(4) Annual Average Loss Change	(5) 3-Year Moving Average	(6) Annual Mov. Avg. Change
2005	12,487,988	230	54,296			
2006	5,429,804	166	32,710	-39.8%		
2007	6,727,809 *	164	41,023	25.4%	42,676	
2008	9,662,998	204	47,368	15.5%	40,367	-5.4%
2009	5,367,543	195	27,526	-41.9%	38,639	-4.3%
2010	7,408,503	177	41,856	52.1%	38,917	0.7%
2011	8,754,410	189	46,320	10.7%	38,567	-0.9%
2012	9,071,281	200	45,356	-2.1%	44,511	15.4%
2013	7,888,858	167	47,239	4.2%	46,305	4.0%
2014	12,705,320	240	52,939	12.1%	48,511	4.8%

Analysis performed on data for 2005 through 2014.	Geometric Average:	-0.3%	1.8%	Ests.
	Regression Indication:	2.0%		1 & 2
	Selected:	0.8%	1.8%	
Analysis performed on data for 2006 through 2014.	Geometric Average:	6.2%	3.1%	Ests.
	Regression Indication:	4.7%		3 & 4
	Selected:	5.5%	3.1%	
Analysis performed on data for 2007 through 2014.	Geometric Average:	3.7%	4.7%	Ests.
	Regression Indication:	4.1%		5 & 6
	Selected:	3.9%	4.7%	

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

Sources:
(1) Exhibit V-H page 1,Column (3)
(2) Exhibit VI-C-1
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

Traumatic Loss Trend
Medical and Medical Only Losses for All Classes Combined

Severity Trend

Year	(1) Ultimate Losses	(2) Claim Counts	(3) Average Loss	(4) Annual Average Loss Change	(5) 3-Year Moving Average	(6) Annual Mov. Avg. Change
2005	4,974,726	709	7,017			
2006	4,039,235	616	6,557	-6.6%		
2007	5,570,055 *	659	8,452	28.9%	7,342	
2008	4,469,838	732	6,106	-27.8%	7,038	-4.1%
2009	3,488,886	664	5,254	-14.0%	6,604	-6.2%
2010	5,505,955	736	7,481	42.4%	6,280	-4.9%
2011	6,775,273	816	8,303	11.0%	7,013	11.7%
2012	6,595,730	753	8,759	5.5%	8,181	16.7%
2013	4,899,094	642	7,631	-12.9%	8,231	0.6%
2014	7,666,415	776	9,879	29.5%	8,756	6.4%

Analysis performed on data for 2005 through 2014.	Geometric Average:	3.9%	2.6%	Ests.
	Regression Indication:	3.4%		1 & 2
	Selected:	3.7%	2.6%	
Analysis performed on data for 2006 through 2014.	Geometric Average:	5.2%	3.7%	Ests.
	Regression Indication:	4.3%		3 & 4
	Selected:	4.8%	3.7%	
Analysis performed on data for 2007 through 2014.	Geometric Average:	2.2%	5.8%	Ests.
	Regression Indication:	4.7%		5 & 6
	Selected:	3.5%	5.8%	

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

Sources:
(1) Exhibit V-H page 2,Column (3)
(2) Exhibit VI-C-1 + Exhibit VI-C-2
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

Traumatic Loss Trend
Medical Only Losses for All Classes Combined

Severity Trend

Year	(1) Ultimate Claim Counts	(2) Ultimate Incurred Losses	(3) Average Loss	(4) Annual Average Loss Change	(5) 3-Year Moving Average	(6) Annual Mov. Avg. Change
2005	479	439,463	917			
2006	450	464,210	1,032	12.5%		
2007	495	663,201	1,340	29.8%	1,096	
2008	528	584,120	1,106	-17.5%	1,159	5.7%
2009	469	487,454	1,039	-6.1%	1,162	0.3%
2010	559	732,324	1,310	26.1%	1,152	-0.9%
2011	627	850,074	1,356	3.5%	1,235	7.2%
2012	553	709,906	1,284	-5.3%	1,317	6.6%
2013	475	717,723	1,511	17.7%	1,384	5.1%
2014	536	822,236	1,534	1.5%	1,443	4.3%

Analysis performed on data for 2005 through 2014.	Geometric Average:	5.9%	4.0%	Ests.
	Regression Indication:	4.9%		1 & 2
	Selected:	5.4%	4.0%	
Analysis performed on data for 2006 through 2014.	Geometric Average:	5.1%	3.7%	Ests.
	Regression Indication:	4.3%		3 & 4
	Selected:	4.7%	3.7%	
Analysis performed on data for 2007 through 2014.	Geometric Average:	1.9%	4.4%	Ests.
	Regression Indication:	3.9%		5 & 6
	Selected:	2.9%	4.4%	

Sources:
(1) Exhibit VI-C-2
(2) Exhibit VI-C-3
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

Traumatic Loss Trend
Indemnity and Funeral losses for All Classes Combined

Frequency Trend

Year	(1) Ultimate Claim Counts	(2) Loss Cost Premium	(3) Frequency per($M)	(4) Annual Average Loss Change	(5) 3-Year Moving Average	(6) Annual Mov. Avg. Change
2005	230	8,390,074	27.4			
2006	166	8,309,843	20.0	-27.0%		
2007	164	9,275,671	17.7	-11.5%	21.7	
2008	204	10,973,877	18.6	5.1%	18.8	-13.4%
2009	195	10,110,621	19.3	3.8%	18.5	-1.6%
2010	177	11,588,244	15.3	-20.7%	17.7	-4.3%
2011	189	14,063,953	13.4	-12.4%	16.0	-9.6%
2012	200	14,722,555	13.6	1.5%	14.1	-11.9%
2013	167	13,497,013	12.4	-8.8%	13.1	-7.1%
2014	240	18,410,635	13.0	4.8%	13.0	-0.8%

Analysis performed on data for 2005 through 2014.	Geometric Average:	-7.9%	-7.1%	Ests. 1 & 2
	Regression Indication:	-7.3%		
	Selected:	-7.6%	-7.1%	
Analysis performed on data for 2006 through 2014.	Geometric Average:	-5.2%	-6.0%	Ests. 3 & 4
	Regression Indication:	-6.1%		
	Selected:	-5.7%	-6.0%	
Analysis performed on data for 2007 through 2014.	Geometric Average:	-4.3%	-6.8%	Ests. 5 & 6
	Regression Indication:	-6.2%		
	Selected:	-5.2%	-6.8%	

Sources:
(1) Exhibit V-I-1 Col. 2
(2) Exhibit X-B
(3) (1) / (2) x 1,000,000
(4) (Current Freq. / Prior Freq. -1.0) x 100'

Traumatic Loss Trend
Indemnity and Funeral losses for All Classes Combined

Frequency Trend Net of Wage Trend

Year	(1) Loss Cost Premium	(2) Statewide Average Weekly Wage	(3) On 2014 Level	(4) Loss Cost Premium on 2014 Level	(5) Claim Count	(6) Adjusted Frequency per($M)	(7) Annual Frequency Change	(8) 3-Year Moving Average	(9) Annual Mov. Avg. Change
2005	8,390,074	716	1.302	10,923,876	230	21.1			
2006	8,309,843	745	1.251	10,395,614	166	16.0	-24.2%		
2007	9,275,671	779	1.196	11,093,703	164	14.8	-7.5%	17.3	
2008	10,973,877	807	1.155	12,674,828	204	16.1	8.8%	15.6	-9.8%
2009	10,110,621	836	1.115	11,273,342	195	17.3	7.5%	16.1	3.2%
2010	11,588,244	845	1.103	12,781,833	177	13.8	-20.2%	15.7	-2.5%
2011	14,063,953	858	1.086	15,273,453	189	12.4	-10.1%	14.5	-7.6%
2012	14,722,555	888	1.050	15,458,683	200	12.9	4.0%	13.0	-10.3%
2013	13,497,013	917	1.016	13,712,965	167	12.2	-5.4%	12.5	-3.8%
2014	18,410,635	932	1.000	18,410,635	240	13.0	6.6%	12.7	1.6%

Analysis performed on data for 2005 through 2014.	Geometric Average:	-5.2%	-4.3%	Ests.
	Regression Indication:	-4.7%		1 & 2
	Selected:	-5.0%	-4.3%	
Analysis performed on data for 2006 through 2014.	Geometric Average:	-2.5%	-3.3%	Ests.
	Regression Indication:	-3.6%		3 & 4
	Selected:	-3.1%	-3.3%	
Analysis performed on data for 2007 through 2014.	Geometric Average:	-1.8%	-4.6%	Ests.
	Regression Indication:	-3.8%		5 & 6
	Selected:	-2.8%	-4.6%	

Sources:
(1) Exhibit X-B
(2) Exhibit XII-D
(3) 2014 is 1.000. Values for other years divided into 2014 value to determine factor
(4) (1)x(3)
(5) Exhibit VI-C-1
(6) (5) / (4) * 1,000,000
(7) (Current Freq./Prior Freq.-1.0)x100

Traumatic Loss Trend
Medical (excl. Medical Only Losses) for All Classes Combined

Year	(1) Ultimate Medical Losses Incurred	(2) Med. Only Ultimate Incurred Losses	(3) Ult. Med. On Lost Time Claims	(4) Claim Counts	(5) Average Loss	(6) Annual Average Loss Change	(7) 3-Year Moving Average	(8) Annual Mov. Avg. Change
2005	4,974,726	439,463	4,535,263	230	19,719			
2006	4,039,235	464,210	3,575,025	166	21,536	9.2%		
2007	5,570,055 *	663,201	4,906,854	164	29,920	38.9%	23,725	
2008	4,469,838	584,120	3,885,718	204	19,048	-36.3%	23,501	-0.9%
2009	3,488,886	487,454	3,001,432	195	15,392	-19.2%	21,453	-8.7%
2010	5,505,955	732,324	4,773,631	177	26,970	75.2%	20,470	-4.6%
2011	6,775,273	850,074	5,925,199	189	31,350	16.2%	24,571	20.0%
2012	6,595,730	709,906	5,885,824	200	29,429	-6.1%	29,250	19.0%
2013	4,899,094	717,723	4,181,371	167	25,038	-14.9%	28,606	-2.2%
2014	7,666,415	822,236	6,844,179	240	28,517	13.9%	27,661	-3.3%

Analysis performed on data for 2005 through 2014.	Geometric Average:	4.2%	2.2%	Ests.
	Regression Indication:	3.9%		1 & 2
	Selected:	4.1%	2.2%	
Analysis performed on data for 2006 through 2014.	Geometric Average:	3.6%	2.7%	Ests.
	Regression Indication:	3.7%		3 & 4
	Selected:	3.6%	2.7%	
Analysis performed on data for 2007 through 2014.	Geometric Average:	-0.7%	5.2%	Ests.
	Regression Indication:	3.8%		5 & 6
	Selected:	1.6%	5.2%	

Source:
(1) Exh.V-H,Page 2
(2) Exh. VI-C-3
(3) (1)-(2)
(4) Exh. VI-C-1
(5) (3)/(4)
(6) (Current Avg. Loss /Prior Avg. Loss-1.0)x100

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

Traumatic Loss Trend
Indemnity and Funeral losses for All Classes Combined

Severity Trend

Year	(1) Ultimate Losses	(2) Claim Counts	(3) Average Loss	(4) Annual Average Loss Change	(5) 3-Year Moving Average	(6) Annual Mov. Avg. Change
2005	12,487,988	230	54,296			
2006	5,429,804	166	32,710	-39.8%		
2007	6,727,809 *	164	41,023	25.4%	42,676	
2008	9,662,998	204	47,368	15.5%	40,367	-5.4%
2009	5,367,543	195	27,526	-41.9%	38,639	-4.3%
2010	7,408,503	177	41,856	52.1%	38,917	0.7%
2011	8,754,410	189	46,320	10.7%	38,567	-0.9%
2012	9,071,281	200	45,356	-2.1%	44,511	15.4%
2013	7,888,858	167	47,239	4.2%	46,305	4.0%

Analysis performed on data for 2005 through 2013.	Geometric Average:	-1.7%	1.4%	Ests.
	Regression Indication:	0.9%		7 & 8
	Selected:	-0.4%	1.4%	
Analysis performed on data for 2006 through 2013.	Geometric Average:	5.4%	2.8%	Ests.
	Regression Indication:	4.2%		9 & 10
	Selected:	4.8%	2.8%	
Analysis performed on data for 2007 through 2013.	Geometric Average:	2.4%	4.6%	Ests.
	Regression Indication:	3.1%		11 & 12
	Selected:	2.8%	4.6%	

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

Sources:
(1) Exhibit V-H page 1,Column (3)
(2) Exhibit VI-C-1
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

Traumatic Loss Trend
Medical and Medical Only Losses for All Classes Combined

Severity Trend

Year	(1) Ultimate Losses	(2) Claim Counts	(3) Average Loss	(4) Annual Average Loss Change	(5) 3-Year Moving Average	(6) Annual Mov. Avg. Change
2005	4,974,726	709	7,017			
2006	4,039,235	616	6,557	-6.6%		
2007	5,570,055 *	659	8,452	28.9%	7,342	
2008	4,469,838	732	6,106	-27.8%	7,038	-4.1%
2009	3,488,886	664	5,254	-14.0%	6,604	-6.2%
2010	5,505,955	736	7,481	42.4%	6,280	-4.9%
2011	6,775,273	816	8,303	11.0%	7,013	11.7%
2012	6,595,730	753	8,759	5.5%	8,181	16.7%
2013	4,899,094	642	7,631	-12.9%	8,231	0.6%

Analysis performed on data for 2005 through 2013.	Geometric Average:	1.0%	1.9%	Ests.
	Regression Indication:	2.3%		7 & 8
	Selected:	1.7%	1.9%	
Analysis performed on data for 2006 through 2013.	Geometric Average:	2.2%	3.2%	Ests.
	Regression Indication:	3.0%		9 & 10
	Selected:	2.6%	3.2%	
Analysis performed on data for 2007 through 2013.	Geometric Average:	-1.7%	5.7%	Ests.
	Regression Indication:	3.2%		11 & 12
	Selected:	0.7%	5.7%	

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

Sources:
(1) Exhibit V-H page 2,Column (3)
(2) Exhibit VI-C-1 + Exhibit VI-C-2
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

Traumatic Loss Trend
Medical Only Losses for All Classes Combined

Severity Trend

Year	(1) Ultimate Claim Counts	(2) Ultimate Incurred Losses	(3) Average Loss	(4) Annual Average Loss Change	(5) 3-Year Moving Average	(6) Annual Mov. Avg. Change
2005	479	439,463	917			
2006	450	464,210	1,032	12.5%		
2007	495	663,201	1,340	29.8%	1,096	
2008	528	584,120	1,106	-17.5%	1,159	5.7%
2009	469	487,454	1,039	-6.1%	1,162	0.3%
2010	559	732,324	1,310	26.1%	1,152	-0.9%
2011	627	850,074	1,356	3.5%	1,235	7.2%
2012	553	709,906	1,284	-5.3%	1,317	6.6%
2013	475	717,723	1,511	17.7%	1,384	5.1%

Analysis performed on data for 2005 through 2013.	Geometric Average:	6.4%	4.0%	Ests.
	Regression Indication:	4.9%		7 & 8
	Selected:	5.6%	4.0%	
Analysis performed on data for 2006 through 2013.	Geometric Average:	5.6%	3.6%	Ests.
	Regression Indication:	4.0%		9 & 10
	Selected:	4.8%	3.6%	
Analysis performed on data for 2007 through 2013.	Geometric Average:	2.0%	4.4%	Ests.
	Regression Indication:	3.4%		11 & 12
	Selected:	2.7%	4.4%	

Sources:
(1) Exhibit VI-C-2
(2) Exhibit VI-C-3
(4) (Current Avg. Loss / Prior Avg. Loss -1.0) x 100

Traumatic Loss Trend
Indemnity and Funeral losses for All Classes Combined

Frequency Trend

Year	(1) Ultimate Claim Counts	(2) Loss Cost Premium	(3) Frequency per($M)	(4) Annual Average Loss Change	(5) 3-Year Moving Average	(6) Annual Mov. Avg. Change
2005	230	8,390,074	27.4			
2006	166	8,309,843	20.0	-27.0%		
2007	164	9,275,671	17.7	-11.5%	21.7	
2008	204	10,973,877	18.6	5.1%	18.8	-13.4%
2009	195	10,110,621	19.3	3.8%	18.5	-1.6%
2010	177	11,588,244	15.3	-20.7%	17.7	-4.3%
2011	189	14,063,953	13.4	-12.4%	16.0	-9.6%
2012	200	14,722,555	13.6	1.5%	14.1	-11.9%
2013	167	13,497,013	12.4	-8.8%	13.1	-7.1%

Analysis performed on data for 2005 through 2013.	Geometric Average:	-9.4%	-8.1%	Ests.
	Regression Indication:	-8.1%		7 & 8
	Selected:	-8.8%	-8.1%	
Analysis performed on data for 2006 through 2013.	Geometric Average:	-6.6%	-7.0%	Ests.
	Regression Indication:	-6.8%		9 & 10
	Selected:	-6.7%	-7.0%	
Analysis performed on data for 2007 through 2013.	Geometric Average:	-5.7%	-8.3%	Ests.
	Regression Indication:	-7.1%		11 & 12
	Selected:	-6.4%	-8.3%	

Sources:
(1) Exhibit V-I-1 Col. 2
(2) Exhibit X-B-1
(3) (1) / (2) x 1,000,000
(4) (Current Freq. / Prior Freq. -1.0) x 100'

Traumatic Loss Trend
Indemnity and Funeral losses for All Classes Combined

Frequency Trend net of Wage Trend

Year	(1) Loss Cost Premium	(2) Statewide Average Weekly Wage	(3) On 2014 Level	(4) Loss Cost Premium on 2014 Level	(5) Claim Count	(6) Adjusted Frequency per($M)	(7) Annual Frequency Change	(8) 3-Year Moving Average	(9) Annual Mov. Avg. Change
2005	8,390,074	716	1.302	10,923,876	230	21.1			
2006	8,309,843	745	1.251	10,395,614	166	16.0	-24.2%		
2007	9,275,671	779	1.196	11,093,703	164	14.8	-7.5%	17.3	
2008	10,973,877	807	1.155	12,674,828	204	16.1	8.8%	15.6	-9.8%
2009	10,110,621	836	1.115	11,273,342	195	17.3	7.5%	16.1	3.2%
2010	11,588,244	845	1.103	12,781,833	177	13.8	-20.2%	15.7	-2.5%
2011	14,063,953	858	1.086	15,273,453	189	12.4	-10.1%	14.5	-7.6%
2012	14,722,555	888	1.050	15,458,683	200	12.9	4.0%	13.0	-10.3%
2013	13,497,013	917	1.016	13,712,965	167	12.2	-5.4%	12.5	-3.8%

Analysis performed on data for 2005 through 2013.	Geometric Average:	-6.6%	-5.2%	Ests.
	Regression Indication:	-5.4%		7 & 8
	Selected:	-6.0%	-5.2%	
Analysis performed on data for 2006 through 2013.	Geometric Average:	-3.8%	-4.3%	Ests.
	Regression Indication:	-4.2%		9 & 10
	Selected:	-4.0%	-4.3%	
Analysis performed on data for 2007 through 2013.	Geometric Average:	-3.1%	-6.1%	Ests.
	Regression Indication:	-4.7%		11 & 12
	Selected:	-3.9%	-6.1%	

Soures:
(1) Exhibit X-B
(2) Exhibit XII-D
(3) 2014 is 1.000. Values for other years divided into 2014 value to determine factor
(4) (1)x(3)
(5) Exhibit VI-C-1
(6) (5) / (4) * 1,000,000
(7) (Current Freq./Prior Freq.-1.0)x100

Traumatic Loss Trend
Medical (excl. Medical Only Losses) for All Classes Combined

Severity Trend

Year	(1) Ultimate Medical Losses Incurred	(2) Med. Only Ultimate Incurred Losses	(3) Ult. Med. On Lost Time Claims	(4) Claim Counts	(5) Average Loss	(6) Annual Average Loss Change	(7) 3-Year Moving Average	(8) Annual Mov. Avg. Change
2005	4,974,726	439,463	4,535,263	230	19,719			
2006	4,039,235	464,210	3,575,025	166	21,536	9.2%		
2007	5,570,055 *	663,201	4,906,854	164	29,920	38.9%	23,725	
2008	4,469,838	584,120	3,885,718	204	19,048	-36.3%	23,501	-0.9%
2009	3,488,886	487,454	3,001,432	195	15,392	-19.2%	21,453	-8.7%
2010	5,505,955	732,324	4,773,631	177	26,970	75.2%	20,470	-4.6%
2011	6,775,273	850,074	5,925,199	189	31,350	16.2%	24,571	20.0%
2012	6,595,730	709,906	5,885,824	200	29,429	-6.1%	29,250	19.0%
2013	4,899,094	717,723	4,181,371	167	25,038	-14.9%	28,606	-2.2%

Analysis performed on data for 2005 through 2013.	Geometric Average:	3.0%	3.2%	Ests.
	Regression Indication:	4.0%		7 & 8
	Selected:	3.5%	3.2%	
Analysis performed on data for 2006 through 2013.	Geometric Average:	2.2%	4.0%	Ests.
	Regression Indication:	3.7%		9 & 10
	Selected:	2.9%	4.0%	
Analysis performed on data for 2007 through 2013.	Geometric Average:	-2.9%	7.4%	Ests.
	Regression Indication:	3.8%		11 & 12
	Selected:	0.4%	7.4%	

Source:

(1) Exh.V-H,Page 2
(2) Exh. VI-C-3
(3) (1)-(2)
(4) Exh. VI-C-1
(5) (3)/(4)
(6) (Current Avg. Loss /Prior Avg. Loss-1.0)x100

* Note: Ultimate losses for 2007 reflect limitation on large claim, see Exhibit V-J.

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Incurred Indemnity and Funeral Losses for All Classes Combined

A. Indemnity Reported Incurred Losses as of 04/30/15

Report	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	11,430,976	7,644,321	11,442,821	9,265,234	8,831,126	7,495,224	6,865,290	5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,407,539	5,950,691
2	15,442,744	14,142,768	15,764,500	14,023,373	14,886,283	10,132,595	9,862,300	7,204,997	6,425,692	5,685,213	6,056,207	7,551,263	8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,028,932	
3	21,841,614	17,418,184	18,899,163	16,937,016	19,319,350	10,822,307	10,812,980	7,650,302	7,184,304	6,107,512	6,887,906	7,965,255	10,824,370	6,965,973	7,304,561	10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223		
4	25,548,039	19,336,246	21,297,742	17,895,528	21,058,150	11,321,620	10,935,657	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153	11,966,090	7,287,256	7,268,321	12,018,140	5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419			
5	27,756,357	19,029,994	23,283,444	19,116,711	21,755,213	12,031,334	11,473,813	8,698,833	8,242,894	7,591,552	7,291,553	8,760,507	12,323,050	8,286,573	7,374,171	12,453,149	5,496,933	6,217,757	9,406,949	5,433,501	7,301,176				
6	28,978,827	19,515,041	24,216,164	19,482,073	20,495,133	12,009,191	12,045,582	8,527,476	8,275,893	7,679,135	7,454,081	8,994,827	13,133,004	8,109,584	7,418,021	11,984,386	5,215,101	6,349,621	9,432,764	5,295,524					
7	30,425,965	19,983,588	24,121,619	20,136,650	20,718,662	12,001,044	11,985,455	8,464,405	8,429,042	7,685,857	7,462,274	8,879,879	12,772,686	8,140,325	7,469,216	12,178,272	5,237,407	6,471,573	9,542,759						
8	30,400,399	19,429,733	23,116,561	19,887,404	21,125,316	11,831,342	12,057,750	8,453,559	8,382,835	7,718,721	7,475,918	8,693,906	12,539,319	7,865,421	7,498,081	12,484,769	5,251,578	6,933,809							
9	29,654,340	19,164,572	22,029,965	20,028,912	20,681,047	11,903,088	12,181,640	8,385,552	8,467,821	7,754,976	7,486,544	8,481,353	12,455,797	7,459,231	7,539,604	12,600,820	5,372,852								
10	29,327,811	19,057,604	22,274,610	19,360,885	20,095,543	11,956,190	12,047,901	8,461,485	8,565,347	8,091,638	7,480,132	8,515,273	12,228,895	7,494,451	7,586,354	12,368,018									
11	28,447,443	18,464,716	21,860,102	19,300,020	20,328,244	11,961,066	12,121,809	8,504,790	8,647,604	8,094,480	7,481,252	8,549,118	12,023,866	7,400,303	7,633,071										
12	28,697,143	18,005,447	21,374,865	19,597,199	20,479,299	11,959,550	12,194,216	8,674,576	8,654,986	8,095,907	7,481,862	8,582,610	12,101,118	7,425,395											
13	28,677,619	18,077,666	20,831,448	19,782,074	20,635,147	11,968,738	12,323,984	8,712,300	8,662,379	8,054,458	7,481,735	8,612,926	12,053,898												
14	28,968,294	18,154,050	20,921,084	19,781,165	20,796,338	11,976,248	12,373,446	8,797,458	8,760,619	8,050,069	7,481,735	8,419,199													
15	29,335,955	18,200,852	20,665,237	19,743,633	20,955,578	12,153,996	12,414,145	8,824,907	8,763,703	8,050,069	7,481,735														
16	29,408,896	18,272,016	20,737,874	19,892,372	21,238,443	12,270,702	12,454,657	8,629,585	8,763,787	8,050,069															
17	29,660,654	18,318,328	20,810,640	19,799,167	20,549,947	12,278,302	12,494,644	8,640,604	8,764,731																
18	29,842,897	18,251,803	20,424,387	19,930,173	20,658,968	12,305,704	12,534,389	8,660,130																	
19	29,707,542	18,277,999	20,468,682	20,068,163	20,766,504	12,302,583	12,577,856																		
20	29,623,426	18,292,186	20,513,393	20,217,996	20,860,130	12,309,663																			

B. Act 57 Indemnity Law Adjusment Factors

1	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000	1.0000													
15	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000	1.0000														
16	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000	1.0000															
17	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000	1.0000																
18	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871	1.0000																	
19	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.8871																		
20	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247																			

Act 57 Effective Date			Prior to
(b) Accident Year 1996 (8-23-96)			1996
Act 57	Effect	Weight	Effect
Pre	17.53%	0.644	17.53%
Post	0.00%	0.356	
1996 Avg	11.29%	1.000	
Complement:	0.8871		0.8247

C. Indemnity Incurred Losses Adjusted to Act 57 Law Level as of 04/30/15

1	9,427,000	6,304,000	9,437,000	7,641,000	7,283,000	6,181,000	6,090,000	5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,407,539	5,950,691
2	12,736,000	11,664,000	13,001,000	11,565,000	12,277,000	8,356,000	8,749,000	7,204,997	6,425,692	5,685,213	6,056,207	7,551,263	8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,028,932	
3	18,013,000	14,365,000	15,586,000	13,968,000	15,933,000	8,925,000	9,592,000	7,650,302	7,184,304	6,107,512	6,887,906	7,965,255	10,824,370	6,965,973	7,304,561	10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223		
4	21,069,000	15,947,000	17,564,000	14,758,000	17,367,000	9,337,000	9,701,000	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153	11,966,090	7,287,256	7,268,321	12,018,140	5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419			
5	22,891,000	15,694,000	19,202,000	15,766,000	17,942,000	9,922,000	10,178,000	8,698,833	8,242,894	7,591,552	7,291,553	8,760,507	12,323,050	8,286,573	7,374,171	12,453,149	5,496,933	6,217,757	9,406,949	5,433,501	7,301,176				
6	23,899,000	16,094,000	19,971,000	16,067,000	16,902,000	9,904,000	10,686,000	8,527,476	8,275,893	7,679,135	7,454,081	8,994,827	13,133,004	8,109,584	7,418,021	11,984,386	5,215,101	6,349,621	9,432,764	5,295,524					
7	25,092,000	16,480,000	19,893,000	16,607,000	17,087,000	9,897,000	10,632,000	8,464,405	8,429,042	7,685,857	7,462,274	8,879,879	12,772,686	8,140,325	7,469,216	12,178,272	5,237,407	6,471,573	9,542,759						
8	25,071,000	16,024,000	19,064,000	16,401,000	17,422,000	9,757,000	10,696,000	8,453,559	8,382,835	7,718,721	7,475,918	8,693,906	12,539,319	7,865,421	7,498,081	12,484,769	5,251,578	6,933,809							
9	24,456,000	15,805,000	18,168,000	16,518,000	17,056,000	9,816,000	10,806,000	8,385,552	8,467,821	7,754,976	7,486,544	8,481,353	12,455,797	7,459,231	7,539,604	12,600,820	5,372,852								
10	24,187,000	15,717,000	18,370,000	15,967,000	16,573,000	9,860,000	10,688,000	8,461,485	8,565,347	8,091,638	7,480,132	8,515,273	12,228,895	7,494,451	7,586,354	12,368,018									
11	23,461,000	15,228,000	18,028,000	15,917,000	16,765,000	9,864,000	10,753,000	8,504,790	8,647,604	8,094,480	7,481,252	8,549,118	12,023,866	7,400,303	7,633,071										
12	23,667,000	14,849,000	17,628,000	16,162,000	16,889,000	9,863,000	10,817,000	8,674,576	8,654,986	8,095,907	7,481,862	8,582,610	12,101,118	7,425,395											
13	23,650,000	14,909,000	17,180,000	16,314,000	17,018,000	9,871,000	10,933,000	8,712,300	8,662,379	8,054,458	7,481,735	8,612,926	12,053,898												
14	23,890,000	14,972,000	17,254,000	16,314,000	17,151,000	9,877,000	10,976,000	8,797,458	8,760,619	8,050,069	7,481,735	8,419,199													
15	24,193,000	15,010,000	17,043,000	16,283,000	17,282,000	10,023,000	11,013,000	8,824,907	8,763,703	8,050,069	7,481,735														
16	24,254,000	15,069,000	17,103,000	16,405,000	17,515,000	10,120,000	11,049,000	8,629,585	8,763,787	8,050,069															
17	24,461,000	15,107,000	17,163,000	16,328,000	16,948,000	10,126,000	11,084,000	8,640,604	8,764,731																
18	24,611,000	15,052,000	16,844,000	16,436,000	17,037,000	10,149,000	11,119,000	8,660,130																	
19	24,500,000	15,074,000	16,881,000	16,550,000	17,126,000	10,146,000	11,158,000																		
20	24,430,000	15,086,000	16,917,000	16,674,000	17,203,000	10,152,000																			

Source: A. CMCRB Database as of 04/30/15 - Validated 08/12/15
B. Act 57 Indemnity Law Factor of 0.8247, 0.8871 (1996) and 1.000
C. A times B equals C

Note: Reported Losses times Act 57 factors equals Indemnity Incurred Losses on Act 57 level.

File: 2-C-C:\Clients\Coal Mine\2015 Rate Filing\XL\[06-A,B,C,E.xlsm]A-1
Run Time: November 15, 2015 - 07:20:20 PM

PAB
Effective Date - April 01, 2016
Checksum:7,626,587,762.488190

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Indemnity and Funeral Losses for All Classes Combined

A. Indemnity Incurred Losses Adjusted to Act 57 Law Level as of 04/30/15

Report	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	9,427,000	6,304,000	9,437,000	7,641,000	7,283,000	6,181,000	6,090,000	5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,407,539	5,950,691
2	12,736,000	11,664,000	13,001,000	11,565,000	12,277,000	8,356,000	8,749,000	7,204,997	6,425,692	5,685,213	6,056,207	7,551,263	8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,028,932	
3	18,013,000	14,365,000	15,586,000	13,968,000	15,933,000	8,925,000	9,592,000	7,650,302	7,184,304	6,107,512	6,887,906	7,965,255	10,824,370	6,965,973	7,304,561	10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223		
4	21,069,000	15,947,000	17,564,000	14,758,000	17,367,000	9,337,000	9,701,000	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153	11,966,090	7,287,256	7,268,321	12,018,140	5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419			
5	22,891,000	15,694,000	19,202,000	15,766,000	17,942,000	9,922,000	10,178,000	8,698,833	8,242,894	7,591,552	7,291,553	8,760,507	12,323,050	8,286,573	7,374,171	12,453,149	5,496,933	6,217,757	9,406,949	5,433,501	7,301,176				
6	23,899,000	16,094,000	19,971,000	16,067,000	16,902,000	9,904,000	10,686,000	8,527,476	8,275,893	7,679,135	7,454,081	8,994,827	13,133,004	8,109,584	7,418,021	11,984,386	5,215,101	6,349,621	9,432,764	5,295,524					
7	25,092,000	16,480,000	19,893,000	16,607,000	17,087,000	9,897,000	10,632,000	8,464,405	8,429,042	7,685,857	7,462,274	8,879,879	12,772,686	8,140,325	7,469,216	12,178,272	5,237,407	6,471,573	9,542,759						
8	25,071,000	16,024,000	19,064,000	16,401,000	17,422,000	9,757,000	10,696,000	8,453,559	8,382,835	7,718,721	7,475,918	8,693,906	12,539,319	7,865,421	7,498,081	12,484,769	5,251,578	6,933,809							
9	24,456,000	15,805,000	18,168,000	16,518,000	17,056,000	9,816,000	10,806,000	8,385,552	8,467,821	7,754,976	7,486,544	8,481,353	12,455,797	7,459,231	7,539,604	12,600,820	5,372,852								
10	24,187,000	15,717,000	18,370,000	15,967,000	16,573,000	9,860,000	10,688,000	8,461,485	8,565,347	8,091,638	7,480,132	8,515,273	12,228,895	7,494,451	7,586,354	12,368,018									
11	23,461,000	15,228,000	18,028,000	15,917,000	16,765,000	9,864,000	10,753,000	8,504,790	8,647,604	8,094,480	7,481,252	8,549,118	12,023,866	7,400,303	7,633,071										
12	23,667,000	14,849,000	17,628,000	16,162,000	16,889,000	9,863,000	10,817,000	8,674,576	8,654,986	8,095,907	7,481,862	8,582,610	12,101,118	7,425,395											
13	23,650,000	14,909,000	17,180,000	16,314,000	17,018,000	9,871,000	10,933,000	8,712,300	8,662,379	8,054,458	7,481,735	8,612,926	12,053,898												
14	23,890,000	14,972,000	17,254,000	16,314,000	17,151,000	9,877,000	10,976,000	8,797,458	8,760,619	8,050,069	7,481,735	8,419,199													
15	24,193,000	15,010,000	17,043,000	16,283,000	17,282,000	10,023,000	11,013,000	8,824,907	8,763,703	8,050,069	7,481,735														
16	24,254,000	15,069,000	17,103,000	16,405,000	17,515,000	10,120,000	11,049,000	8,629,585	8,763,787	8,050,069															
17	24,461,000	15,107,000	17,163,000	16,328,000	16,948,000	10,126,000	11,084,000	8,640,604	8,764,731																
18	24,611,000	15,052,000	16,844,000	16,436,000	17,037,000	10,149,000	11,119,000	8,660,130																	
19	24,500,000	15,074,000	16,881,000	16,550,000	17,126,000	10,146,000	11,158,000																		
20	24,430,000	15,086,000	16,917,000	16,674,000	17,203,000	10,152,000																			

B. Effect of Claim Settlement Levels Only = (Losses adjusted by Act 57 Law Adj. Factors and Claim Settlement Levels (Exhibit VI-A, page 3) divided by Losses adjusted by Act 57 Law Adj. Factors only (Exhibit VI-A, page 1))

1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0227	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0243	1.0450	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	1.0000	1.0000	1.0000	1.0000	1.0230	1.0485	1.0677	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	1.0000	1.0000	1.0000	1.0219	1.0461	1.0727	1.0902	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	1.0000	1.0000	1.0206	1.0436	1.0691	1.0971	1.1071	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	1.0000	1.0194	1.0412	1.0655	1.0922	1.1152	1.1183	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7	1.0182	1.0388	1.0618	1.0873	1.1094	1.1273	1.1241	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8	1.0364	1.0582	1.0825	1.1037	1.1209	1.1334	1.1273	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9	1.0545	1.0776	1.0979	1.1146	1.1267	1.1395	1.1273	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10	1.0727	1.0921	1.1082	1.1201	1.1324	1.1455	1.1272	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11	1.0809	1.0980	1.1113	1.1222	1.1347	1.1480	1.1273	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12	1.0864	1.1009	1.1133	1.1244	1.1371	1.1491	1.1273	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13	1.0891	1.1028	1.1154	1.1266	1.1382	1.1491	1.1272	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14	1.0910	1.1047	1.1175	1.1276	1.1382	1.1491	1.1273	1.0000	1.0000	1.0000	1.0000	1.0000													
15	1.0928	1.1067	1.1185	1.1277	1.1382	1.1492	1.1272	1.0000	1.0000	1.0000	1.0000														
16	1.0945	1.1076	1.1185	1.1277	1.1383	1.1491	1.1272	1.0000	1.0000	1.0000															
17	1.0955	1.1077	1.1185	1.1277	1.1382	1.1491	1.1273	1.0000	1.0000																
18	1.0955	1.1077	1.1185	1.1277	1.1383	1.1491	1.1273	1.0000																	
19	1.0955	1.1077	1.1185	1.1277	1.1383	1.1491	1.1273																		
20	1.0955	1.1076	1.1186	1.1277	1.1382	1.1491																			

Example: 1995 (2) 0.8447 (Page 3) divided by 0.8247 equals 1.0243

Selected Years 0 to 10 Claim Settlement Level Addititves	
9th Last	+2.0% per year
8th Last	+2.0% per year
7th Last	+2.0% per year
6th Last	+2.0% per year
5th Last	+1.5% per year
4th Last	+1.0% per year
3rd Last	+0.5% per year
2nd Last	+0.5% per year
1st Last	+0.5% per year

Selected Years 11 to 20 Claim Settlement Level Addititves	
14th Last	+1.2% per year
13th Last	+1.2% per year
12th Last	+1.2% per year
11th Last	+1.2% per year
10th Last	+0.9% per year
9th Last	+0.6% per year
8th Last	+0.3% per year
7th Last	+0.2% per year
6th Last	+0.2% per year
5th Last	+0.2% per year
4th Last	+0.1% per year
3rd Last	+0.0% per year
2nd Last	+0.0% per year
1st Last	+0.0% per year

C. Indemnity Incurred Losses Adjusted to Act 57 Law Level and Claim Settlement Levels as of 04/30/15

1	9,427,000	6,304,000	9,437,000	7,641,000	7,283,000	6,181,000	6,228,000	5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,407,539	5,950,691
2	12,736,000	11,664,000	13,001,000	11,565,000	12,277,000	8,559,000	9,143,000	7,204,997	6,425,692	5,685,213	6,056,207	7,551,263	8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,028,932	
3	18,013,000	14,365,000	15,586,000	13,968,000	16,300,000	9,358,000	10,241,000	7,650,302	7,184,304	6,107,512	6,887,906	7,965,255	10,824,370	6,965,973	7,304,561	10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223		
4	21,069,000	15,947,000	17,564,000	15,081,000	18,167,000	10,016,000	10,576,000	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153	11,966,090	7,287,256	7,268,321	12,018,140	5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419			
5	22,891,000	15,694,000	19,598,000	16,454,000	19,182,000	10,885,000	11,268,000	8,698,833	8,242,894	7,591,552	7,291,553	8,760,507	12,323,050	8,286,573	7,374,171	12,453,149	5,496,933	6,217,757	9,406,949	5,433,501	7,301,176				
6	23,899,000	16,406,000	20,794,000	17,119,000	18,460,000	11,045,000	11,950,000	8,527,476	8,275,893	7,679,135	7,454,081	8,994,827	13,133,004	8,109,584	7,418,021	11,984,386	5,215,101	6,349,621	9,432,764	5,295,524					
7	25,549,000	17,120,000	21,123,000	18,057,000	18,957,000	11,157,000	11,951,000	8,464,405	8,429,042	7,685,857	7,462,274	8,879,879	12,772,686	8,140,325	7,469,216	12,178,272	5,237,407	6,471,573	9,542,759						
8	25,983,000	16,956,000	20,636,000	18,102,000	19,529,000	11,059,000	12,057,750	8,453,559	8,382,835	7,718,721	7,475,918	8,693,906	12,539,319	7,865,421	7,498,081	12,484,769	5,251,578	6,933,809							
9	25,790,000	17,032,000	19,947,000	18,411,000	19,217,000	11,185,000	12,181,640	8,385,552	8,467,821	7,754,976	7,486,544	8,481,353	12,455,797	7,459,231	7,539,604	12,600,820	5,372,852								
10	25,946,000	17,165,000	20,358,000	17,884,000	18,768,000	11,295,000	12,047,901	8,461,485	8,565,347	8,091,638	7,480,132	8,515,273	12,228,895	7,494,451	7,586,354	12,368,018									
11	25,359,000	16,720,000	20,035,000	17,862,000	19,024,000	11,324,000	12,121,809	8,504,790	8,647,604	8,094,480	7,481,252	8,549,118	12,023,866	7,400,303	7,633,071										
12	25,711,000	16,347,000	19,626,000	18,172,000	19,204,000	11,334,000	12,194,216	8,674,576	8,654,986	8,095,907	7,481,862	8,582,610	12,101,118	7,425,395											
13	25,758,000	16,442,000	19,163,000	18,380,000	19,370,000	11,343,000	12,323,984	8,712,300	8,662,379	8,054,458	7,481,735	8,612,926	12,053,898												
14	26,063,000	16,540,000	19,281,000	18,396,000	19,522,000	11,350,000	12,373,446	8,797,458	8,760,619	8,050,069	7,481,735	8,419,199													
15	26,438,000	16,612,000	19,063,000	18,362,000	19,671,000	11,518,000	12,414,145	8,824,907	8,763,703	8,050,069	7,481,735														
16	26,547,000	16,691,000	19,130,000	18,500,000	19,937,000	11,629,000	12,454,657	8,629,585	8,763,787	8,050,069															
17	26,797,000	16,734,000	19,197,000	18,413,000	19,290,000	11,636,000	12,494,644	8,640,604	8,764,731																
18	26,962,000	16,673,000	18,840,000	18,535,000	19,393,000	11,662,000	12,534,389	8,660,130																	
19	26,839,000	16,697,000	18,881,000	18,663,000	19,494,000	11,659,000	12,577,856																		
20	26,763,000	16,710,000	18,923,000	18,803,000	19,581,000	11,666,000																			

Source: A. Exhibit VI-A, p. 1 (C)
B. Section C / Section A
C. Exhibit VI-A, p. 3 (C)

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Incurred Indemnity and Funeral Losses for All Classes Combined

A. Indemnity Reported Incurred Losses as of 04/30/15

Report	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	11,430,976	7,644,321	11,442,821	9,265,234	8,831,126	7,495,224	6,865,290	5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,407,539	5,950,691
2	15,442,744	14,142,768	15,764,500	14,023,373	14,886,283	10,132,595	9,862,300	7,204,997	6,425,692	5,685,213	6,056,207	7,551,263	8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,028,932	
3	21,841,614	17,418,184	18,899,163	16,937,016	19,319,350	10,822,307	10,812,980	7,650,302	7,184,304	6,107,512	6,887,906	7,965,255	10,824,370	6,965,973	7,304,561	10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223		
4	25,548,039	19,336,246	21,297,742	17,895,528	21,058,150	11,321,620	10,935,657	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153	11,966,090	7,287,256	7,268,321	12,018,140	5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419			
5	27,756,357	19,029,994	23,283,444	19,116,711	21,755,213	12,031,334	11,473,813	8,698,833	8,242,894	7,591,552	7,291,553	8,760,507	12,323,050	8,286,573	7,374,171	12,453,149	5,496,933	6,217,757	9,406,949	5,433,501	7,301,176				
6	28,978,827	19,515,041	24,216,164	19,482,073	20,495,133	12,009,191	12,045,582	8,527,476	8,275,893	7,679,135	7,454,081	8,994,827	13,133,004	8,109,584	7,418,021	11,984,386	5,215,101	6,349,621	9,432,764	5,295,524					
7	30,425,965	19,983,588	24,121,619	20,136,650	20,718,662	12,001,044	11,985,455	8,464,405	8,429,042	7,685,857	7,462,274	8,879,879	12,772,686	8,140,325	7,469,216	12,178,272	5,237,407	6,471,573	9,542,759						
8	30,400,399	19,429,733	23,116,561	19,887,404	21,125,316	11,831,342	12,057,750	8,453,559	8,382,835	7,718,721	7,475,918	8,693,906	12,539,319	7,865,421	7,498,081	12,484,769	5,251,578	6,933,809							
9	29,654,340	19,164,572	22,029,965	20,028,912	20,681,047	11,903,088	12,181,640	8,385,552	8,467,821	7,754,976	7,486,544	8,481,353	12,455,797	7,459,231	7,539,604	12,600,820	5,372,852								
10	29,327,811	19,057,604	22,274,610	19,360,885	20,095,543	11,956,190	12,047,901	8,461,485	8,565,347	8,091,638	7,480,132	8,515,273	12,228,895	7,494,451	7,586,354	12,368,018									
11	28,447,443	18,464,716	21,860,102	19,300,020	20,328,244	11,961,066	12,121,809	8,504,790	8,647,604	8,094,480	7,481,252	8,549,118	12,023,866	7,400,303	7,633,071										
12	28,697,143	18,005,447	21,374,865	19,597,199	20,479,299	11,959,550	12,194,216	8,674,576	8,654,986	8,095,907	7,481,862	8,582,610	12,101,118	7,425,395											
13	28,677,619	18,077,666	20,831,448	19,782,074	20,635,147	11,968,738	12,323,984	8,712,300	8,662,379	8,054,458	7,481,735	8,612,926	12,053,898												
14	28,968,294	18,154,050	20,921,084	19,781,165	20,796,338	11,976,248	12,373,446	8,797,458	8,760,619	8,050,069	7,481,735	8,419,199													
15	29,335,955	18,200,852	20,665,237	19,743,633	20,955,578	12,153,996	12,414,145	8,824,907	8,763,703	8,050,069	7,481,735														
16	29,408,896	18,272,016	20,737,874	19,892,372	21,238,443	12,270,702	12,454,657	8,629,585	8,763,787	8,050,069															
17	29,660,654	18,318,328	20,810,640	19,799,167	20,549,947	12,278,302	12,494,644	8,640,604	8,764,731																
18	29,842,897	18,251,803	20,424,387	19,930,173	20,658,968	12,305,704	12,534,389	8,660,130																	
19	29,707,542	18,277,999	20,468,682	20,068,163	20,766,504	12,302,583	12,577,856																		
20	29,623,426	18,292,186	20,513,393	20,217,996	20,860,130	12,309,663																			
	75	80	85	90	95	100																			

Claim Settlement Level Additions are multiplied by the percentages at the top of each column.

B. Act 57 Indemnity Law Adjusment Factors and Claim Settlement Levels

1	0.8247	0.8247	0.8247	0.8247	0.8247	0.8247	0.9071	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	0.8247	0.8247	0.8247	0.8247	0.8247	0.8447	0.9271	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	0.8247	0.8247	0.8247	0.8247	0.8437	0.8647	0.9471	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	0.8247	0.8247	0.8247	0.8427	0.8627	0.8847	0.9671	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	0.8247	0.8247	0.8417	0.8607	0.8817	0.9047	0.9821	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	0.8247	0.8407	0.8587	0.8787	0.9007	0.9197	0.9921	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7	0.8397	0.8567	0.8757	0.8967	0.9150	0.9297	0.9971	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8	0.8547	0.8727	0.8927	0.9102	0.9245	0.9347	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9	0.8697	0.8887	0.9055	0.9192	0.9292	0.9397	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10	0.8847	0.9007	0.9140	0.9237	0.9340	0.9447	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11	0.8915	0.9055	0.9165	0.9255	0.9359	0.9467	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12	0.8960	0.9079	0.9182	0.9273	0.9378	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13	0.8982	0.9095	0.9199	0.9291	0.9387	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14	0.8997	0.9111	0.9216	0.9300	0.9387	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
15	0.9012	0.9127	0.9225	0.9300	0.9387	0.9477	1.0000	1.0000	1.0000	1.0000	1.0000														
16	0.9027	0.9135	0.9225	0.9300	0.9387	0.9477	1.0000	1.0000	1.0000	1.0000															
17	0.9035	0.9135	0.9225	0.9300	0.9387	0.9477	1.0000	1.0000	1.0000																
18	0.9035	0.9135	0.9225	0.9300	0.9387	0.9477	1.0000	1.0000																	
19	0.9035	0.9135	0.9225	0.9300	0.9387	0.9477	1.0000																		
20	0.9035	0.9135	0.9225	0.9300	0.9387	0.9477																			

Act 57 Effective Date			Prior to
(b) Accident Year 1996 (8-23-96)			1996
Act 57	Effect	Weight	Effect
Pre	17.53%	0.644	17.53%
Post	0.00%	0.356	
1996 Avg	11.29%	1.000	
Complement:			
1.0-0.1129= 0.8871			0.8247

Selected Years 0 to 10		
Claim Settlement Level Addititves		
9th Last	+2.0%	per year
8th Last	+2.0%	per year
7th Last	+2.0%	per year
6th Last	+2.0%	per year
5th Last	+1.5%	per year
4th Last	+1.0%	per year
3rd Last	+0.5%	per year
2nd Last	+0.5%	per year
1st Last	+0.5%	per year

Selected Years 11 to 20		
Claim Settlement Level Addititves		
14th Last	+1.2%	per year
13th Last	+1.2%	per year
12th Last	+1.2%	per year
11th Last	+1.2%	per year
10th Last	+0.9%	per year
9th Last	+0.6%	per year
8th Last	+0.3%	per year
7th Last	+0.2%	per year
6th Last	+0.2%	per year
5th Last	+0.2%	per year
4th Last	+0.1%	per year
3rd Last	+0.0%	per year
2nd Last	+0.0%	per year
1st Last	+0.0%	per year

C. Indemnity Incurred Losses Adjusted to Act 57 Law Level and Claim Settlement Levels as of 04/30/15

1	9,427,000	6,304,000	9,437,000	7,641,000	7,283,000	6,181,000	6,228,000	5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,407,539	5,950,691
2	12,736,000	11,664,000	13,001,000	11,565,000	12,277,000	8,559,000	9,143,000	7,204,997	6,425,692	5,685,213	6,056,207	7,551,263	8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,028,932	
3	18,013,000	14,365,000	15,586,000	13,968,000	16,300,000	9,358,000	10,241,000	7,650,302	7,184,304	6,107,512	6,887,906	7,965,255	10,824,370	6,965,973	7,304,561	10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223		
4	21,069,000	15,947,000	17,564,000	15,081,000	18,167,000	10,016,000	10,576,000	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153	11,966,090	7,287,256	7,268,321	12,018,140	5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419			
5	22,891,000	15,694,000	19,598,000	16,454,000	19,182,000	10,885,000	11,268,000	8,698,833	8,242,894	7,591,552	7,291,553	8,760,507	12,323,050	8,286,573	7,374,171	12,453,149	5,496,933	6,217,757	9,406,949	5,433,501	7,301,176				
6	23,899,000	16,406,000	20,794,000	17,119,000	18,460,000	11,045,000	11,950,000	8,527,476	8,275,893	7,679,135	7,454,081	8,994,827	13,133,004	8,109,584	7,418,021	11,984,386	5,215,101	6,349,621	9,432,764	5,295,524					
7	25,549,000	17,120,000	21,123,000	18,057,000	18,957,000	11,157,000	11,951,000	8,464,405	8,429,042	7,685,857	7,462,274	8,879,879	12,772,686	8,140,325	7,469,216	12,178,272	5,237,407	6,471,573	9,542,759						
8	25,983,000	16,956,000	20,636,000	18,102,000	19,529,000	11,059,000	12,057,750	8,453,559	8,382,835	7,718,721	7,475,918	8,693,906	12,539,319	7,865,421	7,498,081	12,484,769	5,251,578	6,933,809							
9	25,790,000	17,032,000	19,947,000	18,411,000	19,217,000	11,185,000	12,181,640	8,385,552	8,467,821	7,754,976	7,486,544	8,481,353	12,455,797	7,459,231	7,539,604	12,600,820	5,372,852								
10	25,946,000	17,165,000	20,358,000	17,884,000	18,768,000	11,295,000	12,047,901	8,461,485	8,565,347	8,091,638	7,480,132	8,515,273	12,228,895	7,494,451	7,586,354	12,368,018									
11	25,359,000	16,720,000	20,035,000	17,862,000	19,024,000	11,324,000	12,121,809	8,504,790	8,647,604	8,094,480	7,481,252	8,549,118	12,023,866	7,400,303	7,633,071										
12	25,711,000	16,347,000	19,626,000	18,172,000	19,204,000	11,334,000	12,194,216	8,674,576	8,654,986	8,095,907	7,481,862	8,582,610	12,101,118	7,425,395											
13	25,758,000	16,442,000	19,163,000	18,380,000	19,370,000	11,343,000	12,323,984	8,712,300	8,662,379	8,054,458	7,481,735	8,612,926	12,053,898												
14	26,063,000	16,540,000	19,281,000	18,396,000	19,522,000	11,350,000	12,373,446	8,797,458	8,760,619	8,050,069	7,481,735	8,419,199													
15	26,438,000	16,612,000	19,063,000	18,362,000	19,671,000	11,518,000	12,414,145	8,824,907	8,763,703	8,050,069	7,481,735														
16	26,547,000	16,691,000	19,130,000	18,500,000	19,937,000	11,629,000	12,454,657	8,629,585	8,763,787	8,050,069															
17	26,797,000	16,734,000	19,197,000	18,413,000	19,290,000	11,636,000	12,494,644	8,640,604	8,764,731																
18	26,962,000	16,673,000	18,840,000	18,535,000	19,393,000	11,662,000	12,534,389	8,660,130																	
19	26,839,000	16,697,000	18,881,000	18,663,000	19,494,000	11,659,000	12,577,856																		
20	26,763,000	16,710,000	18,923,000	18,803,000	19,581,000	11,666,000																			

Note:1996 Adjustment Factors are capped at a maximum of 1.0000

Source: A. Exhibit VI-A, p. 1 (A)
B. Act 57 and Claim Settlement Levels Combined
Exhibit VI-A-5a,VI-A-5b,VI-A-5c
C. A times B equals C

Note: The factors in section B were taken unchanged from the corresponding section of last year's (Approved) filing.

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Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Incurred Indemnity and Funeral Losses for All Classes Combined

A. Indemnity Reported Incurred Losses Adjusted to Act 57 Law Level and Claim Settlement Levels as of 04/30/15

Report	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	9,427,000	6,304,000	9,437,000	7,641,000	7,283,000	6,181,000	6,228,000	5,169,557	4,616,566	3,404,097	3,705,402	4,478,660	5,436,836	4,367,449	4,077,968	6,150,319	3,325,544	3,275,884	5,594,328	2,447,080	3,188,490	3,669,341	3,724,530	3,407,539	5,950,691
2	12,736,000	11,664,000	13,001,000	11,565,000	12,277,000	8,559,000	9,143,000	7,204,997	6,425,692	5,685,213	6,056,207	7,551,263	8,904,201	6,352,445	6,450,455	9,269,896	5,595,218	5,094,625	6,615,460	4,426,812	4,704,074	6,714,362	6,826,563	6,028,932	
3	18,013,000	14,365,000	15,586,000	13,968,000	16,300,000	9,358,000	10,241,000	7,650,302	7,184,304	6,107,512	6,887,906	7,965,255	10,824,370	6,965,973	7,304,561	10,301,194	5,998,029	6,026,129	8,947,874	5,084,862	5,837,644	8,225,491	8,319,223		
4	21,069,000	15,947,000	17,564,000	15,081,000	18,167,000	10,016,000	10,576,000	7,955,452	7,644,338	7,314,026	7,362,001	8,490,153	11,966,090	7,287,256	7,268,321	12,018,140	5,597,263	6,053,552	9,233,530	5,276,335	6,918,124	8,373,419			
5	22,891,000	15,694,000	19,598,000	16,454,000	19,182,000	10,885,000	11,268,000	8,698,833	8,242,894	7,591,552	7,291,553	8,760,507	12,323,050	8,286,573	7,374,171	12,453,149	5,496,933	6,217,757	9,406,949	5,433,501	7,301,176				
6	23,899,000	16,406,000	20,794,000	17,119,000	18,460,000	11,045,000	11,950,000	8,527,476	8,275,893	7,679,135	7,454,081	8,994,827	13,133,004	8,109,584	7,418,021	11,984,386	5,215,101	6,349,621	9,432,764	5,295,524					
7	25,549,000	17,120,000	21,123,000	18,057,000	18,957,000	11,157,000	11,951,000	8,464,405	8,429,042	7,685,857	7,462,274	8,879,879	12,772,686	8,140,325	7,469,216	12,178,272	5,237,407	6,471,573	9,542,759						
8	25,983,000	16,956,000	20,636,000	18,102,000	19,529,000	11,059,000	12,057,750	8,453,559	8,382,835	7,718,721	7,475,918	8,693,906	12,539,319	7,865,421	7,498,081	12,484,769	5,251,578	6,933,809							
9	25,790,000	17,032,000	19,947,000	18,411,000	19,217,000	11,185,000	12,181,640	8,385,552	8,467,821	7,754,976	7,486,544	8,481,353	12,455,797	7,459,231	7,539,604	12,600,820	5,372,852								
10	25,946,000	17,165,000	20,358,000	17,884,000	18,768,000	11,295,000	12,047,901	8,461,485	8,565,347	8,091,638	7,480,132	8,515,273	12,228,895	7,494,451	7,586,354	12,368,018									
11	25,359,000	16,720,000	20,035,000	17,862,000	19,024,000	11,324,000	12,121,809	8,504,790	8,647,604	8,094,480	7,481,252	8,549,118	12,023,866	7,400,303	7,633,071										
12	25,711,000	16,347,000	19,626,000	18,172,000	19,204,000	11,334,000	12,194,216	8,674,576	8,654,986	8,095,907	7,481,862	8,582,610	12,101,118	7,425,395											
13	25,758,000	16,442,000	19,163,000	18,380,000	19,370,000	11,343,000	12,323,984	8,712,300	8,662,379	8,054,458	7,481,735	8,612,926	12,053,898												
14	26,063,000	16,540,000	19,281,000	18,396,000	19,522,000	11,350,000	12,373,446	8,797,458	8,760,619	8,050,069	7,481,735	8,419,199													
15	26,438,000	16,612,000	19,063,000	18,362,000	19,671,000	11,518,000	12,414,145	8,824,907	8,763,703	8,050,069	7,481,735														
16	26,547,000	16,691,000	19,130,000	18,500,000	19,937,000	11,629,000	12,454,657	8,629,585	8,763,787	8,050,069															
17	26,797,000	16,734,000	19,197,000	18,413,000	19,290,000	11,636,000	12,494,644	8,640,604	8,764,731																
18	26,962,000	16,673,000	18,840,000	18,535,000	19,393,000	11,662,000	12,534,389	8,660,130																	
19	26,839,000	16,697,000	18,881,000	18,663,000	19,494,000	11,659,000	12,577,856																		
20	26,763,000	16,710,000	18,923,000	18,803,000	19,581,000	11,666,000																			

B. Annual Loss Development Factors

1:2															1.5818	1.5072	1.6825	1.5552	1.1825	1.8090	1.4753	1.8299	1.8329	1.7693	
2:3														1.0966	1.1324	1.1113	1.0720	1.1828	1.3526	1.1487	1.2410	1.2251	1.2187		
3:4													1.1055	1.0461	0.9950	1.1667	0.9332	1.0046	1.0319	1.0377	1.1851	1.0180			
4:5												1.0318	1.0298	1.1371	1.0146	1.0362	0.9821	1.0271	1.0188	1.0298	1.0554				
5:6											1.0223	1.0267	1.0657	0.9786	1.0059	0.9624	0.9487	1.0212	1.0027	0.9746					
6:7										1.0009	1.0011	0.9872	0.9726	1.0038	1.0069	1.0162	1.0043	1.0192	1.0117						
7:8									0.9945	1.0043	1.0018	0.9791	0.9817	0.9662	1.0039	1.0252	1.0027	1.0714							
8:9								0.9920	1.0101	1.0047	1.0014	0.9756	0.9933	0.9484	1.0055	1.0093	1.0231								
9:10							0.9890	1.0091	1.0115	1.0434	0.9991	1.0040	0.9818	1.0047	1.0062	0.9815									
10:11						1.0026	1.0061	1.0051	1.0096	1.0004	1.0001	1.0040	0.9832	0.9874	1.0062										
11:12					1.0095	1.0009	1.0060	1.0200	1.0009	1.0002	1.0001	1.0039	1.0064	1.0034											
12:13				1.0114	1.0086	1.0008	1.0106	1.0043	1.0009	0.9949	1.0000	1.0035	0.9961												
13:14			1.0062	1.0009	1.0078	1.0006	1.0040	1.0098	1.0113	0.9995	1.0000	0.9775													
14:15		1.0044	0.9887	0.9982	1.0076	1.0148	1.0033	1.0031	1.0004	1.0000	1.0000														
15:16	1.0041	1.0048	1.0035	1.0075	1.0135	1.0096	1.0033	0.9779	1.0000	1.0000															
16:17	1.0094	1.0026	1.0035	0.9953	0.9675	1.0006	1.0032	1.0013	1.0001																
17:18	1.0062	0.9964	0.9814	1.0066	1.0053	1.0022	1.0032	1.0023																	
18:19	0.9954	1.0014	1.0022	1.0069	1.0052	0.9997	1.0035																		
19:20	0.9972	1.0008	1.0022	1.0075	1.0045	1.0006																			

C. Summary

	10 Year Straight Average	6 Year Straight Average	10 Year Weighted Average	10 Year Average Ex. Hi/Lo	6 Year Average Ex. Hi/Lo	6 Year Weighted Average	Average of Middle Four
1:2	1.6226	1.6498	1.5884	1.6513	1.7209	1.6030	1.6317
2:3	1.1781	1.2282	1.1766	1.1696	1.2169	1.2344	1.2000
3:4	1.0524	1.0351	1.0593	1.0507	1.0231	1.0332	1.0429
4:5	1.0363	1.0249	1.0368	1.0304	1.0280	1.0269	1.0304
5:6	1.0009	0.9859	1.0041	0.9993	0.9864	0.9852	0.9931
6:7	1.0024	1.0104	1.0008	1.0040	1.0098	1.0109	1.0067
7:8	1.0031	1.0085	1.0014	0.9992	1.0034	1.0058	1.0034
8:9	0.9963	0.9925	0.9958	0.9990	0.9959	0.9922	0.9951
9:10	1.0030	0.9962	1.0003	1.0007	0.9974	0.9937	0.9986
10:11	1.0005	0.9969	1.0002	1.0015	0.9980	0.9958	0.9989
11:12	1.0051	1.0025	1.0056	1.0039	1.0021	1.0028	1.0036
12:13	1.0031	1.0000	1.0044	1.0031	1.0001	0.9998	1.0016
13:14	1.0018	1.0004	1.0027	1.0036	1.0033	1.0006	1.0021
14:15	1.0021	1.0036	1.0016	1.0021	1.0017	1.0042	1.0024
15:16	1.0024	1.0007	1.0041	1.0041	1.0032	1.0032	1.0032
16:17	0.9982	0.9947	0.9978	1.0009	0.9993	0.9916	0.9975
17:18	1.0005	1.0002	1.0004	1.0026	1.0033	0.9995	1.0009
18:19	1.0020	1.0032	1.0017	1.0024	1.0031	1.0034	1.0027
19:20	1.0021	1.0021	1.0019	1.0020	1.0020	1.0019	1.0020

A. Loss Development Data: Exhibit VI-A, page 3
B. Annual Loss Development Factors
C, Summary of Straight Averages for 10 and 6 years,
Weighted Averages for 10 and 6 years,
Straight Averages for 10 and 6 years excluding highest and lowest,
Average of middle 4 of above 6 averages.

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Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Indemnity Claim Settlement Adjustment Factors
Summary of Data and Selections

Data as of	(1) 0 to 10 Development	(2) 0 to 10 Selection
4/30/2005	0.3%	0.5%
4/30/2004	0.8%	0.5%
4/30/2003	1.4%	0.5%
4/30/2002	1.0%	1.0%
4/30/2001	2.2%	1.5%
4/30/2000	3.1%	2.0%
4/30/1999	2.7%	2.0%
4/30/1998	2.8%	2.0%
4/30/1997	2.2%	2.0%
Total	16.5%	12.0%

Data as of	(3) 10 to 20 Development	(4) 10 to 20 Selection
4/30/2010	0.0%	0.0%
4/30/2009	0.1%	0.0%
4/30/2008	0.0%	0.0%
4/30/2007	0.1%	0.1%
4/30/2006	0.2%	0.2%
4/30/2005	0.4%	0.2%
4/30/2004	0.2%	0.2%
4/30/2003	0.9%	0.3%
4/30/2002	0.5%	0.6%
4/30/2001	1.4%	0.9%
4/30/2000	4.4%	1.2%
4/30/1999	0.1%	1.2%
4/30/1998	0.0%	1.2%
4/30/1997	0.0%	1.2%
Total	8.3%	7.3%

Sources:
(1) Exhibit VI-A Page 5b
(2) Exhibit VI-A Page 5b
(3) Exhibit VI-A Page 5c
(4) Exhibit VI-A Page 5c

Note: Personnel from the CMCRB have concluded that the impact of Act 57 has waned to the point that the Claim Settlement effect for this year and future years is zero(0.00). Thus this Exhibit will no longer be updated.

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Indemnity Claim Settlement Adjustment Factors - 1st to 10th Report

Accident Year	(1) 4/30/1997 Rpt.Loss[a]	(2) 12 Month Fav Dev[a]	(3) (2) / (1)	(4) Selection
1987	18,806	759	4.0%	xx
1988	15,731	926	5.9%	xx
1989	19,920	856	4.3%	xx
1990	30,426	478	1.6%	xx
1991	19,515	319	1.6%	xx
1992	23,283	0	0.0%	xx
1993	17,896	445	2.5%	xx
1994	19,319	0	0.0%	xx
1995	10,133	0	0.0%	xx
Total	175,029	3,783	2.2%	2.0%

Accident Year	(1) 4/30/1998 Rpt.Loss[a]	(2) 12 Month Fav Dev[a]	(3) (2) / (1)	(4) Selection
1988	16,032	0	0.0%	xx
1989	19,106	874	4.6%	xx
1990	30,400	1150	3.8%	xx
1991	19,984	544	2.7%	xx
1992	24,216	651	2.7%	xx
1993	19,117	919	4.8%	xx
1994	21,058	337	1.6%	xx
1995	10,822	349	3.2%	xx
1996	9,862	0	0.0%	xx
Total	170,597	4,824	2.8%	2.0%

Accident Year	(1) 4/30/1999 Rpt.Loss[a]	(2) 12 Month Fav Dev[a]	(3) (2) / (1)	(4) Selection
1989	18,878	368	1.9%	xx
1990	29,654	1150	3.9%	xx
1991	19,430	596	3.1%	xx
1992	24,122	491	2.0%	xx
1993	19,482	440	2.3%	xx
1994	21,755	656	3.0%	xx
1995	11,322	127	1.1%	xx
1996	10,813	296	2.7%	xx
1997	xx	xx	xx	xx
Total	155,456	4,124	2.7%	2.0%

Accident Year	(1) 4/30/2000 Rpt.Loss[a]	(2) 12 Month Fav Dev[a]	(3) (2) / (1)	(4) Selection
1990	29,328	800	2.7%	xx
1991	19,165	457	2.4%	xx
1992	23,117	988	4.3%	xx
1993	20,137	0	0.0%	xx
1994	20,495	1321	6.4%	xx
1995	12,031	0	0.0%	xx
1996	10,936	663	6.1%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
Total	135,209	4,229	3.1%	2.0%

Accident Year	(1) 4/30/2001 Rpt.Loss[a]	(2) 12 Month Fav Dev[a]	(3) (2) / (1)	(4) Selection
1991	19,058	244	1.3%	xx
1992	22,030	813	3.7%	xx
1993	19,887	522	2.6%	xx
1994	20,719	434	2.1%	xx
1995	12,009	162	1.3%	xx
1996	11,474	156	1.4%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
Total	105,177	2,331	2.2%	1.5%

Accident Year	(1) 4/30/2002 Rpt.Loss[a]	(2) 12 Month Fav Dev[a]	(3) (2) / (1)	(4) Selection
1992	22,275	0	0.0%	xx
1993	20,029	314	1.6%	xx
1994	21,125	214	1.0%	xx
1995	12,001	354	2.9%	xx
1996	12,046	0	0.0%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
Total	87,476	882	1.0%	1.0%

Accident Year	(1) 4/30/2003 Rpt.Loss[a]	(2) 12 Month Fav Dev[a]	(3) (2) / (1)	(4) Selection
1993	19,361	236	1.2%	xx
1994	20,681	637	3.1%	xx
1995	11,831	0	0.0%	xx
1996	11,985	0	0.0%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
Total	63,858	873	1.4%	0.5%

Accident Year	(1) 4/30/2004 Rpt.Loss[a]	(2) 12 Month Fav Dev[a]	(3) (2) / (1)	(4) Selection
1994	20,243	368	1.8%	xx
1995	11,907	0	0.0%	xx
1996	11,994	0	0.0%	xx
1997	xx	0	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
2002	xx	xx	xx	xx
Total	44,144	368	0.8%	0.5%

Accident Year	(1) 4/30/2005 Rpt.Loss[a]	(2) 12 Month Fav Dev[a]	(3) (2) / (1)	(4) Selection
1995	11,956	70	0.6%	xx
1996	12,182	0	0.0%	xx
1997	xx	0	xx	xx
1998	xx	0	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
2002	xx	xx	xx	xx
2003	xx	xx	xx	xx
Total	24,138	70	0.3%	0.5%

Note: Personnel from the CMCRB have concluded that the impact of Act 57 has waned to the point that the Claim Settlement effect for this year and future years is zero(0.00). Thus this Exhibit will no longer be updated.

(a) All amounts are in thousands of dollars

Sources: Column (1) Exhibit VI-A p. 1a
CMCRB Data Base

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Indemnity Claim Settlement Adjustment Factors - Beyond 10th Report

Accident	(1) 4/30/2001	(2) 12 Month	(3)	(4)
Year	Rpt.Loss[a]	Fav Dev[a]	(2) / (1)	Selection
1983	19,728	283	1.4%	xx
1984	25,745	185	0.7%	xx
1985	16,662	219	1.3%	xx
1986	18,002	194	1.1%	xx
1987	17,785	0	0.0%	xx
1988	15,926	194	1.2%	xx
1989	18,586	0	0.0%	xx
1990	28,447	1222	4.3%	xx
1991	xx	xx	xx	xx
1992	xx	xx	xx	xx
Total	160,881	2,297	1.4%	0.9%

Accident	(1) 4/30/2002	(2) 12 Month	(3)	(4)
Year	Rpt.Loss[a]	Fav Dev[a]	(2) / (1)	Selection
1983	19,581	0	0.0%	xx
1984	25,801	0	0.0%	xx
1985	16,776	0	0.0%	xx
1986	17,729	221	1.2%	xx
1987	17,924	0	0.0%	xx
1988	15,795	217	1.4%	xx
1989	18,938	0	0.0%	xx
1990	28,697	0	0.0%	xx
1991	18,465	442	2.4%	xx
1992	xx	xx	xx	xx
Total	179,706	880	0.5%	0.6%

Accident	(1) 4/30/2003	(2) 12 Month	(3)	(4)
Year	Rpt.Loss[a]	Fav Dev[a]	(2) / (1)	Selection
1983	19,537	132	0.7%	xx
1984	25,724	0	0.0%	xx
1985	16,860	0	0.0%	xx
1986	17,764	0	0.0%	xx
1987	17,933	122	0.7%	xx
1988	15,878	0	0.0%	xx
1989	18,878	0	0.0%	xx
1990	28,678	294	1.0%	xx
1991	18,005	458	2.5%	xx
1992	21,860	835	3.8%	xx
Total	201,117	1,841	0.9%	0.3%

Accident	(1) 4/30/2004	(2) 12 Month	(3)	(4)
Year	Rpt.Loss[a]	Fav Dev[a]	(2) / (1)	Selection
1983	19,617	0	0.0%	xx
1984	25,837	0	0.0%	xx
1985	16,954	0	0.0%	xx
1986	17,812	0	0.0%	xx
1987	18,072	0	0.0%	xx
1988	15,845	0	0.0%	xx
1989	18,876	0	0.0%	xx
1990	28,968	0	0.0%	xx
1991	18,078	16	0.1%	xx
1992	21,375	32	0.1%	xx
1993	19,300	358	1.9%	xx
Total	220,734	406	0.2%	0.2%

Accident	(1) 4/30/2005	(2) 12 Month	(3)	(4)
Year	Rpt.Loss[a]	Fav Dev[a]	(2) / (1)	Selection
1983	19,558	0	0.0%	xx
1984	26,025	0	0.0%	xx
1985	17,068	0	0.0%	xx
1986	17,907	0	0.0%	xx
1987	18,208	0	0.0%	xx
1988	15,700	0	0.0%	xx
1989	18,503	380	2.1%	xx
1990	29,336	0	0.0%	xx
1991	18,154	0	0.0%	xx
1992	20,831	631	3.0%	xx
1993	19,597	0	0.0%	xx
1994	20,328	0	0.0%	xx
Total	241,215	1,011	0.4%	0.2%

Accident	(1) 4/30/2006	(2) 12 Month	(3)	(4)
Year	Rpt.Loss[a]	Fav Dev[a]	(2) / (1)	Selection
1983	19,629	0	0.0%	xx
1984	25,971	0	0.0%	xx
1985	17,182	0	0.0%	xx
1986	17,896	94	0.5%	xx
1987	18,028	295	1.6%	xx
1988	15,763	0	0.0%	xx
1989	18,538	0	0.0%	xx
1990	29,409	176	0.6%	xx
1991	18,201	0	0.0%	xx
1992	20,921	0	0.0%	xx
1993	19,782	0	0.0%	xx
1994	20,479	8	0.0%	xx
1995	11,961	0	0.0%	xx
Total	253,760	573	0.2%	0.2%

Accident	(1) 4/30/07	(2) 12 Month	(3)	(4)
Year	Rpt.Loss[a]	Fav Dev[a]	(2) / (1)	Selection
1983	19,485	0	0.0%	xx
1984	26,136	0	0.0%	xx
1985	17,144	0	0.0%	xx
1986	17,999	0	0.0%	xx
1987	18,007	0	0.0%	xx
1988	15,827	0	0.0%	xx
1989	18,579	0	0.0%	xx
1990	29,661	0	0.0%	xx
1991	18,272	0	0.0%	xx
1992	20,665	0	0.0%	xx
1993	19,781	167	0.8%	xx
1994	20,635	0	0.0%	xx
1995	11,960	9	0.1%	xx
1996	12,122	0	0.0%	xx
Total	266,273	176	0.1%	0.1%

Accident	(1) 4/30/2008	(2) 12 Month	(3)	(4)
Year	Rpt.Loss[a]	Fav Dev[a]	(2) / (1)	Selection
1983	19,478	0	0.0%	xx
1984	26,205	0	0.0%	xx
1985	16,838	0	0.0%	xx
1986	18,146	0	0.0%	xx
1987	18,110	0	0.0%	xx
1988	15,892	0	0.0%	xx
1989	18,621	0	0.0%	xx
1990	29,843	0	0.0%	xx
1991	18,318	0	0.0%	xx
1992	20,738	0	0.0%	xx
1993	19,744	0	0.0%	xx
1994	20,796	0	0.0%	xx
1995	11,969	0	0.0%	xx
1996	12,194	40	0.3%	xx
1997	8,505	0	0.0%	xx
Total	275,397	40	0.0%	0.0%

Accident	(1) 4/30/2009	(2) 12 Month	(3)	(4)
Year	Rpt.Loss[a]	Fav Dev[a]	(2) / (1)	Selection
1983	19,527	0	0.0%	xx
1984	26,360	0	0.0%	xx
1985	16,906	0	0.0%	xx
1986	18,235	0	0.0%	xx
1987	18,212	0	0.0%	xx
1988	15,850	0	0.0%	xx
1989	18,662	0	0.0%	xx
1990	29,708	140	0.5%	xx
1991	18,252	104	0.6%	xx
1992	20,811	0	0.0%	xx
1993	19,892	0	0.0%	xx
1994	20,956	0	0.0%	xx
1995	11,976	0	0.0%	xx
1996	12,324	0	0.0%	xx
1997	8,675	0	0.0%	xx
1998	8,648	0	0.0%	xx
Total	284,994	244	0.1%	0.0%

Note: Personnel from the CMCRB have concluded that the impact of Act 57 has waned to the point tha the Claim Settlement effect for this year and future years is zero(0.00). Thus this Exhibit will no longer be updated.

(a) All amounts are in thousands of dollars

Sources: Column (1) Exhibit VI-A p. 1a
CMCRB Database as of 04/30/15 - Validated 08/12/15 and prior

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Incurred Medical Losses for All Classes Combined

A. Medical Reported Incurred Losses as of 04/30/15

Report	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	5,121,908	5,085,069	5,963,632	4,780,471	3,903,052	3,946,197	4,135,165	3,185,472	3,370,548	2,714,671	2,468,601	2,225,216	3,150,255	2,579,313	3,189,109	3,700,850	2,871,489	5,478,955	3,509,674	2,761,649	3,630,574	4,362,098	4,806,118	3,352,426	5,513,027
2	5,979,955	6,471,250	6,709,723	5,785,980	4,929,891	4,443,755	4,315,884	3,374,998	3,630,642	3,012,839	2,716,963	2,589,253	3,609,439	2,812,481	3,555,290	4,031,513	3,286,804	5,501,458	3,749,858	3,021,605	3,914,782	5,517,261	5,258,148	3,927,444	
3	7,074,053	6,824,261	6,988,709	6,162,904	5,062,121	4,353,568	4,689,720	3,598,928	3,628,890	3,186,033	2,818,387	2,646,248	3,762,837	2,794,988	4,147,713	4,161,949	3,511,501	5,575,559	3,709,814	2,891,686	4,167,466	5,633,374	5,404,121		
4	7,753,514	7,207,603	6,985,202	6,061,248	5,216,951	4,294,114	4,808,246	3,571,097	3,720,868	3,057,663	2,836,912	2,629,910	3,890,149	2,756,587	4,166,709	4,249,331	3,418,585	5,632,912	3,804,580	2,991,503	4,413,176	5,609,134			
5	7,595,281	7,239,653	6,810,575	6,077,440	5,111,218	4,416,259	4,806,190	3,810,363	3,709,153	3,188,781	2,885,530	2,816,076	3,874,531	2,912,119	4,131,369	4,143,155	3,401,038	5,757,902	3,837,840	2,983,393	4,604,796				
6	7,729,893	7,315,361	6,966,052	5,804,110	5,029,268	4,483,826	4,703,865	3,978,305	3,761,263	3,178,086	2,937,414	2,896,624	4,191,261	2,899,687	4,080,336	4,299,151	3,370,262	5,864,639	3,842,096	2,946,694					
7	7,929,203	7,215,882	7,086,080	5,767,492	5,059,712	4,666,919	4,578,161	3,932,216	3,760,723	3,133,358	2,927,989	2,822,196	4,257,734	2,897,577	4,180,965	4,349,353	3,381,086	5,841,539	3,811,253						
8	7,725,007	7,140,026	6,984,759	5,730,009	5,113,134	4,706,403	4,617,085	3,951,475	3,791,456	3,171,882	2,921,384	2,789,664	4,339,920	2,890,067	4,187,418	4,411,495	3,382,185	5,950,133							
9	7,725,545	7,175,630	6,943,552	5,812,365	5,124,726	4,685,434	4,625,715	4,015,857	3,741,005	3,236,426	2,952,750	2,782,114	4,145,606	3,080,177	4,190,701	4,403,570	3,507,194								
10	7,808,315	7,347,568	7,100,992	5,971,283	5,144,115	4,668,534	4,651,769	4,393,793	3,777,626	3,357,242	2,950,698	2,879,623	4,160,518	3,110,017	4,206,298	4,356,915									
11	7,818,624	7,477,095	7,099,581	6,018,440	5,273,693	4,693,740	4,625,953	4,593,238	3,861,559	3,353,094	2,948,865	2,963,075	4,164,525	3,103,090	4,370,336										
12	7,818,489	7,453,897	7,167,560	5,838,773	5,295,932	4,815,890	4,594,309	4,586,566	3,843,219	3,409,251	3,021,208	3,005,905	4,194,244	3,212,975											
13	7,777,708	7,447,799	7,173,430	5,732,687	5,346,840	4,869,709	4,485,294	4,602,844	3,868,653	3,531,522	3,021,095	3,012,114	4,185,516												
14	7,799,651	7,500,265	7,091,743	5,818,810	5,366,481	4,793,570	4,501,155	4,627,844	3,851,694	3,532,688	3,020,836	3,143,372													
15	7,798,234	7,500,059	7,140,118	5,859,155	5,384,567	4,836,117	4,491,418	4,702,741	3,851,841	3,533,087	3,080,845														
16	7,789,301	7,442,165	7,069,470	5,935,724	5,423,525	4,865,082	4,520,959	4,694,564	3,852,213	3,539,649															
17	7,822,500	7,490,067	7,047,415	6,019,026	5,290,059	4,883,436	4,514,259	4,723,464	3,838,125																
18	7,870,056	7,528,919	7,028,385	6,100,724	5,370,678	4,927,115	4,523,523	5,023,336																	
19	7,847,501	7,453,318	7,029,188	6,154,033	5,371,098	4,917,010	4,536,280																		
20	7,852,764	7,374,324	7,063,572	6,153,930	5,467,814	5,276,620																			

B. Act 44 Medical Law Adjustment Factors

1	0.7082	0.7082	0.7082	0.8921	0.9773	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	0.7082	0.7082	0.8052	0.8934	0.9908	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	0.7082	0.7838	0.8062	0.8948	0.9961	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	0.7752	0.7853	0.8072	0.8961	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	0.7762	0.7867	0.8081	0.8974	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	0.7773	0.7882	0.8091	0.8988	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7	0.7783	0.7896	0.8101	0.9001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8	0.7794	0.7911	0.8111	0.9015	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9	0.7804	0.7925	0.8121	0.9028	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10	0.7815	0.7940	0.8130	0.9041	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11	0.7826	0.7954	0.8140	0.9055	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12	0.7836	0.7969	0.8150	0.9068	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13	0.7847	0.7983	0.8160	0.9081	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14	0.7857	0.7998	0.8170	0.9095	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
15	0.7868	0.8012	0.8179	0.9108	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000														
16	0.7879	0.8027	0.8189	0.9122	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000															
17	0.7889	0.8041	0.8199	0.9135	1.0000	1.0000	1.0000	1.0000	1.0000																
18	0.7900	0.8056	0.8209	0.9148	1.0000	1.0000	1.0000	1.0000																	
19	0.7910	0.8070	0.8219	0.9162	1.0000	1.0000	1.0000																		
20	0.7921	0.8085	0.8228	0.9175	1.0000	1.0000																			

Act 44 Discount Factor: 0.7082

Example : 1990 (5th Report) 0.7762. See VI-D Page 6 Col. T at 0.7762

C. Medical Incurred Losses Adjusted to Act 44 Law Level as of 04/30/15

1	3,627,000	3,601,000	4,223,000	4,265,000	3,814,000	3,946,197	4,135,165	3,185,472	3,370,548	2,714,671	2,468,601	2,225,216	3,150,255	2,579,313	3,189,109	3,700,850	2,871,489	5,478,955	3,509,674	2,761,649	3,630,574	4,362,098	4,806,118	3,352,426	5,513,027
2	4,235,000	4,583,000	5,403,000	5,169,000	4,884,000	4,443,755	4,315,884	3,374,998	3,630,642	3,012,839	2,716,963	2,589,253	3,609,439	2,812,481	3,555,290	4,031,513	3,286,804	5,501,458	3,749,858	3,021,605	3,914,782	5,517,261	5,258,148	3,927,444	
3	5,010,000	5,349,000	5,634,000	5,514,000	5,042,000	4,353,568	4,689,720	3,598,928	3,628,890	3,186,033	2,818,387	2,646,248	3,762,837	2,794,988	4,147,713	4,161,949	3,511,501	5,575,559	3,709,814	2,891,686	4,167,466	5,633,374	5,404,121		
4	6,010,000	5,660,000	5,638,000	5,431,000	5,216,951	4,294,114	4,808,246	3,571,097	3,720,868	3,057,663	2,836,912	2,629,910	3,890,149	2,756,587	4,166,709	4,249,331	3,418,585	5,632,912	3,804,580	2,991,503	4,413,176	5,609,134			
5	5,896,000	5,695,000	5,504,000	5,454,000	5,111,218	4,416,259	4,806,190	3,810,363	3,709,153	3,188,781	2,885,530	2,816,076	3,874,531	2,912,119	4,131,369	4,143,155	3,401,038	5,757,902	3,837,840	2,983,393	4,604,796				
6	6,008,000	5,766,000	5,636,000	5,217,000	5,029,268	4,483,826	4,703,865	3,978,305	3,761,263	3,178,086	2,937,414	2,896,624	4,191,261	2,899,687	4,080,336	4,299,151	3,370,262	5,864,639	3,842,096	2,946,694					
7	6,172,000	5,698,000	5,741,000	5,191,000	5,059,712	4,666,919	4,578,161	3,932,216	3,760,723	3,133,358	2,927,989	2,822,196	4,257,734	2,897,577	4,180,965	4,349,353	3,381,086	5,841,539	3,811,253						
8	6,021,000	5,648,000	5,665,000	5,165,000	5,113,134	4,706,403	4,617,085	3,951,475	3,791,456	3,171,882	2,921,384	2,789,664	4,339,920	2,890,067	4,187,418	4,411,495	3,382,185	5,950,133							
9	6,029,000	5,687,000	5,639,000	5,247,000	5,124,726	4,685,434	4,625,715	4,015,857	3,741,005	3,236,426	2,952,750	2,782,114	4,145,606	3,080,177	4,190,701	4,403,570	3,507,194								
10	6,102,000	5,834,000	5,773,000	5,399,000	5,144,115	4,668,534	4,651,769	4,393,793	3,777,626	3,357,242	2,950,698	2,879,623	4,160,518	3,110,017	4,206,298	4,356,915									
11	6,119,000	5,947,000	5,779,000	5,450,000	5,273,693	4,693,740	4,625,953	4,593,238	3,861,559	3,353,094	2,948,865	2,963,075	4,164,525	3,103,090	4,370,336										
12	6,127,000	5,940,000	5,842,000	5,295,000	5,295,932	4,815,890	4,594,309	4,586,566	3,843,219	3,409,251	3,021,208	3,005,905	4,194,244	3,212,975											
13	6,103,000	5,946,000	5,853,000	5,206,000	5,346,840	4,869,709	4,485,294	4,602,844	3,868,653	3,531,522	3,021,095	3,012,114	4,185,516												
14	6,128,000	5,999,000	5,794,000	5,292,000	5,366,481	4,793,570	4,501,155	4,627,844	3,851,694	3,532,688	3,020,836	3,143,372													
15	6,136,000	6,009,000	5,840,000	5,337,000	5,384,567	4,836,117	4,491,418	4,702,741	3,851,841	3,533,087	3,080,845														
16	6,137,000	5,974,000	5,789,000	5,414,000	5,423,525	4,865,082	4,520,959	4,694,564	3,852,213	3,539,649															
17	6,171,000	6,023,000	5,778,000	5,498,000	5,290,059	4,883,436	4,514,259	4,723,464	3,838,125																
18	6,217,000	6,065,000	5,770,000	5,581,000	5,370,678	4,927,115	4,523,523	5,023,336																	
19	6,208,000	6,015,000	5,777,000	5,638,000	5,371,098	4,917,010	4,536,280																		
20	6,220,000	5,962,000	5,812,000	5,646,000	5,467,814	5,276,620																			

Large Loss is excluded from Accident Year 1992

Source: A. Loss Development Data: CMCRB Database as of 04/30/15 - Validated 08/12/15
B. Act 44 Medical Law Adjusment Factors from Exhibit VI-B Page 2 (A) & VI-D Page 1
C. Medical Incurred Losses Adjusted to Act 44 Law Level = A x B

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Run Time: November 15, 2015 - 07:20:20 PM

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Incurred Medical Losses for All Classes Combined

A. Adjustment to Act 44 Law Level

Report	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	0.7082	0.7082	0.7082	0.8921	0.9773	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	0.7082	0.7082	0.8052	0.8934	0.9908	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	0.7082	0.7838	0.8062	0.8948	0.9961	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	0.7752	0.7853	0.8072	0.8961	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	0.7762	0.7867	0.8081	0.8974	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	0.7773	0.7882	0.8091	0.8988	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7	0.7783	0.7896	0.8101	0.9001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8	0.7794	0.7911	0.8111	0.9015	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9	0.7804	0.7925	0.8121	0.9028	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10	0.7815	0.7940	0.8130	0.9041	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11	0.7826	0.7954	0.8140	0.9055	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12	0.7836	0.7969	0.8150	0.9068	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13	0.7847	0.7983	0.8160	0.9081	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14	0.7857	0.7998	0.8170	0.9095	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
15	0.7868	0.8012	0.8179	0.9108	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000														
16	0.7879	0.8027	0.8189	0.9122	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000															
17	0.7889	0.8041	0.8199	0.9135	1.0000	1.0000	1.0000	1.0000	1.0000																
18	0.7900	0.8056	0.8209	0.9148	1.0000	1.0000	1.0000	1.0000																	
19	0.7910	0.8070	0.8219	0.9162	1.0000	1.0000	1.0000																		
20	0.7921	0.8085	0.8228	0.9175	1.0000	1.0000																			
	75	80	85	90	95	100																			

Claim Settlement Level Additions are multiplied by the percentages at the top of each column.

B. Claim Settlement Adjustments Additions

1	0.0000	0.0000	0.0000	0.0180	0.0190	0.0200	0.0200	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0170	0.0360	0.0380	0.0400	0.0400	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
3	0.0000	0.0160	0.0340	0.0540	0.0570	0.0600	0.0550	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
4	0.0150	0.0320	0.0510	0.0720	0.0760	0.0750	0.0690	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
5	0.0300	0.0480	0.0680	0.0900	0.0903	0.0890	0.0820	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000				
6	0.0450	0.0640	0.0850	0.1035	0.1036	0.1020	0.0940	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000					
7	0.0600	0.0800	0.0978	0.1161	0.1159	0.1140	0.1050	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
8	0.0750	0.0920	0.1097	0.1278	0.1273	0.1250	0.1150	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000							
9	0.0863	0.1032	0.1207	0.1386	0.1378	0.1350	0.1230	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000								
10	0.0968	0.1136	0.1309	0.1485	0.1473	0.1430	0.1280	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000									
11	0.1065	0.1232	0.1403	0.1575	0.1549	0.1480	0.1280	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000										
12	0.1155	0.1320	0.1488	0.1647	0.1596	0.1480	0.1280	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000											
13	0.1238	0.1400	0.1556	0.1692	0.1596	0.1480	0.1280	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000												
14	0.1313	0.1464	0.1598	0.1692	0.1596	0.1480	0.1280	0.0000	0.0000	0.0000	0.0000	0.0000													
15	0.1373	0.1504	0.1598	0.1692	0.1596	0.1480	0.1280	0.0000	0.0000	0.0000	0.0000														
16	0.1410	0.1504	0.1598	0.1692	0.1596	0.1480	0.1280	0.0000	0.0000	0.0000															
17	0.1410	0.1504	0.1598	0.1692	0.1596	0.1480	0.1280	0.0000	0.0000																
18	0.1410	0.1504	0.1598	0.1692	0.1596	0.1480	0.1280	0.0000																	
19	0.1410	0.1504	0.1598	0.1692	0.1596	0.1480	0.1280																		
20	0.1410	0.1504	0.1598	0.1692	0.1596	0.1480																			

Act 44 Discount Factor:	0.7082
Selected Claim Settlement Factor	

Note: Act 44 effective in 1993

Selected Claim Settlement Level Additions	
17th Last	2.0% per year
16th Last	2.0% per year
15th Last	2.0% per year
14th Last	2.0% per year
13th Last	2.0% per year
12th Last	1.5% per year
11th Last	1.4% per year
10th Last	1.3% per year
9th Last	1.2% per year
8th Last	1.1% per year
7th Last	1.0% per year
6th Last	0.8% per year
5th Last	0.5% per year
4th Last	0.0% per year
3rd Last	0.0% per year
2nd Last	0.0% per year
1st Last	0.0% per year

C. Sum of Adjustment to Act 44 Law Level and Claim Settlement Adjustments Additions

1	0.7082	0.7082	0.7082	0.9101	0.9963	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	0.7082	0.7082	0.8222	0.9294	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	0.7082	0.7998	0.8402	0.9488	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	0.7902	0.8173	0.8582	0.9681	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	0.8062	0.8347	0.8761	0.9874	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	0.8223	0.8522	0.8941	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7	0.8383	0.8696	0.9079	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8	0.8544	0.8831	0.9207	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9	0.8667	0.8957	0.9328	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10	0.8783	0.9076	0.9439	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11	0.8891	0.9186	0.9543	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12	0.8991	0.9289	0.9638	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13	0.9084	0.9383	0.9715	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14	0.9170	0.9462	0.9768	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
15	0.9240	0.9516	0.9777	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000														
16	0.9289	0.9531	0.9787	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000															
17	0.9299	0.9545	0.9797	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																
18	0.9310	0.9560	0.9807	1.0000	1.0000	1.0000	1.0000	1.0000																	
19	0.9320	0.9574	0.9817	1.0000	1.0000	1.0000	1.0000																		
20	0.9331	0.9589	0.9826	1.0000	1.0000	1.0000																			

Source: A. Adjustment to Act 44 Law Level Exhibit VI-D Pages 1-15
B. Claim Settlement Adjustments Additions Exhibits VI-B-5 (Refer to selected table above.)
C. A+B (with maximum of 1.000)

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Incurred Medical Losses for All Classes Combined

A. Medical Reported Incurred Losses as of 04/30/15

Report	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	5,121,908	5,085,069	5,963,632	4,780,471	3,903,052	3,946,197	4,135,165	3,185,472	3,370,548	2,714,671	2,468,601	2,225,216	3,150,255	2,579,313	3,189,109	3,700,850	2,871,489	5,478,955	3,509,674	2,761,649	3,630,574	4,362,098	4,806,118	3,352,426	5,513,027
2	5,979,955	6,471,250	6,709,723	5,785,980	4,929,891	4,443,755	4,315,884	3,374,998	3,630,642	3,012,839	2,716,963	2,589,253	3,609,439	2,812,481	3,555,290	4,031,513	3,286,804	5,501,458	3,749,858	3,021,605	3,914,782	5,517,261	5,258,148	3,927,444	
3	7,074,053	6,824,261	6,988,709	6,162,904	5,062,121	4,353,568	4,689,720	3,598,928	3,628,890	3,186,033	2,818,387	2,646,248	3,762,837	2,794,988	4,147,713	4,161,949	3,511,501	5,575,559	3,709,814	2,891,686	4,167,466	5,633,374	5,404,121		
4	7,753,514	7,207,603	6,985,202	6,061,248	5,216,951	4,294,114	4,808,246	3,571,097	3,720,868	3,057,663	2,836,912	2,629,910	3,890,149	2,756,587	4,166,709	4,249,331	3,418,585	5,632,912	3,804,580	2,991,503	4,413,176	5,609,134			
5	7,595,281	7,239,653	6,810,575	6,077,440	5,111,218	4,416,259	4,806,190	3,810,363	3,709,153	3,188,781	2,885,530	2,816,076	3,874,531	2,912,119	4,131,369	4,143,155	3,401,038	5,757,902	3,837,840	2,983,393	4,604,796				
6	7,729,893	7,315,361	6,966,052	5,804,110	5,029,268	4,483,826	4,703,865	3,978,305	3,761,263	3,178,086	2,937,414	2,896,624	4,191,261	2,899,687	4,080,336	4,299,151	3,370,262	5,864,639	3,842,096	2,946,694					
7	7,929,203	7,215,882	7,086,080	5,767,492	5,059,712	4,666,919	4,578,161	3,932,216	3,760,723	3,133,358	2,927,989	2,822,196	4,257,734	2,897,577	4,180,965	4,349,353	3,381,086	5,841,539	3,811,253						
8	7,725,007	7,140,026	6,984,759	5,730,009	5,113,134	4,706,403	4,617,085	3,951,475	3,791,456	3,171,882	2,921,384	2,789,664	4,339,920	2,890,067	4,187,418	4,411,495	3,382,185	5,950,133							
9	7,725,545	7,175,630	6,943,552	5,812,365	5,124,726	4,685,434	4,625,715	4,015,857	3,741,005	3,236,426	2,952,750	2,782,114	4,145,606	3,080,177	4,190,701	4,403,570	3,507,194								
10	7,808,315	7,347,568	7,100,992	5,971,283	5,144,115	4,668,534	4,651,769	4,393,793	3,777,626	3,357,242	2,950,698	2,879,623	4,160,518	3,110,017	4,206,298	4,356,915									
11	7,818,624	7,477,095	7,099,581	6,018,440	5,273,693	4,693,740	4,625,953	4,593,238	3,861,559	3,353,094	2,948,865	2,963,075	4,164,525	3,103,090	4,370,336										
12	7,818,489	7,453,897	7,167,560	5,838,773	5,295,932	4,815,890	4,594,309	4,586,566	3,843,219	3,409,251	3,021,208	3,005,905	4,194,244	3,212,975											
13	7,777,708	7,447,799	7,173,430	5,732,687	5,346,840	4,869,709	4,485,294	4,602,844	3,868,653	3,531,522	3,021,095	3,012,114	4,185,516												
14	7,799,651	7,500,265	7,091,743	5,818,810	5,366,481	4,793,570	4,501,155	4,627,844	3,851,694	3,532,688	3,020,836	3,143,372													
15	7,798,234	7,500,059	7,140,118	5,859,155	5,384,567	4,836,117	4,491,418	4,702,741	3,851,841	3,533,087	3,080,845														
16	7,789,301	7,442,165	7,069,470	5,935,724	5,423,525	4,865,082	4,520,959	4,694,564	3,852,213	3,539,649															
17	7,822,500	7,490,067	7,047,415	6,019,026	5,290,059	4,883,436	4,514,259	4,723,464	3,838,125																
18	7,870,056	7,528,919	7,028,385	6,100,724	5,370,678	4,927,115	4,523,523	5,023,336																	
19	7,847,501	7,453,318	7,029,188	6,154,033	5,371,098	4,917,010	4,536,280																		
20	7,852,764	7,374,324	7,063,572	6,153,930	5,467,814	5,276,620																			

B. Act 44 Medical Law Adjusment Factors and Claim Settlement Levels

1	0.7082	0.7082	0.7082	0.9101	0.9963	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	0.7082	0.7082	0.8222	0.9294	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
3	0.7082	0.7998	0.8402	0.9488	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		
4	0.7902	0.8173	0.8582	0.9681	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			
5	0.8062	0.8347	0.8761	0.9874	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6	0.8223	0.8522	0.8941	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7	0.8383	0.8696	0.9079	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8	0.8544	0.8831	0.9207	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9	0.8667	0.8957	0.9328	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10	0.8783	0.9076	0.9439	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11	0.8891	0.9186	0.9543	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12	0.8991	0.9289	0.9638	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13	0.9084	0.9383	0.9715	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14	0.9170	0.9462	0.9768	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
15	0.9240	0.9516	0.9777	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000														
16	0.9289	0.9531	0.9787	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000															
17	0.9299	0.9545	0.9797	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000																
18	0.9310	0.9560	0.9807	1.0000	1.0000	1.0000	1.0000	1.0000																	
19	0.9320	0.9574	0.9817	1.0000	1.0000	1.0000	1.0000																		
20	0.9331	0.9589	0.9826	1.0000	1.0000	1.0000																			

Act 44 Discount Factor: 0.7082
Selected Claim Settlement Factor

Note: Act 44 effective in 1993

C. Medical Incurred Losses Adjusted to Act 44 Law Level and Claim Settlement Levels as of 04/30/15

1	3,627,000	3,601,000	4,223,000	4,351,000	3,889,000	3,946,197	4,135,165	3,185,472	3,370,548	2,714,671	2,468,601	2,225,216	3,150,255	2,579,313	3,189,109	3,700,850	2,871,489	5,478,955	3,509,674	2,761,649	3,630,574	4,362,098	4,806,118	3,352,426	5,513,027
2	4,235,000	4,583,000	5,517,000	5,378,000	4,929,891	4,443,755	4,315,884	3,374,998	3,630,642	3,012,839	2,716,963	2,589,253	3,609,439	2,812,481	3,555,290	4,031,513	3,286,804	5,501,458	3,749,858	3,021,605	3,914,782	5,517,261	5,258,148	3,927,444	
3	5,010,000	5,458,000	5,872,000	5,847,000	5,062,121	4,353,568	4,689,720	3,598,928	3,628,890	3,186,033	2,818,387	2,646,248	3,762,837	2,794,988	4,147,713	4,161,949	3,511,501	5,575,559	3,709,814	2,891,686	4,167,466	5,633,374	5,404,121		
4	6,126,000	5,890,000	5,994,000	5,868,000	5,216,951	4,294,114	4,808,246	3,571,097	3,720,868	3,057,663	2,836,912	2,629,910	3,890,149	2,756,587	4,166,709	4,249,331	3,418,585	5,632,912	3,804,580	2,991,503	4,413,176	5,609,134			
5	6,123,000	6,043,000	5,967,000	6,001,000	5,111,218	4,416,259	4,806,190	3,810,363	3,709,153	3,188,781	2,885,530	2,816,076	3,874,531	2,912,119	4,131,369	4,143,155	3,401,038	5,757,902	3,837,840	2,983,393	4,604,796				
6	6,356,000	6,234,000	6,229,000	5,804,110	5,029,268	4,483,826	4,703,865	3,978,305	3,761,263	3,178,086	2,937,414	2,896,624	4,191,261	2,899,687	4,080,336	4,299,151	3,370,262	5,864,639	3,842,096	2,946,694					
7	6,647,000	6,275,000	6,433,000	5,767,492	5,059,712	4,666,919	4,578,161	3,932,216	3,760,723	3,133,358	2,927,989	2,822,196	4,257,734	2,897,577	4,180,965	4,349,353	3,381,086	5,841,539	3,811,253						
8	6,600,000	6,305,000	6,431,000	5,730,009	5,113,134	4,706,403	4,617,085	3,951,475	3,791,456	3,171,882	2,921,384	2,789,664	4,339,920	2,890,067	4,187,418	4,411,495	3,382,185	5,950,133							
9	6,696,000	6,427,000	6,477,000	5,812,365	5,124,726	4,685,434	4,625,715	4,015,857	3,741,005	3,236,426	2,952,750	2,782,114	4,145,606	3,080,177	4,190,701	4,403,570	3,507,194								
10	6,858,000	6,668,000	6,703,000	5,971,283	5,144,115	4,668,534	4,651,769	4,393,793	3,777,626	3,357,242	2,950,698	2,879,623	4,160,518	3,110,017	4,206,298	4,356,915									
11	6,951,000	6,869,000	6,775,000	6,018,440	5,273,693	4,693,740	4,625,953	4,593,238	3,861,559	3,353,094	2,948,865	2,963,075	4,164,525	3,103,090	4,370,336										
12	7,030,000	6,924,000	6,908,000	5,838,773	5,295,932	4,815,890	4,594,309	4,586,566	3,843,219	3,409,251	3,021,208	3,005,905	4,194,244	3,212,975											
13	7,066,000	6,988,000	6,969,000	5,732,687	5,346,840	4,869,709	4,485,294	4,602,844	3,868,653	3,531,522	3,021,095	3,012,114	4,185,516												
14	7,152,000	7,097,000	6,927,000	5,818,810	5,366,481	4,793,570	4,501,155	4,627,844	3,851,694	3,532,688	3,020,836	3,143,372													
15	7,206,000	7,137,000	6,981,000	5,859,155	5,384,567	4,836,117	4,491,418	4,702,741	3,851,841	3,533,087	3,080,845														
16	7,235,000	7,093,000	6,919,000	5,935,724	5,423,525	4,865,082	4,520,959	4,694,564	3,852,213	3,539,649															
17	7,274,000	7,150,000	6,904,000	6,019,026	5,290,059	4,883,436	4,514,259	4,723,464	3,838,125																
18	7,327,000	7,198,000	6,893,000	6,100,724	5,370,678	4,927,115	4,523,523	5,023,336																	
19	7,314,000	7,136,000	6,900,000	6,154,033	5,371,098	4,917,010	4,536,280																		
20	7,327,000	7,071,000	6,941,000	6,153,930	5,467,814	5,276,620																			

Large Loss is excluded from Accident Year 1992

Source: A. Reported Medical Incurred Losses. Exhibit VI-B-1 (A)
B. Act 44 Medical Law Adjusment Factors and Claim Settlement Levels: Exhibit VI-B-2 (C)
C. Medical Incurred Losses Adjusted to Act 44 Law Level and Claim Settlement Levels= A x B

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Incurred Medical Losses for All Classes Combined

Exhibit V-E-1
and
Exhibit VI-B-4

A. Medical Reported Incurred Losses Adjusted to Act 44 Law Level and Claim Settlement Levels as of 04/30/15

Report	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	3,627,000	3,601,000	4,223,000	4,351,000	3,889,000	3,946,197	4,135,165	3,185,472	3,370,548	2,714,671	2,468,601	2,225,216	3,150,255	2,579,313	3,189,109	3,700,850	2,871,489	5,478,955	3,509,674	2,761,649	3,630,574	4,362,098	4,806,118	3,352,426	5,513,027
2	4,235,000	4,583,000	5,517,000	5,378,000	4,929,891	4,443,755	4,315,884	3,374,998	3,630,642	3,012,839	2,716,963	2,589,253	3,609,439	2,812,481	3,555,290	4,031,513	3,286,804	5,501,458	3,749,858	3,021,605	3,914,782	5,517,261	5,258,148	3,927,444	
3	5,010,000	5,458,000	5,872,000	5,847,000	5,062,121	4,353,568	4,689,720	3,598,928	3,628,890	3,186,033	2,818,387	2,646,248	3,762,837	2,794,988	4,147,713	4,161,949	3,511,501	5,575,559	3,709,814	2,891,686	4,167,466	5,633,374	5,404,121		
4	6,126,000	5,890,000	5,994,000	5,868,000	5,216,951	4,294,114	4,808,246	3,571,097	3,720,868	3,057,663	2,836,912	2,629,910	3,890,149	2,756,587	4,166,709	4,249,331	3,418,585	5,632,912	3,804,580	2,991,503	4,413,176	5,609,134			
5	6,123,000	6,043,000	5,967,000	6,001,000	5,111,218	4,416,259	4,806,190	3,810,363	3,709,153	3,188,781	2,885,530	2,816,076	3,874,531	2,912,119	4,131,369	4,143,155	3,401,038	5,757,902	3,837,840	2,983,393	4,604,796				
6	6,356,000	6,234,000	6,229,000	5,804,110	5,029,268	4,483,826	4,703,865	3,978,305	3,761,263	3,178,086	2,937,414	2,896,624	4,191,261	2,899,687	4,080,336	4,299,151	3,370,262	5,864,639	3,842,096	2,946,694					
7	6,647,000	6,275,000	6,433,000	5,767,492	5,059,712	4,666,919	4,578,161	3,932,216	3,760,723	3,133,358	2,927,989	2,822,196	4,257,734	2,897,577	4,180,965	4,349,353	3,381,086	5,841,539	3,811,253						
8	6,600,000	6,305,000	6,431,000	5,730,009	5,113,134	4,706,403	4,617,085	3,951,475	3,791,456	3,171,882	2,921,384	2,789,664	4,339,920	2,890,067	4,187,418	4,411,495	3,382,185	5,950,133							
9	6,696,000	6,427,000	6,477,000	5,812,365	5,124,726	4,685,434	4,625,715	4,015,857	3,741,005	3,236,426	2,952,750	2,782,114	4,145,606	3,080,177	4,190,701	4,403,570	3,507,194								
10	6,858,000	6,668,000	6,703,000	5,971,283	5,144,115	4,668,534	4,651,769	4,393,793	3,777,626	3,357,242	2,950,698	2,879,623	4,160,518	3,110,017	4,206,298	4,356,915									
11	6,951,000	6,869,000	6,775,000	6,018,440	5,273,693	4,693,740	4,625,953	4,593,238	3,861,559	3,353,094	2,948,865	2,963,075	4,164,525	3,103,090	4,370,336										
12	7,030,000	6,924,000	6,908,000	5,838,773	5,295,932	4,815,890	4,594,309	4,586,566	3,843,219	3,409,251	3,021,208	3,005,905	4,194,244	3,212,975											
13	7,066,000	6,988,000	6,969,000	5,732,687	5,346,840	4,869,709	4,485,294	4,602,844	3,868,653	3,531,522	3,021,095	3,012,114	4,185,516												
14	7,152,000	7,097,000	6,927,000	5,818,810	5,366,481	4,793,570	4,501,155	4,627,844	3,851,694	3,532,688	3,020,836	3,143,372													
15	7,206,000	7,137,000	6,981,000	5,859,155	5,384,567	4,836,117	4,491,418	4,702,741	3,851,841	3,533,087	3,080,845														
16	7,235,000	7,093,000	6,919,000	5,935,724	5,423,525	4,865,082	4,520,959	4,694,564	3,852,213	3,539,649															
17	7,274,000	7,150,000	6,904,000	6,019,026	5,290,059	4,883,436	4,514,259	4,723,464	3,838,125																
18	7,327,000	7,198,000	6,893,000	6,100,724	5,370,678	4,927,115	4,523,523	5,023,336																	
19	7,314,000	7,136,000	6,900,000	6,154,033	5,371,098	4,917,010	4,536,280																		
20	7,327,000	7,071,000	6,941,000	6,153,930	5,467,814	5,276,620																			

B. Annual Loss Development Ratios

1:2															1.1148	1.0893	1.1446	1.0041	1.0684	1.0941	1.0783	1.2648	1.0941	1.1715	
2:3														0.9938	1.1666	1.0324	1.0684	1.0135	0.9893	0.9570	1.0645	1.0210	1.0278		
3:4													1.0338	0.9863	1.0046	1.0210	0.9735	1.0103	1.0255	1.0345	1.0590	0.9957			
4:5												1.0708	0.9960	1.0564	0.9915	0.9750	0.9949	1.0222	1.0087	0.9973	1.0434				
5:6											1.0180	1.0286	1.0817	0.9957	0.9876	1.0377	0.9910	1.0185	1.0011	0.9877					
6:7										0.9859	0.9968	0.9743	1.0159	0.9993	1.0247	1.0117	1.0032	0.9961	0.9920						
7:8									1.0082	1.0123	0.9977	0.9885	1.0193	0.9974	1.0015	1.0143	1.0003	1.0186							
8:9								1.0163	0.9867	1.0203	1.0107	0.9973	0.9552	1.0658	1.0008	0.9982	1.0370								
9:10							1.0056	1.0941	1.0098	1.0373	0.9993	1.0350	1.0036	1.0097	1.0037	0.9894									
10:11						1.0054	0.9945	1.0454	1.0222	0.9988	0.9994	1.0290	1.0010	0.9978	1.0390										
11:12					1.0042	1.0260	0.9932	0.9985	0.9953	1.0167	1.0245	1.0145	1.0071	1.0354											
12:13				0.9818	1.0096	1.0112	0.9763	1.0035	1.0066	1.0359	1.0000	1.0021	0.9979												
13:14			0.9940	1.0150	1.0037	0.9844	1.0035	1.0054	0.9956	1.0003	0.9999	1.0436													
14:15		1.0056	1.0078	1.0069	1.0034	1.0089	0.9978	1.0162	1.0000	1.0001	1.0199														
15:16	1.0040	0.9938	0.9911	1.0131	1.0072	1.0060	1.0066	0.9983	1.0001	1.0019															
16:17	1.0054	1.0080	0.9978	1.0140	0.9754	1.0038	0.9985	1.0062	0.9963																
17:18	1.0073	1.0067	0.9984	1.0136	1.0152	1.0089	1.0021	1.0635																	
18:19	0.9982	0.9914	1.0010	1.0087	1.0001	0.9979	1.0028																		
19:20	1.0018	0.9909	1.0059	1.0000	1.0180	1.0731																			

C. Summary

	10 Year Straight Average	6 Year Straight Average	10 Year Weighted Average	10 Year Average Ex. Hi/Lo	6 Year Average Ex. Hi/Lo	6 Year Weighted Average	Average of Middle Four
1:2	1.1124	1.1285	1.1089	1.1069	1.1095	1.1323	1.1148
2:3	1.0334	1.0122	1.0332	1.0263	1.0129	1.0155	1.0220
3:4	1.0144	1.0164	1.0143	1.0140	1.0165	1.0149	1.0150
4:5	1.0156	1.0069	1.0134	1.0138	1.0058	1.0089	1.0108
5:6	1.0148	1.0039	1.0159	1.0098	0.9996	1.0061	1.0087
6:7	1.0000	1.0045	1.0012	1.0001	1.0026	1.0043	1.0020
7:8	1.0058	1.0086	1.0075	1.0063	1.0087	1.0102	1.0078
8:9	1.0088	1.0091	1.0061	1.0084	1.0083	1.0049	1.0079
9:10	1.0188	1.0068	1.0180	1.0130	1.0041	1.0051	1.0107
10:11	1.0133	1.0108	1.0137	1.0116	1.0071	1.0115	1.0118
11:12	1.0115	1.0156	1.0101	1.0109	1.0157	1.0143	1.0131
12:13	1.0025	1.0077	1.0012	1.0016	1.0031	1.0073	1.0036
13:14	1.0045	1.0081	1.0032	1.0022	1.0023	1.0069	1.0042
14:15	1.0067	1.0072	1.0065	1.0061	1.0063	1.0069	1.0066
15:16	1.0022	1.0034	1.0018	1.0022	1.0037	1.0036	1.0028
16:17	1.0006	0.9990	1.0011	1.0023	1.0012	0.9992	1.0005
17:18	1.0145	1.0170	1.0129	1.0090	1.0100	1.0156	1.0133
18:19	1.0000	1.0003	0.9997	1.0000	1.0005	1.0000	1.0001
19:20	1.0150	1.0150	1.0118	1.0064	1.0064	1.0118	1.0112

Large Loss is excluded from Accident Year 1992

Source: A. Incurred Losses Adjusted to Act 44 Law Level and Claim Settlement Levels: Exhibit VI-B-3
B. Annual Loss Development Ratios
C, Summary of Straight Averages for 10 and 6 years,
Weighted Averages for 10 and 6 years,
Straight Averages for 10 and 6 years excluding highest and lowest,
Average of middle 4 of above 6 averages.

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Medical Claim Settlement Adjustment Factors

Accident Year	(1) 4/30/1994 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1984	7,380	243	3.3%	xx
1985	4,469	105	2.3%	xx
1986	5,192	222	4.3%	xx
1987	4,941	262	5.3%	xx
1988	5,722	396	6.9%	xx
1989	8,405	532	6.3%	xx
1990	7,754	298	3.8%	xx
1991	6,824	328	4.8%	xx
1992	5,389	437	8.1%	xx
Total	56,076	2,823	5.0%	2.0%

Accident Year	(1) 4/30/1995 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1985	4,303	199	4.6%	xx
1986	5,166	122	2.4%	xx
1987	4,805	122	2.5%	xx
1988	5,860	161	2.7%	xx
1989	8,842	299	3.4%	xx
1990	7,595	471	6.2%	xx
1991	7,208	83	1.2%	xx
1992	4,462	198	4.4%	xx
1993	5,786	164	2.8%	xx
Total	54,027	1,819	3.4%	2.0%

Accident Year	(1) 4/30/1996 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1986	5,126	84	1.6%	xx
1987	4,959	72	1.5%	xx
1988	5,470	451	8.2%	xx
1989	8,720	575	6.6%	xx
1990	7,730	220	2.8%	xx
1991	7,240	281	3.9%	xx
1992	4,458	269	6.0%	xx
1993	6,163	189	3.1%	xx
1994	4,930	231	4.7%	xx
Total	54,796	2,372	4.3%	2.0%

Accident Year	(1) 4/30/1997 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1987	4,895	93	1.9%	xx
1988	5,318	202	3.8%	xx
1989	8,177	793	9.7%	xx
1990	7,929	274	3.5%	xx
1991	7,315	141	1.9%	xx
1992	4,284	319	7.4%	xx
1993	6,061	216	3.6%	xx
1994	5,062	155	3.1%	xx
1995	4,444	211	4.7%	xx
Total	53,485	2,404	4.5%	2.0%

Accident Year	(1) 4/30/1998 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1988	5,228	70	1.3%	xx
1989	7,991	321	4.0%	xx
1990	7,725	436	5.6%	xx
1991	7,216	173	2.4%	xx
1992	4,439	85	1.9%	xx
1993	6,077	194	3.2%	xx
1994	5,217	77	1.5%	xx
1995	4,354	272	6.2%	xx
1996	4,316	87	2.0%	xx
Total	52,563	1,715	3.3%	2.0%

Accident Year	(1) 4/30/1999 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1989	8,525	96	1.1%	xx
1990	7,726	83	1.1%	xx
1991	7,140	208	2.9%	xx
1992	2,428	74	3.0%	xx
1993	5,804	322	5.5%	xx
1994	5,111	198	3.9%	xx
1995	4,294	164	3.8%	xx
1996	4,690	106	2.3%	xx
1997	xx	xx	xx	xx
Total	45,718	1,251	2.7%	1.5%

Accident Year	(1) 4/30/2000 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1990	7,808	52	0.7%	xx
1991	7,176	15	0.2%	xx
1992	2,327	125	5.4%	xx
1993	5,767	161	2.8%	xx
1994	5,029	130	2.6%	xx
1995	4,416	97	2.2%	xx
1996	4,808	119	2.5%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
Total	37,331	699	1.9%	1.4%

Accident Year	(1) 4/30/2001 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1991	7,348	85	1.2%	xx
1992	2,286	86	3.8%	xx
1993	5,730	77	1.3%	xx
1994	5,060	29	0.6%	xx
1995	4,484	150	3.3%	xx
1996	4,806	187	3.9%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
Total	29,714	614	2.1%	1.3%

Accident Year	(1) 4/30/2002 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1992	2,939	16	0.5%	xx
1993	5,812	57	1.0%	xx
1994	5,113	40	0.8%	xx
1995	4,667	101	2.2%	xx
1996	4,704	242	5.1%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
Total	23,235	456	2.0%	1.2%

Accident Year	(1) 4/30/2003 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1993	5,971	0	0.0%	xx
1994	5,125	0	0.0%	xx
1995	4,706	0	0.0%	xx
1996	4,578	145	3.2%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
Total	20,380	145	0.7%	1.1%

Accident Year	(1) 4/30/2004 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1994	5,179	59	1.1%	xx
1995	4,740	83	1.8%	xx
1996	4,702	32	0.7%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
2002	xx	xx	xx	xx
Total	14,621	174	1.2%	1.0%

Accident Year	(1) 4/30/2005 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1995	4,669	0	0.0%	xx
1996	4,626	0	0.0%	xx
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
2002	xx	xx	xx	xx
2003	xx	xx	xx	xx
Total	9,295	0	0.0%	0.8%

Accident Year	(1) 4/30/2006 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1996	4,708	25	0.5%	xx
1997	xx	0	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
2002	xx	xx	xx	xx
2003	xx	xx	xx	xx
2004	xx	xx	xx	xx
Total	4,708	25	0.5%	0.5%

Accident Year	(1) 4/30/2007 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1997	xx	xx	xx	xx
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
2002	xx	xx	xx	xx
2003	xx	xx	xx	xx
2004	xx	xx	xx	xx
2005	xx	xx	xx	xx
Total	0	0	0.0%	0.0%

Accident Year	(1) 4/30/2008 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1998	xx	xx	xx	xx
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
2002	xx	xx	xx	xx
2003	xx	xx	xx	xx
2004	xx	xx	xx	xx
2005	xx	xx	xx	xx
2006	xx	xx	xx	xx
Total	0	0	0.0%	0.0%

Accident Year	(1) 4/30/2009 Rpt.Loss [a]	(2) 12 Month Fav_Dev [a]	(3) (2) / (1)	(4) Selection
1999	xx	xx	xx	xx
2000	xx	xx	xx	xx
2001	xx	xx	xx	xx
2002	xx	xx	xx	xx
2003	xx	xx	xx	xx
2004	xx	xx	xx	xx
2005	xx	xx	xx	xx
2006	xx	xx	xx	xx
2007	xx	xx	xx	xx
2008	xx	xx	xx	xx
Total	0	0	0.0%	0.0%

(a) All amounts are in thousands of dollars
Incurred losses for 1992 exclude effects of large loss.

Note: Personnel from the CMCRB have concluded that the impact of Act 57 has waned to the point that the Claim Settlement effect for this year and future years is zero(0.00). Thus this Exhibit will no longer be updated.

Sources: Column (1) Exhibit VI-B p. 1a
CMCRB Data Base

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Incurred Indemnity and Funeral Claim Counts for All Classes Combined (excl. USLH)

A. Indemnity Reported Incurred Claims as of 04/30/15

Report	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	428	415	339	297	263	240	227	241	196	219	203	156	163	193	170	168	175	169	145	218
2	442	422	358	301	269	250	238	244	196	227	228	163	164	206	193	177	182	195	165	
3	441	427	355	314	272	252	237	246	197	230	229	165	164	203	195	177	188	199		
4	439	428	358	313	274	254	237	246	198	231	230	166	164	205	195	177	189			
5	438	425	358	313	274	254	237	246	199	231	230	166	164	204	195	177				
6	438	426	357	312	274	254	237	246	199	231	230	166	164	204	195					
7	438	427	357	312	274	254	237	246	199	231	230	166	164	204						
8	438	427	357	312	274	254	237	246	199	231	230	166	164							
9	437	427	357	312	274	254	237	246	199	231	230	166								
10	437	427	357	312	274	254	237	246	199	231	230									
11	437	426	357	312	274	254	237	246	199	231										
12	437	426	357	312	274	254	237	246	199											
13	437	426	357	312	274	254	237	246												
14	437	426	357	312	274	254	237													
15	437	426	357	312	274	254														
16	437	426	357	312	274															
17	437	426	357	312																
18	437	426	357																	
19	437	426																		
20	437																			

B. Annual Claim Count Development

1:2										1.0365	1.1232	1.0449	1.0061	1.0674	1.1353	1.0536	1.0400	1.1538	1.1379
2:3									1.0051	1.0132	1.0044	1.0123	1.0000	0.9854	1.0104	1.0000	1.0330	1.0205	
3:4								1.0000	1.0051	1.0043	1.0044	1.0061	1.0000	1.0099	1.0000	1.0000	1.0053		
4:5							1.0000	1.0000	1.0051	1.0000	1.0000	1.0000	1.0000	0.9951	1.0000	1.0000			
5:6						1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6:7					1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7:8				1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8:9			1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9:10		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10:11	1.0000	0.9977	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11:12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12:13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13:14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14:15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
15:16	1.0000	1.0000	1.0000	1.0000	1.0000														
16:17	1.0000	1.0000	1.0000	1.0000															
17:18	1.0000	1.0000	1.0000																
18:19	1.0000	1.0000																	
19:20	1.0000																		

C. Summary

	10 Year Straight Average	6 Year Straight Average	10 Year Weighted Average	10 Year Average ex. Hi&Lo	6 Year Average ex. Hi&Lo	6 Year Weighted Average	Average of Middle Four	Selected	Cumulative	Acc. Year	Ultimate
1:2	1.0799	1.0980	1.0789	1.0799	1.0986	1.0961	1.0885	1.0885	1.1010	2014	240
2:3	1.0084	1.0082	1.0083	1.0082	1.0077	1.0081	1.0082	1.0082	1.0115	2013	167
3:4	1.0035	1.0036	1.0035	1.0032	1.0029	1.0037	1.0035	1.0033	1.0033	2012	200
4:5	1.0000	0.9992	1.0000	1.0000	1.0000	0.9991	0.9998	1.0000	1.0000	2011	189
5:6	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2010	177
6:7	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2009	195
7:8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2008	204
8:9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2007	164
9:10	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2006	166
10:11	0.9998	1.0000	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2005	230
11:12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2004	231
12:13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2003	199
13:14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2002	246
14:15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2001	237
15:16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2000	254
16:17	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1999	274
17:18	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1998	312
18:19	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1997	357
19:20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1996	426
										1995	437

Source: A. Loss Development Data: CMCRB Database as of 04/30/15 - Validated 08/12/15
B. Annual Loss Development Ratios
C, Summary of Straight Averages for 10 and 6 years,
Weighted Averages for 10 and 6 years,
Straight Averages for 10 and 6 years excluding highest and lowest,
Average of middle 4 of above 6 averages.

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Medical Only Claim Counts for All Classes Combined (excl. USLH)

A. Medical Only Reported Incurred Claims Valued as of 04/30/15

Report	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	940	911	867	684	641	488	519	487	453	516	476	456	488	523	479	559	628	563	468	536
2	940	923	863	685	640	500	536	499	462	524	479	453	494	527	469	560	632	554	475	
3	944	926	865	686	641	503	539	500	461	523	480	451	495	528	469	559	627	553		
4	945	926	863	684	641	497	535	500	461	522	479	450	495	527	469	559	627			
5	945	927	863	684	643	497	535	500	461	522	479	450	495	528	469	559				
6	945	927	864	685	643	498	535	500	461	522	479	450	495	528	469					
7	945	926	864	685	643	498	535	500	461	522	479	450	495	528						
8	945	926	864	685	643	498	535	500	461	522	479	450	495							
9	945	926	864	685	643	498	535	500	461	522	479	450								
10	945	926	864	685	643	498	535	500	461	522	479									
11	945	927	864	685	643	498	535	500	461	522										
12	945	927	864	685	643	498	535	500	461											
13	945	927	864	685	643	498	535	500												
14	945	927	864	685	643	498	535													
15	945	927	864	685	643	498														
16	945	927	864	685	643															
17	945	927	864	685																
18	945	927	864																	
19	945	927																		
20	945																			

B. Annual Claim Count Development

1:2										1.0155	1.0063	0.9934	1.0123	1.0076	0.9791	1.0018	1.0064	0.9840	1.0150
2:3									0.9978	0.9981	1.0021	0.9956	1.0020	1.0019	1.0000	0.9982	0.9921	0.9982	
3:4								1.0000	1.0000	0.9981	0.9979	0.9978	1.0000	0.9981	1.0000	1.0000	1.0000		
4:5							1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0019	1.0000	1.0000			
5:6						1.0020	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				
6:7					1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000					
7:8				1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000						
8:9			1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000							
9:10		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000								
10:11	1.0000	1.0011	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000									
11:12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000										
12:13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000											
13:14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000												
14:15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000													
15:16	1.0000	1.0000	1.0000	1.0000	1.0000														
16:17	1.0000	1.0000	1.0000	1.0000															
17:18	1.0000	1.0000	1.0000																
18:19	1.0000	1.0000																	
19:20	1.0000																		

C. Summary

	10 Year Straight Average	6 Year Straight Average	10 Year Weighted Average	10 Year Average ex. Hi&Lo	6 Year Average ex. Hi&Lo	6 Year Weighted Average	Average of Middle Four	Selected	Cumulative	Acc. Year	Ultimate
1:2	1.0021	0.9990	1.0021	1.0034	1.0000	0.9991	1.0008	1.0000	1.0000	2014	536
2:3	0.9986	0.9987	0.9984	0.9990	0.9996	0.9985	0.9987	1.0000	1.0000	2013	475
3:4	0.9992	0.9993	0.9992	0.9993	0.9995	0.9994	0.9993	1.0000	1.0000	2012	553
4:5	1.0002	1.0003	1.0002	1.0000	1.0000	1.0003	1.0002	1.0000	1.0000	2011	627
5:6	1.0002	1.0000	1.0002	1.0000	1.0000	1.0000	1.0001	1.0000	1.0000	2010	559
6:7	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2009	469
7:8	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2008	528
8:9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2007	495
9:10	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2006	450
10:11	1.0001	1.0000	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2005	479
11:12	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2004	522
12:13	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2003	461
13:14	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2002	500
14:15	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2001	535
15:16	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2000	498
16:17	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1999	643
17:18	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1998	685
18:19	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1997	864
19:20	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1996	927
										1995	945

Medical Only claims are defined as claims with Medical Incurred dollars greater than zero and Indemnity Incurred dollars equal to zero.

Source: A. Loss Development Data: CMCRB Database as of 04/30/15 - Validated 08/12/15
B. Annual Loss Development Ratios
C, Summary of Straight Averages for 10 and 6 years,
Weighted Averages for 10 and 6 years,
Straight Averages for 10 and 6 years excluding highest and lowest,
Average of middle 4 of above 6 averages.

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Medical Only Incurred for All Classes Combined (excl. USLH)

A. Medical Only Reported Incurred Losses Valued as of 04/30/15

Report	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	367,266	427,684	420,727	438,535	458,539	315,407	291,102	326,965	344,009	440,355	393,342	475,073	645,531	538,996	499,273	689,845	830,417	740,247	642,297	796,663
2	380,455	436,047	386,810	432,746	407,349	296,698	341,613	354,474	343,651	489,659	395,971	492,413	667,028	564,408	475,294	712,909	864,057	723,464	717,723	
3	416,036	438,409	397,114	433,468	409,094	300,203	340,771	351,193	342,029	499,930	570,553	464,396	651,680	574,474	487,309	732,324	846,540	709,906		
4	416,719	438,965	392,071	420,776	409,095	304,117	341,085	343,963	346,252	499,000	577,565	464,210	654,006	561,921	487,349	732,324	850,074			
5	416,875	440,156	392,071	422,132	409,426	304,601	341,085	345,393	346,252	499,175	577,565	464,210	657,948	569,251	487,454	732,324				
6	416,875	440,156	392,408	412,623	409,426	305,104	341,085	345,393	346,252	499,175	577,565	464,210	663,201	578,077	487,454					
7	416,875	430,802	392,408	412,623	409,426	305,104	341,085	345,393	346,252	499,175	577,565	464,210	663,201	584,120						
8	416,875	430,802	392,408	412,623	405,010	305,104	347,675	345,393	346,252	499,182	439,393	464,210	663,201							
9	416,875	430,802	392,408	412,623	405,010	305,104	347,675	345,393	346,318	499,182	439,393	464,210								
10	416,875	430,802	392,408	412,623	405,010	305,104	347,675	345,393	346,318	499,182	439,463									

B. Annual Loss Development

1:2										1.1120	1.0067	1.0365	1.0333	1.0471	0.9520	1.0334	1.0405	0.9773	1.1174	
2:3									0.9953	1.0210	1.4409	0.9431	0.9770	1.0178	1.0253	1.0272	0.9797	0.9813		
3:4								0.9794	1.0123	0.9981	1.0123	0.9996	1.0036	0.9781	1.0001	1.0000	1.0042			
4:5							1.0000	1.0042	1.0000	1.0004	1.0000	1.0000	1.0060	1.0130	1.0002	1.0000				
5:6						1.0017	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0080	1.0155	1.0000					
6:7					1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0105						
7:8				1.0000	0.9892	1.0000	1.0193	1.0000	1.0000	1.0000	0.7608	1.0000	1.0000							
8:9			1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0002	1.0000	1.0000	1.0000								
9:10		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0002									

C. Summary

	10 Year Straight Average	6 Year Straight Average	10 Year Weighted Average	10 Year Average ex. Hi&Lo	6 Year Average ex. Hi&Lo	6 Year Weighted Average	Average of Middle Four	Selected	Cumulative	Acc. Year	Ultimate
1:2	1.0356	1.0280	1.0352	1.0359	1.0246	1.0296	1.0321	1.0321	1.0321	2014	822,236
2:3	1.0409	1.0014	1.0262	1.0031	1.0010	0.9988	1.0079	1.0000	1.0000	2013	717,723
3:4	0.9988	0.9976	0.9993	0.9997	1.0008	0.9982	0.9990	1.0000	1.0000	2012	709,906
4:5	1.0024	1.0032	1.0026	1.0014	1.0016	1.0033	1.0024	1.0000	1.0000	2011	850,074
5:6	1.0025	1.0039	1.0032	1.0012	1.0020	1.0043	1.0029	1.0000	1.0000	2010	732,324
6:7	1.0011	1.0018	1.0013	1.0000	1.0000	1.0019	1.0011	1.0000	1.0000	2009	487,454
7:8	0.9769	0.9601	0.9688	0.9987	1.0000	0.9523	0.9761	1.0000	1.0000	2008	584,120
8:9	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2007	663,201
9:10	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	2006	464,210

Source: A. Loss Development Data: CMCRB Database as of 04/30/15 - Validated 08/12/15
B. Annual Loss Development Ratios
C, Summary of Straight Averages for 10 and 6 years,
Weighted Averages for 10 and 6 years,
Straight Averages for 10 and 6 years excluding highest and lowest,
Average of middle 4 of above 6 averages.

Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Summary of Adjustments to Development Factors for Act 44#

	Accident Year																															
Report	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.8921	0.9773	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.8052	0.8934	0.9908	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx
3	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7838	0.8062	0.8948	0.9961	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx
4	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7752	0.7853	0.8072	0.8961	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx
5	0.7082	0.7082	0.7082	0.7082	0.7082	0.7082	0.7843	0.7762	0.7867	0.8081	0.8974	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx
6	0.7082	0.7082	0.7082	0.7082	0.7082	0.7661	0.7842	0.7773	0.7882	0.8091	0.8988	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx
7	0.7082	0.7082	0.7082	0.7082	0.7657	0.7661	0.7841	0.7783	0.7896	0.8101	0.9001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx
8	0.7082	0.7082	0.7082	0.7652	0.7651	0.7662	0.7840	0.7794	0.7911	0.8111	0.9015	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx
9	0.7082	0.7082	0.7651	0.7669	0.7644	0.7662	0.7839	0.7804	0.7925	0.8121	0.9028	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx
10	0.7082	0.7913	0.7649	0.7686	0.7638	0.7663	0.7837	0.7815	0.7940	0.8130	0.9041	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx
11	0.7630	0.7891	0.7647	0.7702	0.7631	0.7664	0.7836	0.7826	0.7954	0.8140	0.9055	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
12	0.7631	0.7869	0.7646	0.7719	0.7625	0.7664	0.7835	0.7836	0.7969	0.8150	0.9068	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
13	0.7633	0.7848	0.7644	0.7736	0.7618	0.7665	0.7834	0.7847	0.7983	0.8160	0.9081	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
14	0.7635	0.7826	0.7642	0.7753	0.7612	0.7665	0.7833	0.7857	0.7998	0.8170	0.9095	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
15	0.7636	0.7804	0.7641	0.7770	0.7605	0.7666	0.7832	0.7868	0.8012	0.8179	0.9108	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
16	0.7638	0.7782	0.7639	0.7787	0.7599	0.7666	0.7831	0.7879	0.8027	0.8189	0.9122	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
17	0.7640	0.7761	0.7637	0.7804	0.7592	0.7667	0.7830	0.7889	0.8041	0.8199	0.9135	1.0000	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
18	0.7641	0.7739	0.7636	0.7821	0.7586	0.7668	0.7829	0.7900	0.8056	0.8209	0.9148	1.0000	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
19	0.7643	0.7717	0.7634	0.7838	0.7579	0.7668	0.7828	0.7910	0.8070	0.8219	0.9162	1.0000	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx
20	0.7645	0.7695	0.7632	0.7855	0.7573	0.7669	0.7827	0.7921	0.8085	0.8228	0.9175	1.0000	1.0000	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx	xx

Adjustments to development factors applicable to medical loss evaluated as of 04/30/2015
Act 44 became effective in 1993.

Source: For years 1983 through 1994 Exhibit VI-D pages 2-13 columns (T)
Unity adjustment for accident years 1995 and subsequent

Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1994

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1994	3,903,052	0.6110	2,384,765	1,518,287	2,384,765	2,384,765	1,429,619	3,814,384	0	na	na	2,384,765	na	na	0.9773	xx	0.9773	0.9773
2	1995	4,929,891	0.6836	3,370,073	1,559,818	985,309	985,309	1,514,271	4,884,344	0	na	na	985,309	na	na	0.9908	xx	0.9908	0.9908
3	1996	5,062,121	0.7314	3,702,435	1,359,686	332,362	332,362	1,339,834	5,042,270	0	na	na	332,362	na	na	0.9961	xx	0.9961	0.9961
4	1997	5,216,951	0.7623	3,976,882	1,240,069	274,446	274,446	1,240,069	5,216,951	0	na	na	274,446	na	na	1.0000	xx	1.0000	1.0000
5	1998	5,111,218	0.8197	4,189,665	921,553	212,784	212,784	921,553	5,111,218	0	na	na	212,784	na	na	1.0000	xx	1.0000	1.0000
6	1999	5,029,268	0.8689	4,369,931	659,337	180,266	180,266	659,337	5,029,268	4,389,242	640,026	199,577	199,577	640,026	na	1.0000	xx	1.0000	1.0000
7	2000	5,059,712	0.8827	4,466,208	593,504	96,277	96,277	593,504	5,059,712	4,487,578	572,134	98,336	98,336	572,134	5,059,712	1.0000	1.0000	1.0000	1.0000
8	2001	5,113,134	0.8925	4,563,472	549,662	97,264	97,264	549,662	5,113,134	4,583,303	529,831	95,725	95,725	529,831	5,113,134	1.0000	1.0000	1.0000	1.0000
9	2002	5,124,726	0.9144	4,686,049	438,677	122,577	122,577	438,677	5,124,726	4,686,069	438,657	102,766	102,766	438,657	5,124,726	1.0000	1.0000	1.0000	1.0000
10	2003	5,144,115	0.9266	4,766,537	377,578	80,488	80,488	377,578	5,144,115	4,766,728	377,387	80,659	80,659	377,387	5,144,115	1.0000	1.0000	1.0000	1.0000
11	2004	5,273,693	0.9448	4,982,643	291,050	216,106	216,106	291,050	5,273,693	4,977,633	296,060	210,905	210,905	296,060	5,273,693	1.0000	1.0000	1.0000	1.0000
12	2005	5,295,932	0.9585	5,076,170	219,762	93,527	93,527	219,762	5,295,932	5,050,319	245,613	72,686	72,686	245,613	5,295,932	1.0000	1.0000	1.0000	1.0000
13	2006	5,346,840	0.9688	5,180,014	166,826	103,844	103,844	166,826	5,346,840	5,097,751	249,089	47,432	47,432	249,089	5,346,840	1.0000	1.0000	1.0000	1.0000
14	2007	5,366,481	0.9765	5,240,584	125,897	60,571	60,571	125,897	5,366,481	5,134,011	232,470	36,260	36,260	232,470	5,366,481	1.0000	1.0000	1.0000	1.0000
15	2008	5,384,567	0.9824	5,289,587	94,980	49,003	49,003	94,980	5,384,567	5,173,710	210,857	39,699	39,699	210,857	5,384,567	1.0000	1.0000	1.0000	1.0000
16	2009	5,423,525	0.9867	5,351,593	71,932	62,006	62,006	71,932	5,423,525	5,222,342	201,183	48,632	48,632	201,183	5,423,525	1.0000	1.0000	1.0000	1.0000
17	2010	5,290,059	0.9900	5,237,305	52,754	-114,288	-114,288	52,754	5,290,059	5,243,874	46,185	21,532	21,532	46,185	5,290,059	1.0000	1.0000	1.0000	1.0000
18	2011	5,370,678	0.9925	5,330,408	40,270	93,103	93,103	40,270	5,370,678	5,253,033	117,645	9,159	9,159	117,645	5,370,678	1.0000	1.0000	1.0000	1.0000
19	2012	5,371,098	0.9944	5,340,817	30,281	10,409	10,409	30,281	5,371,098	5,259,632	111,466	6,599	6,599	111,466	5,371,098	1.0000	1.0000	1.0000	1.0000
20	2013	5,467,814	0.9958	5,444,636	23,178	103,819	103,819	23,178	5,467,814	5,329,554	138,260	69,922	69,922	138,260	5,467,814	1.0000	1.0000	1.0000	1.0000

Effects of Act 44 becoming effective in 1993 [from prior filings]

	Percentage	Factor
1 Payments before 1993	-29.18%	0.7082
2 1993 Payments - First Report	-17.33%	0.8267
3 1993 Payments - Reports after First	-13.37%	0.8663
4 Payments after 1993	0.00%	1.0000

	Percentage	Factor
1 Reserves Prior to 1993	-29.18%	0.7082
2 Reserves as of 1993	-11.67%	0.8833
3 Reserves as of 1994	-5.84%	0.9416
4 Reserves as of 1995	-2.92%	0.9708
5 Reserves as of 1996	-1.46%	0.9854
6 Reserves after 1996	0.00%	1.0000

* Current value of adjusted reserves plus sum of adjusted paid amounts from report 1 through current report
Where actual data is not available, adjusted estimated paid losses are included in actual reported loss values.

Sources:

(A) Report for accident value, i.e., value as of 4/30/year, where "year" is Accident Year plus report number
(B) Year in which most transactions included in report occurred. Values are used in picking correct adjustments for Act 44 from above table.
Transactions close at 4/30 so that most transaction years run from 5/1 through 4/30. First reports run from 1/1 through 4/30.
(C) Reported incurred loss from Exhibit VI-B Page 1
(D) Value from payment patterns for sampled data presented in Exhibit VI-D page 14.
(E) (D) x (C)
(F) (C) - (E)
(G) Current value of (E) less preceding value of (E)
(H) (G) x Value from table of Act 44 effects above.
(I) (F) x Value from table of Act 44 effects above.
(J) Sum of Reserve from column (I) plus sum of adjusted paid increments in column (H) from first report through to current report
(K) Reported paid loss from Exhibit VI-E
(L) (C) - (K)
(M) Current value of (K) less preceding value of (K); values from column (G) based on sample used when actual data not available.
(N) (M) x Value from table of Act 44 effects
(O) (L) x Value from table of Act 44 effects
(P) Sum of Reserve from column (O) plus sum of adjusted paid increments in column (N) from first report through to current report
(Q) (J) / (C)
(R) (P) / (C)
(S) Average of values in columns (Q) and (R)
(T) Smoothed values based on values in (S)

Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1993

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est. Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1993	4,780,471	0.6490	3,102,526	1,677,945	3,102,526	2,564,858	1,482,129	4,046,987	0	na	na	2,564,858	na	na	0.8466	xx	0.8466	0.8921
2	1994	5,785,980	0.7014	4,058,286	1,727,694	955,761	955,761	1,626,796	5,147,415	0	na	na	955,761	na	na	0.8896	xx	0.8896	0.8934
3	1995	6,162,904	0.7310	4,505,083	1,657,821	446,796	446,796	1,609,413	5,576,828	0	na	na	446,796	na	na	0.9049	xx	0.9049	0.8948
4	1996	6,061,248	0.7593	4,602,306	1,458,942	97,223	97,223	1,437,642	5,502,280	0	na	na	97,223	na	na	0.9078	xx	0.9078	0.8961
5	1997	6,077,440	0.8077	4,908,748	1,168,692	306,443	306,443	1,168,692	5,539,772	0	na	na	306,443	na	na	0.9115	xx	0.9115	0.8974
6	1998	5,804,110	0.8678	5,036,807	767,303	128,058	128,058	767,303	5,266,442	0	na	na	128,058	na	na	0.9074	xx	0.9074	0.8988
7	1999	5,767,492	0.8945	5,159,022	608,470	122,215	122,215	608,470	5,229,824	5,149,026	618,466	112,219	112,219	618,466	na	0.9068	xx	0.9068	0.9001
8	2000	5,730,009	0.9182	5,261,294	468,715	102,273	102,273	468,715	5,192,341	5,317,681	412,328	168,655	168,655	412,328	5,192,341	0.9062	0.9062	0.9062	0.9015
9	2001	5,812,365	0.9144	5,314,827	497,538	53,532	53,532	497,538	5,274,697	5,360,316	452,049	42,635	42,635	452,049	5,274,697	0.9075	0.9075	0.9075	0.9028
10	2002	5,971,283	0.9080	5,421,925	549,358	107,098	107,098	549,358	5,433,615	5,431,732	539,551	71,416	71,416	539,551	5,433,615	0.9100	0.9100	0.9100	0.9041
11	2003	6,018,440	0.9272	5,580,133	438,307	158,208	158,208	438,307	5,480,772	5,484,250	534,190	52,518	52,518	534,190	5,480,772	0.9107	0.9107	0.9107	0.9055
12	2004	5,838,773	0.9423	5,502,166	336,607	-77,967	-77,967	336,607	5,301,105	5,515,392	323,381	31,142	31,142	323,381	5,301,105	0.9079	0.9079	0.9079	0.9068
13	2005	5,732,687	0.9544	5,471,069	261,618	-31,096	-31,096	261,618	5,195,019	5,570,940	161,747	55,548	55,548	161,747	5,195,019	0.9062	0.9062	0.9062	0.9081
14	2006	5,818,810	0.9639	5,608,602	210,208	137,532	137,532	210,208	5,281,142	5,630,292	188,518	59,352	59,352	188,518	5,281,142	0.9076	0.9076	0.9076	0.9095
15	2007	5,859,155	0.9714	5,691,600	167,555	82,998	82,998	167,555	5,321,487	5,669,851	189,304	39,559	39,559	189,304	5,321,487	0.9082	0.9082	0.9082	0.9108
16	2008	5,935,724	0.9774	5,801,354	134,370	109,754	109,754	134,370	5,398,056	5,726,344	209,380	56,493	56,493	209,380	5,398,056	0.9094	0.9094	0.9094	0.9122
17	2009	6,019,026	0.9821	5,911,165	107,861	109,812	109,812	107,861	5,481,358	5,786,245	232,781	59,901	59,901	232,781	5,481,358	0.9107	0.9107	0.9107	0.9135
18	2010	6,100,724	0.9858	6,014,182	86,542	103,017	103,017	86,542	5,563,056	5,834,833	265,891	48,588	48,588	265,891	5,563,056	0.9119	0.9119	0.9119	0.9148
19	2011	6,154,033	0.9888	6,084,928	69,105	70,745	70,745	69,105	5,616,365	5,895,287	258,746	60,454	60,454	258,746	5,616,365	0.9126	0.9126	0.9126	0.9162
20	2012	6,153,930	0.9911	6,099,227	54,703	14,299	14,299	54,703	5,616,262	5,945,407	208,523	50,120	50,120	208,523	5,616,262	0.9126	0.9126	0.9126	0.9175

Effects of Act 44 becoming effective in 1993 [from prior filings]

	Percentage	Factor
1 Payments before 1993	-29.18%	0.7082
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3 1993 Payments - Reports after First	-13.37%	0.8663
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3 Reserves as of 1994	-5.84%	0.9416
4 Reserves as of 1995	-2.92%	0.9708
5 Reserves as of 1996	-1.46%	0.9854
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* Current value of adjusted reserves plus sum of adjusted paid amounts from report 1 through current report
Where actual data is not available, adjusted estimated paid losses are included in actual reported loss values.

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(A) Report for accident value, i.e., value as of 4/30/year, where "year" is Accident Year plus report number
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(C) Reported incurred loss from Exhibit VI-B Page 1
(D) Value from payment patterns for sampled data presented in Exhibit VI-D page 14.
(E) (D) x (C)
(F) (C) - (E)
(G) Current value of (E) less preceding value of (E)
(H) (G) x Value from table of Act 44 effects above.
(I) (F) x Value from table of Act 44 effects above.
(J) Sum of Reserve from column (I) plus sum of adjusted paid increments in column (H) from first report through to current report.
(K) Reported paid loss from Exhibit VI-E
(L) (C) - (K)
(M) Current value of (K) less preceding value of (K); values from column (G) based on sample used when actual data not available.
(N) (M) x Value from table of Act 44 effects
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(P) Sum of Reserve from column (O) plus sum of adjusted paid increments in column (N) from first report through to current report.
(Q) (J) / (C)
(R) (P) / (C)
(S) Average of values in columns (Q) and (R)
(T) Smoothed values based on values in (S)

Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1992

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est. Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1992	5,963,632	0.6295	3,754,106	2,209,526	3,754,106	2,658,658	1,564,786	4,223,444	0	na	na	2,658,658	na	na	0.7082	xx	0.7082	0.7082
2	1993	6,709,723	0.7683	5,155,080	1,554,643	1,400,974	1,213,664	1,373,216	5,245,538	0	na	na	1,213,664	na	na	0.7818	xx	0.7818	0.8052
3	1994	6,988,709	0.8094	5,656,661	1,332,048	501,581	501,581	1,254,256	5,628,159	0	na	na	501,581	na	na	0.8053	xx	0.8053	0.8062
4	1995	6,985,202	0.8343	5,827,754	1,157,448	171,093	171,093	1,123,650	5,668,646	0	na	na	171,093	na	na	0.8115	xx	0.8115	0.8072
5	1996	6,810,575	0.8751	5,959,934	850,641	132,180	132,180	838,221	5,515,397	0	na	na	132,180	na	na	0.8098	xx	0.8098	0.8081
6	1997	6,966,052	0.8828	6,149,631	816,421	189,697	189,697	816,421	5,683,294	0	na	na	189,697	na	na	0.8159	xx	0.8159	0.8091
7	1998	7,086,080	0.8890	6,299,525	786,555	149,894	149,894	786,555	5,803,322	0	na	na	149,894	na	na	0.8190	xx	0.8190	0.8101
8	1999	6,984,759	0.9059	6,327,493	657,266	27,968	27,968	657,266	5,702,001	6,401,003	583,756	101,478	101,478	583,756	na	0.8163	xx	0.8163	0.8111
9	2000	6,943,552	0.9302	6,458,892	484,660	131,399	131,399	484,660	5,660,794	6,494,799	448,753	93,796	93,796	448,753	5,660,794	0.8153	0.8153	0.8153	0.8121
10	2001	7,100,992	0.9261	6,576,229	524,763	117,337	117,337	524,763	5,818,234	6,613,862	487,130	119,063	119,063	487,130	5,818,234	0.8194	0.8194	0.8194	0.8130
11	2002	7,099,581	0.9443	6,704,429	395,152	128,200	128,200	395,152	5,816,823	6,692,320	407,261	78,458	78,458	407,261	5,816,823	0.8193	0.8193	0.8193	0.8140
12	2003	7,167,560	0.9581	6,867,098	300,462	162,669	162,669	300,462	5,884,802	6,804,727	362,833	112,407	112,407	362,833	5,884,802	0.8210	0.8210	0.8210	0.8150
13	2004	7,173,430	0.9684	6,946,949	226,481	79,851	79,851	226,481	5,890,672	6,858,573	314,857	53,846	53,846	314,857	5,890,672	0.8212	0.8212	0.8212	0.8160
14	2005	7,091,743	0.9762	6,923,109	168,634	-23,840	-23,840	168,634	5,808,985	6,879,694	212,049	21,121	21,121	212,049	5,808,985	0.8191	0.8191	0.8191	0.8170
15	2006	7,140,118	0.9821	7,012,243	127,875	89,134	89,134	127,875	5,857,360	6,904,878	235,240	25,184	25,184	235,240	5,857,360	0.8203	0.8203	0.8203	0.8179
16	2007	7,069,470	0.9865	6,974,113	95,357	-38,130	-38,130	95,357	5,786,712	6,918,013	151,457	13,135	13,135	151,457	5,786,712	0.8185	0.8185	0.8185	0.8189
17	2008	7,047,415	0.9898	6,975,820	71,595	1,707	1,707	71,595	5,764,657	6,937,949	109,466	19,936	19,936	109,466	5,764,657	0.8180	0.8180	0.8180	0.8199
18	2009	7,028,385	0.9923	6,974,608	53,777	-1,212	-1,212	53,777	5,745,627	6,961,865	66,520	23,916	23,916	66,520	5,745,627	0.8175	0.8175	0.8175	0.8209
19	2010	7,029,188	0.9942	6,988,681	40,507	14,073	14,073	40,507	5,746,430	6,974,368	54,820	12,503	12,503	54,820	5,746,430	0.8175	0.8175	0.8175	0.8219
20	2011	7,063,572	0.9957	7,032,914	30,658	44,234	44,234	30,658	5,780,814	6,985,460	78,112	11,092	11,092	78,112	5,780,814	0.8184	0.8184	0.8184	0.8228

Effects of Act 44 becoming effective in 1993 [from prior filings]

		Percentage	Factor
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1	Reserves Prior to 1993	-29.18%	0.7082
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* Current value of adjusted reserves plus sum of adjusted paid amounts from report 1 through current report
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- (L) (C) - (K)
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Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1991

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est. Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1991	5,085,069	0.3438	1,748,338	3,336,731	1,748,338	1,238,173	2,363,073	3,601,246	0	na	na	1,238,173	na	na	0.7082	xx	0.7082	0.7082
2	1992	6,471,250	0.7424	4,804,256	1,666,994	3,055,918	2,164,201	1,180,565	4,582,939	0	na	na	2,164,201	na	na	0.7082	xx	0.7082	0.7082
3	1993	6,824,261	0.7867	5,368,646	1,455,615	564,390	488,931	1,285,745	5,177,050	0	na	na	488,931	na	na	0.7586	xx	0.7586	0.7838
4	1994	7,207,603	0.7941	5,723,558	1,484,045	354,911	354,911	1,397,377	5,643,594	0	na	na	354,911	na	na	0.7830	xx	0.7830	0.7853
5	1995	7,239,653	0.8173	5,916,968	1,322,685	193,411	193,411	1,284,062	5,723,690	0	na	na	193,411	na	na	0.7906	xx	0.7906	0.7867
6	1996	7,315,361	0.8302	6,073,213	1,242,148	156,244	156,244	1,224,013	5,819,885	0	na	na	156,244	na	na	0.7956	xx	0.7956	0.7882
7	1997	7,215,882	0.8675	6,259,778	956,104	186,565	186,565	956,104	5,738,541	0	na	na	186,565	na	na	0.7953	xx	0.7953	0.7896
8	1998	7,140,026	0.9047	6,459,582	680,444	199,804	199,804	680,444	5,662,685	0	na	na	199,804	na	na	0.7931	xx	0.7931	0.7911
9	1999	7,175,630	0.9013	6,467,395	708,235	7,814	7,814	708,235	5,698,289	6,527,960	647,670	68,378	68,378	647,670	na	0.7941	xx	0.7941	0.7925
10	2000	7,347,568	0.8891	6,532,723	814,845	65,327	65,327	814,845	5,870,227	6,601,301	746,267	73,341	73,341	746,267	5,870,227	0.7989	0.7989	0.7989	0.7940
11	2001	7,477,095	0.9090	6,796,519	680,576	263,797	263,797	680,576	5,999,754	6,640,700	836,395	39,399	39,399	836,395	5,999,754	0.8024	0.8024	0.8024	0.7954
12	2002	7,453,897	0.9253	6,897,046	556,851	100,527	100,527	556,851	5,976,556	6,688,050	765,847	47,350	47,350	765,847	5,976,556	0.8018	0.8018	0.8018	0.7969
13	2003	7,447,799	0.9387	6,991,137	456,662	94,090	94,090	456,662	5,970,458	6,781,221	666,578	93,171	93,171	666,578	5,970,458	0.8016	0.8016	0.8016	0.7983
14	2004	7,500,265	0.9497	7,122,818	377,447	131,682	131,682	377,447	6,022,924	6,830,913	669,352	49,692	49,692	669,352	6,022,924	0.8030	0.8030	0.8030	0.7998
15	2005	7,500,059	0.9587	7,190,277	309,782	67,459	67,459	309,782	6,022,718	6,883,370	616,689	52,457	52,457	616,689	6,022,718	0.8030	0.8030	0.8030	0.8012
16	2006	7,442,165	0.9661	7,189,874	252,291	-404	-404	252,291	5,964,824	6,922,803	519,362	39,433	39,433	519,362	5,964,824	0.8015	0.8015	0.8015	0.8027
17	2007	7,490,067	0.9722	7,281,666	208,401	91,792	91,792	208,401	6,012,726	6,958,482	531,585	35,679	35,679	531,585	6,012,726	0.8028	0.8028	0.8028	0.8041
18	2008	7,528,919	0.9772	7,356,986	171,933	75,320	75,320	171,933	6,051,578	7,001,143	527,776	42,661	42,661	527,776	6,051,578	0.8038	0.8038	0.8038	0.8056
19	2009	7,453,318	0.9813	7,313,621	139,697	-43,365	-43,365	139,697	5,975,977	7,052,555	400,763	51,412	51,412	400,763	5,975,977	0.8018	0.8018	0.8018	0.8070
20	2010	7,374,324	0.9846	7,260,882	113,442	-52,738	-52,738	113,442	5,896,983	7,088,704	285,620	36,149	36,149	285,620	5,896,983	0.7997	0.7997	0.7997	0.8085

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Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1990

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est. Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1990	5,121,908	0.3736	1,913,479	3,208,429	1,913,479	1,355,126	2,272,209	3,627,335	0	na	na	1,355,126	na	na	0.7082	xx	0.7082	0.7082
2	1991	5,979,955	0.4784	2,860,943	3,119,012	947,464	670,994	2,208,884	4,235,004	0	na	na	670,994	na	na	0.7082	xx	0.7082	0.7082
3	1992	7,074,053	0.7829	5,538,276	1,535,777	2,677,333	1,896,087	1,087,637	5,009,844	0	na	na	1,896,087	na	na	0.7082	xx	0.7082	0.7082
4	1993	7,753,514	0.7612	5,901,975	1,851,539	363,699	315,072	1,635,465	5,872,744	0	na	na	315,072	na	na	0.7574	xx	0.7574	0.7752
5	1994	7,595,281	0.8179	6,212,180	1,383,101	310,205	310,205	1,302,328	5,849,812	0	na	na	310,205	na	na	0.7702	xx	0.7702	0.7762
6	1995	7,729,893	0.8264	6,387,984	1,341,909	175,803	175,803	1,302,726	6,026,014	0	na	na	175,803	na	na	0.7796	xx	0.7796	0.7773
7	1996	7,929,203	0.8229	6,524,941	1,404,262	136,958	136,958	1,383,760	6,244,005	0	na	na	136,958	na	na	0.7875	xx	0.7875	0.7783
8	1997	7,725,007	0.8733	6,746,249	978,758	221,307	221,307	978,758	6,060,312	0	na	na	221,307	na	na	0.7845	xx	0.7845	0.7794
9	1998	7,725,545	0.8841	6,830,154	895,391	83,906	83,906	895,391	6,060,850	0	na	na	83,906	na	na	0.7845	xx	0.7845	0.7804
10	1999	7,808,315	0.8795	6,867,413	940,902	37,259	37,259	940,902	6,143,620	6,907,575	900,740	77,421	77,421	900,740	na	0.7868	xx	0.7868	0.7815
11	2000	7,818,624	0.8997	7,034,155	784,469	166,742	166,742	784,469	6,153,929	6,987,340	831,284	79,765	79,765	831,284	6,153,929	0.7871	0.7871	0.7871	0.7826
12	2001	7,818,489	0.9165	7,165,318	653,171	131,163	131,163	653,171	6,153,794	7,057,392	761,097	70,052	70,052	761,097	6,153,794	0.7871	0.7871	0.7871	0.7836
13	2002	7,777,708	0.9304	7,236,687	541,021	71,369	71,369	541,021	6,113,013	7,117,858	659,850	60,466	60,466	659,850	6,113,013	0.7860	0.7860	0.7860	0.7847
14	2003	7,799,651	0.9421	7,347,903	451,748	111,216	111,216	451,748	6,134,956	7,207,922	591,729	90,064	90,064	591,729	6,134,956	0.7866	0.7866	0.7866	0.7857
15	2004	7,798,234	0.9518	7,422,158	376,076	74,255	74,255	376,076	6,133,539	7,316,792	481,442	108,870	108,870	481,442	6,133,539	0.7865	0.7865	0.7865	0.7868
16	2005	7,789,301	0.9598	7,476,523	312,778	54,365	54,365	312,778	6,124,606	7,357,567	431,734	40,775	40,775	431,734	6,124,606	0.7863	0.7863	0.7863	0.7879
17	2006	7,822,500	0.9666	7,560,958	261,542	84,435	84,435	261,542	6,157,805	7,400,977	421,523	43,410	43,410	421,523	6,157,805	0.7872	0.7872	0.7872	0.7889
18	2007	7,870,056	0.9722	7,650,961	219,095	90,003	90,003	219,095	6,205,361	7,440,981	429,075	40,004	40,004	429,075	6,205,361	0.7885	0.7885	0.7885	0.7900
19	2008	7,847,501	0.9768	7,665,596	181,905	14,635	14,635	181,905	6,182,806	7,484,561	362,940	43,580	43,580	362,940	6,182,806	0.7879	0.7879	0.7879	0.7910
20	2009	7,852,764	0.9807	7,701,201	151,563	35,605	35,605	151,563	6,188,069	7,545,066	307,698	60,505	60,505	307,698	6,188,069	0.7880	0.7880	0.7880	0.7921

Effects of Act 44 becoming effective in 1993 [from prior filings]

	Percentage	Factor
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3 1993 Payments - Reports after First	-13.37%	0.8663
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2 Reserves as of 1993	-11.67%	0.8833
3 Reserves as of 1994	-5.84%	0.9416
4 Reserves as of 1995	-2.92%	0.9708
5 Reserves as of 1996	-1.46%	0.9854
6 Reserves after 1996	0.00%	1.0000

* Current value of adjusted reserves plus sum of adjusted paid amounts from report 1 through current report
Where actual data is not available, adjusted estimated paid losses are included in actual reported loss values.

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(C) Reported incurred loss from Exhibit VI-B Page 1
(D) Value from payment patterns for sampled data presented in Exhibit VI-D page 14.
(E) (D) x (C)
(F) (C) - (E)
(G) Current value of (E) less preceding value of (E)
(H) (G) x Value from table of Act 44 effects above.
(I) (F) x Value from table of Act 44 effects above.
(J) Sum of Reserve from column (I) plus sum of adjusted paid increments in column (H) from first report through to current report.
(K) Reported paid loss from Exhibit VI-E
(L) (C) - (K)
(M) Current value of (K) less preceding value of (K); values from column (G) based on sample used when actual data not available.
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(P) Sum of Reserve from column (O) plus sum of adjusted paid increments in column (N) from first report through to current report.
(Q) (J) / (C)
(R) (P) / (C)
(S) Average of values in columns (Q) and (R)
(T) Smoothed values based on values in (S)

Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1989

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est. Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1989	4,771,196	0.4402	2,100,145	2,671,051	2,100,145	1,487,323	1,891,638	3,378,961	0	na	na	1,487,323	na	na	0.7082	xx	0.7082	0.7082
2	1990	5,836,016	0.5050	2,947,066	2,888,950	846,922	599,790	2,045,954	4,133,067	0	na	na	599,790	na	na	0.7082	xx	0.7082	0.7082
3	1991	6,363,979	0.5623	3,578,366	2,785,613	631,300	447,086	1,972,771	4,506,970	0	na	na	447,086	na	na	0.7082	xx	0.7082	0.7082
4	1992	7,933,751	0.7318	5,805,919	2,127,832	2,227,553	1,577,553	1,506,931	5,618,682	0	na	na	1,577,553	na	na	0.7082	xx	0.7082	0.7082
5	1993	8,404,823	0.7262	6,103,582	2,301,241	297,663	257,866	2,032,686	6,402,303	0	na	na	257,866	na	na	0.7617	xx	0.7617	0.7843
6	1994	8,841,749	0.7210	6,374,901	2,466,848	271,319	271,319	2,322,784	6,963,720	0	na	na	271,319	na	na	0.7876	xx	0.7876	0.7842
7	1995	8,720,012	0.7461	6,506,001	2,214,011	131,100	131,100	2,149,362	6,921,398	0	na	na	131,100	na	na	0.7937	xx	0.7937	0.7841
8	1996	8,176,532	0.8160	6,672,050	1,504,482	166,049	166,049	1,482,516	6,420,602	0	na	na	166,049	na	na	0.7852	xx	0.7852	0.7840
9	1997	7,991,002	0.8563	6,842,695	1,148,307	170,645	170,645	1,148,307	6,257,037	0	na	na	170,645	na	na	0.7830	xx	0.7830	0.7839
10	1998	8,524,905	0.8150	6,947,798	1,577,107	105,103	105,103	1,577,107	6,790,940	0	na	na	105,103	na	na	0.7966	xx	0.7966	0.7837
11	1999	8,210,154	0.8364	6,867,106	1,343,048	-80,692	-80,692	1,343,048	6,476,189	6,555,195	1,654,959	-392,603	-392,603	1,654,959	na	0.7888	xx	0.7888	0.7836
12	2000	7,853,295	0.8554	6,717,341	1,135,954	-149,765	-149,765	1,135,954	6,119,330	6,639,919	1,213,376	84,724	84,724	1,213,376	6,119,330	0.7792	0.7792	0.7792	0.7835
13	2001	7,996,833	0.8721	6,974,022	1,022,811	256,681	256,681	1,022,811	6,262,868	6,775,110	1,221,723	135,191	135,191	1,221,723	6,262,868	0.7832	0.7832	0.7832	0.7834
14	2002	8,316,349	0.8869	7,375,806	940,543	401,784	401,784	940,543	6,582,384	6,868,344	1,448,005	93,234	93,234	1,448,005	6,582,384	0.7915	0.7915	0.7915	0.7833
15	2003	7,936,277	0.9000	7,142,623	793,654	-233,183	-233,183	793,654	6,202,312	6,931,264	1,005,013	62,920	62,920	1,005,013	6,202,312	0.7815	0.7815	0.7815	0.7832
16	2004	7,914,050	0.9116	7,214,237	699,813	71,614	71,614	699,813	6,180,085	7,002,976	911,074	71,712	71,712	911,074	6,180,085	0.7809	0.7809	0.7809	0.7831
17	2005	7,910,771	0.9218	7,292,227	618,544	77,990	77,990	618,544	6,176,806	7,026,490	884,281	23,514	23,514	884,281	6,176,806	0.7808	0.7808	0.7808	0.7830
18	2006	7,927,236	0.9309	7,379,159	548,077	86,931	86,931	548,077	6,193,271	7,045,334	881,902	18,844	18,844	881,902	6,193,271	0.7813	0.7813	0.7813	0.7829
19	2007	7,905,531	0.9389	7,422,228	483,303	43,069	43,069	483,303	6,171,566	7,105,802	799,729	60,468	60,468	799,729	6,171,566	0.7807	0.7807	0.7807	0.7828
20	2008	7,888,944	0.9459	7,462,486	426,458	40,258	40,258	426,458	6,154,979	7,122,679	766,265	16,877	16,877	766,265	6,154,979	0.7802	0.7802	0.7802	0.7827

Effects of Act 44 becoming effective in 1993 [from prior filings]

	Percentage	Factor
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	Percentage	Factor
1 Reserves Prior to 1993	-29.18%	0.7082
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* Current value of adjusted reserves plus sum of adjusted paid amounts from report 1 through current report
Where actual data is not available, adjusted estimated paid losses are included in actual reported loss values.

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Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1988

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est. Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1988	3,561,960	0.3386	1,206,133	2,355,827	1,206,133	854,183	1,668,397	2,522,580	0	na	na	854,183	na	na	0.7082	xx	0.7082	0.7082
2	1989	4,334,347	0.4584	1,986,900	2,347,447	780,767	552,939	1,662,462	3,069,585	0	na	na	552,939	na	na	0.7082	xx	0.7082	0.7082
3	1990	4,812,640	0.5565	2,678,253	2,134,387	691,353	489,616	1,511,573	3,408,312	0	na	na	489,616	na	na	0.7082	xx	0.7082	0.7082
4	1991	4,994,294	0.6368	3,180,526	1,813,768	502,273	355,710	1,284,510	3,536,959	0	na	na	355,710	na	na	0.7082	xx	0.7082	0.7082
5	1992	5,713,182	0.7200	4,113,491	1,599,691	932,965	660,726	1,132,901	4,046,075	0	na	na	660,726	na	na	0.7082	xx	0.7082	0.7082
6	1993	5,721,504	0.7525	4,305,432	1,416,072	191,941	166,278	1,250,817	4,330,269	0	na	na	166,278	na	na	0.7568	xx	0.7568	0.7661
7	1994	5,860,153	0.7484	4,385,739	1,474,414	80,307	80,307	1,388,309	4,548,068	0	na	na	80,307	na	na	0.7761	xx	0.7761	0.7661
8	1995	5,470,183	0.8283	4,530,953	939,230	145,214	145,214	911,805	4,216,778	0	na	na	145,214	na	na	0.7709	xx	0.7709	0.7662
9	1996	5,318,132	0.8600	4,573,594	744,538	42,641	42,641	733,668	4,081,283	0	na	na	42,641	na	na	0.7674	xx	0.7674	0.7662
10	1997	5,227,686	0.8905	4,655,254	572,432	81,661	81,661	572,432	4,001,707	0	na	na	81,661	na	na	0.7655	xx	0.7655	0.7663
11	1998	5,185,032	0.9103	4,720,107	464,925	64,852	64,852	464,925	3,959,053	0	na	na	64,852	na	na	0.7636	xx	0.7636	0.7664
12	1999	5,142,378	0.9266	4,764,794	377,584	44,687	44,687	377,584	3,916,399	4,278,680	863,698	-441,427	-441,427	863,698	na	0.7616	xx	0.7616	0.7664
13	2000	5,297,391	0.9399	4,978,876	318,515	214,082	214,082	318,515	4,071,412	4,312,042	985,349	33,362	33,362	985,349	4,071,412	0.7686	0.7686	0.7686	0.7665
14	2001	5,159,483	0.9508	4,905,449	254,034	-73,427	-73,427	254,034	3,933,504	4,338,559	820,924	26,517	26,517	820,924	3,933,504	0.7624	0.7624	0.7624	0.7665
15	2002	5,288,513	0.9597	5,075,289	213,224	169,840	169,840	213,224	4,062,534	4,387,743	900,770	49,184	49,184	900,770	4,062,534	0.7682	0.7682	0.7682	0.7666
16	2003	5,230,743	0.9670	5,058,046	172,697	-17,243	-17,243	172,697	4,004,764	4,401,565	829,178	13,822	13,822	829,178	4,004,764	0.7656	0.7656	0.7656	0.7666
17	2004	5,324,275	0.9730	5,180,329	143,946	122,283	122,283	143,946	4,098,296	4,442,368	881,907	40,803	40,803	881,907	4,098,296	0.7697	0.7697	0.7697	0.7667
18	2005	5,253,219	0.9779	5,136,918	116,301	-43,411	-43,411	116,301	4,027,240	4,457,682	795,537	15,314	15,314	795,537	4,027,240	0.7666	0.7666	0.7666	0.7668
19	2006	5,261,599	0.9819	5,166,211	95,388	29,293	29,293	95,388	4,035,620	4,470,503	791,096	12,821	12,821	791,096	4,035,620	0.7670	0.7670	0.7670	0.7668
20	2007	5,264,773	0.9852	5,186,615	78,158	20,404	20,404	78,158	4,038,794	4,484,522	780,251	14,019	14,019	780,251	4,038,794	0.7671	0.7671	0.7671	0.7669

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Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1987

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est. Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1987	2,739,229	0.4407	1,207,109	1,532,120	1,207,109	854,874	1,085,048	1,939,922	0	na	na	854,874	na	na	0.7082	xx	0.7082	0.7082
2	1988	3,422,132	0.5022	1,718,464	1,703,668	511,355	362,142	1,206,538	2,423,554	0	na	na	362,142	na	na	0.7082	xx	0.7082	0.7082
3	1989	4,133,004	0.5569	2,301,627	1,831,377	583,163	412,996	1,296,981	2,926,993	0	na	na	412,996	na	na	0.7082	xx	0.7082	0.7082
4	1990	4,275,055	0.6056	2,588,978	1,686,077	287,351	203,502	1,194,079	3,027,594	0	na	na	203,502	na	na	0.7082	xx	0.7082	0.7082
5	1991	4,317,883	0.6490	2,802,124	1,515,759	213,146	150,950	1,073,460	3,057,925	0	na	na	150,950	na	na	0.7082	xx	0.7082	0.7082
6	1992	4,982,816	0.7417	3,695,755	1,287,061	893,630	632,869	911,497	3,528,830	0	na	na	632,869	na	na	0.7082	xx	0.7082	0.7082
7	1993	4,940,684	0.7692	3,800,374	1,140,310	104,620	90,632	1,007,236	3,715,201	0	na	na	90,632	na	na	0.7520	xx	0.7520	0.7657
8	1994	4,804,855	0.7979	3,833,794	971,061	33,420	33,420	914,351	3,655,736	0	na	na	33,420	na	na	0.7608	xx	0.7608	0.7651
9	1995	4,959,273	0.7903	3,919,313	1,039,960	85,520	85,520	1,009,593	3,836,497	0	na	na	85,520	na	na	0.7736	xx	0.7736	0.7644
10	1996	4,894,675	0.8039	3,934,829	959,846	15,516	15,516	945,832	3,788,252	0	na	na	15,516	na	na	0.7740	xx	0.7740	0.7638
11	1997	4,763,939	0.8255	3,932,429	831,510	-2,400	-2,400	831,510	3,671,531	0	na	na	-2,400	na	na	0.7707	xx	0.7707	0.7631
12	1998	4,633,204	0.8446	3,913,413	719,791	-19,017	-19,017	719,791	3,540,795	0	na	na	-19,017	na	na	0.7642	xx	0.7642	0.7625
13	1999	4,502,468	0.8617	3,879,882	622,586	-33,531	-33,531	622,586	3,410,059	4,040,554	461,914	127,141	127,141	461,914	na	0.7574	xx	0.7574	0.7618
14	2000	4,534,654	0.8769	3,976,548	558,106	96,666	96,666	558,106	3,442,245	4,071,521	463,133	30,967	30,967	463,133	3,442,245	0.7591	0.7591	0.7591	0.7612
15	2001	4,624,176	0.8905	4,117,617	506,559	141,068	141,068	506,559	3,531,767	4,116,924	507,252	45,403	45,403	507,252	3,531,767	0.7638	0.7638	0.7638	0.7605
16	2002	4,496,393	0.9025	4,057,980	438,413	-59,637	-59,637	438,413	3,403,984	4,148,184	348,209	31,260	31,260	348,209	3,403,984	0.7570	0.7570	0.7570	0.7599
17	2003	4,453,397	0.9132	4,066,910	386,487	8,931	8,931	386,487	3,360,988	4,171,593	281,804	23,409	23,409	281,804	3,360,988	0.7547	0.7547	0.7547	0.7592
18	2004	4,502,357	0.9228	4,154,575	347,782	87,665	87,665	347,782	3,409,948	4,196,461	305,896	24,868	24,868	305,896	3,409,948	0.7574	0.7574	0.7574	0.7586
19	2005	4,507,507	0.9312	4,197,603	309,904	43,028	43,028	309,904	3,415,098	4,237,619	269,888	41,158	41,158	269,888	3,415,098	0.7576	0.7576	0.7576	0.7579
20	2006	4,528,084	0.9388	4,250,989	277,095	53,386	53,386	277,095	3,435,675	4,262,450	265,634	24,831	24,831	265,634	3,435,675	0.7587	0.7587	0.7587	0.7573

Effects of Act 44 becoming effective in 1993 [from prior filings]

	Percentage	Factor
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3 1993 Payments - Reports after First	-13.37%	0.8663
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3 Reserves as of 1994	-5.84%	0.9416
4 Reserves as of 1995	-2.92%	0.9708
5 Reserves as of 1996	-1.46%	0.9854
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* Current value of adjusted reserves plus sum of adjusted paid amounts from report 1 through current report
Where actual data is not available, adjusted estimated paid losses are included in actual reported loss values.

Sources:

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(C) Reported incurred loss from Exhibit VI-B Page 1
(D) Value from payment patterns for sampled data presented in Exhibit VI-D page 14.
(E) (D) x (C)
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Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1986

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est. Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1986	3,231,344	0.4403	1,422,835	1,808,509	1,422,835	1,007,652	1,280,786	2,288,438	0	na	na	1,007,652	na	na	0.7082	xx	0.7082	0.7082
2	1987	3,764,068	0.5047	1,899,774	1,864,294	476,939	337,768	1,320,293	2,665,713	0	na	na	337,768	na	na	0.7082	xx	0.7082	0.7082
3	1988	3,969,908	0.5617	2,229,878	1,740,030	330,103	233,779	1,232,290	2,811,489	0	na	na	233,779	na	na	0.7082	xx	0.7082	0.7082
4	1989	4,285,779	0.6121	2,623,417	1,662,362	393,539	278,704	1,177,285	3,035,189	0	na	na	278,704	na	na	0.7082	xx	0.7082	0.7082
5	1990	4,561,019	0.6567	2,995,432	1,565,587	372,015	263,461	1,108,749	3,230,114	0	na	na	263,461	na	na	0.7082	xx	0.7082	0.7082
6	1991	4,618,916	0.6962	3,215,860	1,403,056	220,428	156,107	993,644	3,271,116	0	na	na	156,107	na	na	0.7082	xx	0.7082	0.7082
7	1992	5,232,436	0.7199	3,766,831	1,465,605	550,970	390,197	1,037,942	3,705,611	0	na	na	390,197	na	na	0.7082	xx	0.7082	0.7082
8	1993	5,192,135	0.7859	4,080,499	1,111,636	313,668	271,731	981,908	3,921,308	0	na	na	271,731	na	na	0.7552	xx	0.7552	0.7652
9	1994	5,165,763	0.7846	4,053,058	1,112,705	-27,441	-27,441	1,047,723	3,959,682	0	na	na	-27,441	na	na	0.7665	xx	0.7665	0.7669
10	1995	5,126,161	0.8137	4,171,157	955,004	118,100	118,100	927,118	3,957,176	0	na	na	118,100	na	na	0.7720	xx	0.7720	0.7686
11	1996	5,114,580	0.8351	4,271,357	843,223	100,200	100,200	830,912	3,961,170	0	na	na	100,200	na	na	0.7745	xx	0.7745	0.7702
12	1997	5,102,998	0.8541	4,358,477	744,521	87,120	87,120	744,521	3,961,899	0	na	na	87,120	na	na	0.7764	xx	0.7764	0.7719
13	1998	5,091,417	0.8709	4,434,046	657,370	75,570	75,570	657,370	3,950,318	0	na	na	75,570	na	na	0.7759	xx	0.7759	0.7736
14	1999	5,079,835	0.8857	4,499,418	580,417	65,371	65,371	580,417	3,938,736	4,104,539	975,296	-329,507	-329,507	975,296	na	0.7754	xx	0.7754	0.7753
15	2000	5,138,858	0.8989	4,619,249	519,609	119,831	119,831	519,609	3,997,759	4,184,779	954,079	80,240	80,240	954,079	3,997,759	0.7779	0.7779	0.7779	0.7770
16	2001	5,152,905	0.9105	4,691,819	461,086	72,570	72,570	461,086	4,011,806	4,223,527	929,378	38,748	38,748	929,378	4,011,806	0.7786	0.7786	0.7786	0.7787
17	2002	5,173,669	0.9208	4,763,986	409,683	72,167	72,167	409,683	4,032,570	4,245,465	928,204	21,938	21,938	928,204	4,032,570	0.7794	0.7794	0.7794	0.7804
18	2003	5,232,915	0.9299	4,866,214	366,701	102,228	102,228	366,701	4,091,816	4,285,306	947,609	39,841	39,841	947,609	4,091,816	0.7819	0.7819	0.7819	0.7821
19	2004	5,240,670	0.9380	4,915,676	324,994	49,463	49,463	324,994	4,099,571	4,325,037	915,633	39,731	39,731	915,633	4,099,571	0.7823	0.7823	0.7823	0.7838
20	2005	5,266,277	0.9451	4,977,268	289,009	61,592	61,592	289,009	4,125,178	4,346,756	919,521	21,719	21,719	919,521	4,125,178	0.7833	0.7833	0.7833	0.7855

Effects of Act 44 becoming effective in 1993 [from prior filings]

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Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1985

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1	1985	2,349,761	0.4397	1,033,161	1,316,600	1,033,161	731,685	932,416	1,664,101	0	na	na	731,685	na	na	0.7082	xx	0.7082	0.7082
2	1986	2,862,841	0.4985	1,427,000	1,435,841	393,839	278,917	1,016,862	2,027,464	0	na	na	278,917	na	na	0.7082	xx	0.7082	0.7082
3	1987	3,135,723	0.5511	1,727,973	1,407,750	300,972	213,149	996,969	2,220,719	0	na	na	213,149	na	na	0.7082	xx	0.7082	0.7082
4	1988	3,566,071	0.5981	2,133,036	1,433,035	405,063	286,866	1,014,876	2,525,491	0	na	na	286,866	na	na	0.7082	xx	0.7082	0.7082
5	1989	3,753,871	0.6403	2,403,587	1,350,284	270,551	191,604	956,271	2,658,491	0	na	na	191,604	na	na	0.7082	xx	0.7082	0.7082
6	1990	3,924,573	0.6780	2,660,951	1,263,622	257,364	182,265	894,897	2,779,383	0	na	na	182,265	na	na	0.7082	xx	0.7082	0.7082
7	1991	3,921,802	0.7118	2,791,513	1,130,289	130,562	92,464	800,470	2,777,420	0	na	na	92,464	na	na	0.7082	xx	0.7082	0.7082
8	1992	4,524,996	0.7080	3,203,697	1,321,299	412,184	291,909	935,744	3,204,602	0	na	na	291,909	na	na	0.7082	xx	0.7082	0.7082
9	1993	4,469,292	0.7552	3,375,209	1,094,083	171,512	148,581	966,403	3,383,843	0	na	na	148,581	na	na	0.7571	xx	0.7571	0.7651
10	1994	4,302,643	0.7933	3,413,287	889,356	38,077	38,077	837,418	3,292,935	0	na	na	38,077	na	na	0.7653	xx	0.7653	0.7649
11	1995	4,247,450	0.8150	3,461,585	785,865	48,299	48,299	762,917	3,266,733	0	na	na	48,299	na	na	0.7691	xx	0.7691	0.7647
12	1996	4,192,257	0.8344	3,497,958	694,299	36,373	36,373	684,162	3,224,350	0	na	na	36,373	na	na	0.7691	xx	0.7691	0.7646
13	1997	4,137,064	0.8518	3,523,769	613,295	25,810	25,810	613,295	3,179,294	0	na	na	25,810	na	na	0.7685	xx	0.7685	0.7644
14	1998	4,081,871	0.8673	3,540,225	541,646	16,456	16,456	541,646	3,124,101	0	na	na	16,456	na	na	0.7654	xx	0.7654	0.7642
15	1999	4,026,678	0.8812	3,548,398	478,280	8,173	8,173	478,280	3,068,908	3,643,969	382,709	103,744	103,744	382,709	na	0.7621	xx	0.7621	0.7641
16	2000	4,010,264	0.8937	3,583,894	426,370	35,495	35,495	426,370	3,052,494	3,661,081	349,183	17,112	17,112	349,183	3,052,494	0.7612	0.7612	0.7612	0.7639
17	2001	4,020,761	0.9048	3,638,111	382,650	54,218	54,218	382,650	3,062,991	3,677,363	343,398	16,282	16,282	343,398	3,062,991	0.7618	0.7618	0.7618	0.7637
18	2002	4,036,486	0.9148	3,692,631	343,855	54,520	54,520	343,855	3,078,716	3,692,944	343,542	15,581	15,581	343,542	3,078,716	0.7627	0.7627	0.7627	0.7636
19	2003	4,056,469	0.9237	3,747,155	309,314	54,524	54,524	309,314	3,098,699	3,706,101	350,368	13,157	13,157	350,368	3,098,699	0.7639	0.7639	0.7639	0.7634
20	2004	4,051,228	0.9317	3,774,714	276,514	27,559	27,559	276,514	3,093,458	3,715,650	335,578	9,549	9,549	335,578	3,093,458	0.7636	0.7636	0.7636	0.7632

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Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1984

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1	1984	3,166,777	0.3407	1,078,930	2,087,847	1,078,930	764,098	1,478,613	2,242,711	0	na	na	764,098	na	na	0.7082	xx	0.7082	0.7082
2	1985	3,937,953	0.3806	1,498,869	2,439,084	419,939	297,401	1,727,359	2,788,858	0	na	na	297,401	na	na	0.7082	xx	0.7082	0.7082
3	1986	4,285,484	0.4181	1,791,859	2,493,625	292,990	207,495	1,765,985	3,034,980	0	na	na	207,495	na	na	0.7082	xx	0.7082	0.7082
4	1987	4,578,195	0.4534	2,075,542	2,502,653	283,683	200,904	1,772,379	3,242,278	0	na	na	200,904	na	na	0.7082	xx	0.7082	0.7082
5	1988	4,961,373	0.4865	2,413,468	2,547,905	337,926	239,319	1,804,427	3,513,644	0	na	na	239,319	na	na	0.7082	xx	0.7082	0.7082
6	1989	5,094,623	0.5175	2,636,698	2,457,925	223,231	158,092	1,740,702	3,608,012	0	na	na	158,092	na	na	0.7082	xx	0.7082	0.7082
7	1990	5,367,145	0.5468	2,934,522	2,432,623	297,823	210,918	1,722,784	3,801,012	0	na	na	210,918	na	na	0.7082	xx	0.7082	0.7082
8	1991	5,505,438	0.5742	3,161,217	2,344,221	226,696	160,546	1,660,177	3,898,951	0	na	na	160,546	na	na	0.7082	xx	0.7082	0.7082
9	1992	6,518,693	0.6980	4,550,048	1,968,645	1,388,830	983,570	1,394,195	4,616,538	0	na	na	983,570	na	na	0.7082	xx	0.7082	0.7082
10	1993	7,380,313	0.6242	4,606,791	2,773,522	56,744	49,157	2,449,852	5,721,352	0	na	na	49,157	na	na	0.7752	xx	0.7752	0.7913
11	1994	7,125,760	0.6470	4,610,036	2,515,724	3,244	3,244	2,368,806	5,643,551	0	na	na	3,244	na	na	0.7920	xx	0.7920	0.7891
12	1995	6,871,206	0.6683	4,592,230	2,278,977	-17,806	-17,806	2,212,431	5,469,370	0	na	na	-17,806	na	na	0.7960	xx	0.7960	0.7869
13	1996	6,616,653	0.6884	4,554,977	2,061,676	-37,252	-37,252	2,031,575	5,251,262	0	na	na	-37,252	na	na	0.7936	xx	0.7936	0.7848
14	1997	6,362,100	0.7073	4,499,766	1,862,334	-55,211	-55,211	1,862,334	5,026,809	0	na	na	-55,211	na	na	0.7901	xx	0.7901	0.7826
15	1998	6,107,546	0.7250	4,427,973	1,679,573	-71,793	-71,793	1,679,573	4,772,256	0	na	na	-71,793	na	na	0.7814	xx	0.7814	0.7804
16	1999	5,852,993	0.7417	4,340,877	1,512,116	-87,097	-87,097	1,512,116	4,517,702	5,268,674	584,319	840,701	840,701	584,319	na	0.7719	xx	0.7719	0.7782
17	2000	5,833,597	0.7573	4,417,742	1,415,855	76,866	76,866	1,415,855	4,498,306	5,300,930	532,667	32,256	32,256	532,667	4,498,306	0.7711	0.7711	0.7711	0.7761
18	2001	5,804,575	0.7720	4,481,063	1,323,512	63,321	63,321	1,323,512	4,469,284	5,344,452	460,123	43,522	43,522	460,123	4,469,284	0.7700	0.7700	0.7700	0.7739
19	2002	5,815,319	0.7858	4,569,641	1,245,678	88,577	88,577	1,245,678	4,480,028	5,385,665	429,654	41,213	41,213	429,654	4,480,028	0.7704	0.7704	0.7704	0.7717
20	2003	5,880,080	0.7988	4,696,791	1,183,289	127,151	127,151	1,183,289	4,544,789	5,452,262	427,818	66,597	66,597	427,818	4,544,789	0.7729	0.7729	0.7729	0.7695

Effects of Act 44 becoming effective in 1993 [from prior filings]

	Percentage	Factor
1 Payments before 1993	-29.18%	0.7082
2 1993 Payments - First Report	-17.33%	0.8267
3 1993 Payments - Reports after First	-13.37%	0.8663
4 Payments after 1993	0.00%	1.0000

	Percentage	Factor
1 Reserves Prior to 1993	-29.18%	0.7082
2 Reserves as of 1993	-11.67%	0.8833
3 Reserves as of 1994	-5.84%	0.9416
4 Reserves as of 1995	-2.92%	0.9708
5 Reserves as of 1996	-1.46%	0.9854
6 Reserves after 1996	0.00%	1.0000

* Current value of adjusted reserves plus sum of adjusted paid amounts from report 1 through current report
Where actual data is not available, adjusted estimated paid losses are included in actual reported loss values.

Sources:

(A) Report for accident value, i.e., value as of 4/30/year, where "year" is Accident Year plus report number
(B) Year in which most transactions included in report occurred. Values are used in picking correct adjustments for Act 44 from above table. Transactions close at 4/30 so that most transaction years run from 5/1 through 4/30. First reports run from 1/1 through 4/30.
(C) Reported incurred loss from Exhibit VI-B Page 1
(D) Value from payment patterns for sampled data presented in Exhibit VI-D page 14.
(E) (D) x (C)
(F) (C) - (E)
(G) Current value of (E) less preceding value of (E)
(H) (G) x Value from table of Act 44 effects above.
(I) (F) x Value from table of Act 44 effects above.
(J) Sum of Reserve from column (I) plus sum of adjusted paid increments in column (H) from first report through to current report.
(K) Reported paid loss from CMCRB database
(L) (C) - (K)
(M) Current value of (K) less preceding value of (K); values from column (G) based on sample used when actual data not available.
(N) (M) x Value from table of Act 44 effects
(O) (L) x Value from table of Act 44 effects
(P) Sum of Reserve from column (O) plus sum of adjusted paid increments in column (N) from first report through to current report.
(Q) (J) / (C)
(R) (P) / (C)
(S) Average of values in columns (Q) and (R)
(T) Smoothed values based on values in (S)

Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Derivation of Act 44 Adjustments for Accident Year 1983

(A) Report	(B) Transaction Year	(C) Incurred Rept Loss	(D) Estimated % Paid	(E) Estimated Paid Loss	(F) Estimated Reserve	(G) Est. Paid Increment	(H) Est Paid Adjustment#	(I) Est Res Adjustment#	(J) Sample Adj Rept Loss*	(K) Actual Paid Loss	(L) Actual Reserve	(M) Actual Increment	(N) Act Paid Adjustment#	(O) Act Res Adjustment#	(P) Actual Adj Rept Loss*	(Q) Sample Factor	(R) Actual Factor	(S) Selected Factor	(T) Smoothed Factor
1	1983	2,904,955	0.4216	1,224,770	1,680,185	1,224,770	867,382	1,189,907	2,057,289	0	na	na	867,382	na	na	0.7082	xx	0.7082	0.7082
2	1984	3,422,045	0.4713	1,612,823	1,809,222	388,053	274,819	1,281,291	2,423,492	0	na	na	274,819	na	na	0.7082	xx	0.7082	0.7082
3	1985	3,826,880	0.5167	1,977,443	1,849,437	364,620	258,224	1,309,771	2,710,196	0	na	na	258,224	na	na	0.7082	xx	0.7082	0.7082
4	1986	4,161,259	0.5582	2,322,995	1,838,264	345,552	244,720	1,301,859	2,947,004	0	na	na	244,720	na	na	0.7082	xx	0.7082	0.7082
5	1987	4,362,065	0.5962	2,600,641	1,761,424	277,646	196,629	1,247,440	3,089,214	0	na	na	196,629	na	na	0.7082	xx	0.7082	0.7082
6	1988	4,530,051	0.6309	2,857,947	1,672,104	257,306	182,224	1,184,184	3,208,182	0	na	na	182,224	na	na	0.7082	xx	0.7082	0.7082
7	1989	4,552,487	0.6626	3,016,465	1,536,022	158,518	112,262	1,087,811	3,224,071	0	na	na	112,262	na	na	0.7082	xx	0.7082	0.7082
8	1990	4,810,845	0.6916	3,327,102	1,483,743	310,637	219,993	1,050,787	3,407,040	0	na	na	219,993	na	na	0.7082	xx	0.7082	0.7082
9	1991	4,923,632	0.7181	3,535,562	1,388,070	208,460	147,631	983,031	3,486,916	0	na	na	147,631	na	na	0.7082	xx	0.7082	0.7082
10	1992	5,960,458	0.7423	4,424,448	1,536,010	888,886	629,509	1,087,802	4,221,196	0	na	na	629,509	na	na	0.7082	xx	0.7082	0.7082
11	1993	5,895,732	0.7644	4,506,929	1,388,803	82,481	71,453	1,226,730	4,431,577	0	na	na	71,453	na	na	0.7517	xx	0.7517	0.7630
12	1994	5,831,006	0.7847	4,575,453	1,255,553	68,524	68,524	1,182,228	4,455,600	0	na	na	68,524	na	na	0.7641	xx	0.7641	0.7631
13	1995	5,766,280	0.8032	4,631,332	1,134,947	55,879	55,879	1,101,807	4,431,058	0	na	na	55,879	na	na	0.7684	xx	0.7684	0.7633
14	1996	5,701,553	0.8201	4,675,756	1,025,798	44,423	44,423	1,010,821	4,384,495	0	na	na	44,423	na	na	0.7690	xx	0.7690	0.7635
15	1997	5,636,827	0.8355	4,709,802	927,026	34,046	34,046	927,026	4,334,746	0	na	na	34,046	na	na	0.7690	xx	0.7690	0.7636
16	1998	5,572,101	0.8497	4,734,447	837,654	24,646	24,646	837,654	4,270,020	0	na	na	24,646	na	na	0.7663	xx	0.7663	0.7638
17	1999	5,507,375	0.8626	4,750,579	756,796	16,132	16,132	756,796	4,205,293	4,834,456	672,919	100,009	100,009	672,919	na	0.7636	xx	0.7636	0.7640
18	2000	5,423,917	0.8744	4,742,621	681,296	-7,958	-7,958	681,296	4,121,835	4,886,798	537,119	52,342	52,342	537,119	4,121,835	0.7599	0.7599	0.7599	0.7641
19	2001	5,464,846	0.8852	4,837,382	627,464	94,760	94,760	627,464	4,162,764	4,920,676	544,170	33,878	33,878	544,170	4,162,764	0.7617	0.7617	0.7617	0.7643
20	2002	5,503,371	0.8950	4,925,769	577,602	88,388	88,388	577,602	4,201,289	4,950,134	553,237	29,458	29,458	553,237	4,201,289	0.7634	0.7634	0.7634	0.7645

Effects of Act 44 becoming effective in 1993 [from prior filings]

	Percentage	Factor
1 Payments before 1993	-29.18%	0.7082
2 1993 Payments - First Report	-17.33%	0.8267
3 1993 Payments - Reports after First	-13.37%	0.8663
4 Payments after 1993	0.00%	1.0000

	Percentage	Factor
1 Reserves Prior to 1993	-29.18%	0.7082
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3 Reserves as of 1994	-5.84%	0.9416
4 Reserves as of 1995	-2.92%	0.9708
5 Reserves as of 1996	-1.46%	0.9854
6 Reserves after 1996	0.00%	1.0000

* Current value of adjusted reserves plus sum of adjusted paid amounts from report 1 through current report
Where actual data is not available, adjusted estimated paid losses are included in actual reported loss values.

Sources:

(A) Report for accident value, i.e., value as of 4/30/year, where "year" is Accident Year plus report number
(B) Year in which most transactions included in report occurred. Values are used in picking correct adjustments for Act 44 from above table. Transactions close at 4/30 so that most transaction years run from 5/1 through 4/30. First reports run from 1/1 through 4/30.
(C) Reported incurred loss from Exhibit VI-B Page 1
(D) Value from payment patterns for sampled data presented in Exhibit VI-D page 14.
(E) (D) x (C)
(F) (C) - (E)
(G) Current value of (E) less preceding value of (E)
(H) (G) x Value from table of Act 44 effects above.
(I) (F) x Value from table of Act 44 effects above.
(J) Sum of Reserve from column (I) plus sum of adjusted paid increments in column (H) from first report through to current report.
(K) Reported paid loss from CMCRB database
(L) (C) - (K)
(M) Current value of (K) less preceding value of (K); If no preceding value of (K) use preceding value of (E).
(N) (M) x Value from table of Act 44 effects
(O) (L) x Value from table of Act 44 effects
(P) Sum of Reserve from column (O) plus sum of adjusted paid increments in column (N) from first report through to current report.
(Q) (J) / (C)
(R) (P) / (C)
(S) Average of values in columns (Q) and (R)
(T) Smoothed values based on values in (S)

Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Extrapolation of Sample Payment Patterns to Twenty-One Reports#

Sample Payment Data from Exhibit VI-D Page 15 {Filing of December 11, 2002 Exhibit VI-B Page 1m} ["na" = not available; "tbd" = to be determined]

Report	Acc Yr 1983	Acc Yr 1984	Acc Yr 1985	Acc Yr 1986	Acc Yr 1987	Acc Yr 1988	Acc Yr 1989	Acc Yr 1990	Acc Yr 1991	Acc Yr 1992	Acc Yr 1993	Acc Yr 1994	Acc Yr 1995
1	na	na	na	na	na	na	na	na	na	0.6295	0.6490	0.6110	0.6217
2	na	na	na	na	na	na	na	na	0.7424	0.7683	0.7014	0.6836	0.7402
3	na	na	na	na	na	na	na	0.7829	0.7867	0.8094	0.7310	0.7314	0.8365
4	na	na	na	na	na	na	0.7318	0.7612	0.7941	0.8343	0.7593	0.7623	0.8892
5	na	na	na	na	na	0.7200	0.7262	0.8179	0.8173	0.8751	0.8077	0.8197	0.9069
6	na	na	na	na	0.7417	0.7525	0.7210	0.8264	0.8302	0.8828	0.8678	0.8689	0.9142
7	na	na	na	0.7199	0.7692	0.7484	0.7461	0.8229	0.8675	0.8890	0.8945	0.8827	0.8829
8	na	na	0.7080	0.7859	0.7979	0.8283	0.8160	0.8733	0.9047	0.9059	0.9182	0.8925	0.8978
9	na	0.6980	0.7552	0.7846	0.7903	0.8600	0.8563	0.8841	0.9013	0.9302	0.9144	0.9144	0.9132
10	0.7423	0.6242	0.7933	0.8137	0.8039	0.8905	0.8150	0.8795	0.8891	0.9261	0.9080	0.9266	0.9326
11	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd
12	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd
13	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd
14	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd
15	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd
16	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd
17	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd
18	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd
19	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd
20	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd	tbd

Fitting Parameters

Last report	10	10	10	10	10	10	10	10	10	10	10	10	10
Last ratio	0.7423	0.6242	0.7933	0.8137	0.8039	0.8905	0.8150	0.8795	0.8891	0.9261	0.9080	0.9266	0.9326
1-Last ratio	0.2577	0.3758	0.2067	0.1863	0.1961	0.1095	0.1850	0.1205	0.1109	0.0739	0.0920	0.0734	0.0674
Last increment	na	na	0.0381	0.0291	0.0136	0.0305	na	na	na	na	na	0.0122	0.0194
Avg increment	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242	0.0242
Decay factor	0.9141	0.9395	0.8951	0.8850	0.8901	0.8189	0.8842	0.8326	0.8208	0.7532	0.7916	0.7519	0.7356

Extension of Sample Payment Pattern to Report 20

Report	Acc Yr 1983	Acc Yr 1984	Acc Yr 1985	Acc Yr 1986	Acc Yr 1987	Acc Yr 1988	Acc Yr 1989	Acc Yr 1990	Acc Yr 1991	Acc Yr 1992	Acc Yr 1993	Acc Yr 1994	Acc Yr 1995
1	0.4216	0.3407	0.4397	0.4403	0.4407	0.3386	0.4402	0.3736	0.3438	0.6295	0.6490	0.6110	0.6217
2	0.4713	0.3806	0.4985	0.5047	0.5022	0.4584	0.5050	0.4784	0.7424	0.7683	0.7014	0.6836	0.7402
3	0.5167	0.4181	0.5511	0.5617	0.5569	0.5565	0.5623	0.7829	0.7867	0.8094	0.7310	0.7314	0.8365
4	0.5582	0.4534	0.5981	0.6121	0.6056	0.6368	0.7318	0.7612	0.7941	0.8343	0.7593	0.7623	0.8892
5	0.5962	0.4865	0.6403	0.6567	0.6490	0.7200	0.7262	0.8179	0.8173	0.8751	0.8077	0.8197	0.9069
6	0.6309	0.5175	0.6780	0.6962	0.7417	0.7525	0.7210	0.8264	0.8302	0.8828	0.8678	0.8689	0.9142
7	0.6626	0.5468	0.7118	0.7199	0.7692	0.7484	0.7461	0.8229	0.8675	0.8890	0.8945	0.8827	0.8829
8	0.6916	0.5742	0.7080	0.7859	0.7979	0.8283	0.8160	0.8733	0.9047	0.9059	0.9182	0.8925	0.8978
9	0.7181	0.6980	0.7552	0.7846	0.7903	0.8600	0.8563	0.8841	0.9013	0.9302	0.9144	0.9144	0.9132
10	0.7423	0.6242	0.7933	0.8137	0.8039	0.8905	0.8150	0.8795	0.8891	0.9261	0.9080	0.9266	0.9326
11	0.7644	0.6470	0.8150	0.8351	0.8255	0.9103	0.8364	0.8997	0.9090	0.9443	0.9272	0.9448	0.9504
12	0.7847	0.6683	0.8344	0.8541	0.8446	0.9266	0.8554	0.9165	0.9253	0.9581	0.9423	0.9585	0.9635
13	0.8032	0.6884	0.8518	0.8709	0.8617	0.9399	0.8721	0.9304	0.9387	0.9684	0.9544	0.9688	0.9732
14	0.8201	0.7073	0.8673	0.8857	0.8769	0.9508	0.8869	0.9421	0.9497	0.9762	0.9639	0.9765	0.9803
15	0.8355	0.7250	0.8812	0.8989	0.8905	0.9597	0.9000	0.9518	0.9587	0.9821	0.9714	0.9824	0.9855
16	0.8497	0.7417	0.8937	0.9105	0.9025	0.9670	0.9116	0.9598	0.9661	0.9865	0.9774	0.9867	0.9893
17	0.8626	0.7573	0.9048	0.9208	0.9132	0.9730	0.9218	0.9666	0.9722	0.9898	0.9821	0.9900	0.9921
18	0.8744	0.7720	0.9148	0.9299	0.9228	0.9779	0.9309	0.9722	0.9772	0.9923	0.9858	0.9925	0.9942
19	0.8852	0.7858	0.9237	0.9380	0.9312	0.9819	0.9389	0.9768	0.9813	0.9942	0.9888	0.9944	0.9957
20	0.8950	0.7988	0.9317	0.9451	0.9388	0.9852	0.9459	0.9807	0.9846	0.9957	0.9911	0.9958	0.9969
21	0.9041	0.8109	0.9389	0.9514	0.9455	0.9878	0.9522	0.9839	0.9874	0.9967	0.9930	0.9968	0.9977

\# Geometric series with A = last unpaid ratio, B = average last increment in unpaid ratio, and C = decay ratio such that:
$A + B = B (1 + C + C^2 + C^3 + C^4 + \dots)$ or $C = A / (A+B)$.
For example: For 1984: A = .3758 and B = .0242 so that C = A / (A+B).
At report 11 cumulative payment rato for 1984 is (1-A)+BC or .6242 + .0242x.9395]=.6470
At report 12 cumulative payment rato for 1984 is (1-A)+B[C+C^2] or .6242 + .0242 x [.9395+.8826]=.6683
At report 13 cumulative payment rato for 1984 is (1-A)+B[C+C^2+C^3] or .6242 + .0242 x [.9395+.8826+.8291]=.6884

Source: Exhibit VI-D Page 15

Coal Mine Compensation Rating Bureau
Traumatic - Medical Losses
Payment Patterns based on Relation of Paid to Reported Losses for Sample#

Medical Losses as of 4-30-93

Acc. Year	Paid Losses	O/S Losses	Total Losses
1983	3,593,056	1,247,215	4,840,271
1984	3,635,897	1,572,958	5,208,855
1985	2,180,035	899,294	3,079,329
1986	2,390,521	930,238	3,320,759
1987	3,164,726	1,102,091	4,266,817
1988	3,005,631	1,169,106	4,174,737
1989	5,171,723	1,894,952	7,066,675
1990	4,988,099	1,383,343	6,371,442
1991	4,155,610	1,441,756	5,597,366
1992	3,417,548	2,011,232	5,428,780

Medical Losses as of 4-30-94

Acc. Year	Paid Losses	O/S Losses	Total Losses
1984	3,770,764	2,269,936	6,040,700
1985	2,241,799	726,720	2,968,519
1986	2,522,878	687,388	3,210,266
1987	3,243,160	973,283	4,216,443
1988	3,144,266	1,034,411	4,178,677
1989	5,539,329	2,088,604	7,627,933
1990	5,333,913	1,673,604	7,007,517
1991	4,777,388	1,295,629	6,073,017
1992	4,719,224	1,423,578	6,142,802
1993	2,820,429	1,525,266	4,345,695

Medical Losses as of 4-30-95

Acc. Year	Paid Losses	O/S Losses	Total Losses
1985	2,275,521	592,983	2,868,504
1986	2,563,723	703,796	3,267,519
1987	3,311,135	838,885	4,150,020
1988	3,221,252	1,083,114	4,304,366
1989	5,624,130	2,176,061	7,800,191
1990	5,653,864	1,258,730	6,912,594
1991	5,105,265	1,323,391	6,428,656
1992	5,234,023	1,232,761	6,466,784
1993	3,796,107	1,615,772	5,411,879
1994	2,260,605	1,439,041	3,699,646

Medical Losses as of 4-30-96

Acc. Year	Paid Losses	O/S Losses	Total Losses
1986	2,627,475	601,432	3,228,907
1987	3,335,177	885,063	4,220,240
1988	3,262,933	676,264	3,939,197
1989	5,758,559	1,960,033	7,718,592
1990	5,878,277	1,234,867	7,113,144
1991	5,295,039	1,183,464	6,478,503
1992	5,371,615	1,067,131	6,438,746
1993	4,161,675	1,531,206	5,692,881
1994	3,194,721	1,478,360	4,673,081
1995	2,205,072	1,341,644	3,546,716

Medical Losses as of 4-30-97

Acc. Year	Paid Losses	O/S Losses	Total Losses
1987	3,128,219	763,304	3,891,523
1988	3,223,663	524,776	3,748,439
1989	5,801,157	1,307,691	7,108,848
1990	5,994,292	1,290,432	7,284,724
1991	5,410,477	1,106,504	6,516,981
1992	5,469,644	780,918	6,250,562
1993	4,244,152	1,345,273	5,589,425
1994	3,518,063	1,291,906	4,809,969
1995	2,894,764	1,016,170	3,910,934
1996	2,486,791	1,508,261	3,995,052

Medical Losses as of 4-30-98

Acc. Year	Paid Losses	O/S Losses	Total Losses
1988	3,289,816	404,363	3,694,179
1989	6,003,061	1,007,133	7,010,194
1990	6,185,121	897,556	7,082,677
1991	5,554,784	848,200	6,402,984
1992	5,689,456	755,496	6,444,952
1993	4,551,509	1,083,707	5,635,216
1994	3,799,152	1,184,953	4,984,105
1995	3,190,562	623,518	3,814,080
1996	3,184,587	875,309	4,059,896
1997	1,830,550	1,043,667	2,874,217

Medical Losses as of 4-30-99

Acc. Year	Paid Losses	O/S Losses	Total Losses
1989	6,179,846	1,402,918	7,582,764
1990	6,294,236	825,406	7,119,642
1991	5,697,621	599,983	6,297,604
1992	5,833,010	728,123	6,561,133
1993	4,663,295	710,514	5,373,809
1994	4,028,294	885,823	4,914,117
1995	3,347,914	417,186	3,765,100
1996	3,482,003	886,766	4,368,769
1997	2,455,286	689,856	3,145,142
1998	2,125,311	1,229,373	3,354,684

Medical Losses as of 4-30-2000

Acc. Year	Paid Losses	O/S Losses	Total Losses
1990	6,264,568	858,266	7,122,834
1991	5,673,497	621,263	6,294,760
1992	5,819,201	604,606	6,423,807
1993	4,617,165	544,279	5,161,444
1994	4,185,282	631,401	4,816,683
1995	3,480,029	357,268	3,837,297
1996	3,640,989	870,454	4,511,443
1997	2,724,704	611,091	3,335,795
1998	2,800,503	820,233	3,620,736
1999	1,808,223	914,936	2,723,159

Medical Losses as of 4-30-2001

Acc. Year	Paid Losses	O/S Losses	Total Losses
1991	5,983,048	746,507	6,729,555
1992	5,972,915	447,893	6,420,808
1993	4,724,758	420,747	5,145,505
1994	4,304,736	572,134	4,876,870
1995	3,535,494	331,935	3,867,429
1996	3,734,865	726,810	4,461,675
1997	2,811,693	504,982	3,316,675
1998	3,061,322	556,829	3,618,151
1999	2,438,830	574,104	3,012,934
2000	1,675,345	792,474	2,467,819

Medical Losses as of 4-30-2002

Acc. Year	Paid Losses	O/S Losses	Total Losses
1992	6,091,978	486,270	6,578,248
1993	4,767,316	446,071	5,213,387
1994	4,400,461	529,831	4,930,292
1995	3,600,867	477,739	4,078,606
1996	3,814,393	583,462	4,397,855
1997	2,962,959	501,313	3,464,272
1998	3,180,315	532,014	3,712,329
1999	2,657,390	528,738	3,186,128
2000	2,180,533	529,633	2,710,166
2001	1,390,454	799,916	2,190,370

Medical Losses as of 4-30-2003

Acc. Year	Paid Losses	O/S Losses	Total Losses
1993	5,421,732	549,551	5,971,283
1994	4,686,069	438,657	5,124,726
1995	4,225,458	480,945	4,706,403
1996	4,176,850	401,311	4,578,161
1997	3,474,497	503,808	3,978,305
1998	3,333,995	375,158	3,709,153
1999	2,844,763	212,900	3,057,663
2000	2,352,615	465,772	2,818,387
2001	2,027,699	561,554	2,589,253
2002	2,013,689	1,136,566	3,150,255

Medical Losses as of 4-30-2004

Acc. Year	Paid Losses	O/S Losses	Total Losses
1994	4,766,728	377,387	5,144,115
1995	4,278,816	406,618	4,685,434
1996	4,217,481	399,604	4,617,085
1997	3,596,616	335,600	3,932,216
1998	3,456,730	304,533	3,761,263
1999	3,021,424	167,357	3,188,781
2000	2,491,759	345,153	2,836,912
2001	2,236,309	409,939	2,646,248
2002	2,673,510	935,929	3,609,439
2003	1,481,566	1,097,747	2,579,313

Medical Losses as of 4-30-2005

Acc. Year	Paid Losses	O/S Losses	Total Losses
1995	4,354,014	314,520	4,668,534
1996	4,239,562	386,153	4,625,715
1997	3,648,054	303,421	3,951,475
1998	3,494,885	265,838	3,760,723
1999	3,075,426	102,660	3,178,086
2000	2,617,138	268,392	2,885,530
2001	2,326,207	303,703	2,629,910
2002	3,007,596	755,241	3,762,837
2003	2,121,377	691,104	2,812,481
2004	2,435,389	753,720	3,189,109

Report	As of: 4-30-93	As of 4-30-94	As of 4-30-95	As of 4-30-96	As of 4-30-97	As of 4-30-98	As of 4-30-99	As of 4-30-00	As of 4-30-01	As of 4-30-02	As of 4-30-03	As of 4-30-04	As of 4-30-05
10th	0.7423	0.6242	0.7933	0.8137	0.8039	0.8905	0.8150	0.8795	0.8891	0.9261	0.9080	0.9266	0.9326
9th	0.6980	0.7552	0.7846	0.7903	0.8600	0.8563	0.8841	0.9013	0.9302	0.9144	0.9144	0.9132	0.9165
8th	0.7080	0.7859	0.7979	0.8283	0.8160	0.8733	0.9047	0.9059	0.9182	0.8925	0.8978	0.9135	0.9232
7th	0.7199	0.7692	0.7484	0.7461	0.8229	0.8675	0.8890	0.8945	0.8827	0.8829	0.9123	0.9147	0.9293
6th	0.7417	0.7525	0.7210	0.8264	0.8302	0.8828	0.8678	0.8689	0.9142	0.8673	0.8734	0.9190	0.9677
5th	0.7200	0.7262	0.8179	0.8173	0.8751	0.8077	0.8197	0.9069	0.8371	0.8553	0.8989	0.9475	0.9070
4th	0.7318	0.7612	0.7941	0.8343	0.7593	0.7623	0.8892	0.8071	0.8477	0.8567	0.9304	0.8783	0.8845
3rd	0.7829	0.7867	0.8094	0.7310	0.7314	0.8365	0.7970	0.8168	0.8461	0.8340	0.8347	0.8451	0.7993
2nd	0.7424	0.7683	0.7014	0.6836	0.7402	0.7844	0.7807	0.7735	0.8095	0.8046	0.7831	0.7407	0.7543
1st	0.6295	0.6490	0.6110	0.6217	0.6225	0.6369	0.6335	0.6640	0.6789	0.6348	0.6392	0.5744	0.7637

Source: Evaluations 1993 thru 2002 from prior filing.

AY 1986 and later: Ten Classes, Eleven Coal Mine Writers
AY 1985 and prior: Four major classes, Eight Coal Mine Writers
Losses as of 4-30-2003 thru 4-30-2005 use actual paid and O/S from CMCRB database.

Coal Mine Compensation Rating Bureau
Traumatic Loss Development
Paid Losses for All Classes Combined

Indemnity and Funeral Reported Paid Losses as of 04/30/15

Report	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1							1,519,950	1,745,062	1,453,835	2,265,522	1,499,127	1,585,758	2,123,723	1,424,937	1,477,485	1,883,649	1,490,981	1,524,765	1,786,240	2,050,254	1,866,742	3,106,786
2						3,416,410	3,017,821	3,311,393	3,447,824	4,498,717	2,589,720	3,607,906	4,763,116	3,031,492	2,973,005	3,608,322	2,864,778	3,435,863	3,977,654	5,436,521	4,373,903	
3					4,858,303	5,057,380	4,474,822	5,285,169	5,249,852	6,269,556	4,097,105	5,068,968	6,595,737	3,990,338	4,078,233	5,798,309	4,380,163	4,339,688	6,103,091	7,383,427		
4				7,305,441	5,469,765	5,832,214	6,135,793	5,944,494	6,234,883	7,427,776	5,182,592	5,951,422	7,770,869	4,714,994	5,032,592	6,658,499	4,536,641	6,078,298	7,555,055			
5			9,159,725	8,410,558	6,279,802	6,733,975	6,807,415	6,698,701	6,774,208	8,517,965	5,654,435	6,488,204	8,470,539	4,894,518	5,362,003	6,986,131	4,912,891	6,374,543				
6		13,400,929	9,866,552	9,250,841	7,170,191	7,213,884	7,415,056	7,237,063	6,969,310	9,582,098	6,009,319	6,696,634	8,926,585	4,966,788	5,648,220	7,214,898	5,041,132					
7	13,395,863	14,310,907	10,439,947	9,721,858	7,497,940	7,570,855	7,496,955	7,283,059	7,402,247	9,706,503	6,156,138	6,907,738	9,168,385	4,991,574	5,900,930	7,644,898						
8	14,079,814	15,086,127	10,834,486	9,953,502	7,533,377	7,822,684	7,575,369	7,329,084	7,611,242	10,138,868	6,524,987	6,965,528	9,422,725	5,014,153	5,986,526							
9	14,681,144	16,007,142	10,935,715	10,286,479	7,615,032	8,111,694	7,654,237	7,462,119	7,653,900	10,368,436	6,705,837	7,020,184	9,810,124	5,059,383								
10	15,101,039	16,528,234	11,340,153	10,522,275	7,701,086	8,184,230	7,731,940	7,468,382	7,721,764	10,619,368	6,755,866	7,139,264	9,993,283									
11	15,620,333	16,897,053	11,386,217	10,880,769	7,791,027	8,357,349	7,805,017	7,474,646	7,789,732	10,873,650	6,839,005	7,190,739										
12	15,884,719	17,241,800	11,744,206	11,001,168	8,001,766	8,408,704	7,879,189	7,480,909	7,855,086	11,009,570	6,873,904											
13	16,155,671	17,506,981	11,774,571	11,110,031	8,057,267	8,460,058	8,038,850	7,481,735	7,919,766	11,120,644												
14	16,583,337	17,773,596	11,804,826	11,331,615	8,118,370	8,717,825	8,050,069	7,481,735	8,081,870													
15	16,817,609	18,027,853	11,995,979	11,414,237	8,170,070	8,731,745	8,050,069	7,481,735														
16	17,037,196	18,376,371	12,137,005	11,494,656	8,264,818	8,742,665	8,050,069															
17	17,253,705	18,642,449	12,156,503	11,575,737	8,297,379	8,753,585																
18	17,457,285	18,807,962	12,175,951	11,656,817	8,329,900																	
19	17,662,051	18,973,983	12,192,048	11,737,670																		
20	17,881,759	19,125,877	12,203,856																			

Medical Reported Paid Losses as of 04/30/15

Report	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1							1,804,774	1,676,127	1,421,461	2,013,689	1,481,566	2,435,389	2,520,705	1,948,500	3,239,013	2,201,565	1,934,714	2,751,976	3,211,934	3,607,221	2,300,419	3,395,164
2						2,809,039	2,438,735	2,184,303	2,027,699	2,673,510	2,121,377	3,067,832	3,289,523	2,697,293	4,228,737	3,040,747	2,474,907	3,388,757	4,428,864	4,556,072	3,335,442	
3					2,949,746	3,069,291	2,657,295	2,352,615	2,236,309	3,007,596	2,326,077	3,293,472	3,433,690	2,989,067	4,505,191	3,288,243	2,729,947	3,681,854	4,791,312	4,910,148		
4				3,931,096	3,057,875	3,187,684	2,844,763	2,491,759	2,326,207	3,216,844	2,429,794	3,868,121	3,535,900	3,075,764	4,755,842	3,434,618	2,838,307	4,050,370	4,980,927			
5			4,040,169	4,041,918	3,213,618	3,334,465	3,021,424	2,617,138	2,425,392	3,378,060	2,544,069	3,923,267	3,673,096	3,157,818	4,895,811	3,482,499	2,888,987	4,182,550				
6		4,389,242	4,115,840	4,132,108	3,474,497	3,457,200	3,075,426	2,673,929	2,495,415	3,495,984	2,582,303	3,963,617	3,920,165	3,202,045	5,005,959	3,502,704	2,911,117					
7	5,149,026	4,487,578	4,182,507	4,176,850	3,596,616	3,495,355	3,097,474	2,698,511	2,581,983	3,544,378	2,683,561	4,005,779	4,000,731	3,238,455	5,123,649	3,511,257						
8	5,317,681	4,583,303	4,225,458	4,217,481	3,648,054	3,506,028	3,138,912	2,715,033	2,622,094	3,699,439	2,709,624	4,053,658	4,067,412	3,238,035	5,214,054							
9	5,360,316	4,686,069	4,278,816	4,239,562	3,735,279	3,530,921	3,214,245	2,725,884	2,671,237	3,711,954	2,751,055	4,069,440	4,101,236	3,301,685								
10	5,431,732	4,766,728	4,354,014	4,267,844	3,787,156	3,552,363	3,235,670	2,764,209	2,715,237	3,727,842	2,775,526	4,099,493	4,121,749									
11	5,484,250	4,977,633	4,400,110	4,307,614	3,998,545	3,612,059	3,271,628	2,785,789	2,768,418	3,738,687	2,801,700	4,156,729										
12	5,515,392	5,050,319	4,444,736	4,322,947	4,026,401	3,625,447	3,339,216	2,791,316	2,821,879	3,760,085	2,833,668											
13	5,570,940	5,097,751	4,482,464	4,338,162	4,068,692	3,640,675	3,530,763	2,794,972	2,865,653	3,783,035												
14	5,630,292	5,134,011	4,506,980	4,355,042	4,106,625	3,686,245	3,531,885	2,799,305	2,899,480													
15	5,669,851	5,173,710	4,530,249	4,371,918	4,152,798	3,716,598	3,532,238	2,823,807														
16	5,726,344	5,222,342	4,596,503	4,434,578	4,235,368	3,733,612	3,532,944															
17	5,786,245	5,243,874	4,642,586	4,437,180	4,268,527	3,750,418																
18	5,834,833	5,253,033	4,676,936	4,439,837	4,309,577																	
19	5,895,287	5,259,632	4,727,156	4,443,912																		
20	5,945,407	5,329,554	4,797,565																			

Source: CMCRB Database as of 04/30/15 - Validated 08/12/15

	State O.D.			Federal Excess O.D.		
	Base	All PP	Weighted 100%-0%	Base	All PP	Weighted 100%-0%
(a) After AMA Guidelines				(a) After AMA Guidelines		
(1) Number of Claims	# 8			# 8		
(2) Average Amounts	$870,325	$403,435	$870,325	$25,198	$228,208	$25,198
(3) Index (Base)	100%		100.0000%	100%		100.0000%
(b) Social Security Offset				(b) Social Security Onset		
(1) Total (including above)	-	-	-	$36,958	$228,208	$36,958
(2) Difference- Social Security (Federal= b-1 minus a-2)	$105,593	$0	$105,593	11,761	0	11,761
(3) Index (to a(2))	12.1326%	0.0000%	12.1326%	46.6736%	0.0000%	46.6736%
(4) Complement	87.8674%	100.0000%	87.8674%	53.3264%	100.0000%	53.3264%
(c) Pension Offset (after Social Security Offset)				(c) Pension Onset		
(1) Total (including above)	-	-	-	$96,699	$235,789	$96,699
(2) Difference (Federal= c-1 minus b-1)	$130,030	$39,304	$130,030	59,741	7,581	59,741
(3) % Pension (VII-G, P. 2)	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
(4) Net Pension	16,254	4,913	16,254	7,468	948	7,468
(5) Index (to a-2)	1.8675%	1.2178%	1.8675%	29.6363%	0.4152%	29.6363%
(6) Complement	98.1325%	98.7822%	98.1325%			
(d) Combined Social Security and Pension Offsets				(d) Combined Social Sec, Pension Onsets		
(1) Average Amounts (b-2 plus c-4)	$121,847	$4,913	$121,847	$19,228	$948	$19,228
(2) Index (to a-2)	14.0002%	1.2178%	14.0002%			76.3099%
(3) Complement	85.9998%	98.7822%	85.9998%	Factor		176.3099%
(4) Total Average	748,478	398,522	748,478			44,426
(e) Wage Level Decrease				(e) Wage Level Increase		
(1) Percentage from Exhibit VII-G, Page 1			0.0000%			
(2) Complement			100.0000%			
(3) Dollar Decrease			0	Dollar Increase		$0
(4) Factor						100.0000%
(f) Combined Social Security, Pension and Wage Level				(f) Combined Percentage		
(1) Percentage level Excl. AMA Guidelines (d-3 times e-2)			85.9998%	(d-3) times (e-4)		176.3099%
(2) AMA Guidelines (a-3)			100.0000%			100.0000%
(3) Full Effect of Act 57 (1 X 2)			85.9998%			176.3099%
(4) Percentage Decrease			14.0002%	Increase		76.3099%
(g) Combined Dollar Effect						
(1) (d-1) plus (e-3) Decrease			$121,847	Increase		$19,228
(2) Average after Act 57 (a-2 plus or minus g-1)			$748,478			$44,426

Weighted Level = 100% Base Scenario plus 0% 'All Permanent Partial' Scenario.

Source: Exhibit VII-E, Exhibit IX-A & Exhibit VII-G, Page 1 and Page 2.

	State O.D.			Federal Excess O.D.		
	Base	All PP	Weighted 100%-0%	Base	All PP	Weighted 100%-0%
(a) After AMA Guidelines				(a) After AMA Guidelines		
(1) Number of Claims	# 44			# 44		
(2) Average Amounts	$415,358	$301,860	$415,358	$213,135	$249,587	$213,135
(3) Index (Base)	100%		100.0000%	100%		100.0000%
(b) Social Security Offset				(b) Social Security Onset		
(1) Total (including above)	-	-	-	$218,169	$254,413	$218,169
(2) Difference- Social Security (Federal= b-1 minus a-2)	$21,573	$11,908	$21,573	5,034	4,826	5,034
(3) Index (to a(2))	5.1940%	3.9449%	5.1940%	2.3619%	1.9336%	2.3619%
(4) Complement	94.8060%	96.0551%	94.8060%	97.6381%	98.0664%	97.6381%
(c) Pension Offset (after Social Security Offset)				(c) Pension Onset		
(1) Total (including above)	-	-	-	$239,750	$271,978	$239,750
(2) Difference (Federal= c-1 minus b-1)	$92,410	$67,618	$92,410	21,581	17,566	21,581
(3) % Pension (VII-G, P. 2)	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
(4) Net Pension	11,551	8,452	11,551	2,698	2,196	2,698
(5) Index (to a-2)	2.7810%	2.8001%	2.7810%	1.2657%	0.8797%	1.2657%
(6) Complement	97.2190%	97.1999%	97.2190%			
(d) Combined Social Security and Pension Offsets				(d) Combined Social Sec. Pension Onsets		
(1) Average Amounts (b-2 plus c-4)	$33,125	$20,360	$33,125	$7,732	$7,022	$7,732
(2) Index (to a-2)	7.9750%	6.7450%	7.9750%			3.6275%
(3) Complement	92.0250%	93.2550%	92.0250%	Factor		103.6275%
(4) Total Average	382,233	281,500	382,233			220,867
(e) Wage Level Decrease				(e) Wage Level Increase		
(1) Percentage from Exhibit VII-G, Page 1			0.0000%			
(2) Complement			100.0000%			
(3) Dollar Decrease			0	Dollar Increase		$0
(4) Factor						100.0000%
(f) Combined Social Security, Pension and Wage Level				(f) Combined Percentage		
(1) Percentage level Excl. AMA Guidelines (d-3 times e-2)			92.0250%			103.6275%
(2) AMA Guidelines (a-3)			100.0000%			100.0000%
(3) Full Effect of Act 57 (1 X 2)			92.0250%			103.6275%
(4) Percentage Decrease			7.9750%	Increase		3.6275%
(g) Combined Dollar Effect						
(1) (d-1) plus (e-3)			$33,125	Increase		$7,732
(2) Average after Act 57 (a-2 plus or minus g-1)			$382,233			$220,867

Weighted Level = 100% Base Scenario plus 0% 'All Permanent Partial' Scenario.

Source: Exhibit VII-E, Exhibit IX-A & Exhibit VII-G, Page 1 and Page 2.

	State O.D.			Federal Excess O.D.		
	Base	All PP	Weighted 100%-0%	Base	All PP	Weighted 100%-0%
(a) After AMA Guidelines				(a) After AMA Guidelines		
(1) Number of Claims	# 36			# 36		
(2) Average Amounts	$464,609	$323,182	$464,609	$56,814	$124,504	$56,814
(3) Index (Base)	100%		100.0000%	100%		100.0000%
(b) Social Security Offset				(b) Social Security Onset		
(1) Total (including above)	-	-	-	$60,011	$124,538	$60,011
(2) Difference- Social Security (Federal= b-1 minus a-2)	$13,307	$3,739	$13,307	3,197	34	3,197
(3) Index (to a(2))	2.8642%	1.1570%	2.8642%	5.6265%	0.0275%	5.6265%
(4) Complement	97.1358%	98.8430%	97.1358%	94.3735%	99.9725%	94.3735%
(c) Pension Offset (after Social Security Offset)				(c) Pension Onset		
(1) Total (including above)	-	-	-	$74,152	$133,873	$74,152
(2) Difference (Federal= c-1 minus b-1)	$87,124	$64,613	$87,124	14,142	9,335	14,142
(3) % Pension (VII-G, P. 2)	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
(4) Net Pension	10,891	8,077	10,891	1,768	1,167	1,768
(5) Index (to a-2)	2.3440%	2.4991%	2.3440%	3.1114%	0.9373%	3.1114%
(6) Complement	97.6560%	97.5009%	97.6560%			
(d) Combined Social Security and Pension Offsets				(d) Combined Social Sec. Pension Onsets		
(1) Average Amounts (b-2 plus c-4)	$24,198	$11,816	$24,198	$4,964	$1,201	$4,964
(2) Index (to a-2)	5.2082%	3.6561%	5.2082%			8.7379%
(3) Complement	94.7918%	96.3439%	94.7918%	Factor		108.7379%
(4) Total Average	440,411	311,366	440,411			61,779
(e) Wage Level Decrease				(e) Wage Level Increase		
(1) Percentage from Exhibit VII-G, Page 1			0.0000%			
(2) Complement			100.0000%			
(3) Dollar Decrease			0	Dollar Increase		$0
(4) Factor						100.0000%
(f) Combined Social Security, Pension and Wage Level				(f) Combined Percentage		
(1) Percentage level Excl. AMA Guidelines (d-3 times e-2)			94.7918%			108.7379%
(2) AMA Guidelines (a-3)			100.0000%			100.0000%
(3) Full Effect of Act 57 (1 X 2)			94.7918%			108.7379%
(4) Percentage Decrease			5.2082%	Increase		8.7379%
(g) Combined Dollar Effect						
(1) (d-1) plus (e-3)			$24,198	Increase		$4,964
(2) Average after Act 57 (a-2 plus or minus g-1)			$440,411			$61,779

Weighted Level = 100% Base Scenario plus 0% 'All Permanent Partial' Scenario.

Source: Exhibit VII-E, Exhibit IX-A & Exhibit VII-G, Page 1 and Page 2.

	State O.D.			Federal Excess O.D.		
	Base	All PP	Weighted 100%-0%	Base	All PP	Weighted 100%-0%
(a) After AMA Guidelines				(a) After AMA Guidelines		
(1) Number of Claims	# 16			# 16		
(2) Average Amounts	$504,701	$292,163	$504,701	$151,353	$248,030	$151,353
(3) Index (Base)	100%		100.0000%	100%		100.0000%
(b) Social Security Offset				(b) Social Security Onset		
(1) Total (including above)	-	-	-	$164,037	$250,465	$164,037
(2) Difference- Social Security (Federal= b-1 minus a-2)	$60,393	$10,319	$60,393	12,684	2,435	12,684
(3) Index (to a(2))	11.9660%	3.5319%	11.9660%	8.3804%	0.9817%	8.3804%
(4) Complement	88.0340%	96.4681%	88.0340%	91.6196%	99.0183%	91.6196%
(c) Pension Offset (after Social Security Offset)				(c) Pension Onset		
(1) Total (including above)	-	-	-	$212,478	$271,873	$212,478
(2) Difference (Federal= c-1 minus b-1)	$96,798	$52,423	$96,798	48,440	21,408	48,440
(3) % Pension (VII-G, P. 2)	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
(4) Net Pension	12,100	6,553	12,100	6,055	2,676	6,055
(5) Index (to a-2)	2.3974%	2.2429%	2.3974%	4.0006%	1.0789%	4.0006%
(6) Complement	97.6026%	97.7571%	97.6026%			
(d) Combined Social Security and Pension Offsets				(d) Combined Social Sec. Pension Onsets		
(1) Average Amounts (b-2 plus c-4)	$72,492	$16,872	$72,492	$18,739	$5,111	$18,739
(2) Index (to a-2)	14.3634%	5.7747%	14.3634%			12.3810%
(3) Complement	85.6366%	94.2253%	85.6366%	Factor		112.3810%
(4) Total Average	432,209	275,291	432,209			170,092
(e) Wage Level Decrease				(e) Wage Level Increase		
(1) Percentage from Exhibit VII-G, Page 1			0.0000%			
(2) Complement			100.0000%			
(3) Dollar Decrease			0	Dollar Increase		$0
(4) Factor						100.0000%
(f) Combined Social Security, Pension and Wage Level				(f) Combined Percentage		
(1) Percentage level Excl. AMA Guidelines (d-3 times e-2)			85.6366%			112.3810%
(2) AMA Guidelines (a-3)			100.0000%			100.0000%
(3) Full Effect of Act 57 (1 X 2)			85.6366%			112.3810%
(4) Percentage Decrease			14.3634%	Increase		12.3810%
(g) Combined Dollar Effect						
(1) (d-1) plus (e-3)			$72,492	Increase		$18,739
(2) Average after Act 57 (a-2 plus or minus g-1)			$432,209			$170,092

Weighted Level = 100% Base Scenario plus 0% 'All Permanent Partial' Scenario.

Source: Exhibit VII-E, Exhibit IX-A & Exhibit VII-G, Page 1 and Page 2.

	State O.D.			Federal Excess O.D.		
	Base	All PP	Weighted 100%-0%	Base	All PP	Weighted 100%-0%
(a) After AMA Guidelines				(a) After AMA Guidelines		
(1) Number of Claims	# 10			# 10		
(2) Average Amounts	$406,671	$224,038	$406,671	$125,802	$222,365	$125,802
(3) Index (Base)	100%		100.0000%	100%		100.0000%
(b) Social Security Offset				(b) Social Security Onset		
(1) Total (including above)	-	-	-	$152,294	$228,452	$152,294
(2) Difference- Social Security (Federal= b-1 minus a-2)	$44,947	$10,347	$44,947	26,492	6,087	26,492
(3) Index (to a(2))	11.0524%	4.6186%	11.0524%	21.0588%	2.7373%	21.0588%
(4) Complement	88.9476%	95.3814%	88.9476%	78.9412%	97.2627%	78.9412%
(c) Pension Offset (after Social Security Offset)				(c) Pension Onset		
(1) Total (including above)	-	-	-	$174,886	$237,912	$174,886
(2) Difference (Federal= c-1 minus b-1)	$68,343	$39,341	$68,343	22,592	9,460	22,592
(3) % Pension (VII-G, P. 2)	12.50%	12.50%	12.50%	12.50%	12.50%	12.50%
(4) Net Pension	8,543	4,918	8,543	2,824	1,183	2,824
(5) Index (to a-2)	2.1007%	2.1950%	2.1007%	2.2448%	0.5318%	2.2448%
(6) Complement	97.8993%	97.8050%	97.8993%			
(d) Combined Social Security and Pension Offsets				(d) Combined Social Sec. Pension Onsets		
(1) Average Amounts (b-2 plus c-4)	$53,490	$15,265	$53,490	$29,316	$7,269	$29,316
(2) Index (to a-2)	13.1531%	6.8136%	13.1531%			23.3036%
(3) Complement	86.8469%	93.1864%	86.8469%	Factor		123.3036%
(4) Total Average	353,181	208,773	353,181			155,118
(e) Wage Level Decrease				(e) Wage Level Increase		
(1) Percentage from Exhibit VII-G, Page 1			0.0000%			
(2) Complement			100.0000%			
(3) Dollar Decrease			0	Dollar Increase		$0
(4) Factor						100.0000%
(f) Combined Social Security, Pension and Wage Level				(f) Combined Percentage		
(1) Percentage level Excl. AMA Guidelines (d-3 times e-2)			86.8469%			123.3036%
(2) AMA Guidelines (a-3)			100.0000%			100.0000%
(3) Full Effect of Act 57 (1 X 2)			86.8469%			123.3036%
(4) Percentage Decrease			13.1531%	Increase		23.3036%
(g) Combined Dollar Effect						
(1) (d-1) plus (e-3)			$53,490	Increase		$29,316
(2) Average after Act 57 (a-2 plus or minus g-1)			$353,181			$155,118

Weighted Level = 100% Base Scenario plus 0% 'All Permanent Partial' Scenario.

Source: Exhibit VII-E, Exhibit IX-A & Exhibit VII-G, Page 1 and Page 2.

COAL MINE COMPENSATION RATING BUREAU

State Occupational Disease Classification Credibility

Classification		Code	(1) Estimated Miner Years 2005-2014	(2) Claim Frequency per 100 Miner Years: Indicated (Eff 4/1/2015)	(3) Claim Frequency per 100 Miner Years: Trended to 4/1/2016	(4) Claim Frequency per 100 Miner Years: Indicated (Eff 4/1/2016)	(5) Credibility: Expected Awarded Claims	(6) Credibility: Factor	(7) Claim Frequency Indicated w/ Credibility	(8) Change in Indication After Cred.	(9) 10 Year 2005-2014 Payroll	(10) Claim Frequency Per $100 of Payroll
Underground:	Anthracite	1011	278.2	0.296318	0.296318	0.393421	0.824	0.136	0.309524	4.5%	12,222,685	0.070451
	Bituminous	1002	19,373.1	0.126743	0.126743	0.119259	24.554	0.740	0.121205	-4.4%	1,233,264,812	0.019040
Surface:	Anthracite	1016	3,854.8	0.235773	0.235773	0.166205	9.089	0.450	0.204467	-13.3%	176,614,438	0.044627
	Bituminous	1013	15,026.2	0.016417	0.016417	0.014229	2.467	0.234	0.015905	-3.1%	676,540,164	0.003533
Four Standard Classifications			38,532.3	0.095852	0.095852	0.084977	36.934		0.089831	-4.7%	2,098,642,099	0.016494
	Coke	1017	1,800.0	0.012957	0.012957	0.008539	0.233	0.072	0.012639	-2.5%	78,232,153	0.002908
	Auger	1019	253.1	0.027310	0.027310	0.008547	0.069	0.039	0.026578	-2.7%	11,321,999	0.005941
Co-Gen:	Anthracite	1022	1,979.5	0.037477	0.037477	0.008537	0.742	0.129	0.033744	-10.0%	89,480,640	0.007465
	Bituminous	1024	1,509.9	0.061154	0.061154	0.071059	0.923	0.143	0.062570	2.3%	93,736,882	0.010079
Prep Plants:	Anthracite	1026	1,467.3	0.276188	0.276188	0.174917	4.053	0.301	0.245705	-11.0%	66,988,850	0.053818
	Bituminous	1028	4,233.9	0.045267	0.045267	0.011738	1.917	0.207	0.038326	-15.3%	268,364,361	0.006047
Other Classes			11,243.7	0.070587		0.039851	7.937		0.063461	-9.1%	608,124,885	0.011734
Total			49,776.0	0.090145		0.074784	44.871		0.083874	-5.7%	2,706,766,984	0.015425

Source:
(1) Estimated Miner Years from Exhibit VII-B-2
(2) Exhibit VII-B-1-B Col. 10
(3) Approved claim frequency trended to 4/1/2016 @ 0.0%
(4) Indicated Frequency - Exhibit VII-B-2; totals and subtotals are based on class frequencies weighted with 10 year estimated miner years.
(5) Expected Awarded Claims = (1) x (2) / 100
(6) Factor Z = ((5) / 44.871)^0.5
(7)=(4)*(6)+((3)*(1-(6))
(8)=(7)/(2)-1 Totals and subtotals are weighted with 10 year estimated miner years.
(9) From Exhibit X-A
(10)=(7) x (1) / ((9) x 100) / 1,000,000

COAL MINE COMPENSATION RATING BUREAU

State Occupational Disease Classification Credibility

Classification		Code	(1) Approved Claim Freq. 4/1/2015	(2) Payroll 2004-2013	(3) Expected Awarded Claims 2004-2013 (1) x (2)	(4) Estimated Miner Years 2005-2014	(5) Estimated Miner Years 2014	(6) Adjustment Factor	(7) Average Weekly Wage 2004	(8) Payroll 2004	(9) Estimated Miner Years 2004-2013	(10) Frequency Per 100 Miner Years
Underground:	Anthracite	1011	0.068774	13,309,197	0.915327	278.20	5.1	1.047	690	1,345,321	308.9	0.296318
	Bituminous	1002	0.020580	1,063,317,786	21.883080	19,373.10	3,376.0	1.439	690	65,497,665	17,265.7	0.126743
Surface:	Anthracite	1016	0.052897	168,477,997	8.911981	3,854.80	403.9	1.047	690	12,359,731	3,779.9	0.235773
	Bituminous	1013	0.003739	678,619,899	2.537360	15,026.20	1,066.9	1.047	690	56,217,298	15,455.8	0.016417
Four Standard Classifications				1,923,724,879	34.247748	38,532.30	4,851.9			135,420,015	36,810.3	
	Coke	1017	0.003069	85,816,881	0.263372	1,800.00	88.0	1.047	690	12,049,126	2,032.7	0.012957
	Auger	1019	0.006267	11,504,602	0.072099	253.10	17.3	1.047	690	1,058,799	264.0	0.027310
Co-Gen:	Anthracite	1022	0.008528	87,552,543	0.746648	1,979.50	182.9	1.047	690	7,351,514	1,992.3	0.037477
	Bituminous	1024	0.010134	88,659,744	0.898478	1,509.90	164.2	1.439	690	6,374,483	1,469.2	0.061154
Prep Plants:	Anthracite	1026	0.062180	63,295,032	3.935685	1,467.30	159.6	1.047	690	4,406,653	1,425.0	0.276188
	Bituminous	1028	0.007380	242,669,487	1.790901	4,233.90	627.5	1.439	690	18,067,286	3,956.3	0.045267
Other Classes				579,498,289		11,243.70	1,239.5			49,307,861	11,139.5	
Total				2,503,223,168		49,776.00	6,091.4			184,727,876	47,949.8	

Source:
(1) Approved Claim Frequency (4/1/15): See Exhibit III from filing effective 4/1/2015 (See Exhibit X-F)
(2) 10 years Payroll(2004-2013): See Exhibit X-A-1
(3) Expected Awarded Claims = (1)x(2) / 1,000,000
(4) Estimated Miner Years 2005-2014: See Exhibit VII-B-2
(5) Estimated Miner Years 2014: See Exhibit VII-B-2
(6) Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
(7) Average Weekly Wage 2004: See Exhibit XII-D
(8) Payroll 2004: See Exhibit X-A-1
(9) Estimated Miner Years 2004-2013 =(4)-(5)+(8)/((6)x(7)x52)
(10) Frequency Per 100 Miner Years = (3)/((9)/100))

STATE OCCUPATIONAL DISEASE FREQUENCY WITH FEDERAL EXCESS FREQUENCY

ANTHRACITE UNDERGROUND (1011)

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.909 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	10-Year Payroll Weighted Frequency
2005	0	0	0	0	0.0000	0.0000	0.000000	1,417,568	0.000000	716	1.047	36.4	0.000000	
2006	0	0	0	0	0.0000	0.0000	0.000000	1,442,524	0.000000	745	1.047	35.6	0.000000	
2007	0	0	0	0	0.0000	0.0000	0.000000	1,662,537	0.000000	779	1.047	39.2	0.000000	
2008	0	0	0	0	0.0000	0.0000	0.000000	2,136,713	0.000000	807	1.047	48.6	0.000000	
2009	0	0	0	0	0.0000	0.0000	0.000000	1,335,866	0.000000	836	1.047	29.3	0.000000	
2010	0	0	0	0	0.0000	0.0000	0.000000	1,299,588	0.000000	845	1.047	28.2	0.000000	
2011	1	1	0	0	0.0000	0.0000	0.000000	1,257,944	1.000000	858	1.047	26.9	3.717472	
2012	0	0	0	0	0.0000	0.0000	0.000000	1,029,260	0.000000	888	1.047	21.3	0.000000	
2013	0	0	0	0	0.0000	0.0000	0.000000	381,876	0.000000	917	1.047	7.6	0.000000	
2014	0	0	0	0	0.0122	0.0122	0.011053	258,809	0.011053	932	1.047	5.1	0.216734	
TOTAL	1	1	0	0	0.0122	0.0122	0.011053	12,222,685	1.011053			278.2	3.934206	
Average: State Frequency													0.393421	
Federal Excess Frequency (times 40.0%)													0.157368	

BITUMINOUS UNDERGROUND (1002)

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.923 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years
2005	4	3	0	1	0.0000	0.0000	0.000000	70,872,620	3.000000	716	1.439	1,322.8	0.226792
2006	0	0	0	0	0.0000	0.0000	0.000000	70,465,937	0.000000	745	1.439	1,264.0	0.000000
2007	0	0	0	0	0.0000	0.0000	0.000000	79,904,266	0.000000	779	1.439	1,370.8	0.000000
2008	2	2	0	0	0.1105	0.1105	0.101973	101,353,977	2.101973	807	1.439	1,678.4	0.125237
2009	0	0	0	0	0.2716	0.2716	0.250696	101,348,140	0.250696	836	1.439	1,620.1	0.015474
2010	0	0	0	0	0.6433	0.6433	0.593738	125,393,576	0.593738	845	1.439	1,983.1	0.029940
2011	2	2	0	0	1.2339	1.2339	1.138908	148,485,709	3.138908	858	1.439	2,312.8	0.135719
2012	3	3	0	0	1.8770	1.8770	1.732489	153,602,187	4.732489	888	1.439	2,311.6	0.204728
2013	3	2	1	0	2.6863	3.6863	3.402473	146,393,709	5.402473	917	1.439	2,133.5	0.253221
2014	0	0	0	0	7.3694	7.3694	6.801975	235,444,691	6.801975	932	1.439	3,376.0	0.201480
TOTAL	14	12	1	1	14.1920	15.1920	14.022253	1,233,264,812	26.022253			19,373.1	1.192591
Average: State Frequency													0.119259
Federal Excess Frequency (times 40.0%)													0.047704

ANTHRACITE SURFACE (1016)

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.833 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years
2005	1	1	0	0	0.0000	0.0000	0.000000	12,140,911	1.000000	716	1.047	311.4	0.321130
2006	0	0	0	0	0.0000	0.0000	0.000000	11,946,382	0.000000	745	1.047	294.5	0.000000
2007	3	3	0	0	0.0000	0.0000	0.000000	14,555,579	3.000000	779	1.047	343.2	0.874126
2008	1	0	0	1	0.0000	0.0000	0.000000	16,954,313	0.000000	807	1.047	385.9	0.000000
2009	0	0	0	0	0.0000	0.0000	0.000000	16,445,462	0.000000	836	1.047	361.3	0.000000
2010	0	0	0	0	0.0000	0.0000	0.000000	14,295,288	0.000000	845	1.047	310.7	0.000000
2011	1	1	0	0	0.0999	0.0999	0.083225	21,034,600	1.083225	858	1.047	450.3	0.240556
2012	0	0	0	0	0.2638	0.2638	0.219704	26,295,907	0.219704	888	1.047	543.9	0.040394
2013	0	0	0	0	0.3662	0.3662	0.305011	22,449,824	0.305011	917	1.047	449.7	0.067826
2014	0	0	0	0	0.5723	0.5723	0.476684	20,496,172	0.476684	932	1.047	403.9	0.118020
TOTAL	6	5	0	1	1.3021	1.3021	1.084624	176,614,438	6.084624			3,854.8	1.662052
Average: State Frequency													0.166205
Federal Excess Frequency (times 40.0%)													0.066482

BITUMINOUS SURFACE (1013)

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.909 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years
2005	1	1	0	0	0.0000	0.0000	0.000000	64,871,562	1.000000	716	1.047	1,664.1	0.060093
2006	0	0	0	0	0.0000	0.0000	0.000000	63,008,975	0.000000	745	1.047	1,553.4	0.000000
2007	0	0	0	0	0.0000	0.0000	0.000000	63,295,774	0.000000	779	1.047	1,492.4	0.000000
2008	0	0	0	0	0.0000	0.0000	0.000000	73,054,482	0.000000	807	1.047	1,662.7	0.000000
2009	0	0	0	0	0.0000	0.0000	0.000000	61,784,394	0.000000	836	1.047	1,357.4	0.000000
2010	0	0	0	0	0.0000	0.0000	0.000000	72,711,558	0.000000	845	1.047	1,580.5	0.000000
2011	1	1	0	0	0.0000	0.0000	0.000000	86,074,064	1.000000	858	1.047	1,842.6	0.054271
2012	0	0	0	0	0.0680	0.0680	0.061839	76,433,301	0.061839	888	1.047	1,581.0	0.003911
2013	0	0	0	0	0.1236	0.1236	0.112316	61,168,491	0.112316	917	1.047	1,225.2	0.009167
2014	0	0	0	0	0.1743	0.1743	0.158457	54,137,563	0.158457	932	1.047	1,066.9	0.014852
TOTAL	2	2	0	0	0.3659	0.3659	0.332612	676,540,164	2.332612			15,026.2	0.142294
Average: State Frequency													0.014229
Federal Excess Frequency (times 40.0%)													0.005692

FOUR STANDARD CLASSES

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.909 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	
2005	6	5	0	1	0.0000	0.0000	0.000000	149,302,661	5.000000	716		3,334.7	0.149939	
2006	0	0	0	0	0.0000	0.0000	0.000000	146,863,818	0.000000	745		3,147.5	0.000000	
2007	3	3	0	0	0.0000	0.0000	0.000000	159,418,156	3.000000	779		3,245.6	0.092433	
2008	3	2	0	1	0.1105	0.1105	0.100426	193,499,485	2.101973	807		3,775.6	0.055673	
2009	0	0	0	0	0.2716	0.2716	0.246893	180,913,862	0.250696	836		3,368.1	0.007443	
2010	0	0	0	0	0.6433	0.6433	0.584732	213,700,010	0.593738	845		3,902.5	0.015214	
2011	5	5	0	0	1.3338	1.3338	1.212451	256,852,317	6.222133	858		4,632.6	0.134312	
2012	3	3	0	0	2.2088	2.2088	2.007799	257,360,655	5.014032	888		4,457.8	0.112478	
2013	3	2	1	0	3.1760	4.1760	3.796020	230,393,900	5.819801	917		3,816.0	0.152511	
2014	0	0	0	0	8.1282	8.1282	7.388488	310,337,235	7.448169	932		4,851.9	0.153510	
TOTAL	23	20	1	2	15.8722	16.8722	15.336812	2,098,642,099	35.450543			38,532.3	0.873513	
Average: State Frequency													0.087351	0.084977
Federal Excess Frequency (times 40.0%)													0.034940	0.033991

Source: Claim counts - CMCRB OD Database as of 08/12/2015
IBNR: Exhibit VII-C
Payroll- Exhibit X-A
The Award Ratio is equal to Awarded ÷ (Awarded plus Denied).
For Classes 1011 and 1013, the Award Ratios were set to the Award Ratio of the Four Standard Classes due to the absence of either Awarded or Denied
The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)
Freqency per 100 Miner Years = (Expected Ult. Awarded / Est. Miner Years) x 100

STATE OCCUPATIONAL DISEASE FREQUENCY WITH FEDERAL EXCESS FREQUENCY

COKE (1017)

IBNR Factor adjusted by 0.4000

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.920 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	10-Year Payroll Weighted Frequency
2005	0	0	0	0	0.0000	0.0000	0.000000	12,860,979	0.000000	716	1.047	329.9	0.000000	
2006	0	0	0	0	0.0000	0.0000	0.000000	12,737,394	0.000000	745	1.047	314.0	0.000000	
2007	0	0	0	0	0.0027	0.0027	0.002484	13,669,925	0.002484	779	1.047	322.3	0.000771	
2008	0	0	0	0	0.0039	0.0039	0.003588	9,761,146	0.003588	807	1.047	222.2	0.001615	
2009	0	0	0	0	0.0045	0.0045	0.004140	5,173,552	0.004140	836	1.047	113.7	0.003641	
2010	0	0	0	0	0.0076	0.0076	0.006992	5,435,658	0.006992	845	1.047	118.2	0.005915	
2011	0	0	0	0	0.0076	0.0076	0.006992	3,599,086	0.006992	858	1.047	77.0	0.009081	
2012	0	0	0	0	0.0162	0.0162	0.014904	5,738,105	0.014904	888	1.047	118.7	0.012556	
2013	0	0	0	0	0.0221	0.0221	0.020332	4,791,910	0.020332	917	1.047	96.0	0.021179	
2014	0	0	0	0	0.0293	0.0293	0.026956	4,464,398	0.026956	932	1.047	88.0	0.030632	
TOTAL	0	0	0	0	0.0939	0.0939	0.086388	78,232,153	0.086388			1,800.0	0.085390	
Average: State Frequency													0.008539	
Federal Excess Frequency (times 40.0%)													0.003416	

AUGER (1019)

IBNR Factor adjusted by 0.4000

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.920 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years
2005	0	0	0	0	0.0000	0.0000	0.000000	1,026,537	0.000000	716	1.047	26.3	0.000000
2006	0	0	0	0	0.0000	0.0000	0.000000	1,066,831	0.000000	745	1.047	26.3	0.000000
2007	0	0	0	0	0.0002	0.0002	0.000184	1,121,156	0.000184	779	1.047	26.4	0.000697
2008	0	0	0	0	0.0010	0.0010	0.000920	2,488,558	0.000920	807	1.047	56.6	0.001625
2009	0	0	0	0	0.0008	0.0008	0.000736	926,163	0.000736	836	1.047	20.3	0.003626
2010	0	0	0	0	0.0011	0.0011	0.001012	806,696	0.001012	845	1.047	17.5	0.005783
2011	0	0	0	0	0.0025	0.0025	0.002300	1,176,255	0.002300	858	1.047	25.2	0.009127
2012	0	0	0	0	0.0023	0.0023	0.002116	808,208	0.002116	888	1.047	16.7	0.012671
2013	0	0	0	0	0.0047	0.0047	0.004324	1,025,399	0.004324	917	1.047	20.5	0.021093
2014	0	0	0	0	0.0058	0.0058	0.005336	876,196	0.005336	932	1.047	17.3	0.030844
TOTAL	0	0	0	0	0.0184	0.0184	0.016928	11,321,999	0.016928			253.1	0.085466
Average: State Frequency													0.008547
Federal Excess Frequency (times 40.0%)													0.003419

ANTHRACITE CO-GEN (1022)

IBNR Factor adjusted by 0.4000

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.920 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years
2005	0	0	0	0	0.0000	0.0000	0.000000	7,855,289	0.000000	716	1.047	201.5	0.000000
2006	0	0	0	0	0.0000	0.0000	0.000000	8,405,393	0.000000	745	1.047	207.2	0.000000
2007	0	0	0	0	0.0018	0.0018	0.001656	9,160,450	0.001656	779	1.047	216.0	0.000767
2008	0	0	0	0	0.0032	0.0032	0.002944	7,958,335	0.002944	807	1.047	181.1	0.001626
2009	0	0	0	0	0.0070	0.0070	0.006440	8,004,644	0.006440	836	1.047	175.9	0.003661
2010	0	0	0	0	0.0118	0.0118	0.010856	8,481,228	0.010856	845	1.047	184.4	0.005887
2011	0	0	0	0	0.0247	0.0247	0.022724	11,720,035	0.022724	858	1.047	250.9	0.009057
2012	0	0	0	0	0.0291	0.0291	0.026772	10,273,004	0.026772	888	1.047	212.5	0.012599
2013	0	0	0	0	0.0384	0.0384	0.035328	8,342,651	0.035328	917	1.047	167.1	0.021142
2014	0	0	0	0	0.0609	0.0609	0.056028	9,279,611	0.056028	932	1.047	182.9	0.030633
TOTAL	0	0	0	0	0.1769	0.1769	0.162748	89,480,640	0.162748			1,979.5	0.085372
Average: State Frequency													0.008537
Federal Excess Frequency (times 40.0%)													0.003415

BITUMINOUS CO-GEN (1024)

IBNR Factor adjusted by 0.4000

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.920 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years
2005	0	0	0	0	0.0000	0.0000	0.000000	8,524,752	0.000000	716	1.439	159.1	0.000000
2006	1	1	0	0	0.0000	0.0000	0.000000	9,397,580	1.000000	745	1.439	168.6	0.593120
2007	0	0	0	0	0.0022	0.0022	0.002024	10,789,214	0.002024	779	1.439	185.1	0.001093
2008	0	0	0	0	0.0034	0.0034	0.003128	8,468,561	0.003128	807	1.439	140.2	0.002231
2009	0	0	0	0	0.0069	0.0069	0.006348	7,866,413	0.006348	836	1.439	125.7	0.005050
2010	0	0	0	0	0.0122	0.0122	0.011224	8,732,701	0.011224	845	1.439	138.1	0.008127
2011	0	0	0	0	0.0192	0.0192	0.017664	9,102,411	0.017664	858	1.439	141.8	0.012457
2012	0	0	0	0	0.0256	0.0256	0.023552	9,047,745	0.023552	888	1.439	136.2	0.017292
2013	0	0	0	0	0.0477	0.0477	0.043884	10,355,884	0.043884	917	1.439	150.9	0.029082
2014	0	0	0	0	0.0752	0.0752	0.069184	11,451,621	0.069184	932	1.439	164.2	0.042134
TOTAL	1	1	0	0	0.1924	0.1924	0.177008	93,736,882	1.177008			1,509.9	0.710586
Average: State Frequency													0.071059
Federal Excess Frequency (times 40.0%)													0.028424

Source: Claim counts - CMCRB OD Database as of 08/12/2015
IBNR: Exhibit VII-C-6, p.4
Payroll- Exhibit X-A
The Award Ratio is equal to Awarded ÷ (Awarded plus Denied). Other Classes use the Total Award Ratio: 0.920=23 / [23 + 02]

The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)
Freqency per 100 Miner Years = (Expected Ult. Awarded / Est. Miner Years) x 100

STATE OCCUPATIONAL DISEASE FREQUENCY WITH FEDERAL EXCESS FREQUENCY

ANTHRACITE PREP PLANT (1026)

IBNR Factor adjusted by 1.0000

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.920 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	10-Year Payroll Weighted Frequency
2005	0	0	0	0	0.0000	0.0000	0.000000	5,170,069	0.000000	716	1.047	132.6	0.000000	
2006	0	0	0	0	0.0000	0.0000	0.000000	4,885,882	0.000000	745	1.047	120.5	0.000000	
2007	1	1	0	0	0.0029	0.0029	0.002668	5,756,439	1.002668	779	1.047	135.7	0.738886	
2008	0	0	0	0	0.0064	0.0064	0.005888	6,390,767	0.005888	807	1.047	145.5	0.004047	
2009	0	0	0	0	0.0147	0.0147	0.013524	6,749,748	0.013524	836	1.047	148.3	0.009119	
2010	1	1	0	0	0.0201	0.0201	0.018492	5,762,086	1.018492	845	1.047	125.2	0.813492	
2011	0	0	0	0	0.0381	0.0381	0.035052	7,236,583	0.035052	858	1.047	154.9	0.022629	
2012	0	0	0	0	0.0613	0.0613	0.056396	8,671,140	0.056396	888	1.047	179.4	0.031436	
2013	0	0	0	0	0.0952	0.0952	0.087584	8,265,665	0.087584	917	1.047	165.6	0.052889	
2014	0	0	0	0	0.1330	0.1330	0.122360	8,100,471	0.122360	932	1.047	159.6	0.076667	
TOTAL	2	2	0	0	0.3717	0.3717	0.341964	66,988,850	2.341964			1,467.3	1.749165	
Average: State Frequency													0.174917	
Federal Excess Frequency (times 40.0%)													0.069967	

BITUMINOUS PREP PLANT (1028)

IBNR Factor adjusted by 0.4000

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.920 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years
2005	0	0	0	0	0.0000	0.0000	0.000000	17,690,358	0.000000	716	1.439	330.2	0.000000
2006	0	0	0	0	0.0000	0.0000	0.000000	17,050,967	0.000000	745	1.439	305.9	0.000000
2007	0	0	0	0	0.0038	0.0038	0.003496	18,895,192	0.003496	779	1.439	324.2	0.001078
2008	0	0	0	0	0.0085	0.0085	0.007820	21,250,256	0.007820	807	1.439	351.9	0.002222
2009	0	0	0	0	0.0173	0.0173	0.015916	19,828,012	0.015916	836	1.439	317.0	0.005021
2010	0	0	0	0	0.0367	0.0367	0.033764	26,313,130	0.033764	845	1.439	416.2	0.008112
2011	0	0	0	0	0.0740	0.0740	0.068080	35,155,068	0.068080	858	1.439	547.6	0.012432
2012	0	0	0	0	0.0968	0.0968	0.089056	34,211,729	0.089056	888	1.439	514.9	0.017296
2013	0	0	0	0	0.1576	0.1576	0.144992	34,207,489	0.144992	917	1.439	498.5	0.029086
2014	0	0	0	0	0.2874	0.2874	0.264408	43,762,160	0.264408	932	1.439	627.5	0.042137
TOTAL	0	0	0	0	0.6821	0.6821	0.627532	268,364,361	0.627532			4,233.9	0.117384
Average: State Frequency													0.011738
Federal Excess Frequency (times 40.0%)													0.004695

TOTAL OTHER CLASSES

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.920 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	
2005	0	0	0	0	0.0000	0.0000	0.000000	53,127,984	0.000000	716		1,179.6	0.000000	
2006	1	1	0	0	0.0000	0.0000	0.000000	53,544,047	1.000000	745		1,142.5	0.087527	
2007	1	1	0	0	0.0136	0.0136	0.012512	59,392,376	1.012512	779		1,209.7	0.083699	
2008	0	0	0	0	0.0264	0.0264	0.024288	56,317,623	0.024288	807		1,097.5	0.002213	
2009	0	0	0	0	0.0512	0.0512	0.047104	48,548,532	0.047104	836		900.9	0.005229	
2010	1	1	0	0	0.0895	0.0895	0.082340	55,531,499	1.082340	845		999.6	0.108277	
2011	0	0	0	0	0.1661	0.1661	0.152812	67,989,438	0.152812	858		1,197.4	0.012762	
2012	0	0	0	0	0.2313	0.2313	0.212796	68,749,931	0.212796	888		1,178.4	0.018058	
2013	0	0	0	0	0.3657	0.3657	0.336444	66,988,998	0.336444	917		1,098.6	0.030625	
2014	0	0	0	0	0.5916	0.5916	0.544272	77,934,457	0.544272	932		1,239.5	0.043911	
TOTAL	3	3	0	0	1.5354	1.5354	1.412568	608,124,885	4.412568			11,243.7	0.392301	
Average: State Frequency													0.039230	0.027247
Federal Excess Frequency (times 40.0%)													0.015692	0.010899

GRAND TOTAL

YEAR	REPORTED	AWARDED	PENDING	DENIED	IBNR	IBNR + PENDING	0.920 AWARD RATIO	Payroll	EXPECTED ULTIMATE AWARDED	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	
2005	6	5	0	1	0.0000	0.0000	0.000000	202,430,645	5.000000	716		4,514.3	0.110759	
2006	1	1	0	0	0.0000	0.0000	0.000000	200,407,865	1.000000	745		4,290.0	0.023310	
2007	4	4	0	0	0.0136	0.0136	0.012512	218,810,532	4.012512	779		4,455.3	0.090062	
2008	3	2	0	1	0.1369	0.1369	0.125930	249,817,108	2.126261	807		4,873.1	0.043633	
2009	0	0	0	0	0.3228	0.3228	0.296985	229,462,394	0.297800	836		4,269.0	0.006976	
2010	1	1	0	0	0.7328	0.7328	0.674148	269,231,509	1.676078	845		4,902.1	0.034191	
2011	5	5	0	0	1.4999	1.4999	1.379936	324,841,755	6.374945	858		5,830.0	0.109347	
2012	3	3	0	0	2.4401	2.4401	2.244892	326,110,586	5.226828	888		5,636.2	0.092737	
2013	3	2	1	0	3.5417	4.5417	4.178401	297,382,898	6.156245	917		4,914.6	0.125264	
2014	0	0	0	0	8.7198	8.7198	8.022170	388,271,692	7.992441	932		6,091.4	0.131209	
TOTAL	26	23	1	2	17.4076	18.4076	16.934974	2,706,766,984	39.863111			49,776.0	0.767488	
Average: State Frequency													0.076749	0.071937
Federal Excess Frequency (times 40.0%)													0.030700	0.028775

Source: Claim counts - CMCRB OD Database as of 08/12/2015
IBNR: Exhibit VII-C-6, p.4
Payroll- Exhibit X-A
The Award Ratio is equal to Awarded ÷ (Awarded plus Denied). Other Classes use the Total Award Ratio: 0.920=23 / [23 + 02]

The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)
Freqency per 100 Miner Years = (Expected Ult. Awarded / Est. Miner Years) x 100

COAL MINE COMPENSATION RATING BUREAU
STATE OCCUPATIONAL DISEASE
ANTHRACITE UNDERGROUND (1011)

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
12	3	1	1	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
24	3	1	2	0	2	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	
36	3	3	2	0	2	3	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0		
48	3	4	4	0	2	3	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1			
60	3	4	4	0	3	4	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0				
72	3	4	4	0	3	4	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0					
84	3	5	4	0	3	4	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0						
96	3	5	4	0	3	4	0	0	0	0	0	1	1	1	0	0	0	0	0	0							
108	3	5	4	0	3	4	0	0	0	0	0	1	1	1	0	0	0	0	0								
120	3	5	4	0	3	4	0	0	0	0	0	1	1	1	0	0	0	0									
132	3	5	4	0	3	4	0	0	0	0	0	1	1	1	0	0	0										
144	3	5	4	0	3	4	0	0	0	0	0	1	1	1	0	0											
156	3	5	4	0	3	4	0	0	0	0	0	1	1	1	0												
168	3	5	4	0	3	4	0	0	0	0	0	1	1	1													
180	3	5	4	0	3	4	0	0	0	0	0	1	1														
192	3	5	4	0	3	4	0	0	0	0	0	1															
204	3	5	4	0	3	4	0	0	0	0	0																
216	3	5	4	0	3	4	0	0	0	0																	
228	3	5	4	0	3	4	0	0	0																		
240	3	5	4	0	3	4	0	0																			

Incremental Changes

12-24													1	0	0	0	0	0	0	0	0	0	0	0	0	0	
24-36												0	0	0	0	0	0	0	0	0	0	0	0	0	0		
36-48											0	0	0	1	0	0	0	0	0	0	0	0	0	0			
48-60										0	0	0	0	0	0	0	0	0	0	0	0	0	0				
60-72									0	0	0	0	0	0	0	0	0	0	0	0	0	0					
72-84								0	0	0	0	0	0	0	0	0	0	0	0	0	0						
84-96							0	0	0	0	0	0	0	0	0	0	0	0	0	0							
96-108						0	0	0	0	0	0	0	0	0	0	0	0	0	0								
108-120					0	0	0	0	0	0	0	0	0	0	0	0	0	0									
120-132				0	0	0	0	0	0	0	0	0	0	0	0	0	0										
132-144			0	0	0	0	0	0	0	0	0	0	0	0	0	0											
144-156		0	0	0	0	0	0	0	0	0	0	0	0	0	0												
156-168	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
168-180	0	0	0	0	0	0	0	0	0	0	0	0	0														
180-192	0	0	0	0	0	0	0	0	0	0	0	0															
192-204	0	0	0	0	0	0	0	0	0	0	0																
204-216	0	0	0	0	0	0	0	0	0	0																	
216-228	0	0	0	0	0	0	0	0	0																		
228-240	0	0	0	0	0	0	0	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Smoothed
	2.74569	2.06629	1.54705	0.71815	0.93280	1.18200	1.31068	1.49352	1.61270	1.57161	1.76229	1.81416	1.37016	1.63652	1.38655	1.35427	1.34532	1.41757	1.44252	1.66254	2.13671	1.33587	1.29959	1.25794	1.02926	0.38188	0.25881		
12-24														0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		0.00000	0.04700
24-36													0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			0.00000	0.00000
36-48												0.00000	0.00000	0.61105	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000				0.04700	0.00000
48-60											0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					0.00000	0.00000
60-72										0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000						0.00000	0.00000
72-84									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000							0.00000	0.00000
84-96								0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								0.00000	0.00000
96-108							0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000									0.00000	0.00000
108-120						0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000										0.00000	0.00000
120-132					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000											0.00000	0.00000
132-144				0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000												0.00000	0.00000
144-156			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000													0.00000	0.00000
156-168		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000														0.00000	0.00000
168-180	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															0.00000	0.00000
180-192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																0.00000	0.00000
192-204	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																	0.00000	0.00000
204-216	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																		0.00000	0.00000
216-228	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			0.00000	0.00000
228-240	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																				0.00000	0.00000
																											Total=	0.04700	0.04700

IBNR Claims

Cumulative Factor									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.04700
times Payroll									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01216

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A pages 1 & 2

COAL MINE COMPENSATION RATING BUREAU
STATE OCCUPATIONAL DISEASE
BITUMINOUS UNDERGROUND (1002)

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
													Year														
12	6	4	0	1	8	0	3	0	0	1	0	0	0	2	1	1	1	1	0	0	0	0	0	0	0	2	0
24	7	6	4	1	11	2	3	1	0	2	0	0	0	2	1	2	1	3	0	0	0	0	0	1	3	3	
36	8	6	4	1	14	2	3	3	0	3	1	2	1	2	2	2	1	3	0	0	0	0	0	1	3		
48	8	7	5	2	15	2	4	3	0	3	1	2	1	2	2	2	2	3	0	0	1	0	0	2			
60	8	8	6	2	15	2	4	3	0	3	1	2	1	3	3	2	2	3	0	0	2	0	0				
72	8	9	7	2	15	2	4	3	2	3	1	2	1	3	3	2	2	4	0	0	2	0					
84	8	9	7	2	15	2	4	3	2	3	1	2	9	3	3	2	2	4	0	0	2						
96	8	9	7	2	15	2	4	3	2	3	1	2	9	4	3	2	2	4	0	0							
108	8	9	7	2	15	2	4	3	2	3	1	2	9	4	3	2	2	4	0								
120	8	9	7	2	15	2	4	3	2	3	1	2	9	4	3	2	2	4									
132	8	9	7	2	15	2	4	3	2	3	1	2	9	4	3	2	2										
144	8	9	7	2	15	2	4	3	2	3	1	2	9	4	3	2											
156	8	9	7	2	15	2	4	3	2	3	1	2	9	4	3												
168	8	9	7	2	15	2	4	3	2	3	1	2	9	4													
180	8	9	7	2	15	2	4	3	2	3	1	2	9														
192	8	9	7	2	15	2	4	3	2	3	1	2															
204	8	9	7	2	15	2	4	3	2	3	1																
216	8	9	7	2	15	2	4	3	2	3																	
228	8	9	7	2	15	2	4	3	2																		
240	8	9	7	2	15	2	4	3																			

Incremental Changes

12-24													0	0	0	1	0	2	0	0	0	0	0	1	3	1	
24-36												2	1	0	1	0	0	0	0	0	0	0	0	0	0		
36-48											0	0	0	0	0	0	1	0	0	0	1	0	0	1			
48-60										0	0	0	0	1	1	0	0	0	0	0	1	0	0				
60-72									2	0	0	0	0	0	0	0	0	1	0	0	0	0					
72-84								0	0	0	0	0	8	0	0	0	0	0	0	0	0						
84-96							0	0	0	0	0	0	0	1	0	0	0	0	0	0							
96-108						0	0	0	0	0	0	0	0	0	0	0	0	0	0								
108-120					0	0	0	0	0	0	0	0	0	0	0	0	0	0									
120-132				0	0	0	0	0	0	0	0	0	0	0	0	0	0										
132-144			0	0	0	0	0	0	0	0	0	0	0	0	0	0											
144-156		0	0	0	0	0	0	0	0	0	0	0	0	0	0												
156-168	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
168-180	0	0	0	0	0	0	0	0	0	0	0	0	0														
180-192	0	0	0	0	0	0	0	0	0	0	0	0															
192-204	0	0	0	0	0	0	0	0	0	0	0																
204-216	0	0	0	0	0	0	0	0	0	0																	
216-228	0	0	0	0	0	0	0	0	0																		
228-240	0	0	0	0	0	0	0	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Smoothed
	64.84330	74.33529	77.52445	59.43937	63.64694	52.75653	60.59094	65.27115	75.22304	70.39669	61.08733	58.68524	47.52056	48.52263	49.25035	54.21550	65.49767	70.87262	70.46594	79.90427	101.35398	101.34814	125.39358	148.48571	153.60219	146.39371	235.44469		
12-24														0.00000	0.00000	0.01844	0.00000	0.02822	0.00000	0.00000	0.00000	0.00000	0.00000	0.00673	0.01953	0.00683		0.00613	0.01295
24-36													0.02104	0.00000	0.02030	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			0.00318	0.00613
36-48												0.00000	0.00000	0.00000	0.00000	0.00000	0.01527	0.00000	0.00000	0.00000	0.00987	0.00000	0.00000	0.00673				0.00245	0.00391
48-60											0.00000	0.00000	0.00000	0.02061	0.02030	0.00000	0.00000	0.00000	0.00000	0.00000	0.00987	0.00000	0.00000					0.00391	0.00318
60-72										0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01411	0.00000	0.00000	0.00000	0.00000						0.00109	0.00245
72-84									0.00000	0.00000	0.00000	0.00000	0.16835	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000							0.01295	0.00159
84-96								0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.02061	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								0.00159	0.00109
96-108							0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000									0.00000	0.00000
108-120						0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000										0.00000	0.00000
120-132					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000											0.00000	0.00000
132-144				0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000												0.00000	0.00000
144-156			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000													0.00000	0.00000
156-168		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000														0.00000	0.00000
168-180	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															0.00000	0.00000
180-192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																0.00000	0.00000
192-204	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																	0.00000	0.00000
204-216	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																		0.00000	0.00000
216-228	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			0.00000	0.00000
228-240	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																				0.00000	0.00000
																											Total=	0.03130	0.03130

IBNR Claims

Cumulative Factor									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00109	0.00268	0.00513	0.00831	0.01222	0.01835	0.03130
times Payroll									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.11048	0.27161	0.64327	1.23392	1.87702	2.68632	7.36942

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A pages 1 & 2

COAL MINE COMPENSATION RATING BUREAU
STATE OCCUPATIONAL DISEASE
ANTHRACITE SURFACE (1016)

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Year																										
12	8	1	4	5	2	1	1	1	0	2	1	1	0	1	1	1	1	1	0	1	1	0	0	1	0	0	0
24	10	1	9	7	2	2	5	4	1	3	1	1	3	1	1	2	1	1	0	2	1	0	0	1	0	0	
36	10	1	10	9	5	4	6	7	1	3	1	1	3	1	2	2	1	1	0	2	1	0	0	1	0		
48	10	2	11	10	6	6	8	7	1	3	1	1	3	1	2	2	1	1	0	3	1	0	0	1			
60	11	2	11	11	7	7	8	7	2	3	1	1	3	1	2	2	1	1	0	3	1	0	0				
72	11	6	11	11	7	7	8	7	2	3	1	1	3	1	2	2	1	1	0	3	1	0					
84	11	7	11	11	7	7	8	7	3	3	1	1	3	1	2	2	1	1	0	3	1						
96	11	7	11	11	7	7	8	7	3	3	1	1	3	1	2	2	1	1	0	3							
108	11	7	12	11	7	7	8	7	3	3	1	1	3	1	2	2	1	1	0								
120	11	7	12	11	7	7	8	7	3	3	1	1	3	1	2	2	1	1									
132	11	7	12	11	7	7	8	7	3	3	1	1	3	1	2	2	1										
144	11	7	12	11	7	7	8	7	3	3	1	1	3	1	2	2											
156	11	7	12	11	7	7	8	7	3	3	1	1	3	1	2												
168	11	7	12	11	7	7	8	7	3	3	1	1	3	1													
180	11	7	12	11	7	7	8	7	3	3	1	1	3														
192	11	7	12	11	7	7	8	7	3	3	1	1															
204	11	7	12	11	7	7	8	7	3	3	1																
216	11	7	12	11	7	7	8	7	3	3																	
228	11	7	12	11	7	7	8	7	3																		
240	11	7	12	11	7	7	8	7																			

Incremental Changes

12-24													3	0	0	1	0	0	0	1	0	0	0	0	0	0	
24-36												0	0	0	1	0	0	0	0	0	0	0	0	0	0		
36-48											0	0	0	0	0	0	0	0	0	1	0	0	0	0			
48-60										0	0	0	0	0	0	0	0	0	0	0	0	0	0				
60-72									0	0	0	0	0	0	0	0	0	0	0	0	0	0					
72-84								0	1	0	0	0	0	0	0	0	0	0	0	0	0						
84-96							0	0	0	0	0	0	0	0	0	0	0	0	0	0							
96-108						0	0	0	0	0	0	0	0	0	0	0	0	0	0								
108-120					0	0	0	0	0	0	0	0	0	0	0	0	0	0									
120-132				0	0	0	0	0	0	0	0	0	0	0	0	0	0										
132-144			0	0	0	0	0	0	0	0	0	0	0	0	0	0											
144-156		0	0	0	0	0	0	0	0	0	0	0	0	0	0												
156-168	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
168-180	0	0	0	0	0	0	0	0	0	0	0	0	0														
180-192	0	0	0	0	0	0	0	0	0	0	0	0															
192-204	0	0	0	0	0	0	0	0	0	0	0																
204-216	0	0	0	0	0	0	0	0	0	0																	
216-228	0	0	0	0	0	0	0	0	0																		
228-240	0	0	0	0	0	0	0	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Smoothed
	23.09936	27.04451	32.39289	30.95658	29.47612	30.10339	30.21045	20.28889	16.19217	17.78314	17.37629	18.44114	16.80781	13.94080	12.25126	12.16621	12.35973	12.14091	11.94638	14.55558	16.95431	16.44546	14.29529	21.03460	26.29591	22.44982	20.49617		
12-24														0.00000	0.00000	0.08219	0.00000	0.00000	0.00000	0.06870	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		0.01161	0.01161
24-36													0.00000	0.00000	0.08162	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			0.00628	0.00628
36-48												0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.06870	0.00000	0.00000	0.00000	0.00000				0.00528	0.00528
48-60											0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					0.00000	0.00475
60-72										0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000						0.00000	0.00000
72-84									0.06176	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000							0.00475	0.00000
84-96								0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								0.00000	0.00000
96-108							0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000									0.00000	0.00000
108-120						0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000										0.00000	0.00000
120-132					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000											0.00000	0.00000
132-144				0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000												0.00000	0.00000
144-156			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000													0.00000	0.00000
156-168		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000														0.00000	0.00000
168-180	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															0.00000	0.00000
180-192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																0.00000	0.00000
192-204	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																	0.00000	0.00000
204-216	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																		0.00000	0.00000
216-228	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			0.00000	0.00000
228-240	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																				0.00000	0.00000
																											Total=	0.02792	0.02792

IBNR Claims

Cumulative Factor									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00475	0.01003	0.01631	0.02792
times Payroll									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.09991	0.26375	0.36616	0.57225

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A pages 1 & 2

COAL MINE COMPENSATION RATING BUREAU
STATE OCCUPATIONAL DISEASE
BITUMINOUS SURFACE (1013)

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
														Year													
12	2	1	0	4	1	1	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
24	3	1	0	4	3	2	4	1	2	2	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
36	4	1	1	4	4	2	5	2	3	2	1	2	0	0	0	0	0	1	0	0	0	0	0	1	0		
48	4	1	2	4	4	2	5	3	3	3	1	2	0	0	0	0	0	1	0	0	0	0	0	1			
60	4	2	2	5	4	2	5	3	3	3	1	2	0	0	0	0	0	1	0	0	0	0	0				
72	4	2	2	5	4	3	5	3	3	4	1	2	0	0	0	0	0	1	0	0	0	0					
84	4	2	2	5	5	3	5	3	3	4	1	2	0	0	0	0	0	1	0	0	0						
96	4	2	2	5	5	3	5	3	3	4	1	2	0	0	0	0	0	1	0	0							
108	4	2	2	5	5	3	5	3	3	4	1	2	0	0	0	0	0	1	0								
120	4	2	2	5	5	3	5	3	3	4	1	2	0	0	0	0	0	1									
132	4	2	2	5	5	3	5	3	3	4	1	2	0	0	0	0	0										
144	4	2	2	5	5	3	5	3	3	4	1	2	0	0	0	0											
156	4	2	2	5	5	3	5	3	3	4	1	2	0	0	0												
168	4	2	2	5	5	3	5	3	3	4	1	2	0	0													
180	4	2	2	5	5	3	5	3	3	4	1	2	0														
192	4	2	2	5	5	3	5	3	3	4	1	2															
204	4	2	2	5	5	3	5	3	3	4	1																
216	4	2	2	5	5	3	5	3	3	4																	
228	4	2	2	5	5	3	5	3	3																		
240	4	2	2	6	5	3	5	3																			

Incremental Changes

12-24													0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24-36												0	0	0	0	0	0	0	0	0	0	0	0	1	0		
36-48											0	0	0	0	0	0	0	0	0	0	0	0	0	0			
48-60										0	0	0	0	0	0	0	0	0	0	0	0	0	0				
60-72									0	1	0	0	0	0	0	0	0	0	0	0	0	0					
72-84								0	0	0	0	0	0	0	0	0	0	0	0	0	0						
84-96							0	0	0	0	0	0	0	0	0	0	0	0	0	0							
96-108						0	0	0	0	0	0	0	0	0	0	0	0	0	0								
108-120					0	0	0	0	0	0	0	0	0	0	0	0	0	0									
120-132				0	0	0	0	0	0	0	0	0	0	0	0	0	0										
132-144			0	0	0	0	0	0	0	0	0	0	0	0	0	0											
144-156		0	0	0	0	0	0	0	0	0	0	0	0	0	0												
156-168	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
168-180	0	0	0	0	0	0	0	0	0	0	0	0	0														
180-192	0	0	0	0	0	0	0	0	0	0	0	0															
192-204	0	0	0	0	0	0	0	0	0	0	0																
204-216	0	0	0	0	0	0	0	0	0	0																	
216-228	0	0	0	0	0	0	0	0	0																		
228-240	0	0	0	1	0	0	0	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Smoothed
	126.49321	125.36171	124.18907	104.58350	100.99938	94.55659	92.46464	78.75261	77.82841	67.90579	63.65156	54.16227	49.93562	58.15133	53.50209	47.87374	56.21730	64.87156	63.00898	63.29577	73.05448	61.78439	72.71156	86.07406	76.43330	61.16849	54.13756		
12-24														0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		0.00000	0.00120
24-36													0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01162	0.00000			0.00089	0.00113
36-48												0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000				0.00000	0.00089
48-60											0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					0.00000	0.00000
60-72										0.01473	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000						0.00113	0.00000
72-84									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000							0.00000	0.00000
84-96								0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								0.00000	0.00000
96-108							0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000									0.00000	0.00000
108-120						0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000										0.00000	0.00000
120-132					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000											0.00000	0.00000
132-144				0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000												0.00000	0.00000
144-156			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000													0.00000	0.00000
156-168		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000														0.00000	0.00000
168-180	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															0.00000	0.00000
180-192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																0.00000	0.00000
192-204	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																	0.00000	0.00000
204-216	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																		0.00000	0.00000
216-228	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			0.00000	0.00000
228-240	0.00000	0.00000	0.00000	0.00956	0.00000	0.00000	0.00000	0.00000																				0.00120	0.00000
																											Total=	0.00322	0.00322

IBNR Claims

Cumulative Factor									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00089	0.00202	0.00322	
times Payroll									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.06803	0.12356	0.17432	

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A pages 1 & 2

COAL MINE COMPENSATION RATING BUREAU
STATE OCCUPATIONAL DISEASE
OTHER CLASSIFICATIONS - STATE

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
														Year													
12	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0
24	0	0	0	0	1	1	0	0	0	1	0	0	1	0	1	1	1	0	1	1	0	0	1	0	0	0	
36	0	0	0	0	1	1	0	0	0	1	0	0	1	0	1	1	1	0	1	1	0	0	1	0	0		
48	0	0	0	0	1	1	0	0	0	1	0	0	1	0	1	1	1	0	1	1	0	0	1	0			
60	0	0	0	0	1	1	0	0	0	1	0	0	1	0	1	1	1	0	1	1	0	0	1				
72	0	0	0	0	1	1	0	0	0	1	0	1	1	0	1	1	1	0	1	1	0	0					
84	0	0	0	0	1	1	0	0	0	2	0	1	1	0	1	1	1	0	1	1	0						
96	0	0	0	0	1	1	0	0	0	2	0	1	1	0	1	1	1	0	1	1							
108	0	0	0	0	1	1	0	0	0	2	0	1	1	0	1	1	1	0	1								
120	0	0	0	0	1	1	0	0	0	2	0	1	1	0	1	1	1	0									
132	0	0	0	0	1	1	0	0	0	2	0	1	1	0	1	1	1										
144	0	0	0	0	1	1	0	0	0	2	0	1	1	0	1	1											
156	0	0	0	0	1	1	0	0	0	2	0	1	1	0	1												
168	0	0	0	0	1	1	0	0	0	2	0	1	1	0													
180	0	0	0	0	1	1	0	0	0	2	0	1	1														
192	0	0	0	0	1	1	0	0	0	2	0	1															
204	0	0	0	0	1	1	0	0	0	2	0																
216	0	0	0	0	1	1	0	0	0	2																	
228	0	0	0	0	1	1	0	0	0																		
240	0	0	0	0	1	1	0	0																			

Incremental Changes

12-24													1	0	0	0	1	0	1	1	0	0	0	0	0	0	
24-36												0	0	0	0	0	0	0	0	0	0	0	0	0	0		
36-48											0	0	0	0	0	0	0	0	0	0	0	0	0	0			
48-60										0	0	0	0	0	0	0	0	0	0	0	0	0	0				
60-72									0	0	0	1	0	0	0	0	0	0	0	0	0	0					
72-84								0	0	1	0	0	0	0	0	0	0	0	0	0	0						
84-96							0	0	0	0	0	0	0	0	0	0	0	0	0	0							
96-108						0	0	0	0	0	0	0	0	0	0	0	0	0	0								
108-120					0	0	0	0	0	0	0	0	0	0	0	0	0	0									
120-132				0	0	0	0	0	0	0	0	0	0	0	0	0	0										
132-144			0	0	0	0	0	0	0	0	0	0	0	0	0	0											
144-156		0	0	0	0	0	0	0	0	0	0	0	0	0	0												
156-168	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
168-180	0	0	0	0	0	0	0	0	0	0	0	0	0														
180-192	0	0	0	0	0	0	0	0	0	0	0	0															
192-204	0	0	0	0	0	0	0	0	0	0	0																
204-216	0	0	0	0	0	0	0	0	0	0																	
216-228	0	0	0	0	0	0	0	0	0																		
228-240	0	0	0	0	0	0	0	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Smoothed
	20.12482	14.47189	64.28048	55.26295	47.49607	58.74792	60.28848	60.34187	62.83464	73.62183	31.35678	30.45186	29.53686	32.92544	36.81203	41.30010	49.30786	53.12799	53.54404	59.39238	56.31764	48.54852	55.53151	67.98945	68.74994	66.98900	77.93446		
12-24														0.00000	0.00000	0.00000	0.02028	0.00000	0.01868	0.01684	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		0.00429	0.00429
24-36													0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			0.00000	0.00253
36-48												0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000				0.00000	0.00104
48-60											0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					0.00000	0.00000
60-72										0.00000	0.00000	0.03284	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000						0.00253	0.00000
72-84									0.00000	0.01358	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000							0.00104	0.00000
84-96								0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								0.00000	0.00000
96-108							0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000									0.00000	0.00000
108-120						0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000										0.00000	0.00000
120-132					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000											0.00000	0.00000
132-144				0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000												0.00000	0.00000
144-156			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000													0.00000	0.00000
156-168		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000														0.00000	0.00000
168-180	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															0.00000	0.00000
180-192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																0.00000	0.00000
192-204	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																	0.00000	0.00000
204-216	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																		0.00000	0.00000
216-228	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			0.00000	0.00000
228-240	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																				0.00000	0.00000
																											Total=	0.00786	0.00786

IBNR Claims

Cumulative Factor									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00104	0.00357	0.00786
times Payroll									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.07150	0.23915	0.61256

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A pages 1 & 2

COAL MINE COMPENSATION RATING BUREAU
STATE OCCUPATIONAL DISEASE
ALL CLASSIFICATIONS

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Year																										
12	19	7	5	10	14	2	5	2	0	4	1	3	0	3	3	3	2	3	0	1	1	0	1	2	0	2	0
24	23	9	15	12	19	8	12	6	3	8	1	4	5	3	3	5	3	5	1	3	1	0	1	3	3	3	
36	25	11	17	14	26	12	14	12	4	9	3	6	6	3	5	5	3	5	1	3	1	0	1	4	3		
48	25	14	22	16	28	14	17	13	4	10	3	6	6	4	5	5	4	5	1	4	2	0	1	5			
60	26	16	23	18	30	16	17	13	5	10	3	6	6	5	6	5	4	5	1	4	3	0	1				
72	26	21	24	18	30	17	17	13	7	11	3	7	6	5	6	5	4	6	1	4	3	0					
84	26	23	24	18	31	17	17	13	8	12	3	7	14	5	6	5	4	6	1	4	3						
96	26	23	24	18	31	17	17	13	8	12	3	7	14	6	6	5	4	6	1	4							
108	26	23	25	18	31	17	17	13	8	12	3	7	14	6	6	5	4	6	1								
120	26	23	25	18	31	17	17	13	8	12	3	7	14	6	6	5	4	6									
132	26	23	25	18	31	17	17	13	8	12	3	7	14	6	6	5	4										
144	26	23	25	18	31	17	17	13	8	12	3	7	14	6	6	5											
156	26	23	25	18	31	17	17	13	8	12	3	7	14	6	6												
168	26	23	25	18	31	17	17	13	8	12	3	7	14	6													
180	26	23	25	18	31	17	17	13	8	12	3	7	14														
192	26	23	25	18	31	17	17	13	8	12	3	7															
204	26	23	25	18	31	17	17	13	8	12	3																
216	26	23	25	18	31	17	17	13	8	12																	
228	26	23	25	18	31	17	17	13	8																		
240	26	23	25	19	31	17	17	13																			

Incremental Changes

12-24													5	0	0	2	1	2	1	2	0	0	0	1	3	1	
24-36												2	1	0	2	0	0	0	0	0	0	0	0	1	0		
36-48											0	0	0	1	0	0	1	0	0	1	1	0	0	1			
48-60										0	0	0	0	1	1	0	0	0	0	0	1	0	0				
60-72									2	1	0	1	0	0	0	0	0	1	0	0	0	0					
72-84								0	1	1	0	0	8	0	0	0	0	0	0	0	0						
84-96							0	0	0	0	0	0	0	1	0	0	0	0	0	0							
96-108						0	0	0	0	0	0	0	0	0	0	0	0	0	0								
108-120					0	0	0	0	0	0	0	0	0	0	0	0	0	0									
120-132				0	0	0	0	0	0	0	0	0	0	0	0	0	0										
132-144			0	0	0	0	0	0	0	0	0	0	0	0	0	0											
144-156		0	0	0	0	0	0	0	0	0	0	0	0	0	0												
156-168	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
168-180	0	0	0	0	0	0	0	0	0	0	0	0	0														
180-192	0	0	0	0	0	0	0	0	0	0	0	0															
192-204	0	0	0	0	0	0	0	0	0	0	0																
204-216	0	0	0	0	0	0	0	0	0	0																	
216-228	0	0	0	0	0	0	0	0	0																		
228-240	0	0	0	1	0	0	0	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Smoothed
	237.30638	243.27969	299.93394	250.96055	242.55131	237.34643	244.86519	226.14804	233.69096	231.27906	175.23425	163.55467	145.17101	155.17672	153.20228	156.90982	184.72788	202.43065	200.40786	218.81054	249.81712	229.46238	269.23153	324.84176	326.11060	297.38290	388.27169		
12-24														0.00000	0.00000	0.01275	0.00541	0.00988	0.00499	0.00914	0.00000	0.00000	0.00000	0.00308	0.00920	0.00336		0.00445	0.00490
24-36													0.00689	0.00000	0.01305	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00308	0.00000			0.00177	0.00445
36-48												0.00000	0.00000	0.00644	0.00000	0.00000	0.00541	0.00000	0.00000	0.00457	0.00400	0.00000	0.00000	0.00308				0.00181	0.00181
48-60											0.00000	0.00000	0.00000	0.00644	0.00653	0.00000	0.00000	0.00000	0.00000	0.00000	0.00400	0.00000	0.00000					0.00131	0.00177
60-72										0.00432	0.00000	0.00611	0.00000	0.00000	0.00000	0.00000	0.00000	0.00494	0.00000	0.00000	0.00000	0.00000						0.00118	0.00131
72-84									0.00428	0.00432	0.00000	0.00000	0.05511	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000							0.00490	0.00118
84-96								0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00644	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								0.00050	0.00050
96-108							0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000									0.00000	0.00050
108-120						0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000										0.00000	0.00000
120-132					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000											0.00000	0.00000
132-144				0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000												0.00000	0.00000
144-156			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000													0.00000	0.00000
156-168		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000														0.00000	0.00000
168-180	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000															0.00000	0.00000
180-192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																0.00000	0.00000
192-204	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																	0.00000	0.00000
204-216	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																		0.00000	0.00000
216-228	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			0.00000	0.00000
228-240	0.00000	0.00000	0.00000	0.00398	0.00000	0.00000	0.00000	0.00000																				0.00050	0.00000
																											Total=	0.01642	0.01642

IBNR Claims

Cumulative Factor									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00050	0.00100	0.00218	0.00349	0.00526	0.00707	0.01152	0.01642
times Payroll									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.10941	0.24982	0.50023	0.93962	1.70867	2.30560	3.42585	6.37542

Source: Counts and Payrolls: Sum of Exhibits VII-C-1 thru VII-C-5

COAL MINE COMPENSATION RATING BUREAU
STATE OCCUPATIONAL DISEASE
ALL CLASSIFICATIONS

IBNR By Class

	CLASSIFICATION					
A. IBNR Factor	Coke	Auger	Anthracite Co-Gen	Bituminous Co-Gen	Anthracite Prep Plant	Bituminous Prep Plant
Year	1017	1019	1022	1024	1026	1028
2005	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2006	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2007	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050
2008	0.00100	0.00100	0.00100	0.00100	0.00100	0.00100
2009	0.00218	0.00218	0.00218	0.00218	0.00218	0.00218
2010	0.00349	0.00349	0.00349	0.00349	0.00349	0.00349
2011	0.00526	0.00526	0.00526	0.00526	0.00526	0.00526
2012	0.00707	0.00707	0.00707	0.00707	0.00707	0.00707
2013	0.01152	0.01152	0.01152	0.01152	0.01152	0.01152
2014	0.01642	0.01642	0.01642	0.01642	0.01642	0.01642
B. Adjustment Factor	0.40000	0.40000	0.40000	0.40000	1.00000	0.40000
C. Payroll Per $1M						
2005	12.86098	1.02654	7.85529	8.52475	5.17007	17.69036
2006	12.73739	1.06683	8.40539	9.39758	4.88588	17.05097
2007	13.66993	1.12116	9.16045	10.78921	5.75644	18.89519
2008	9.76115	2.48856	7.95834	8.46856	6.39077	21.25026
2009	5.17355	0.92616	8.00464	7.86641	6.74975	19.82801
2010	5.43566	0.80670	8.48123	8.73270	5.76209	26.31313
2011	3.59909	1.17626	11.72004	9.10241	7.23658	35.15507
2012	5.73811	0.80821	10.27300	9.04775	8.67114	34.21173
2013	4.79191	1.02540	8.34265	10.35588	8.26567	34.20749
2014	4.46440	0.87620	9.27961	11.45162	8.10047	43.76216
D. IBNR						
2005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2006	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2007	0.0027	0.0002	0.0018	0.0022	0.0029	0.0038
2008	0.0039	0.0010	0.0032	0.0034	0.0064	0.0085
2009	0.0045	0.0008	0.0070	0.0069	0.0147	0.0173
2010	0.0076	0.0011	0.0118	0.0122	0.0201	0.0367
2011	0.0076	0.0025	0.0247	0.0192	0.0381	0.0740
2012	0.0162	0.0023	0.0291	0.0256	0.0613	0.0968
2013	0.0221	0.0047	0.0384	0.0477	0.0952	0.1576
2014	0.0293	0.0058	0.0609	0.0752	0.1330	0.2874

Source: IBNR Factor - Exhibit VII-C-6
Adjustment Factor - Judgement
Payrolls: Exhibit X-A pages 1 & 2
IBNR = A times B times C

COAL MINE COMPENSATION RATING BUREAU
STATE OCCUPATIONAL DISEASE
ALL CLASSIFICATIONS

IBNR By Class

	CLASSIFICATION					
A. IBNR Factor	Coke	Auger	Anthracite Co-Gen	Bituminous Co-Gen	Anthracite Prep Plant	Bituminous Prep Plant
Year	1017	1019	1022	1024	1026	1028
1995	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
1996	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
1997	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
1998	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
1999	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
B. Adjustment Factor	0.40000	0.40000	0.40000	0.40000	1.00000	0.40000
C. Payroll Per $1M						
1995	55.00022	1.49964	3.48185	0.36016	0.00000	0.00000
1996	54.57121	0.84662	3.75897	0.37020	0.22107	3.06657
1997	53.11908	1.19349	3.52016	0.85605	1.14940	13.78365
1998	13.35390	1.23790	3.45878	1.16120	1.03290	11.11210
1999	12.29348	1.13689	3.60431	1.49428	1.23112	10.69178
2000	12.09257	1.20588	4.47346	1.87072	1.31947	8.57476
2001	10.37583	1.42913	5.23447	2.12133	3.60965	10.15503
2002	10.48501	1.15084	6.35854	2.38612	3.78169	12.64983
2003	11.53408	1.10222	7.13766	3.05252	3.72130	14.75232
2004	12.04913	1.05880	7.35151	6.37448	4.40665	18.06729
D. IBNR						
1995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1996	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1997	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1998	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1999	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Source: IBNR Factor - Exhibit VII-C-6
Adjustment Factor - Judgement
Payrolls: Exhibit X-A pages 1 & 2
IBNR = A times B times C

State O.D. Severity- Before Act 57

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	1,325,062	-	-			-	-		
	1	1,615,188	-	-			-	-		
	1	1,686,640	-	-			-	-		
	-	-	1	152,876			-	-		
	1	597,533	-	-			-	-		
	1	585,652	-	-			-	-		
	1	449,787	-	-			-	-		
	1	549,859	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 7	$6,809,722	# 1	$152,876	# 8	$6,962,599	# 0	$0	# 8	$6,962,599
(ii) Average		$972,817		$152,876		$870,325		$0		$870,325

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	7	1	8
(ii) Percentage	87.5000%	12.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$972,817	$152,876	
(ii) Difference (Col. 2 minus Col. 1)			($819,941)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	87.5000%	12.5000%	
(ii) Total	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	($819,941)	
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 7	$6,809,722	$972,817	# 0.0000	$0	$0	# 7.0000	$6,809,722	$972,817
(ii) Comm./Comp.	# 1	$152,876	$152,876	# 0.0000	$0	$0	# 1.0000	$152,876	$152,876
(iii) Total	# 8	$6,962,599	$870,325	# 0.0000	$0	$0	# 8.0000	$6,962,599	$870,325
(iv) Average Severity before Adjustment									$870,325
(v) Impact									$0

Source: Exhibit IX-A

State O.D. Severity- Before Act 57

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	62,090			-	-		
	-	-	1	156,094			-	-		
	-	-	1	111,836			-	-		
	-	-	1	390,751			-	-		
	1	1,221,220	-	-			-	-		
	1	1,473,917	-	-			-	-		
	-	-	1	107,089			-	-		
	-	-	1	110,503			-	-		
	1	603,319	-	-			-	-		
	-	-	1	129,738			-	-		
	1	1,166,029	-	-			-	-		
	1	1,166,697	-	-			-	-		
	-	-	-	-			1	1,141,517		
	-	-	1	178,104			-	-		
	-	-	1	124,286			-	-		
	-	-	1	119,765			-	-		
	-	-	1	32,848			-	-		
	-	-	1	304,426			-	-		
	-	-	1	163,437			-	-		
	-	-	1	29,394			-	-		
	-	-	1	514,289			-	-		
	-	-	1	100,757			-	-		
	-	-	1	106,547			-	-		
	-	-	1	107,559			-	-		
	-	-	1	102,861			-	-		
	-	-	1	143,040			-	-		
	-	-	1	360,819			-	-		
	-	-	1	144,369			-	-		
	-	-	1	213,428			-	-		
	-	-	1	168,763			-	-		
	-	-	1	111,613			-	-		
	-	-	1	227,871			-	-		
	-	-	1	519,327			-	-		
	-	-	1	516,754			-	-		
	-	-	1	96,929			-	-		
	-	-	1	534,291			-	-		
	-	-	1	532,355			-	-		
	1	1,060,603	-	-			-	-		
	1	1,135,543	-	-			-	-		
	1	1,374,365	-	-			-	-		
	1	597,506	-	-			-	-		
	1	1,102,482	-	-			-	-		
	-	-	1	74,537			-	-		
	-	-	1	312,067			-	-		
(i) Total	# 10	$10,901,682	# 33	$6,908,538	# 43	$17,810,219	# 1	$1,141,517	# 44	$18,951,737
(ii) Average		$1,090,168		$209,350		$414,191		$1,141,517		$430,721

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 10	# 33	# 43
(ii) Percentage	23.2558%	76.7442%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$1,090,168	$209,350	
(ii) Difference (Col. 2 minus Col. 1)			($880,819)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	23.2558%	76.7442%	
(ii) Number	# 0.2326	# 0.7674	# 1

e. Pending Average from Above: Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$1,141,517	$1,141,517	
(ii) C/C Difference	$0	($880,819)	
(iii) (e-i) + (e-ii)	$1,141,517	$260,699	
(iv) Total (d-ii) x (e-iii)	$265,469	$200,071	
(v) Total of (e-iv)			$465,540

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 10	$10,901,682	$1,090,168	# 0.2326	$265,469	$1,141,517	# 10.2326	$11,167,151	$1,091,335
(ii) Comm./Comp.	# 33	$6,908,538	$209,350	# 0.7674	$200,071	$260,699	# 33.7674	$7,108,609	$210,517
(iii) Total	# 43	$17,810,219	$414,191	# 1.0000	$465,540	$465,540	# 44.0000	$18,275,760	$415,358

(iv) Average Severity before Adjustment	$430,721
(v) Impact	($15,363)

Source: Exhibit IX-A

State O.D. Severity- Before Act 57

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	490,345			-	-		
	1	51,862	-	-			-	-		
	1	535,577	-	-			-	-		
	1	648,831	-	-			-	-		
	-	-	1	106,027			-	-		
	-	-	1	319,071			-	-		
	-	-	1	497,741			-	-		
	-	-	1	44,890			-	-		
	-	-	1	27,433			-	-		
	-	-	1	109,945			-	-		
	-	-	1	206,999			-	-		
	-	-	1	113,082			-	-		
	-	-	1	53,056			-	-		
	-	-	1	95,310			-	-		
	1	444,391	-	-			-	-		
	1	582,226	-	-			-	-		
	1	486,058	-	-			-	-		
	1	801,976	-	-			-	-		
	1	247,419	-	-			-	-		
	1	651,754	-	-			-	-		
	1	691,960	-	-			-	-		
	1	716,975	-	-			-	-		
	1	659,473	-	-			-	-		
	1	580,685	-	-			-	-		
	1	910,860	-	-			-	-		
	1	529,807	-	-			-	-		
	1	741,916	-	-			-	-		
	1	661,950	-	-			-	-		
	1	433,919	-	-			-	-		
	1	1,236,366	-	-			-	-		
	1	379,834	-	-			-	-		
	1	639,565	-	-			-	-		
	1	566,191	-	-			-	-		
	1	485,006	-	-			-	-		
	-	-	1	30,698			-	-		
	1	946,716	-	-			-	-		
(i) Total	# 24	$14,631,315	# 12	$2,094,598	# 36	$16,725,913	# 0	$0	# 36	$16,725,913
(ii) Average		$609,638		$174,550		$464,609		$0		$464,609

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 24	# 12	# 36
(ii) Percentage	66.6667%	33.3333%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$609,638	$174,550	
(ii) Difference (Col. 2 minus Col. 1)			($435,088)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	66.6667%	33.3333%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	($435,088)	
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 24	$14,631,315	$609,638	# 0.0000	$0	$0	# 24.0000	$14,631,315	$609,638
(ii) Comm./Comp.	# 12	$2,094,598	$174,550	# 0.0000	$0	$0	# 12.0000	$2,094,598	$174,550
(iii) Total	# 36	$16,725,913	$464,609	# 0.0000	$0	$0	# 36.0000	$16,725,913	$464,609
(iv) Average Severity before Adjustment									$464,609
(v) Impact									$0

Source: Exhibit IX-A

State O.D. Severity- Before Act 57

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	714,722	-	-			-	-		
	-	-	1	570,346			-	-		
	-	-	1	191,042			-	-		
	-	-	1	82,348			-	-		
	-	-	1	89,002			-	-		
	-	-	1	186,233			-	-		
	-	-	1	30,185			-	-		
	-	-	1	123,603			-	-		
	-	-	1	68,394			-	-		
	-	-	1	437,469			-	-		
	1	1,226,124	-	-			-	-		
	1	946,441	-	-			-	-		
	1	1,544,035	-	-			-	-		
	1	805,760	-	-			-	-		
	1	997,048	-	-			-	-		
	-	-	1	62,462			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 6	$6,234,130	# 10	$1,841,085	# 16	$8,075,215	# 0	$0	# 16	$8,075,215
(ii) Average		$1,039,022		$184,108		$504,701		$0		$504,701

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 6	# 10	# 16
(ii) Percentage	37.5000%	62.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$1,039,022	$184,108	
(ii) Difference (Col. 2 minus Col. 1)			($854,913)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	37.5000%	62.5000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	($854,913)	
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 6	$6,234,130	$1,039,022	# 0.0000	$0	$0	# 6.0000	$6,234,130	$1,039,022
(ii) Comm./Comp.	# 10	$1,841,085	$184,108	# 0.0000	$0	$0	# 10.0000	$1,841,085	$184,108
(iii) Total	# 16	$8,075,215	$504,701	# 0.0000	$0	$0	# 16.0000	$8,075,215	$504,701

(iv) Average Severity before Adjustment	$504,701
(v) Impact	$0

Source: Exhibit IX-A

State O.D. Severity- Before Act 57

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	227,288			-	-		
	1	1,371,417	-	-			-	-		
	-	-	1	107,305			-	-		
	-	-	1	130,610			-	-		
	1	1,129,183	-	-			-	-		
	1	424,830	-	-			-	-		
	-	-	1	61,373			-	-		
	1	466,967	-	-			-	-		
	-	-	1	77,312			-	-		
	-	-	1	70,428			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 4	$3,392,398	# 6	$674,317	# 10	$4,066,715	# 0	$0	# 10	$4,066,715
(ii) Average		$848,099		$112,386		$406,671		$0		$406,671

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 4	# 6	# 10
(ii) Percentage	40.0000%	60.0000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$848,099	$112,386	
(ii) Difference (Col. 2 minus Col. 1)			($735,713)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	40.0000%	60.0000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	($735,713)	
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 4	$3,392,398	$848,099	# 0.0000	$0	$0	# 4.0000	$3,392,398	$848,099
(ii) Comm./Comp.	# 6	$674,317	$112,386	# 0.0000	$0	$0	# 6.0000	$674,317	$112,386
(iii) Total	# 10	$4,066,715	$406,671	# 0.0000	$0	$0	# 10.0000	$4,066,715	$406,671

(iv) Average Severity before Adjustment	$406,671
(v) Impact	$0

Source: Exhibit IX-A

State O. D. Severity- Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	260,235	-	-			-	-		
	1	286,653	-	-			-	-		
	1	297,859	-	-			-	-		
	-	-	1	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 7	$844,747	# 1	$0	# 8	$844,747	# 0	$0	# 8	$844,747
(ii) Average		$120,678		$0		$105,593		$0		$105,593

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 7	# 1	# 8
(ii) Percentage	87.5000%	12.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$120,678	$0	
(ii) Difference (Col. 2 minus Col. 1)			($120,678)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	87.5000%	12.5000%	
(ii) Total	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0		
(ii) C/C Difference	$0	($120,678)		
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible	
(iv) Total (d-ii) x (e-iii)	$0	$0		
(v) Total of (e-iv)				$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 7	$844,747	$120,678	# 0.0000	$0	$0	# 7.0000	$844,747	$120,678
(ii) Comm./Comp.	# 1	$0	$0	# 0.0000	$0	$0	# 1.0000	$0	$0
(iii) Total	# 8	$844,747	$105,593	# 0.0000	$0	$0	# 8.0000	$844,747	$105,593

(iv) Average Severity before Adjustment	$105,593
(v) Impact	$0

Source: Exhibit IX-A

State O. D. Severity- Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	1	-	-	-			-	-		
	1	296,789	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	2,160			-	-		
	1	-	-	-			-	-		
	-	-	1	28,135			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	-	-			1	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	54,049			-	-		
	-	-	1	24,772			-	-		
	-	-	1	80			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	29,597			-	-		
	-	-	1	22,276			-	-		
	-	-	1	-			-	-		
	-	-	1	42,315			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	51,389			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	46,595			-	-		
	-	-	1	73,795			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	277,281	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
(i) Total	# 10	$574,070	# 33	$375,164	# 43	$949,234	# 1	$0	# 44	$949,234
(ii) Average		$57,407		$11,369		$22,075		$0		$21,573

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 10	# 33	# 43
(ii) Percentage	23.2558%	76.7442%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$57,407	$11,369	
(ii) Difference (Col. 2 minus Col. 1)			($46,038)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	23.2558%	76.7442%	
(ii) Number	# 0.2326	# 0.7674	# 1

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0		
(ii) C/C Difference	$0	($46,038)		
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible	
(iv) Total (d-ii) x (e-iii)	$0	$0		
(v) Total of (e-iv)				$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 10	$574,070	$57,407	# 0.2326	$0	$0	# 10.2326	$574,070	$56,102
(ii) Comm./Comp.	# 33	$375,164	$11,369	# 0.7674	$0	$0	# 33.7674	$375,164	$11,110
(iii) Total	# 43	$949,234	$22,075	# 1.0000	$0	$0	# 44.0000	$949,234	$21,573

(iv) Average Severity before Adjustment	$21,573
(v) Impact	$0

Source: Exhibit IX-A

State O. D. Severity- Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	48,324			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	228,325	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	-			-	-		
	1	202,410	-	-			-	-		
(i) Total	# 24	$430,735	# 12	$48,324	# 36	$479,059	# 0	$0	# 36	$479,059
(ii) Average		$17,947		$4,027		$13,307		$0		$13,307

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 24	# 12	# 36
(ii) Percentage	66.6667%	33.3333%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$17,947	$4,027	
(ii) Difference (Col. 2 minus Col. 1)			($13,920)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	66.6667%	33.3333%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0		
(ii) C/C Difference	$0	($13,920)		
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible	
(iv) Total (d-ii) x (e-iii)	$0	$0		
(v) Total of (e-iv)				$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 24	$430,735	$17,947	# 0.0000	$0	$0	# 24.0000	$430,735	$17,947
(ii) Comm./Comp.	# 12	$48,324	$4,027	# 0.0000	$0	$0	# 12.0000	$48,324	$4,027
(iii) Total	# 36	$479,059	$13,307	# 0.0000	$0	$0	# 36.0000	$479,059	$13,307

(iv) Average Severity before Adjustment	$13,307
(v) Impact	$0

Source: Exhibit IX-A

State O. D. Severity- Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

a. Numbers and Amounts

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
(i) List	1	-	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	21,100			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	1	-	-	-			-	-		
	1	231,095	-	-			-	-		
	1	275,638	-	-			-	-		
	1	198,070	-	-			-	-		
	1	226,261	-	-			-	-		
	-	-	1	14,118			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 6	$931,064	# 10	$35,218	# 16	$966,282	# 0	$0	# 16	$966,282
(ii) Average		$155,177		$3,522		$60,393		$0		$60,393

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 6	# 10	# 16
(ii) Percentage	37.5000%	62.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$155,177	$3,522	
(ii) Difference (Col. 2 minus Col. 1)			($151,655)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	37.5000%	62.5000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	($151,655)	
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 6	$931,064	$155,177	# 0.0000	$0	$0	# 6.0000	$931,064	$155,177
(ii) Comm./Comp.	# 10	$35,218	$3,522	# 0.0000	$0	$0	# 10.0000	$35,218	$3,522
(iii) Total	# 16	$966,282	$60,393	# 0.0000	$0	$0	# 16.0000	$966,282	$60,393

(iv) Average Severity before Adjustment	$60,393
(v) Impact	$0

Source: Exhibit IX-A

State O. D. Severity- Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	33,053			-	-		
	1	-	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	48,012			-	-		
	1	205,834	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	900			-	-		
	1	161,672	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 4	$367,505	# 6	$81,965	# 10	$449,471	# 0	$0	# 10	$449,471
(ii) Average		$91,876		$13,661		$44,947		$0		$44,947

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 4	# 6	# 10
(ii) Percentage	40.0000%	60.0000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$91,876	$13,661	
(ii) Difference (Col. 2 minus Col. 1)			($78,215)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	40.0000%	60.0000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	($78,215)	
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 4	$367,505	$91,876	# 0.0000	$0	$0	# 4.0000	$367,505	$91,876
(ii) Comm./Comp.	# 6	$81,965	$13,661	# 0.0000	$0	$0	# 6.0000	$81,965	$13,661
(iii) Total	# 10	$449,471	$44,947	# 0.0000	$0	$0	# 10.0000	$449,471	$44,947

(iv) Average Severity before Adjustment	$44,947
(v) Impact	$0

Source: Exhibit IX-A

State O.D. Severity- Private Pension Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	153,160	-	-			-	-		
	1	178,040	-	-			-	-		
	1	217,455	-	-			-	-		
	-	-	1	66,197			-	-		
	1	-	-	-			-	-		
	1	138,600	-	-			-	-		
	1	137,418	-	-			-	-		
	1	149,366	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 7	$974,040	# 1	$66,197	# 8	$1,040,237	# 0	$0	# 8	$1,040,237
(ii) Average		$139,149		$66,197		$130,030		$0		$130,030

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 7	# 1	# 8
(ii) Percentage	87.5000%	12.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$139,149	$66,197	
(ii) Difference (Col. 2 minus Col. 1)			($72,951)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	87.5000%	12.5000%	
(ii) Total	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0		
(ii) C/C Difference	$0	($72,951)		
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible	
(iv) Total (d-ii) x (e-iii)	$0	$0		
(v) Total of (e-iv)				$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 7	$974,040	$139,149	# 0.0000	$0	$0	# 7.0000	$974,040	$139,149
(ii) Comm./Comp.	# 1	$66,197	$66,197	# 0.0000	$0	$0	# 1.0000	$66,197	$66,197
(iii) Total	# 8	$1,040,237	$130,030	# 0.0000	$0	$0	# 8.0000	$1,040,237	$130,030

(iv) Average Severity before Adjustment	$130,030
(v) Impact	$0

Source: Exhibit IX-A

State O.D. Severity- Private Pension Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	43,670			-	-		
	-	-	1	42,471			-	-		
	-	-	1	65,713			-	-		
	-	-	1	114,923			-	-		
	1	316,669	-	-			-	-		
	1	292,718	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	1	186,249	-	-			-	-		
	-	-	1	-			-	-		
	1	269,477	-	-			-	-		
	1	304,830	-	-			-	-		
	-	-	-	-			1	305,715		
	-	-	1	129,216			-	-		
	-	-	1	85,857			-	-		
	-	-	1	87,361			-	-		
	-	-	1	12,779			-	-		
	-	-	1	20,231			-	-		
	-	-	1	45			-	-		
	-	-	1	-			-	-		
	-	-	1	136,658			-	-		
	-	-	1	64,938			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	-	-	1	49,624			-	-		
	-	-	1	95			-	-		
	-	-	1	-			-	-		
	-	-	1	72,897			-	-		
	-	-	1	-			-	-		
	-	-	1	52			-	-		
	-	-	1	-			-	-		
	-	-	1	124,640			-	-		
	-	-	1	148,025			-	-		
	-	-	1	-			-	-		
	-	-	1	63,733			-	-		
	-	-	1	56,292			-	-		
	-	-	1	88,731			-	-		
	1	320,478	-	-			-	-		
	1	327,120	-	-			-	-		
	1	229,788	-	-			-	-		
	1	-	-	-			-	-		
	1	265,114	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
(i) Total	# 10	$2,512,444	# 33	$1,407,948	# 43	$3,920,392	# 1	$305,715	# 44	$4,226,107
(ii) Average		$251,244		$42,665		$91,172		$305,715		$96,048

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 10	# 33	# 43
(ii) Percentage	23.2558%	76.7442%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$251,244	$42,665	
(ii) Difference (Col. 2 minus Col. 1)			($208,579)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	23.2558%	76.7442%	
(ii) Number	# 0.2326	# 0.7674	# 1

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$305,715	$305,715	
(ii) C/C Difference	$0	($208,579)	
(iii) (e-i) + (e-ii)	$305,715	$97,136	
(iv) Total (d-ii) x (e-iii)	$71,096	$74,546	
(v) Total of (e-iv)			$145,642

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 10	$2,512,444	$251,244	# 0.2326	$71,096	$305,715	# 10.2326	$2,583,540	$252,482
(ii) Comm./Comp.	# 33	$1,407,948	$42,665	# 0.7674	$74,546	$97,136	# 33.7674	$1,482,494	$43,903
(iii) Total	# 43	$3,920,392	$91,172	# 1.0000	$145,642	$145,642	# 44.0000	$4,066,034	$92,410

(iv) Average Severity before Adjustment	$96,048
(v) Impact	($3,638)

Source: Exhibit IX-A

State O.D. Severity- Private Pension Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	119,681			-	-		
	1	-	-	-			-	-		
	1	147,997	-	-			-	-		
	1	146,820	-	-			-	-		
	-	-	1	44,891			-	-		
	-	-	1	-			-	-		
	-	-	1	46,693			-	-		
	-	-	1	18,737			-	-		
	-	-	1	12,027			-	-		
	-	-	1	53,884			-	-		
	-	-	1	74,854			-	-		
	-	-	1	74,517			-	-		
	-	-	1	27,726			-	-		
	-	-	1	50,716			-	-		
	1	-	-	-			-	-		
	1	126,118	-	-			-	-		
	1	-	-	-			-	-		
	1	139,998	-	-			-	-		
	1	-	-	-			-	-		
	1	137,923	-	-			-	-		
	1	149,263	-	-			-	-		
	1	155,501	-	-			-	-		
	1	179,304	-	-			-	-		
	1	-	-	-			-	-		
	1	196,113	-	-			-	-		
	1	128,648	-	-			-	-		
	1	158,365	-	-			-	-		
	1	-	-	-			-	-		
	1	92,321	-	-			-	-		
	1	298,300	-	-			-	-		
	1	79,404	-	-			-	-		
	1	211,388	-	-			-	-		
	1	174,960	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	-			-	-		
	1	90,330	-	-			-	-		
(i) Total	# 24	$2,612,754	# 12	$523,727	# 36	$3,136,481	# 0	$0	# 36	$3,136,481
(ii) Average		$108,865		$43,644		$87,124		$0		$87,124

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 24	# 12	# 36
(ii) Percentage	66.6667%	33.3333%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$108,865	$43,644	
(ii) Difference (Col. 2 minus Col. 1)			($65,221)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	66.6667%	33.3333%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0		
(ii) C/C Difference	$0	($65,221)		
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible	
(iv) Total (d-ii) x (e-iii)	$0	$0		
(v) Total of (e-iv)				$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 24	$2,612,754	$108,865	# 0.0000	$0	$0	# 24.0000	$2,612,754	$108,865
(ii) Comm./Comp.	# 12	$523,727	$43,644	# 0.0000	$0	$0	# 12.0000	$523,727	$43,644
(iii) Total	# 36	$3,136,481	$87,124	# 0.0000	$0	$0	# 36.0000	$3,136,481	$87,124

(iv) Average Severity before Adjustment	$87,124
(v) Impact	$0

Source: Exhibit IX-A

State O.D. Severity- Private Pension Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	236,668	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	118,560			-	-		
	-	-	1	-			-	-		
	-	-	1	57,443			-	-		
	-	-	1	99,769			-	-		
	-	-	1	5,911			-	-		
	-	-	1	74,740			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	1	359,455	-	-			-	-		
	1	171,815	-	-			-	-		
	1	147,032	-	-			-	-		
	1	131,993	-	-			-	-		
	1	145,376	-	-			-	-		
	-	-	1	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
(i) Total	# 6	$1,192,339	# 10	$356,422	# 16	$1,548,762	# 0	$0	# 16	$1,548,762
(ii) Average		$198,723		$35,642		$96,798		$0		$96,798

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 6	# 10	# 16
(ii) Percentage	37.5000%	62.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$198,723	$35,642	
(ii) Difference (Col. 2 minus Col. 1)			($163,081)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	37.5000%	62.5000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	($163,081)	
(iii) (e-i) + (e-ii)	$0	$0	limited to zero: negative offset is impossible
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 6	$1,192,339	$198,723	# 0.0000	$0	$0	# 6.0000	$1,192,339	$198,723
(ii) Comm./Comp.	# 10	$356,422	$35,642	# 0.0000	$0	$0	# 10.0000	$356,422	$35,642
(iii) Total	# 16	$1,548,762	$96,798	# 0.0000	$0	$0	# 16.0000	$1,548,762	$96,798

(iv) Average Severity before Adjustment	$96,798
(v) Impact	$0

Source: Exhibit IX-A

State O.D. Severity- Private Pension Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	3,146			-	-		
	1	365,561	-	-			-	-		
	-	-	1	-			-	-		
	-	-	1	-			-	-		
	1	66,265	-	-			-	-		
	1	87,121	-	-			-	-		
	-	-	1	-			-	-		
	1	83,940	-	-			-	-		
	-	-	1	41,037			-	-		
	-	-	1	36,363			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 4	$602,886	# 6	$80,546	# 10	$683,432	# 0	$0	# 10	$683,432
(ii) Average		$150,722		$13,424		$68,343		$0		$68,343

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 4	# 6	# 10
(ii) Percentage	40.0000%	60.0000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$150,722	$13,424	
(ii) Difference (Col. 2 minus Col. 1)			($137,297)

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	40.0000%	60.0000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	($137,297)	
(iii) (e-i) + (e-ii)	$0	$0	Negative adjustment is not allowed.
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 4	$602,886	$150,722	# 0.0000	$0	$0	# 4.0000	$602,886	$150,722
(ii) Comm./Comp.	# 6	$80,546	$13,424	# 0.0000	$0	$0	# 6.0000	$80,546	$13,424
(iii) Total	# 10	$683,432	$68,343	# 0.0000	$0	$0	# 10.0000	$683,432	$68,343

(iv) Average Severity before Adjustment	$68,343
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess Before Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded-Permanent Basis (1)		Commuted and Compromised-As Settled (2)		Total Awarded-Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	21	-	-			-	-		
	1	0	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	201,504			-	-		
	1	-	-	-			-	-		
	1	42	-	-			-	-		
	1	-	-	-			-	-		
	1	14	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
(i) Total	# 7	$77	# 1	$201,504	# 8	$201,581	# 0	$0	# 8	$201,581
(ii) Average		$11		$201,504		$25,198		$0		$25,198

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 7	# 1	# 8
(ii) Percentage	87.5000%	12.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$11	$201,504	
(ii) Difference (Col. 2 minus Col. 1)			$201,493

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	87.5000%	12.5000%		
(ii) Total	# 0.0000	# 0.0000	# 0	

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$201,493	
(iii) (e-i) + (e-ii)	$0	$201,493	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 7	$77	$11	# 0.0000	$0	$0	# 7.0000	$77	$11
(ii) Comm./Comp.	# 1	$201,504	$201,504	# 0.0000	$0	$0	# 1.0000	$201,504	$201,504
(iii) Total	# 8	$201,581	$25,198	# 0.0000	$0	$0	# 8.0000	$201,581	$25,198

(iv) Average Severity before Adjustment	$25,198
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess Before Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded-Permanent Basis (1)		Commuted and Compromised-As Settled (2)		Total Awarded-Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	216,590			-	-		
	-	-	1	212,680			-	-		
	-	-	1	96,121			-	-		
	-	-	1	246,202			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	673,029			-	-		
	-	-	1	336,356			-	-		
	1	-	-	-			-	-		
	-	-	1	347,058			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	-	-			1	-		
	-	-	1	198,938			-	-		
	-	-	1	200,147			-	-		
	-	-	1	203,850			-	-		
	-	-	1	227,429			-	-		
	-	-	1	257,163			-	-		
	-	-	1	267,346			-	-		
	-	-	1	448,316			-	-		
	-	-	1	212,451			-	-		
	-	-	1	176,797			-	-		
	-	-	1	271,558			-	-		
	-	-	1	295,189			-	-		
	-	-	1	233,843			-	-		
	-	-	1	268,209			-	-		
	-	-	1	477,386			-	-		
	-	-	1	250,734			-	-		
	-	-	1	508,972			-	-		
	-	-	1	241,926			-	-		
	-	-	1	399,087			-	-		
	-	-	1	200,049			-	-		
	-	-	1	161,387			-	-		
	-	-	1	67,777			-	-		
	-	-	1	206,163			-	-		
	-	-	1	275,035			-	-		
	-	-	1	108,555			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	424,035			-	-		
	-	-	1	454,426			-	-		
(i) Total	# 10	$0	# 33	$9,164,806	# 43	$9,164,806	# 1	$0	# 44	$9,164,806
(ii) Average		$0		$277,721		$213,135		$0		$208,291

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 10	# 33	# 43
(ii) Percentage	23.2558%	76.7442%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$0	$277,721	
(ii) Difference (Col. 2 minus Col. 1)			$277,721

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	23.2558%	76.7442%	
(ii) Number	# 0.2326	# 0.7674	# 1

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$277,721	
(iii) (e-i) + (e-ii)	$0	$277,721	
(iv) Total (d-ii) x (e-iii)	$0	$213,135	
(v) Total of (e-iv)			$213,135

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 10	$0	$0	# 0.2326	$0	$0	# 10.2326	$0	$0
(ii) Comm./Comp.	# 33	$9,164,806	$277,721	# 0.7674	$213,135	$277,721	# 33.7674	$9,377,941	$277,721
(iii) Total	# 43	$9,164,806	$213,135	# 1.0000	$213,135	$213,135	# 44.0000	$9,377,941	$213,135

(iv) Average Severity before Adjustment	$208,291
(v) Impact	$4,844

Source: Exhibit IX-A

Federal Excess Before Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	134,403			-	-		
	1	61,909	-	-			-	-		
	1	-	-	-			-	-		
	1	37	-	-			-	-		
	-	-	1	96,712			-	-		
	-	-	1	253,612			-	-		
	-	-	1	116,184			-	-		
	-	-	1	287,917			-	-		
	-	-	1	220,181			-	-		
	-	-	1	98,677			-	-		
	-	-	1	261,254			-	-		
	-	-	1	164,798			-	-		
	-	-	1	148,275			-	-		
	-	-	1	99,441			-	-		
	1	-	-	-			-	-		
	1	6	-	-			-	-		
	1	-	-	-			-	-		
	1	23,393	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	103	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	6	-	-			-	-		
	1	-	-	-			-	-		
	1	76	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	76,247			-	-		
	1	2,077	-	-			-	-		
(i) Total	# 24	$87,607	# 12	$1,957,703	# 36	$2,045,310	# 0	$0	# 36	$2,045,310
(ii) Average		$3,650		$163,142		$56,814		$0		$56,814

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 24	# 12	# 36
(ii) Percentage	66.6667%	33.3333%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$3,650	$163,142	
(ii) Difference (Col. 2 minus Col. 1)			$159,492

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	66.6667%	33.3333%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$159,492	
(iii) (e-i) + (e-ii)	$0	$159,492	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 24	$87,607	$3,650	# 0.0000	$0	$0	# 24.0000	$87,607	$3,650
(ii) Comm./Comp.	# 12	$1,957,703	$163,142	# 0.0000	$0	$0	# 12.0000	$1,957,703	$163,142
(iii) Total	# 36	$2,045,310	$56,814	# 0.0000	$0	$0	# 36.0000	$2,045,310	$56,814

(iv) Average Severity before Adjustment	$56,814
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess Before Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	-	-	-			-	-		
	0	-	1	494,061			0	-		
	0	-	1	88,532			0	-		
	0	-	1	329,433			0	-		
	0	-	1	92,926			0	-		
	0	-	1	216,248			0	-		
	0	-	1	288,307			0	-		
	0	-	1	89,201			0	-		
	0	-	1	276,322			0	-		
	0	-	1	244,925			0	-		
	1	-	0	-			0	-		
	1	1	0	-			0	-		
	1	11	0	-			0	-		
	1	360	0	-			0	-		
	1	26	0	-			0	-		
	0	-	1	301,303			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
	0	-	0	-			0	-		
(i) Total	# 6	$398	# 10	$2,421,257	# 16	$2,421,654	# 0	$0	# 16	$2,421,654
(ii) Average		$66		$242,126		$151,353		$0		$151,353

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 6	# 10	# 16
(ii) Percentage	37.5000%	62.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$66	$242,126	
(ii) Difference (col. 2 minus Col.1)			$242,059

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	37.5000%	62.5000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$242,059	
(iii) (e-i) + (e-ii)	$0	$242,059	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 6	$398	$66	# 0.0000	$0	$0	# 6.0000	$398	$66
(ii) Comm./Comp.	# 10	$2,421,257	$242,126	# 0.0000	$0	$0	# 10.0000	$2,421,257	$242,126
(iii) Total	# 16	$2,421,654	$151,353	# 0.0000	$0	$0	# 16.0000	$2,421,654	$151,353

(iv) Average Severity before Adjustment	$151,353
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess Before Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	299,860			-	-		
	1	-	-	-			-	-		
	-	-	1	353,488			-	-		
	-	-	1	110,624			-	-		
	1	15,820	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	194,761			-	-		
	1	81	-	-			-	-		
	-	-	1	118,411			-	-		
	-	-	1	164,972			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 4	$15,901	# 6	$1,242,117	# 10	$1,258,018	# 0	$0	# 10	$1,258,018
(ii) Average		$3,975		$207,019		$125,802		$0		$125,802

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 4	# 6	# 10
(ii) Percentage	40.0000%	60.0000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$3,975	$207,019	
(ii) Difference (col. 2 minus Col.1)			$203,044

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	40.0000%	60.0000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$203,044	
(iii) (e-i) + (e-ii)	$0	$203,044	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 4	$15,901	$3,975	# 0.0000	$0	$0	# 4.0000	$15,901	$3,975
(ii) Comm./Comp.	# 6	$1,242,117	$207,019	# 0.0000	$0	$0	# 6.0000	$1,242,117	$207,019
(iii) Total	# 10	$1,258,018	$125,802	# 0.0000	$0	$0	# 10.0000	$1,258,018	$125,802

(iv) Average Severity before Adjustment	$125,802
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess After Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded-Permanent Basis (1)		Commuted and Compromised-As Settled (2)		Total Awarded-Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	47,273	-	-			-	-		
	1	28,754	-	-			-	-		
	1	18,079	-	-			-	-		
	-	-	1	201,504			-	-		
	1	-	-	-			-	-		
	1	42	-	-			-	-		
	1	-	-	-			-	-		
	1	14	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 7	$94,162	# 1	$201,504	# 8	$295,666	# 0	$0	# 8	$295,666
(ii) Average		$13,452		$201,504		$36,958		$0		$36,958

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 7	# 1	# 8
(ii) Percentage	87.5000%	12.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$13,452	$201,504	
(ii) Difference (Col. 2 minus Col. 1)			$188,052

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	87.5000%	12.5000%	
(ii) Total	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$188,052	
(iii) (e-i) + (e-ii)	$0	$188,052	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 7	$94,162	$13,452	# 0.0000	$0	$0	# 7.0000	$94,162	$13,452
(ii) Comm./Comp.	# 1	$201,504	$201,504	# 0.0000	$0	$0	# 1.0000	$201,504	$201,504
(iii) Total	# 8	$295,666	$36,958	# 0.0000	$0	$0	# 8.0000	$295,666	$36,958

(iv) Average Severity before Adjustment	$36,958
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess After Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	216,590			-	-		
	-	-	1	212,680			-	-		
	-	-	1	96,121			-	-		
	-	-	1	246,202			-	-		
	1	-	-	-			-	-		
	1	3,391	-	-			-	-		
	-	-	1	673,029			-	-		
	-	-	1	338,516			-	-		
	1	-	-	-			-	-		
	-	-	1	375,011			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	-	-			1	-		
	-	-	1	198,938			-	-		
	-	-	1	200,147			-	-		
	-	-	1	203,850			-	-		
	-	-	1	227,429			-	-		
	-	-	1	273,995			-	-		
	-	-	1	290,798			-	-		
	-	-	1	448,396			-	-		
	-	-	1	212,451			-	-		
	-	-	1	176,797			-	-		
	-	-	1	301,155			-	-		
	-	-	1	317,465			-	-		
	-	-	1	233,843			-	-		
	-	-	1	309,829			-	-		
	-	-	1	477,386			-	-		
	-	-	1	250,734			-	-		
	-	-	1	508,972			-	-		
	-	-	1	287,071			-	-		
	-	-	1	399,087			-	-		
	-	-	1	200,049			-	-		
	-	-	1	161,387			-	-		
	-	-	1	67,777			-	-		
	-	-	1	206,163			-	-		
	-	-	1	275,035			-	-		
	-	-	1	108,555			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	4,754	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	424,035			-	-		
	-	-	1	454,426			-	-		
(i) Total	# 10	$8,144	# 33	$9,373,919	# 43	$9,382,064	# 1	$0	# 44	$9,382,064
(ii) Average		$814		$284,058		$218,188		$0		$213,229

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 10	# 33	# 43
(ii) Percentage	23.2558%	76.7442%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$814	$284,058	
(ii) Difference (Col. 2 minus Col. 1)			$283,244

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	23.2558%	76.7442%	
(ii) Number	# 0.2326	# 0.7674	# 1

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$283,244	
(iii) (e-i) + (e-ii)	$0	$283,244	
(iv) Total (d-ii) x (e-iii)	$0	$217,373	
(v) Total of (e-iv)			$217,373

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 10	$8,144	$814	# 0.2326	$0	$0	# 10.2326	$8,144	$796
(ii) Comm./Comp.	# 33	$9,373,919	$284,058	# 0.7674	$217,373	$283,244	# 33.7674	$9,591,292	$284,040
(iii) Total	# 43	$9,382,064	$218,188	# 1.0000	$217,373	$217,373	# 44.0000	$9,599,437	$218,169
(iv) Average Severity before Adjustment									$213,229
(v) Impact									$4,940

Source: Exhibit IX-A

Federal Excess After Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	134,403			-	-		
	1	61,909	-	-			-	-		
	1	-	-	-			-	-		
	1	37	-	-			-	-		
	-	-	1	96,712			-	-		
	-	-	1	253,612			-	-		
	-	-	1	116,184			-	-		
	-	-	1	287,917			-	-		
	-	-	1	220,181			-	-		
	-	-	1	98,677			-	-		
	-	-	1	261,254			-	-		
	-	-	1	164,798			-	-		
	-	-	1	148,275			-	-		
	-	-	1	99,441			-	-		
	1	-	-	-			-	-		
	1	6	-	-			-	-		
	1	-	-	-			-	-		
	1	23,393	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	5,332	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	103	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	6	-	-			-	-		
	1	-	-	-			-	-		
	1	76	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	76,247			-	-		
	1	111,825	-	-			-	-		
(i) Total	# 24	$202,687	# 12	$1,957,703	# 36	$2,160,389	# 0	$0	# 36	$2,160,389
(ii) Average		$8,445		$163,142		$60,011		$0		$60,011

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 24	# 12	# 36
(ii) Percentage	66.6667%	33.3333%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$8,445	$163,142	
(ii) Difference (Col. 2 minus Col. 1)			$154,697

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	66.6667%	33.3333%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$154,697	
(iii) (e-i) + (e-ii)	$0	$154,697	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 24	$202,687	$8,445	# 0.0000	$0	$0	# 24.0000	$202,687	$8,445
(ii) Comm./Comp.	# 12	$1,957,703	$163,142	# 0.0000	$0	$0	# 12.0000	$1,957,703	$163,142
(iii) Total	# 36	$2,160,389	$60,011	# 0.0000	$0	$0	# 36.0000	$2,160,389	$60,011

(iv) Average Severity before Adjustment	$60,011
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess After Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	-	-	-			-	-		
	-	-	1	494,061			-	-		
	-	-	1	88,532			-	-		
	-	-	1	350,534			-	-		
	-	-	1	92,926			-	-		
	-	-	1	216,248			-	-		
	-	-	1	288,307			-	-		
	-	-	1	89,201			-	-		
	-	-	1	276,322			-	-		
	-	-	1	244,925			-	-		
	1	-	-	-			-	-		
	1	19,716	-	-			-	-		
	1	56,866	-	-			-	-		
	1	49,888	-	-			-	-		
	1	41,653	-	-			-	-		
	-	-	1	315,421			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 6	$168,123	# 10	$2,456,475	# 16	$2,624,598	# 0	$0	# 16	$2,624,598
(ii) Average		$28,021		$245,647		$164,037		$0		$164,037

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 6	# 10	# 16
(ii) Percentage	37.5000%	62.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$28,021	$245,647	
(ii) Difference (col. 2 minus Col.1)			$217,627

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	37.5000%	62.5000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$217,627	
(iii) (e-i) + (e-ii)	$0	$217,627	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 6	$168,123	$28,021	# 0.0000	$0	$0	# 6.0000	$168,123	$28,021
(ii) Comm./Comp.	# 10	$2,456,475	$245,647	# 0.0000	$0	$0	# 10.0000	$2,456,475	$245,647
(iii) Total	# 16	$2,624,598	$164,037	# 0.0000	$0	$0	# 16.0000	$2,624,598	$164,037

(iv) Average Severity before Adjustment	$164,037
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess After Social Security Offset

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	320,752			-	-		
	1	-	-	-			-	-		
	-	-	1	353,488			-	-		
	-	-	1	148,762			-	-		
	1	162,861	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	195,662			-	-		
	1	58,035	-	-			-	-		
	-	-	1	118,411			-	-		
	-	-	1	164,972			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 4	$220,896	# 6	$1,302,047	# 10	$1,522,942	# 0	$0	# 10	$1,522,942
(ii) Average		$55,224		$217,008		$152,294		$0		$152,294

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 4	# 6	# 10
(ii) Percentage	40.0000%	60.0000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$55,224	$217,008	
(ii) Difference (col. 2 minus Col.1)			$161,784

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	40.0000%	60.0000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$161,784	
(iii) (e-i) + (e-ii)	$0	$161,784	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 4	$220,896	$55,224	# 0.0000	$0	$0	# 4.0000	$220,896	$55,224
(ii) Comm./Comp.	# 6	$1,302,047	$217,008	# 0.0000	$0	$0	# 6.0000	$1,302,047	$217,008
(iii) Total	# 10	$1,522,942	$152,294	# 0.0000	$0	$0	# 10.0000	$1,522,942	$152,294

(iv) Average Severity before Adjustment	$152,294
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess After Social Security and Private Pension Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded-Permanent Basis (1)		Commuted and Compromised-As Settled (2)		Total Awarded-Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	179,012	-	-			-	-		
	1	162,892	-	-			-	-		
	1	161,165	-	-			-	-		
	-	-	1	261,475			-	-		
	1	-	-	-			-	-		
	1	5,833	-	-			-	-		
	1	320	-	-			-	-		
	1	2,897	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
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	-	-	-	-			-	-		
(i) Total	# 7	$512,120	# 1	$261,475	# 8	$773,595	# 0	$0	# 8	$773,595
(ii) Average		$73,160		$261,475		$96,699		$0		$96,699

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 7	# 1	# 8
(ii) Percentage	87.5000%	12.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$73,160	$261,475	
(ii) Difference (Col. 2 minus Col. 1)			$188,315

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	87.5000%	12.5000%	
(ii) Total	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$188,315	
(iii) (e-i) + (e-ii)	$0	$188,315	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 7	$512,120	$73,160	# 0.0000	$0	$0	# 7.0000	$512,120	$73,160
(ii) Comm./Comp.	# 1	$261,475	$261,475	# 0.0000	$0	$0	# 1.0000	$261,475	$261,475
(iii) Total	# 8	$773,595	$96,699	# 0.0000	$0	$0	# 8.0000	$773,595	$96,699
(iv) Average Severity before Adjustment									$96,699
(v) Impact									$0

Source: Exhibit IX-A

Federal Excess After Social Security and Private Pension Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	260,260			-	-		
	-	-	1	231,082			-	-		
	-	-	1	148,417			-	-		
	-	-	1	246,202			-	-		
	1	1	-	-			-	-		
	1	121,917	-	-			-	-		
	-	-	1	673,029			-	-		
	-	-	1	338,516			-	-		
	1	2	-	-			-	-		
	-	-	1	375,011			-	-		
	1	0	-	-			-	-		
	1	0	-	-			-	-		
	-	-	-	-			1	0		
	-	-	1	296,366			-	-		
	-	-	1	286,004			-	-		
	-	-	1	290,463			-	-		
	-	-	1	240,208			-	-		
	-	-	1	290,488			-	-		
	-	-	1	290,843			-	-		
	-	-	1	448,396			-	-		
	-	-	1	214,249			-	-		
	-	-	1	241,735			-	-		
	-	-	1	301,155			-	-		
	-	-	1	317,465			-	-		
	-	-	1	283,441			-	-		
	-	-	1	309,923			-	-		
	-	-	1	477,386			-	-		
	-	-	1	321,541			-	-		
	-	-	1	508,972			-	-		
	-	-	1	287,123			-	-		
	-	-	1	399,087			-	-		
	-	-	1	263,391			-	-		
	-	-	1	161,387			-	-		
	-	-	1	67,777			-	-		
	-	-	1	269,897			-	-		
	-	-	1	282,446			-	-		
	-	-	1	109,601			-	-		
	1	18	-	-			-	-		
	1	0	-	-			-	-		
	1	98,524	-	-			-	-		
	1	-	-	-			-	-		
	1	0	-	-			-	-		
	-	-	1	424,035			-	-		
	-	-	1	454,426			-	-		
(i) Total	# 10	$220,462	# 33	$10,110,319	# 43	$10,330,780	# 1	$0	# 44	$10,330,780
(ii) Average		$22,046		$306,373		$240,251		$0		$234,790

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 10	# 33	# 43
(ii) Percentage	23.2558%	76.7442%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$22,046	$306,373	
(ii) Difference (Col. 2 minus Col. 1)			$284,327

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	23.2558%	76.7442%	
(ii) Number	# 0.2326	# 0.7674	# 1

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$284,327	
(iii) (e-i) + (e-ii)	$0	$284,327	
(iv) Total (d-ii) x (e-iii)	$0	$218,205	
(v) Total of (e-iv)			$218,205

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 10	$220,462	$22,046	# 0.2326	$0	$0	# 10.2326	$220,462	$21,545
(ii) Comm./Comp.	# 33	$10,110,319	$306,373	# 0.7674	$218,205	$284,327	# 33.7674	$10,328,523	$305,872
(iii) Total	# 43	$10,330,780	$240,251	# 1.0000	$218,205	$218,205	# 44.0000	$10,548,985	$239,750
(iv) Average Severity before Adjustment									$234,790
(v) Impact									$4,959

Source: Exhibit IX-A

Federal Excess After Social Security and Private Pension Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded-Permanent Basis (1)		Commuted and Compromised-As Settled (2)		Total Awarded-Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	134,403			-	-		
	1	61,909	-	-			-	-		
	1	0	-	-			-	-		
	1	4,244	-	-			-	-		
	-	-	1	141,603			-	-		
	-	-	1	253,612			-	-		
	-	-	1	116,184			-	-		
	-	-	1	306,654			-	-		
	-	-	1	232,208			-	-		
	-	-	1	149,269			-	-		
	-	-	1	298,343			-	-		
	-	-	1	239,315			-	-		
	-	-	1	176,001			-	-		
	-	-	1	150,157			-	-		
	1	-	-	-			-	-		
	1	1,446	-	-			-	-		
	1	-	-	-			-	-		
	1	36,080	-	-			-	-		
	1	-	-	-			-	-		
	1	0	-	-			-	-		
	1	3	-	-			-	-		
	1	9	-	-			-	-		
	1	73,982	-	-			-	-		
	1	-	-	-			-	-		
	1	-	-	-			-	-		
	1	9,603	-	-			-	-		
	1	0	-	-			-	-		
	1	-	-	-			-	-		
	1	2,754	-	-			-	-		
	1	1	-	-			-	-		
	1	6,373	-	-			-	-		
	1	-	-	-			-	-		
	1	7	-	-			-	-		
	1	-	-	-			-	-		
	-	-	1	76,247			-	-		
	1	199,081	-	-			-	-		
(i) Total	# 24	$395,491	# 12	$2,273,998	# 36	$2,669,489	# 0	$0	# 36	$2,669,489
(ii) Average		$16,479		$189,500		$74,152		$0		$74,152

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 24	# 12	# 36
(ii) Percentage	66.6667%	33.3333%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$16,479	$189,500	
(ii) Difference (Col. 2 minus Col. 1)			$173,021

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	66.6667%	33.3333%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$173,021	
(iii) (e-i) + (e-ii)	$0	$173,021	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 24	$395,491	$16,479	# 0.0000	$0	$0	# 24.0000	$395,491	$16,479
(ii) Comm./Comp.	# 12	$2,273,998	$189,500	# 0.0000	$0	$0	# 12.0000	$2,273,998	$189,500
(iii) Total	# 36	$2,669,489	$74,152	# 0.0000	$0	$0	# 36.0000	$2,669,489	$74,152
(iv) Average Severity before Adjustment									$74,152
(v) Impact									$0

Source: Exhibit IX-A

Federal Excess After Social Security and Private Pension Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	1	-	-	-			-	-		
	-	-	1	494,061			-	-		
	-	-	1	171,481			-	-		
	-	-	1	350,534			-	-		
	-	-	1	150,369			-	-		
	-	-	1	289,789			-	-		
	-	-	1	294,218			-	-		
	-	-	1	148,462			-	-		
	-	-	1	276,322			-	-		
	-	-	1	244,925			-	-		
	1	2	-	-			-	-		
	1	140,410	-	-			-	-		
	1	187,527	-	-			-	-		
	1	169,276	-	-			-	-		
	1	166,847	-	-			-	-		
	-	-	1	315,421			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 6	$664,062	# 10	$2,735,580	# 16	$3,399,642	# 0	$0	# 16	$3,399,642
(ii) Average		$110,677		$273,558		$212,478		$0		$212,478

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 6	# 10	# 16
(ii) Percentage	37.5000%	62.5000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$110,677	$273,558	
(ii) Difference (Col. 2 minus Col. 1)			$162,881

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	37.5000%	62.5000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$162,881	
(iii) (e-i) + (e-ii)	$0	$162,881	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 6	$664,062	$110,677	# 0.0000	$0	$0	# 6.0000	$664,062	$110,677
(ii) Comm./Comp.	# 10	$2,735,580	$273,558	# 0.0000	$0	$0	# 10.0000	$2,735,580	$273,558
(iii) Total	# 16	$3,399,642	$212,478	# 0.0000	$0	$0	# 16.0000	$3,399,642	$212,478

(iv) Average Severity before Adjustment	$212,478
(v) Impact	$0

Source: Exhibit IX-A

Federal Excess After Social Security and Private Pension Offsets

Adjustment to Severity for Possible Commutation/Compromise of Pending Claims

	Awarded- Permanent Basis (1)		Commuted and Compromised- As Settled (2)		Total Awarded- Permanent plus Commuted/Comp. (3) = (1) + (2)		Pending, on Permanent Basis (4)		Total Claims (5)	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
a. Numbers and Amounts										
(i) List	-	-	1	323,848			-	-		
	1	116	-	-			-	-		
	-	-	1	353,488			-	-		
	-	-	1	148,762			-	-		
	1	228,325	-	-			-	-		
	1	3	-	-			-	-		
	-	-	1	195,662			-	-		
	1	137,873	-	-			-	-		
	-	-	1	159,448			-	-		
	-	-	1	201,335			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
	-	-	-	-			-	-		
(i) Total	# 4	$366,317	# 6	$1,382,542	# 10	$1,748,859	# 0	$0	# 10	$1,748,859
(ii) Average		$91,579		$230,424		$174,886		$0		$174,886

b. Percentage of Awarded and Commuted/Compromised within Total Awarded

(i) Number	# 4	# 6	# 10
(ii) Percentage	40.0000%	60.0000%	100%

c. Difference Between Average Awarded Permanent Claim and Average Commuted/Compromised Claim

(i) Average	$91,579	$230,424	
(ii) Difference (Col. 2 minus Col. 1)			$138,844

d. Pending claims Split into Awarded and Commuted/Comp using Awarded Mix

(i) Awarded Mix	40.0000%	60.0000%	
(ii) Number	# 0.0000	# 0.0000	# 0

e. Pending Average from Above; Commuted and Compromised less Awarded Difference

(i) Pending Ave.	$0	$0	
(ii) C/C Difference	$0	$138,844	
(iii) (e-i) + (e-ii)	$0	$138,844	
(iv) Total (d-ii) x (e-iii)	$0	$0	
(v) Total of (e-iv)			$0

f. Calculation of Impact of Adjustment

	Awarded			Pending			Total		
	Count	Amount	Average	Count	Amount	Average	Count	Amount	Average
(i) Permanent	# 4	$366,317	$91,579	# 0.0000	$0	$0	# 4.0000	$366,317	$91,579
(ii) Comm./Comp.	# 6	$1,382,542	$230,424	# 0.0000	$0	$0	# 6.0000	$1,382,542	$230,424
(iii) Total	# 10	$1,748,859	$174,886	# 0.0000	$0	$0	# 10.0000	$1,748,859	$174,886

(iv) Average Severity before Adjustment	$174,886
(v) Impact	$0

Source: Exhibit IX-A

COAL MINE COMPENSATION RATING BUREAU
Wage Level Adjustment to Current Level
State Occupational Disease Model

a) Average Weekly Wage (Smoothed):

	Year	U/G Anthracite	U/G Bituminous	Surface Anthracite	Surface Bituminous	Wage Level Decrease	
Pre Act 57:	1990	$511.73	703.90	504.55	538.83	5.1817%	
	1991	528.67	725.82	516.20	556.30	5.1817%	
	1992	546.18	748.43	528.13	574.34	5.1817%	
	1993	564.26	771.74	540.33	592.96	5.1817%	
	1994	582.95	795.77	552.81	612.19	5.1817%	
	1995	602.25	820.55	565.58	632.04	5.1817%	
Mixed Pre & Post Act 57:	1996	622.19	846.11	578.65	652.54	3.3220%	***
Post Act 57:	1997	642.80 *	872.46 *	592.02 *	673.69 *	0.0%	
	1998	664.08 *	899.63 *	605.70 *	695.54 *	0.0%	
	1999	686.07 *	927.65 *	619.69 *	718.09 *	0.0%	
	2000	708.79 *	956.54 *	634.01 *	741.38 *	0.0%	
	2001	732.26 *	986.33 *	648.65 *	765.42 *	0.0%	
	2002	756.51 *	1,017.05 *	663.64 *	790.24 *	0.0%	
	2003	781.56 *	1,048.72 *	678.97 *	815.86 *	0.0%	
	2004	807.44 *	1,081.38 *	694.66 *	842.31 *	0.0%	
	2005	834.18 *	1,115.06 *	710.71 *	869.63 *	0.0%	
	2006	861.80 *	1,149.79 *	727.12 *	897.82 *	0.0%	
	2007	890.34 *	1,185.59 *	743.92 *	926.94 *	0.0%	
	2008	919.82 *	1,222.52 *	761.11 *	956.99 *	0.0%	
	2009	950.28 *	1,260.59 *	778.69 *	988.02 *	0.0%	
	2010	981.74 *	1,299.85 *	796.68 *	1,020.06 *	0.0%	
	2011	1,014.25 *	1,340.33 *	815.09 *	1,053.14 *	0.0%	
	2012	1,047.84 *	1,382.07 *	833.92 *	1,087.28 *	0.0%	
	2013	1,082.54 *	1,425.12 *	853.19 *	1,122.54 *	0.0%	
	2014	1,118.38 *	1,469.50 *	872.90 *	1,158.94 *	0.0%	
Average:						1.3765%	
Projected to:							
Pre Act 57:	4/1/2017	1,171.16	1,588.49	1,039.38	1,226.34		
Post Act 57:	4/1/2017	1,110.48 *	1,506.18 *	985.52 *	1,162.79 *		

b) Conversion Calculation:

Pre Act 57:	1996	$622.19	846.11	578.65	652.54	
Pre Act 57:	1997	642.80	872.46	592.02	673.69	
Pre Act 57:	1998	664.08	899.63	605.70	695.54	
Pre Act 57:	1999	686.07	927.65	619.69	718.09	
Pre Act 57:	2000	708.79	956.54	634.01	741.38	
Pre Act 57:	2001	732.26	986.33	648.65	765.42	
Pre Act 57:	2002	756.51	1,017.05	663.64	790.24	
Pre Act 57:	2003	781.56	1,048.72	678.97	815.86	
Pre Act 57:	2004	807.44	1,081.38	694.66	842.31	
Pre Act 57:	2005	834.18	1,115.06	710.71	869.63	
Pre Act 57:	2006	861.80	1,149.79	727.12	897.82	
Pre Act 57:	2007	890.34	1,185.59	743.92	926.94	
Pre Act 57:	2008	919.82	1,222.52	761.11	956.99	
Pre Act 57:	2009	950.28	1,260.59	778.69	988.02	
Pre Act 57:	2010	981.74	1,299.85	796.68	1,020.06	
Pre Act 57:	2011	1,014.25	1,340.33	815.09	1,053.14	
Pre Act 57:	2012	1,047.84	1,382.07	833.92	1,087.28	
Pre Act 57:	2013	1,082.54	1,425.12	853.19	1,122.54	
Pre Act 57:	2014	1,118.38	1,469.50	872.90	1,158.94	
Pre Act 57:	4/1/2017	1,171.16	1,588.49	1,039.38	1,226.34	
Conversion Factor:		5.1817%	5.1817%	5.1817%	5.1817%	
						Note:
Post Act 57:	1996	$589.95	$802.27	$548.67	$618.72	Pre Act 57 times (1.0 - Factor)
Post Act 57:	1997	609.49	827.25	561.34	638.79	Pre Act 57 times (1.0 - Factor)
Post Act 57:	1998	629.67	853.01	574.31	659.50	Pre Act 57 times (1.0 - Factor)
Post Act 57:	1999	650.52	879.58	587.58	680.88	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2000	672.06	906.97	601.15	702.96	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2001	694.32	935.22	615.04	725.75	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2002	717.31	964.35	629.25	749.29	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2003	741.06	994.38	643.79	773.58	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2004	765.60	1,025.35	658.66	798.67	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2005	790.95	1,057.28	673.88	824.56	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2006	817.14	1,090.21	689.45	851.30	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2007	844.20	1,124.16	705.38	878.90	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2008	872.16	1,159.17	721.67	907.40	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2009	901.04	1,195.27	738.34	936.83	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2010	930.87	1,232.50	755.40	967.20	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2011	961.70	1,270.88	772.85	998.57	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2012	993.54	1,310.46	790.71	1,030.94	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2013	1,026.44	1,351.27	808.98	1,064.37	Pre Act 57 times (1.0 - Factor)
Post Act 57:	2014	1,060.43	1,393.36	827.67	1,098.89	Pre Act 57 times (1.0 - Factor)
Post Act 57:	4/1/2017	1,110.48	1,506.18	985.52	1,162.79	Pre Act 57 times (1.0 - Factor)

c) Wage Level Adjustment Examples:

(i) Year	1993	1995	1997	1999	
(ii) Wage on claim record	$400.00	$450.00	$420.00	$430.00	
Wage Adjustment:					
(iii) Projection to 04/01/17	$1,171.16	$1,588.49	$985.52	$1,162.79	
(iv) Wage during year	564.26	820.55	592.02	718.09	
(v) Adjustment Factor	2.075563	1.935875	1.664676	1.619277	(iii) divided by (iv)
(vi) Adjusted to Level	$830.23	$871.14	$699.16	$696.29	(ii) times (v)

* Post Act 57 for 1997-2014 and Projected to 04/01/2017
** Post Act 57 applies to one 1996 case on or after 8-23-96 - Pre Act 57 applies to four 1996 cases on or before 8-22-96
*** Factor reflects that 234/365ths of 1996 was Pre Act 57.

Source: Average Weekly Wage (Smoothed) - Exhibit VII-H, pages 1, 2, 3 and 4 - Column (8)
Projected 04/01/2017 Weekly Wage - Exhibit VII-H, pages 1, 2, 3 and 4 - Column (6)
Wage level decrease - Exhibit VII-G, Page 2.

PAB

COAL MINE COMPENSATION RATING BUREAU

WAGE LEVEL OFFSET (Act 57, Section 309) and PENSION PERCENTAGE

State Occupational Disease and Federal Excess

Calculation of Wage Offset

(a) Wage Ranges			Average Benefits Before Offset	Average Benefits After Offset	State OD Claim Count
Above		869.55	527.00	527.00	32
$790.50	-	869.55	527.00	503.09	10
$447.95	-	790.49	408.00	370.95	63
$395.25	-	447.94	272.00	263.50	11
$316.20	-	395.24	263.50	263.50	3
$289.95	-	316.19	263.50	247.94	0
$0.00	-	289.94	207.00	188.21	1
Average/Total			$431.90	$409.52	120

(b) Selected State Indemnity Factor:

(i) After ÷ Before ($409.52 ÷ $431.90)	94.8183%
(ii) Complement (1.0 minus 0.948183)	5.1817%
(iii) Reduced by 10% for Phase-in of Act 57 (See Exhibit VII-G, Page 1)	4.6635%

Source:

Wage Ranges - Pennsylvania Compensation Rating Bureau
Evaluation of SB801 Amendments to Section 309 of Act 57
Above $869.55 - Claims eligible for maximum under either wage calculation.
$790.50-869.55 - Claims at maximum under current but 2/3 of wage under proposed method.
$447.95-790.49 - Claims at 2/3 under either wage calculation.
$395.25-447.94 - Claims at 2/3 under current method but 50% of maximum under proposed method.
$316.20-395.24 - Claims at 50% under either method.
$289.95-316.19 - Claims at 50% under current method but 90% of maximum under proposed method.
$.00-289.94 - Claims at 90% under either method.

Average Benefits Before and After Act 57

State Claim Counts - Claimant wages from 1987 through 1996 Exposure Years from CMCRB database, projected to 1996 level.

Calculation of Pension Offset Percentage

	Estimates
(a) Union Membership	50.0%
(b) Pension Paid by Employers	50.0%
(c) Present Employer Directly Liable for Pension	50.0%
(d) Resulting Offset for State O.D.	12.5%

Sources: Percentage of Miners eligible: estimate.

COAL MINE COMPENSATION RATING BUREAU

Wage Level Adjustment to Current Level - State Occupational Disease Model

Anthracite Underground (1011)

	(1) Statewide Avg Wage	(2) Claimants' Actual Avg Wage	(3) (2) Adjusted For Act 57	(4) (3)/(1)	(5) (3) Ex. High & Low	(6) (1) Adjusted To Claimants' Wage Level	(7) (5) & (6) Adjusted Avg Wages	(8) Exponentially Fitted Wages
1990	419.00	539.87	539.87	1.2885	539.87		539.87	511.73
1991	436.00	0.00				512.16	512.16	528.67
1992	455.00	608.33	608.33	1.3370	608.33		608.33	546.18
1993	475.00	419.67	419.67	0.8835 Low		557.98	557.98	564.26
1994	493.00	0.00				579.12	579.12	582.95
1995	509.00	0.00				597.92	597.92	602.25
1996	527.00	0.00				619.06	619.06	622.19
1997	542.00	0.00				636.68	636.68	642.80
1998	561.00	0.00				659.00	659.00	664.08
1999	588.00	501.00	528.38	0.8986	528.38		528.38	686.07
2000	611.00	0.00				717.73	717.73	708.79
2001	644.00	0.00				756.50	756.50	732.26
2002	662.00	0.00				777.64	777.64	756.51
2003	675.00	0.00				792.91	792.91	781.56
2004	690.00	0.00				810.54	810.54	807.44
2005	716.00	0.00				841.08	841.08	834.18
2006	745.00	0.00				875.14	875.14	861.80
2007	779.00	0.00				915.08	915.08	890.34
2008	807.00	0.00				947.97	947.97	919.82
2009	836.00	0.00				982.04	982.04	950.28
2010	845.00	0.00				992.61	992.61	981.74
2011	858.00	1400.00	1476.51	1.7209 High		1007.88	1007.88	1014.25
2012	888.00	0.00				1043.12	1043.12	1047.84
2013	917.00	0.00				1077.19	1077.19	1082.54
2014	932.00	0.00				1094.81	1094.81	1118.38
2015	951.00							
			High	1.7209				
			Low	0.8835				
			Average Ratio Claimant/State - High & Low	1.1747				

Projected

2016	977.00
2017	1004.00
2018	1,032.00

Projected Avg. Wage at Claimants' Level

4/1/2017 997.00 997.00 * 1.1747 = $1,171.16

Act 57 Factor: 94.8183%

(1) Statewide average weekly wage
(2) CMCRB database, reported State OD average weekly wage
the reported wages were adjusted to pre-act 57 wage level by dividing them by the wage offset of (1.0 minus .051817)

(3)= Column (2) adjusted for Act 57
(4) =(3)/(1), (3a) average index
(5)Actual adjusted wages excluding High and Low
(6) Wage history based on State OD wages, except for high, low, and zeroes where SAWW times average indices was used
(7)Adjusted Wages using Cols. (5) & (6)
(8) Fitted Wages using Regression on raw data inCol.(7)

COAL MINE COMPENSATION RATING BUREAU

Wage Level Adjustment to Current Level - State Occupational Disease Model

Bituminous Underground (1002)

	(1) Statewide Avg Wage	(2) Claimants' Actual Avg Wage	(3) (2) Adjusted For Act 57	(4) (3)/(1)	(5) (3) Ex. High & Low	(6) (1) Adjusted To Claimants' Wage Level	(7) (5) & (6) Adjusted Avg Wages	(8) Exponentially Fitted Wages
1990	419.00	779.92	779.92	1.8614	779.92		779.92	703.90
1991	436.00	827.00	827.00	1.8968	827.00		827.00	725.82
1992	455.00	702.04	702.04	1.5429	702.04		702.04	748.43
1993	475.00	729.40	729.40	1.5356	729.40		729.40	771.74
1994	493.00	1043.85	1043.85	2.1173	1043.85		1043.85	795.77
1995	509.00	1525.00	1525.00	2.9961 High		810.97	810.97	820.55
1996	527.00	706.64	706.64	1.3409	706.64		706.64	846.11
1997	542.00	672.19	708.92	1.3080	708.92		708.92	872.46
1998	561.00	1058.08	1115.90	1.9891	1115.90		1115.90	899.63
1999	588.00	675.00	711.89	1.2107	711.89		711.89	927.65
2000	611.00	902.80	952.14	1.5583	952.14		952.14	956.54
2001	644.00	604.79	637.84	0.9904 Low		1026.07	1026.07	986.33
2002	662.00	800.15	843.88	1.2747	843.88		843.88	1017.05
2003	675.00	1324.39	1396.77	2.0693	1396.77		1396.77	1048.72
2004	690.00	876.68	924.59	1.3400	924.59		924.59	1081.38
2005	716.00	877.22	925.16	1.2921	925.16		925.16	1115.06
2006	745.00	0.00				1186.99	1186.99	1149.79
2007	779.00	0.00				1241.16	1241.16	1185.59
2008	807.00	1164.02	1227.63	1.5212	1227.63		1227.63	1222.52
2009	836.00	0.00				1331.97	1331.97	1260.59
2010	845.00	0.00				1346.31	1346.31	1299.85
2011	858.00	1269.97	1339.37	1.5610	1339.37		1339.37	1340.33
2012	888.00	1310.62	1382.24	1.5566	1382.24		1382.24	1382.07
2013	917.00	1480.57	1561.48	1.7028	1561.48		1561.48	1425.12
2014	932.00	0.00				1484.93	1484.93	1469.50
2015	951.00							
			High	2.9961				
			Low	0.9904				
			Average Ratio Claimant/State - High & Low	1.5933				

Projected	
2016	977.00
2017	1004.00
2018	1,032.00

Projected Avg. Wage at Claimants' Level

4/1/2017 997.00 997.00 * 1.5933 = $1,588.49

Act 57 Factor: 94.8183%

(1) Statewide average weekly wage
(2) CMCRB database, reported State OD average weekly wage
the reported wages were adjusted to pre-act 57 wage level by dividing them by the wage offset of (1.0 minus .051817)

(3)= Column (2) adjusted for Act 57
(4) =(3)/(1), (3a) average index
(5)Actual adjusted wages excluding High and Low
(6) Wage history based on State OD wages, except for high, low, and zeroes where SAWW times average indices was used
(7)Adjusted Wages using Cols. (5) & (6)
(8) Fitted Wages using Regression on raw data inCol.(7)

COAL MINE COMPENSATION RATING BUREAU

Wage Level Adjustment to Current Level - State Occupational Disease Model

Anthracite Surface (1016)

	(1) Statewide Avg Wage	(2) Claimants' Actual Avg Wage	(3) (2) Adjusted For Act 57	(4) (3)/(1)	(5) (3) Ex. High & Low	(6) (1) Adjusted To Claimants' Wage Level	(7) (5) & (6) Adjusted Avg Wages	(8) Exponentially Fitted Wages
1990	419.00	549.31	549.31	1.3110	549.31		549.31	504.55
1991	436.00	492.75	492.75	1.1302	492.75		492.75	516.20
1992	455.00	565.40	565.40	1.2426	565.40		565.40	528.13
1993	475.00	544.73	544.73	1.1468	544.73		544.73	540.33
1994	493.00	543.95	543.95	1.1033	543.95		543.95	552.81
1995	509.00	645.11	645.11	1.2674	645.11		645.11	565.58
1996	527.00	453.71	453.71	0.8609	453.71		453.71	578.65
1997	542.00	530.26	559.24	1.0318	559.24		559.24	592.02
1998	561.00	744.92	785.63	1.4004	785.63		785.63	605.70
1999	588.00	571.47	602.70	1.0250	602.70		602.70	619.69
2000	611.00	133.68	140.99	0.2307 Low		636.97	636.97	634.01
2001	644.00	517.49	545.77	0.8475	545.77		545.77	648.65
2002	662.00	589.00	621.19	0.9384	621.19		621.19	663.64
2003	675.00	633.40	668.01	0.9897	668.01		668.01	678.97
2004	690.00	1568.35	1654.06	2.3972 High		719.33	719.33	694.66
2005	716.00	575.91	607.38	0.8483	607.38		607.38	710.71
2006	745.00	0.00				776.67	776.67	727.12
2007	779.00	733.08	773.14	0.9925	773.14		773.14	743.92
2008	807.00	775.13	817.49	1.0130	817.49		817.49	761.11
2009	836.00	0.00				871.53	871.53	778.69
2010	845.00	0.00				880.92	880.92	796.68
2011	858.00	466.84	492.35	0.5738	492.35		492.35	815.09
2012	888.00	0.00				925.74	925.74	833.92
2013	917.00	0.00				955.98	955.98	853.19
2014	932.00	0.00				971.61	971.61	872.90
2015	951.00							
			High	2.3972				
			Low	0.2307				
		Average Ratio Claimant/State - High & Low		1.0425				

Projected	
2016	977.00
2017	1004.00
2018	1,032.00

Projected Avg. Wage at Claimants' Level

4/1/2017 997.00 997.00 * 1.0425 = $1,039.38

Act 57 Factor: 94.8183%

(1) Statewide average weekly wage
(2) CMCRB database, reported State OD average weekly wage
the reported wages were adjusted to pre-act 57 wage level by dividing them by the wage offset of (1.0 minus .051817)

(3)= Column (2) adjusted for Act 57
(4) =(3)/(1), (3a) average index
(5)Actual adjusted wages excluding High and Low
(6) Wage history based on State OD wages, except for high, low, and zeroes where SAWW times average indices was used
(7)Adjusted Wages using Cols. (5) & (6)
(8) Fitted Wages using Regression on raw data inCol.(7)

COAL MINE COMPENSATION RATING BUREAU

Wage Level Adjustment to Current Level - State Occupational Disease Model

Bituminous Surface (1013)

	(1) Statewide Avg Wage	(2) Claimants' Actual Avg Wage	(3) (2) Adjusted For Act 57	(4) (3)/(1)	(5) (3) Ex. High & Low	(6) (1) Adjusted To Claimants' Wage Level	(7) (5) & (6) Adjusted Avg Wages	(8) Exponentially Fitted Wages
1990	419.00	555.88	555.88	1.3267	555.88		555.88	538.83
1991	436.00	612.13	612.13	1.4040	612.13		612.13	556.30
1992	455.00	652.89	652.89	1.4349	652.89		652.89	574.34
1993	475.00	705.41	705.41	1.4851 High		584.26	584.26	592.96
1994	493.00	621.91	621.91	1.2615	621.91		621.91	612.19
1995	509.00	477.90	477.90	0.9389 Low		626.08	626.08	632.04
1996	527.00	628.07	628.07	1.1918	628.07		628.07	652.54
1997	542.00	698.16	736.31	1.3585	736.31		736.31	673.69
1998	561.00	500.00	527.32	0.9400	527.32		527.32	695.54
1999	588.00	569.19	600.30	1.0209	600.30		600.30	718.09
2000	611.00	0.00				751.55	751.55	741.38
2001	644.00	0.00				792.14	792.14	765.42
2002	662.00	0.00				814.28	814.28	790.24
2003	675.00	0.00				830.27	830.27	815.86
2004	690.00	0.00				848.72	848.72	842.31
2005	716.00	676.00	712.94	0.9957	712.94		712.94	869.63
2006	745.00	0.00				916.37	916.37	897.82
2007	779.00	0.00				958.19	958.19	926.94
2008	807.00	0.00				992.63	992.63	956.99
2009	836.00	0.00				1028.30	1028.30	988.02
2010	845.00	0.00				1039.37	1039.37	1020.06
2011	858.00	1111.56	1172.31	1.3663	1172.31		1172.31	1053.14
2012	888.00	0.00				1092.27	1092.27	1087.28
2013	917.00	0.00				1127.94	1127.94	1122.54
2014	932.00	0.00				1146.39	1146.39	1158.94
2015	951.00							
			High	1.4851				
			Low	0.9389				
	Average Ratio Claimant/State - High & Low			1.2300				

Projected	
2016	977.00
2017	1004.00
2018	1,032.00

Projected Avg. Wage at Claimants' Level

4/1/2017 997.00 997.00 * 1.23 = $1,226.34

Act 57 Factor: 94.8183%

(1) Statewide average weekly wage
(2) CMCRB database, reported State OD average weekly wage
the reported wages were adjusted to pre-act 57 wage level by dividing them by the wage offset of (1.0 minus .051817)
only one of the three claims in 1996 was adjusted by the pre-act 57 wage level
(3)= Column (2) adjusted for Act 57
(4) =(3)/(1), (3a) average index
(5)Actual adjusted wages excluding High and Low
(6) Wage history based on State OD wages, except for high, low, and zeroes where SAWW times average indices was used
(7)Adjusted Wages using Cols. (5) & (6)
(8) Fitted Wages using Regression on raw data inCol.(7)

Social Security - Cost of Living Adjustment History and Projection

The following annual cost of living percentage is used to adjust the Social Security benefit calculated at time of accident to retirement age.

Year	Annual Changes
1986	1.3%
1987	4.2%
1988	4.0%
1989	4.7%
1990	5.4%
1991	3.7%
1992	3.0%
1993	2.6%
1994	2.8%
1995	2.6%
1996	2.9%
1997	2.1%
1998	1.3%
1999	2.5%
2000	3.5%
2001	2.6%
2002	1.4%
2003	2.1%
2004	2.7%
2005	4.1%
2006	3.3%
2007	2.3%
2008	5.8%
2009	0.0%
2010	0.0%
2011	3.6%
2012	1.7%
2013	1.5%
2014	1.7%
2015	0.0%
Average All years	2.6%
Average latest 10 years	2.0%
Average latest 5 years	1.7%
Average latest 3 years	1.1%
Selected Annual Change Last Year's Selection was 2.5%	2.5%

Source: Social Security Administration Web Site

Social Security Formulas - Historic Primary Insurance Amounts (PIA) and Projections

The following projections are used to calculate the PIA (i.e., SS Benefit) in the SS Offset Model.

	Monthly Wage Amounts Break Points:							
Year	90% of First:	Percent Change	Plus 32% of next:	Percent Change	Plus 15% of next:	Percent Change	Annual SS Wage Base	Percent Change
1986	297		1,493		1,710		42,000	
1987	310	4.4%	1,556	4.2%	1,784	4.3%	43,800	4.3%
1988	319	2.9%	1,603	3.0%	1,828	2.5%	45,000	2.7%
1989	339	6.3%	1,705	6.4%	1,956	7.0%	48,000	6.7%
1990	356	5.0%	1,789	4.9%	2,130	8.9%	51,300	6.9%
1991	370	3.9%	1,860	4.0%	2,220	4.2%	53,400	4.1%
1992	387	4.6%	1,946	4.6%	2,292	3.2%	55,500	3.9%
1993	401	3.6%	2,019	3.8%	2,380	3.8%	57,600	3.8%
1994	422	5.2%	2,123	5.2%	2,505	5.3%	60,600	5.2%
1995	426	0.9%	2,141	0.8%	2,533	1.1%	61,200	1.0%
1996	437	2.6%	2,198	2.7%	2,590	2.3%	62,700	2.5%
1997	455	4.1%	2,286	4.0%	2,709	4.6%	65,400	4.3%
1998	477	4.8%	2,398	4.9%	2,825	4.3%	68,400	4.6%
1999	505	5.9%	2,538	5.8%	3,007	6.4%	72,600	6.1%
2000	531	5.1%	2,671	5.2%	3,148	4.7%	76,200	5.0%
2001	561	5.6%	2,820	5.6%	3,319	5.4%	80,400	5.5%
2002	592	5.5%	2,975	5.5%	3,508	5.7%	84,900	5.6%
2003	606	2.4%	3,047	2.4%	3,597	2.5%	87,000	2.5%
2004	612	1.0%	3,077	1.0%	3,636	1.1%	87,900	1.0%
2005	627	2.5%	3,152	2.4%	3,721	2.3%	90,000	2.4%
2006	656	4.6%	3,299	4.7%	3,895	4.7%	94,200	4.7%
2007	680	3.7%	3,420	3.7%	4,025	3.3%	97,500	3.5%
2008	711	4.6%	3,577	4.6%	4,212	4.6%	102,000	4.6%
2009	744	4.6%	3,739	4.5%	4,417	4.9%	106,800	4.7%
2010	761	2.3%	3,825	2.3%	4,314	-2.3%	106,800	0.0%
2011	749	-1.6%	3,768	-1.5%	4,383	1.6%	106,800	0.0%
2012	767	2.4%	3,857	2.4%	4,551	3.8%	110,100	3.1%
2013	791	3.1%	3,977	3.1%	4,707	3.4%	113,700	3.3%
2014	816	3.2%	4,101	3.1%	4,833	2.7%	117,000	2.9%
2015	826	1.2%	4,154	1.3%	4,895	1.3%	118,500	1.3%
2016	856	3.6%	4,301	3.5%	4,718	-3.6%	118,500	0.0%
Average All years		3.6%		3.6%		3.5%		3.5%
Average latest 10 years		2.7%		2.7%		2.0%		2.3%
Average latest 5 years		2.7%		2.7%		1.5%		2.1%
Average latest 3 years		2.7%		2.6%		0.1%		1.4%
Last Year's Selection		2.5%		2.5%		2.5%		2.5%
Selection		2.5%		2.5%		2.5%		2.5%
Projections		Selected		Selected		Selected		Selected
2016	856	Actual	4,301	Actual	4,718	Actual	118,500	Actual
2017	877	2.5%	4,409	2.5%	4,836	2.5%	121,500	2.5%
2018	899	2.5%	4,519	2.5%	4,957	2.5%	124,500	2.5%
Average Break Point For Policies effective between 4-1-2016 and 4-1-2017	872		4,382		4,807		120,800	

Note: Weighted average of the three calendar years: 2016, 2017, 2018.

Weights:	2016	28.125%
	2017	68.750%
	2018	3.125%
		100.00%

Notes:

The above weights assume 1-year policies effective between 4-1-2016 and 4-1-2017

E.G.: 28.125% of the losses will occur between 4-1-2016 and 12-31-2016.
68.750% of the losses will occur between 1-1-2017 and 12-31-2017.
3.125% of the losses will occur between 1-1-2018 and 3-31-2018.

Source: Social Security Administration Web Site

Social Security Formulas - Primary Insurance Amount (PIA) Calculations
Example Calculations

I. Break Point Monthly Wage Amounts and Factors (Exhibit VII-J, Page 2)

Break Points (Projected to average accident date of 4-1-2017 with a 4-1-2016 filing effective date.)

		Monthly Wages		
	Yearly Maximum	First Break Point	Second Break Point	Third Break Point
Wage Amount:	120,800	872	4,382	4,807
Factor:		90%	32%	15%

II. Example Calculations

Example Number	Monthly Wage	Adjusted Monthly Wage (a)	PIA at each Breakpoint First (b)	Second (c)	Third (d)	Total PIA
1	2,000	2,000	872	1,128	0	
			90%	32%	15%	
			785	361	0	1,146
2	4,000	4,000	872	3,128	0	
			90%	32%	15%	
			785	1,001	0	1,786
3	6,000	6,000	872	4,382	746	
			90%	32%	15%	
			785	1,402	112	2,299
4	8,000	8,000	872	4,382	2,746	
			90%	32%	15%	
			785	1,402	412	2,599
5	10,000	10,000	872	4,382	4,746	
			90%	32%	15%	
			785	1,402	712	2,899
6	12,000	10,067	872	4,382	4,807	
			90%	32%	15%	
			785	1,402	721	2,908

Notes:
(a) Monthly Wage limited to Monthly Maximum ($120,800/12 = $10,067)
(b) minimum of adjusted monthly wage and $872
(c) minimum of (adjusted monthly wage less $872) and $4,382
(d) minimum of (adjusted monthly wage less $872 less $4,382) and $4,807

Source: Exhibit VII-J, Page 2

Coal Mine Compensation Rating Bureau

Federal Excess Occupational Disease After Administration / Law Change Frequencies by Classification

ANTHRACITE UNDERGROUND (0160)

	Counts										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded	Ultimate Awarded (2)+(5)+(7)	Ultimate Denied (1)-(8)	IBNR	IBNR Awarded (10)xAwd Ratio
1995	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
1996	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-
1999	1	-	-	1	-	0.15	0.03	0.03	0.97	-	-
2000	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-	-	-	0.0049	0.0020
Total	1	-	-	1	-	0.15	0.03	0.03	0.97	0.0049	0.0020

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.0000	$ 1.4935	-	509	1.047	53.9	-
1996	-	1.6127	-	527	1.047	56.2	-
1997	-	1.5716	-	542	1.047	53.3	-
1998	-	1.7623	-	561	1.047	57.7	-
1999	0.0300	1.8142	0.0165	588	1.047	56.7	0.0529
2000	-	1.3702	-	611	1.047	41.2	-
2001	-	1.6365	-	644	1.047	46.7	-
2002	-	1.3865	-	662	1.047	38.5	-
2003	-	1.3543	-	675	1.047	36.9	-
2004	-	1.3453	-	690	1.047	35.8	-
2005	-	1.4176	-	716	1.047	36.4	-
2006	-	1.4425	-	745	1.047	35.6	-
2007	-	1.6625	-	779	1.047	39.2	-
2008	-	2.1367	-	807	1.047	48.6	-
2009	-	1.3359	-	836	1.047	29.4	-
2010	-	1.2996	-	845	1.047	28.2	-
2011	-	1.2579	-	858	1.047	26.9	-
2012	-	1.0293	-	888	1.047	21.3	-
2013	-	0.3819	-	917	1.047	7.6	-
2014	0.0020	0.2588	0.0079	932	1.047	5.1	0.0401
Total	0.0320	27.5698	0.0012			755.2	0.0042

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

BITUMINOUS UNDERGROUND(0158)

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAwd Ratio
1995	# 1	# 0	# 1	# 0	# 0.30	# 0.00	# 0.00	# 0.30	# 0.70	# 0.0000	# 0.0000
1996	1	-	-	1	-	0.15	0.03	0.03	0.97	-	-
1997	2	-	-	2	-	0.30	0.06	0.06	1.94	-	-
1998	-	-	-	-	-	-	-	-	-	-	-
1999	2	1	-	1	-	0.15	0.03	1.03	0.97	-	-
2000	2	1	-	1	-	0.15	0.03	1.03	0.97	-	-
2001	2	-	-	2	-	0.10	0.10	0.10	1.90	-	-
2002	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2005	1	1	-	-	-	-	-	1.00	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-
2008	2	1	-	1	-	0.05	0.05	1.05	0.95	0.0442	0.0186
2009	-	-	-	-	-	-	-	-	-	0.1086	0.0457
2010	1	1	-	-	-	-	-	1.00	-	0.2573	0.1082
2011	2	2	-	-	-	-	-	2.00	-	0.4936	0.2075
2012	3	1	-	2	-	0.10	0.10	1.10	1.90	0.7508	0.3156
2013	2	-	1	1	0.30	0.05	0.05	0.35	1.65	1.0745	0.4517
2014	-	-	-	-	-	-	-	-	-	2.9478	1.2392
Total	23	8	2	13	0.60	1.15	0.55	9.15	13.85	5.6768	2.3865

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.3000	$ 65.2711	0.0046	509	1.439	1,713.7	0.0175
1996	0.0300	75.2230	0.0004	527	1.439	1,907.5	0.0016
1997	0.0600	70.3967	0.0009	542	1.439	1,735.8	0.0035
1998	-	61.0873	-	561	1.439	1,455.2	-
1999	1.0300	58.6852	0.0176	588	1.439	1,333.8	0.0772
2000	1.0300	47.5206	0.0217	611	1.439	1,039.4	0.0991
2001	0.1000	48.5226	0.0021	644	1.439	1,006.9	0.0099
2002	0.0500	40.8380	0.0012	662	1.439	824.4	0.0061
2003	-	36.4984	-	675	1.439	722.6	-
2004	0.0500	46.0739	0.0011	690	1.439	892.4	0.0056
2005	1.0000	66.2758	0.0151	716	1.439	1,237.0	0.0808
2006	-	70.4659	-	745	1.439	1,264.0	-
2007	-	79.9043	-	779	1.439	1,370.8	-
2008	1.0686	101.3540	0.0105	807	1.439	1,678.4	0.0637
2009	0.0457	101.3481	0.0005	836	1.439	1,620.1	0.0028
2010	1.1082	125.3936	0.0088	845	1.439	1,983.1	0.0559
2011	2.2075	148.4857	0.0149	858	1.439	2,312.8	0.0954
2012	1.4156	153.6022	0.0092	888	1.439	2,311.6	0.0612
2013	0.8017	141.7929	0.0057	917	1.439	2,066.4	0.0388
2014	1.2392	148.0662	0.0084	932	1.439	2,123.1	0.0584
Total	11.5365	1,686.8055	0.0068			30,599.0	0.0377

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

ANTHRACITE SURFACE(0153)

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAwd Ratio
1995	# 3	# 1	# 0	# 2	# 0.00	# 0.30	# 0.06	# 1.06	# 1.94	# 0.0000	# 0.0000
1996	1	-	-	1	-	0.15	0.03	0.03	0.97	-	-
1997	3	1	-	2	-	0.30	0.06	1.06	1.94	-	-
1998	1	-	1	-	0.30	-	-	0.30	0.70	-	-
1999	-	-	-	-	-	-	-	-	-	-	-
2000	1	1	-	-	-	-	-	1.00	-	-	-
2001	1	1	-	-	-	-	-	1.00	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	2	1	-	1	-	0.05	0.05	1.05	0.95	-	-
2004	1	1	-	-	-	-	-	1.00	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2007	2	-	1	1	0.30	0.05	0.05	0.35	1.65	-	-
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-
2011	1	-	-	1	-	0.05	0.05	0.05	0.95	0.0400	0.0168
2012	-	-	-	-	-	-	-	-	-	0.1055	0.0444
2013	-	-	-	-	-	-	-	-	-	0.1465	0.0616
2014	-	-	-	-	-	-	-	-	-	0.2289	0.0962
Total	17	6	2	9	0.60	0.95	0.35	6.95	10.05	0.5208	0.2190

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 1.0600	$ 20.2889	0.0522	509	1.047	732.1	0.1448
1996	0.0300	16.1922	0.0019	527	1.047	564.3	0.0053
1997	1.0600	17.7831	0.0596	542	1.047	602.6	0.1759
1998	0.3000	17.3763	0.0173	561	1.047	568.9	0.0527
1999	-	18.4411	-	588	1.047	576.0	-
2000	1.0000	16.8078	0.0595	611	1.047	505.3	0.1979
2001	1.0000	12.9237	0.0774	644	1.047	368.6	0.2713
2002	-	11.0466	-	662	1.047	306.5	-
2003	1.0500	11.9282	0.0880	675	1.047	324.6	0.3235
2004	1.0000	12.3597	0.0809	690	1.047	329.0	0.3040
2005	-	12.1409	-	716	1.047	311.4	-
2006	0.0500	12.0653	0.0041	745	1.047	297.5	0.0168
2007	0.3500	14.8666	0.0235	779	1.047	350.5	0.0999
2008	-	16.2202	-	807	1.047	369.2	-
2009	-	15.8935	-	836	1.047	349.2	-
2010	-	13.3192	-	845	1.047	289.5	-
2011	0.0668	19.5074	0.0034	858	1.047	417.6	0.0160
2012	0.0444	24.7347	0.0018	888	1.047	511.6	0.0087
2013	0.0616	20.7200	0.0030	917	1.047	415.0	0.0148
2014	0.0962	18.8689	0.0051	932	1.047	371.9	0.0259
Total	7.1690	323.4843	0.0222			8,561.3	0.0837

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

BITUMINOUS SURFACE(0156)

	Counts										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded	Ultimate Awarded (2)+(5)+(7)	Ultimate Denied (1)-(8)	IBNR	IBNR Awarded (10)xAwd Ratio
1995	# 2	# 0	# 0	# 2	# 0.00	# 0.30	# 0.06	# 0.06	# 1.94	# 0.0000	# 0.0000
1996	2	-	-	2	-	0.30	0.06	0.06	1.94	-	-
1997	2	-	-	2	-	0.30	0.06	0.06	1.94	-	-
1998	1	-	-	1	-	0.15	0.03	0.03	0.97	-	-
1999	1	-	-	1	-	0.15	0.03	0.03	0.97	-	-
2000	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-	-	-	0.0272	0.0114
2013	-	-	-	-	-	-	-	-	-	0.0494	0.0208
2014	-	-	-	-	-	-	-	-	-	0.0697	0.0293
Total	8	-	-	8	-	1.20	0.24	0.24	7.76	0.1464	0.0615

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.0600	$ 78.7526	0.0008	509	1.047	2,841.8	0.0021
1996	0.0600	77.8284	0.0008	527	1.047	2,712.5	0.0022
1997	0.0600	67.9058	0.0009	542	1.047	2,301.2	0.0026
1998	0.0300	63.6516	0.0005	561	1.047	2,084.0	0.0014
1999	0.0300	54.1623	0.0006	588	1.047	1,691.9	0.0018
2000	-	49.9356	-	611	1.047	1,501.1	-
2001	-	58.1513	-	644	1.047	1,658.5	-
2002	-	53.5021	-	662	1.047	1,484.4	-
2003	-	47.8737	-	675	1.047	1,302.7	-
2004	-	56.2173	-	690	1.047	1,496.5	-
2005	-	64.8716	-	716	1.047	1,664.1	-
2006	-	63.7985	-	745	1.047	1,572.9	-
2007	-	64.8081	-	779	1.047	1,528.1	-
2008	-	74.6012	-	807	1.047	1,697.9	-
2009	-	63.3067	-	836	1.047	1,390.9	-
2010	-	74.2552	-	845	1.047	1,614.1	-
2011	-	87.7305	-	858	1.047	1,878.1	-
2012	0.0114	77.8710	0.0001	888	1.047	1,610.7	0.0007
2013	0.0208	62.5368	0.0003	917	1.047	1,252.6	0.0017
2014	0.0293	55.3470	0.0005	932	1.047	1,090.8	0.0027
Total	0.3015	1,297.1073	0.0002			34,374.8	0.0009

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

Coal Mine Compensation Rating Bureau

Federal Excess Occupational Disease After Administration / Law Change Frequencies by Classification

FOUR STANDARD CLASSES

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAwd Ratio
1995	# 6	# 1	# 1	# 4	# 0.30	# 0.60	# 0.12	# 1.42	# 4.58	# 0.0000	# 0.0000
1996	4	-	-	4	-	0.60	0.12	0.12	3.88	-	-
1997	7	1	-	6	-	0.90	0.18	1.18	5.82	-	-
1998	2	-	1	1	0.30	0.15	0.03	0.33	1.67	-	-
1999	4	1	-	3	-	0.45	0.09	1.09	2.91	-	-
2000	3	2	-	1	-	0.15	0.03	2.03	0.97	-	-
2001	3	1	-	2	-	0.10	0.10	1.10	1.90	-	-
2002	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2003	2	1	-	1	-	0.05	0.05	1.05	0.95	-	-
2004	2	1	-	1	-	0.05	0.05	1.05	0.95	-	-
2005	1	1	-	-	-	-	-	1.00	-	-	-
2006	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2007	2	-	1	1	0.30	0.05	0.05	0.35	1.65	-	-
2008	2	1	-	1	-	0.05	0.05	1.05	0.95	0.0442	0.0186
2009	-	-	-	-	-	-	-	-	-	0.1086	0.0457
2010	1	1	-	-	-	-	-	1.00	-	0.2573	0.1082
2011	3	2	-	1	-	0.05	0.05	2.05	0.95	0.5335	0.2243
2012	3	1	-	2	-	0.10	0.10	1.10	1.90	0.8835	0.3714
2013	2	-	1	1	0.30	0.05	0.05	0.35	1.65	1.2704	0.5341
2014	-	-	-	-	-	-	-	-	-	3.2513	1.3668
Total	49	14	4	31	1.20	3.45	1.17	16.37	32.63	6.3489	2.6691

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 1.4200	$ 165.8061	0.0086	509		5,341.5	0.0266
1996	0.1200	170.8563	0.0007	527		5,240.5	0.0023
1997	1.1800	157.6572	0.0075	542		4,692.9	0.0251
1998	0.3300	143.8775	0.0023	561		4,165.8	0.0079
1999	1.0900	133.1028	0.0082	588		3,658.4	0.0298
2000	2.0300	115.6342	0.0176	611		3,087.0	0.0658
2001	1.1000	121.2341	0.0091	644		3,080.7	0.0357
2002	0.0500	106.7732	0.0005	662		2,653.8	0.0019
2003	1.0500	97.6546	0.0108	675		2,386.8	0.0440
2004	1.0500	115.9962	0.0091	690		2,753.7	0.0381
2005	1.0000	144.7059	0.0069	716		3,248.9	0.0308
2006	0.0500	147.7722	0.0003	745		3,170.0	0.0016
2007	0.3500	161.2415	0.0022	779		3,288.6	0.0106
2008	1.0686	194.3121	0.0055	807		3,794.1	0.0282
2009	0.0457	181.8842	0.0003	836		3,389.6	0.0013
2010	1.1082	214.2676	0.0052	845		3,914.9	0.0283
2011	2.2743	256.9815	0.0089	858		4,635.4	0.0491
2012	1.4714	257.2372	0.0057	888		4,455.2	0.0330
2013	0.8841	225.4316	0.0039	917		3,741.6	0.0236
2014	1.3668	222.5409	0.0061	932		3,590.9	0.0381
Total	19.0391	3,334.9669	0.0057			74,290.3	0.0256

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Sum of Pages 1 to 4

Col.(15): Exhibit XII-D
Col.(16): N/A
Col.(17): Total of 4 std. classes
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

COKE(0154)

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAwd Ratio
1995	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
1996	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	0.0011	0.0005
2008	-	-	-	-	-	-	-	-	-	0.0016	0.0007
2009	-	-	-	-	-	-	-	-	-	0.0018	0.0008
2010	-	-	-	-	-	-	-	-	-	0.0030	0.0013
2011	-	-	-	-	-	-	-	-	-	0.0030	0.0013
2012	-	-	-	-	-	-	-	-	-	0.0065	0.0027
2013	-	-	-	-	-	-	-	-	-	0.0088	0.0037
2014	-	-	-	-	-	-	-	-	-	0.0117	0.0049
Total	-	-	-	-	-	-	-	-	-	0.0376	0.0158

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.0000	$ 55.0002	-	509	1.047	1,984.7	-
1996	-	54.5712	-	527	1.047	1,902.0	-
1997	-	53.1191	-	542	1.047	1,800.1	-
1998	-	13.3539	-	561	1.047	437.2	-
1999	-	12.2935	-	588	1.047	384.0	-
2000	-	12.0926	-	611	1.047	363.5	-
2001	-	10.3758	-	644	1.047	295.9	-
2002	-	10.4850	-	662	1.047	290.9	-
2003	-	11.5341	-	675	1.047	313.9	-
2004	-	12.0491	-	690	1.047	320.7	-
2005	-	12.8610	-	716	1.047	329.9	-
2006	-	12.7374	-	745	1.047	314.0	-
2007	0.0005	13.6699	0.0000	779	1.047	322.3	0.0001
2008	0.0007	9.7611	0.0001	807	1.047	222.2	0.0003
2009	0.0008	5.1736	0.0001	836	1.047	113.7	0.0007
2010	0.0013	5.4357	0.0002	845	1.047	118.2	0.0011
2011	0.0013	3.5991	0.0004	858	1.047	77.0	0.0017
2012	0.0027	5.7381	0.0005	888	1.047	118.7	0.0023
2013	0.0037	4.7919	0.0008	917	1.047	96.0	0.0039
2014	0.0049	4.4644	0.0011	932	1.047	88.0	0.0056
Total	0.0158	323.1067	0.0000			9,892.9	0.0002

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

AUGER(0157)

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAwd Ratio
1995	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
1996	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	0.0001	0.0000
2008	-	-	-	-	-	-	-	-	-	0.0004	0.0002
2009	-	-	-	-	-	-	-	-	-	0.0003	0.0001
2010	-	-	-	-	-	-	-	-	-	0.0004	0.0002
2011	-	-	-	-	-	-	-	-	-	0.0010	0.0004
2012	-	-	-	-	-	-	-	-	-	0.0009	0.0004
2013	-	-	-	-	-	-	-	-	-	0.0019	0.0008
2014	-	-	-	-	-	-	-	-	-	0.0023	0.0010
Total	-	-	-	-	-	-	-	-	-	0.0074	0.0031

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.0000	$ 1.4996	-	509	1.047	54.1	-
1996	-	0.8466	-	527	1.047	29.5	-
1997	-	1.1935	-	542	1.047	40.4	-
1998	-	1.2379	-	561	1.047	40.5	-
1999	-	1.1369	-	588	1.047	35.5	-
2000	-	1.2059	-	611	1.047	36.3	-
2001	-	1.4291	-	644	1.047	40.8	-
2002	-	1.1508	-	662	1.047	31.9	-
2003	-	1.1022	-	675	1.047	30.0	-
2004	-	1.0588	-	690	1.047	28.2	-
2005	-	1.0265	-	716	1.047	26.3	-
2006	-	1.0668	-	745	1.047	26.3	-
2007	0.0000	1.1212	0.0000	779	1.047	26.4	0.0001
2008	0.0002	2.5068	0.0001	807	1.047	57.1	0.0003
2009	0.0001	0.9470	0.0001	836	1.047	20.8	0.0006
2010	0.0002	0.8275	0.0002	845	1.047	18.0	0.0010
2011	0.0004	1.1763	0.0004	858	1.047	25.2	0.0017
2012	0.0004	0.8082	0.0005	888	1.047	16.7	0.0023
2013	0.0008	1.0469	0.0008	917	1.047	21.0	0.0038
2014	0.0010	0.9308	0.0010	932	1.047	18.3	0.0053
Total	0.0031	23.3193	0.0001			623.3	0.0005

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

ANTHRACITE CO-GEN(0181)

	Counts										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded	Ultimate Awarded (2)+(5)+(7)	Ultimate Denied (1)-(8)	IBNR	IBNR Awarded (10)xAwd Ratio
1995	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
1996	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	0.0007	0.0003
2008	-	-	-	-	-	-	-	-	-	0.0013	0.0005
2009	-	-	-	-	-	-	-	-	-	0.0028	0.0012
2010	-	-	-	-	-	-	-	-	-	0.0047	0.0020
2011	-	-	-	-	-	-	-	-	-	0.0099	0.0042
2012	-	-	-	-	-	-	-	-	-	0.0116	0.0049
2013	-	-	-	-	-	-	-	-	-	0.0154	0.0065
2014	-	-	-	-	-	-	-	-	-	0.0244	0.0102
Total	1	-	-	1	-	0.05	0.05	0.05	0.95	0.0708	0.0297

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.0000	$ 3.4818	# 0.0000	509	1.047	125.6	-
1996	-	3.7590	-	527	1.047	131.0	-
1997	-	3.5202	-	542	1.047	119.3	-
1998	-	3.4588	-	561	1.047	113.2	-
1999	-	3.6043	-	588	1.047	112.6	-
2000	-	4.4735	-	611	1.047	134.5	-
2001	-	4.6618	-	644	1.047	133.0	-
2002	-	5.6588	-	662	1.047	157.0	-
2003	0.0500	7.0096	0.0071	675	1.047	190.7	0.0262
2004	-	7.3515	-	690	1.047	195.7	-
2005	-	7.8553	-	716	1.047	201.5	-
2006	-	8.4125	-	745	1.047	207.4	-
2007	0.0003	9.1867	0.0000	779	1.047	216.6	0.0001
2008	0.0005	7.5214	0.0001	807	1.047	171.2	0.0003
2009	0.0012	7.5347	0.0002	836	1.047	165.5	0.0007
2010	0.0020	7.9580	0.0002	845	1.047	173.0	0.0011
2011	0.0042	10.9816	0.0004	858	1.047	235.1	0.0018
2012	0.0049	9.3118	0.0005	888	1.047	192.6	0.0025
2013	0.0065	7.6308	0.0008	917	1.047	152.8	0.0042
2014	0.0102	8.5659	0.0012	932	1.047	168.8	0.0061
Total	0.0797	131.9380	0.0006			3,297.1	0.0024

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

BITUMINOUS CO-GEN(0182)

	Counts										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded	Ultimate Awarded (2)+(5)+(7)	Ultimate Denied (1)-(8)	IBNR	IBNR Awarded (10)xAwd Ratio
1995	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
1996	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	1	-	-	1	-	0.05	0.05	0.05	0.95	0.0009	0.0004
2008	-	-	-	-	-	-	-	-	-	0.0014	0.0006
2009	-	-	-	-	-	-	-	-	-	0.0028	0.0012
2010	-	-	-	-	-	-	-	-	-	0.0049	0.0021
2011	-	-	-	-	-	-	-	-	-	0.0077	0.0032
2012	-	-	-	-	-	-	-	-	-	0.0102	0.0043
2013	-	-	-	-	-	-	-	-	-	0.0191	0.0080
2014	-	-	-	-	-	-	-	-	-	0.0301	0.0126
Total	1	-	-	1	-	0.05	0.05	0.05	0.95	0.0770	0.0324

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.0000	$ 0.3602	# 0.0000	509	1.439	9.5	-
1996	-	0.3702	-	527	1.439	9.4	-
1997	-	0.8561	-	542	1.439	21.1	-
1998	-	1.1612	-	561	1.439	27.7	-
1999	-	1.4943	-	588	1.439	34.0	-
2000	-	1.8707	-	611	1.439	40.9	-
2001	-	2.1213	-	644	1.439	44.0	-
2002	-	2.3861	-	662	1.439	48.2	-
2003	-	3.0525	-	675	1.439	60.4	-
2004	-	6.3745	-	690	1.439	123.5	-
2005	-	8.5248	-	716	1.439	159.1	-
2006	-	9.4236	-	745	1.439	169.0	-
2007	0.0504	10.8291	0.0047	779	1.439	185.8	0.0271
2008	0.0006	8.4819	0.0001	807	1.439	140.5	0.0004
2009	0.0012	7.8664	0.0001	836	1.439	125.7	0.0009
2010	0.0021	8.7327	0.0002	845	1.439	138.1	0.0015
2011	0.0032	9.1024	0.0004	858	1.439	141.8	0.0023
2012	0.0043	9.0477	0.0005	888	1.439	136.2	0.0032
2013	0.0080	10.3559	0.0008	917	1.439	150.9	0.0053
2014	0.0126	11.4516	0.0011	932	1.439	164.2	0.0077
Total	0.0824	113.8632	0.0007			1,930.0	0.0043

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

ANTHRACITE PREP PLANT(0183)

	Counts										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded	Ultimate Awarded (2)+(5)+(7)	Ultimate Denied (1)-(8)	IBNR	IBNR Awarded (10)xAwd Ratio
1995	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
1996	-	-	-	-	-	-	-	-	-	-	-
1997	1	1	-	-	-	-	-	1.00	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-
2000	-	-	-	-	-	-	-	-	-	-	-
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	1	-	-	1	-	0.05	0.05	0.05	0.95	0.0012	0.0005
2008	-	-	-	-	-	-	-	-	-	0.0026	0.0011
2009	-	-	-	-	-	-	-	-	-	0.0059	0.0025
2010	1	1	-	-	-	-	-	1.00	-	0.0080	0.0034
2011	-	-	-	-	-	-	-	-	-	0.0152	0.0064
2012	-	-	-	-	-	-	-	-	-	0.0245	0.0103
2013	-	-	-	-	-	-	-	-	-	0.0381	0.0160
2014	-	-	-	-	-	-	-	-	-	0.0532	0.0224
Total	3	2	-	1	-	0.05	0.05	2.05	0.95	0.1487	0.0625

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.0000	$ 0.0000	# 0.0000	509	1.047	-	-
1996	-	0.2211	-	527	1.047	7.7	-
1997	1.0000	1.1494	0.8700	542	1.047	39.0	2.5641
1998	-	1.0329	-	561	1.047	33.8	-
1999	-	1.2311	-	588	1.047	38.5	-
2000	-	1.3195	-	611	1.047	39.7	-
2001	-	2.2163	-	644	1.047	63.2	-
2002	-	2.3228	-	662	1.047	64.4	-
2003	-	3.4080	-	675	1.047	92.7	-
2004	-	4.4067	-	690	1.047	117.3	-
2005	-	5.1701	-	716	1.047	132.6	-
2006	-	4.8859	-	745	1.047	120.5	-
2007	0.0505	5.8173	0.0087	779	1.047	137.2	0.0368
2008	0.0011	5.7335	0.0002	807	1.047	130.5	0.0008
2009	0.0025	6.2646	0.0004	836	1.047	137.6	0.0018
2010	1.0034	4.8769	0.2057	845	1.047	106.0	0.9466
2011	0.0064	6.1233	0.0010	858	1.047	131.1	0.0049
2012	0.0103	7.5690	0.0014	888	1.047	156.6	0.0066
2013	0.0160	7.0749	0.0023	917	1.047	141.7	0.0113
2014	0.0224	6.4527	0.0035	932	1.047	127.2	0.0176
Total	2.1125	77.2760	0.0273			1,817.3	0.1162

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

BITUMINOUS PREP PLANT(0184)

	Counts										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded	Ultimate Awarded (2)+(5)+(7)	Ultimate Denied (1)-(8)	IBNR	IBNR Awarded (10)xAwd Ratio
1995	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
1996	-	-	-	-	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-
2000	1	-	-	1	-	0.15	0.03	0.03	0.97	-	-
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	-	0.0015	0.0006
2008	-	-	-	-	-	-	-	-	-	0.0034	0.0014
2009	-	-	-	-	-	-	-	-	-	0.0069	0.0029
2010	-	-	-	-	-	-	-	-	-	0.0147	0.0062
2011	-	-	-	-	-	-	-	-	-	0.0296	0.0124
2012	-	-	-	-	-	-	-	-	-	0.0387	0.0163
2013	-	-	-	-	-	-	-	-	-	0.0630	0.0265
2014	-	-	-	-	-	-	-	-	-	0.1150	0.0483
Total	1	-	-	1	-	0.15	0.03	0.03	0.97	0.2728	0.1147

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.0000	$ 0.0000	# 0.0000	509	1.439	-	-
1996	-	3.0666	-	527	1.439	77.8	-
1997	-	13.7836	-	542	1.439	339.9	-
1998	-	11.1121	-	561	1.439	264.7	-
1999	-	10.6918	-	588	1.439	243.0	-
2000	0.0300	8.5748	0.0035	611	1.439	187.6	0.0160
2001	-	10.1550	-	644	1.439	210.7	-
2002	-	10.0945	-	662	1.439	203.8	-
2003	-	10.1952	-	675	1.439	201.8	-
2004	-	13.4602	-	690	1.439	260.7	-
2005	-	16.5483	-	716	1.439	308.9	-
2006	-	17.0510	-	745	1.439	305.9	-
2007	0.0006	18.8952	0.0000	779	1.439	324.2	0.0002
2008	0.0014	21.2503	0.0001	807	1.439	351.9	0.0004
2009	0.0029	19.8280	0.0001	836	1.439	317.0	0.0009
2010	0.0062	26.3131	0.0002	845	1.439	416.2	0.0015
2011	0.0124	35.1551	0.0004	858	1.439	547.6	0.0023
2012	0.0163	34.2117	0.0005	888	1.439	514.9	0.0032
2013	0.0265	33.5938	0.0008	917	1.439	489.6	0.0054
2014	0.0483	32.0232	0.0015	932	1.439	459.2	0.0105
Total	0.1447	346.0035	0.0004			6,025.4	0.0024

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Exh. X-A

Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) / ((15) x (16) x 52) times 1000000
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

TOTAL OTHER CLASSES

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAwd Ratio
1995	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00	# 0.00	# 0.00	# 0.0000	# 0.0000
1996	-	-	-	-	-	-	-	-	-	-	-
1997	1	1	-	-	-	-	-	1.00	-	-	-
1998	-	-	-	-	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	-	-	-
2000	1	-	-	1	-	0.15	0.03	0.03	0.97	-	-
2001	-	-	-	-	-	-	-	-	-	-	-
2002	-	-	-	-	-	-	-	-	-	-	-
2003	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2004	-	-	-	-	-	-	-	-	-	-	-
2005	-	-	-	-	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	-	-	-
2007	2	-	-	2	-	0.10	0.10	0.10	1.90	0.0054	0.0023
2008	-	-	-	-	-	-	-	-	-	0.0106	0.0044
2009	-	-	-	-	-	-	-	-	-	0.0205	0.0086
2010	1	1	-	-	-	-	-	1.00	-	0.0358	0.0151
2011	-	-	-	-	-	-	-	-	-	0.0664	0.0279
2012	-	-	-	-	-	-	-	-	-	0.0925	0.0389
2013	-	-	-	-	-	-	-	-	-	0.1463	0.0615
2014	-	-	-	-	-	-	-	-	-	0.2366	0.0995
Total	6	2	-	4	-	0.30	0.18	2.18	3.82	0.6142	0.2582

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 0.0000	$ 60.3418	# 0.0000	509		2,173.9	-
1996	-	62.8347	-	527		2,157.4	-
1997	1.0000	73.6219	0.0136	542		2,359.8	0.0424
1998	-	31.3568	-	561		917.1	-
1999	-	30.4519	-	588		847.6	-
2000	0.0300	29.5370	0.0010	611		802.5	0.0037
2001	-	30.9593	-	644		787.6	-
2002	-	32.0980	-	662		796.2	-
2003	0.0500	36.3016	0.0014	675		889.5	0.0056
2004	-	44.7008	-	690		1,046.1	-
2005	-	51.9860	-	716		1,158.3	-
2006	-	53.5772	-	745		1,143.1	-
2007	0.1023	59.5194	0.0017	779		1,212.5	0.0084
2008	0.0044	55.2550	0.0001	807		1,073.4	0.0004
2009	0.0086	47.6143	0.0002	836		880.3	0.0010
2010	1.0151	54.1439	0.0187	845		969.5	0.1047
2011	0.0279	66.1378	0.0004	858		1,157.8	0.0024
2012	0.0389	66.6865	0.0006	888		1,135.7	0.0034
2013	0.0615	64.4942	0.0010	917		1,052.0	0.0058
2014	0.0995	63.8886	0.0016	932		1,025.7	0.0097
Total	2.4382	1,015.5067	0.0024			23,586.0	0.0103

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Sum of Pages 6 to 11

Col.(15): Exhibit XII-D
Col.(16): N/A
Col.(17): Total of other classes
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

GRAND TOTAL

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAwd Ratio
1995	# 6	# 1	# 1	# 4	# 0.30	# 0.60	# 0.12	# 1.42	# 4.58	# 0.0000	# 0.0000
1996	4	-	-	4	-	0.60	0.12	0.12	3.88	-	-
1997	8	2	-	6	-	0.90	0.18	2.18	5.82	-	-
1998	2	-	1	1	0.30	0.15	0.03	0.33	1.67	-	-
1999	4	1	-	3	-	0.45	0.09	1.09	2.91	-	-
2000	4	2	-	2	-	0.30	0.06	2.06	1.94	-	-
2001	3	1	-	2	-	0.10	0.10	1.10	1.90	-	-
2002	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2003	3	1	-	2	-	0.10	0.10	1.10	1.90	-	-
2004	2	1	-	1	-	0.05	0.05	1.05	0.95	-	-
2005	1	1	-	-	-	-	-	1.00	-	-	-
2006	1	-	-	1	-	0.05	0.05	0.05	0.95	-	-
2007	4	-	1	3	0.30	0.15	0.15	0.45	3.55	0.0054	0.0023
2008	2	1	-	1	-	0.05	0.05	1.05	0.95	0.0548	0.0230
2009	-	-	-	-	-	-	-	-	-	0.1291	0.0543
2010	2	2	-	-	-	-	-	2.00	-	0.2931	0.1232
2011	3	2	-	1	-	0.05	0.05	2.05	0.95	0.6000	0.2522
2012	3	1	-	2	-	0.10	0.10	1.10	1.90	0.9760	0.4103
2013	2	-	1	1	0.30	0.05	0.05	0.35	1.65	1.4167	0.5956
2014	-	-	-	-	-	-	-	-	-	3.4879	1.4663
Total	55	16	4	35	1.20	3.75	1.35	18.55	36.45	6.9630	2.9273

Year	(12) Total Awarded (8)+(11)	(13) Payroll ($M)	(14) Frequency (12)/(13)	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Per 100 Miner Years
1995	# 1.4200	$ 226.1479	# 0.0063	509		7,515.4	0.0189
1996	0.1200	233.6910	0.0005	527		7,397.9	0.0016
1997	2.1800	231.2791	0.0094	542		7,052.7	0.0309
1998	0.3300	175.2343	0.0019	561		5,082.9	0.0065
1999	1.0900	163.5547	0.0067	588		4,506.0	0.0242
2000	2.0600	145.1712	0.0142	611		3,889.5	0.0530
2001	1.1000	152.1934	0.0072	644		3,868.3	0.0284
2002	0.0500	138.8712	0.0004	662		3,450.0	0.0014
2003	1.1000	133.9562	0.0082	675		3,276.3	0.0336
2004	1.0500	160.6970	0.0065	690		3,799.8	0.0276
2005	1.0000	196.6919	0.0051	716		4,407.2	0.0227
2006	0.0500	201.3494	0.0002	745		4,313.1	0.0012
2007	0.4523	220.7609	0.0020	779		4,501.1	0.0100
2008	1.0730	249.5671	0.0043	807		4,867.5	0.0220
2009	0.0543	229.4985	0.0002	836		4,269.9	0.0013
2010	2.1232	268.4115	0.0079	845		4,884.4	0.0435
2011	2.3022	323.1193	0.0071	858		5,793.2	0.0397
2012	1.5103	323.9237	0.0047	888		5,590.9	0.0270
2013	0.9456	289.9258	0.0033	917		4,793.6	0.0197
2014	1.4663	286.4295	0.0051	932		4,616.6	0.0318
Total	21.4773	4,350.4736	0.0049			97,876.3	0.0219

Sources: Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.15)xCol.(4);2000 & Prior
(0.05)xCol.(4);2001 & Subseq.
Col.(7): (0.20)xCol.(6);2000 & Prior
(1.00)xCol.(6);2001 & Subseq.
Col.(10): 40% of Exh. VII-C-1 thru VII-C-6
Col.(13): Sum of Pages 5 & 12

Col.(15): Exhibit XII-D
Col.(16): N/A
Col.(17): Total of all classes
Col.(18): (12) / (17) x 100

IBNR Award Ratio(2000 & Prior): 0.2571
IBNR Award Ratio(2001 & Subseq.): 0.4204

Coal Mine Compensation Rating Bureau
Summary of Individual Claim Detail for Federal Basic
Claims from Exposure Years 1990 to 2014

	Federal Basic Severities		
	Indemnity	Medical	Total
Underground Anthracite Class 160			
Total	7,744,537	1,034,245	8,778,782
Number of Claims	21	21	21
Average	368,787	49,250	418,037
Underground Bituminous Class 158			
Total	21,194,608	2,642,246	23,836,854
Number of Claims	60	60	60
Average	353,243	44,037	397,281
Surface Anthracite Class 153			
Total	10,554,602	1,507,171	12,061,773
Number of Claims	39	39	39
Average	270,631	38,645	309,276
Surface Bituminous Class 156			
Total	12,960,947	1,544,055	14,505,002
Number of Claims	48	48	48
Average	270,020	32,168	302,188
Four Standard Classes Combined			
Total	52,454,694	6,727,716	59,182,410
Number of Claims	168	168	168
Average	312,230	40,046	352,276
Other Classes			
Total	2,118,535	350,675	2,469,210
Number of Claims	8	8	8
Average	264,817	43,834	308,651
All Classes Combined			
Total	54,573,229	7,078,391	61,651,620
Number of Claims	176	176	176
Average	310,075	40,218	350,293

Source: Exhibit IX-B

FEDERAL BASIC OCCUPATIONAL DISEASE

ANTHRACITE UNDERGROUND (0160)

Year	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.200 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	10-Year Payroll Weighted Frequency
2005	0	0	0	0	0.0601	0.0601	0.012020	1,417,568	0.012020	716	1.047	36.4	0.033022	
2006	1	1	0	0	0.1290	0.1290	0.025792	1,442,524	1.025792	745	1.047	35.6	2.881438	
2007	0	0	0	0	0.2431	0.2431	0.048612	1,662,537	0.048612	779	1.047	39.2	0.124010	
2008	1	0	0	1	0.4431	0.4431	0.088610	2,136,713	0.088610	807	1.047	48.6	0.182325	
2009	1	0	0	1	0.3879	0.3879	0.077574	1,335,866	0.077574	836	1.047	29.3	0.264758	
2010	0	0	0	0	0.5256	0.5256	0.105116	1,299,588	0.105116	845	1.047	28.2	0.372752	
2011	2	0	1	1	0.6967	1.6967	0.339330	1,257,944	0.339330	858	1.047	26.9	1.261450	
2012	0	0	0	0	0.7297	0.7297	0.145940	1,029,260	0.145940	888	1.047	21.3	0.685164	
2013	2	0	1	1	0.3573	1.3573	0.271450	381,876	0.271450	917	1.047	7.6	3.571711	
2014	0	0	0	0	0.3081	0.3081	0.061610	258,809	0.061610	932	1.047	5.1	1.208039	
TOTAL	7	1	2	4	3.8803	5.8803	1.176054	12,222,685	2.176054			278.2	10.584669	
AVERAGE													1.058467	

BITUMINOUS UNDERGROUND (0158)

Year	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.042 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Payroll Weighted Frequency
2005	1	0	0	1	4.1734	4.1734	0.175282	66,275,755	0.175282	716	1.439	1,237.0	0.014170	
2006	2	1	0	1	5.0172	5.0172	0.210721	70,465,937	1.210721	745	1.439	1,264.0	0.095785	
2007	4	0	2	2	6.3692	8.3692	0.351505	79,904,266	0.351505	779	1.439	1,370.8	0.025642	
2008	0	0	0	0	8.9445	8.9445	0.375669	101,353,977	0.375669	807	1.439	1,678.4	0.022383	
2009	5	0	0	5	9.8409	9.8409	0.413318	101,348,140	0.413318	836	1.439	1,620.1	0.025512	
2010	2	0	0	2	13.3206	13.3206	0.559464	125,393,576	0.559464	845	1.439	1,983.1	0.028212	
2011	2	0	0	2	17.2511	17.2511	0.724545	148,485,709	0.724545	858	1.439	2,312.8	0.031328	
2012	6	0	0	6	20.0128	20.0128	0.840539	153,602,187	0.840539	888	1.439	2,311.6	0.036362	
2013	3	0	1	2	20.9896	21.9896	0.923563	141,792,870	0.923563	917	1.439	2,066.4	0.044694	
2014	3	0	1	2	24.5968	25.5968	1.075064	148,066,216	1.075064	932	1.439	2,123.1	0.050637	
TOTAL	28	1	4	23	130.5159	134.5159	5.649669	1,136,688,633	6.649669			17,967.3	0.374725	
AVERAGE													0.037473	

ANTHRACITE SURFACE (0153)

Year	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.444 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Payroll Weighted Frequency
2005	2	1	0	1	0.7757	0.7757	0.344402	12,140,911	1.344402	716	1.047	311.4	0.431728	
2006	1	0	1	0	0.9240	1.9240	0.854238	12,065,323	0.854238	745	1.047	297.5	0.287139	
2007	2	2	0	0	1.3431	1.3431	0.596314	14,866,556	2.596314	779	1.047	350.5	0.740746	
2008	1	0	0	1	1.7286	1.7286	0.767494	16,220,231	0.767494	807	1.047	369.2	0.207880	
2009	2	0	1	1	1.9692	2.9692	1.318329	15,893,528	1.318329	836	1.047	349.2	0.377528	
2010	0	0	0	0	1.9266	1.9266	0.855419	13,319,185	0.855419	845	1.047	289.5	0.295482	
2011	1	0	0	1	3.2792	3.2792	1.455965	19,507,428	1.455965	858	1.047	417.6	0.348651	
2012	1	0	1	0	4.8428	5.8428	2.594208	24,734,711	2.594208	888	1.047	511.6	0.507077	
2013	1	1	0	0	4.6330	4.6330	2.057048	20,720,014	3.057048	917	1.047	415.0	0.736638	
2014	1	0	0	1	4.7818	4.7818	2.123097	18,868,872	2.123097	932	1.047	371.9	0.570878	
TOTAL	12	4	3	5	26.2039	29.2039	12.966514	168,336,759	16.966514			3,683.4	4.503747	
AVERAGE													0.450375	

BITUMINOUS SURFACE (0156)

Year	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.174 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Payroll Weighted Frequency
2005	1	0	0	1	1.7885	1.7885	0.311201	64,871,562	0.311201	716	1.047	1,664.1	0.018701	
2006	4	0	1	3	2.0843	3.0843	0.536668	63,798,502	0.536668	745	1.047	1,572.9	0.034120	
2007	4	1	0	3	2.5139	2.5139	0.437420	64,808,093	1.437420	779	1.047	1,528.1	0.094066	
2008	5	1	2	2	3.3675	5.3675	0.933945	74,601,231	1.933945	807	1.047	1,697.9	0.113902	
2009	0	0	0	0	3.2742	3.2742	0.569714	63,306,695	0.569714	836	1.047	1,390.9	0.040960	
2010	1	0	0	1	4.3625	4.3625	0.759073	74,255,177	0.759073	845	1.047	1,614.1	0.047028	
2011	2	0	1	1	5.8578	6.8578	1.193252	87,730,506	1.193252	858	1.047	1,878.1	0.063535	
2012	9	2	1	6	5.8933	6.8933	1.199431	77,870,990	3.199431	888	1.047	1,610.7	0.198636	
2013	3	0	1	2	5.3150	6.3150	1.098810	62,536,807	1.098810	917	1.047	1,252.6	0.087722	
2014	1	0	1	0	5.3703	6.3703	1.108436	55,347,009	1.108436	932	1.047	1,090.8	0.101617	
TOTAL	30	4	7	19	39.8273	46.8273	8.147950	689,126,572	12.147950			15,300.2	0.800287	
AVERAGE													0.080029	

FOUR STANDARD CLASSES

YEAR	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.164 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Weighted Frequency
2005	4	1	0	3	6.7977	6.7977	1.114818	144,705,796	1.842905	716		3,248.9	0.056724	
2006	8	2	2	4	8.1544	10.1544	1.665320	147,772,286	3.627420	745		3,170.0	0.114430	
2007	10	3	2	5	10.4692	12.4692	2.044947	161,241,452	4.433852	779		3,288.6	0.134825	
2008	7	1	2	4	14.4836	16.4836	2.703315	194,312,152	3.165718	807		3,794.1	0.083438	
2009	8	0	1	7	15.4722	16.4722	2.701441	181,884,229	2.378935	836		3,389.5	0.070185	
2010	3	0	0	3	20.1353	20.1353	3.302181	214,267,526	2.279072	845		3,914.9	0.058215	
2011	7	0	2	5	27.0847	29.0847	4.769889	256,981,587	3.713092	858		4,635.4	0.080103	
2012	16	2	2	12	31.4786	33.4786	5.490494	257,237,148	6.780117	888		4,455.2	0.152184	
2013	9	1	3	5	31.2948	34.2948	5.624354	225,431,567	5.350871	917		3,741.6	0.143010	
2014	5	0	2	3	35.0569	37.0569	6.077328	222,540,906	4.368207	932		3,590.9	0.121647	
TOTAL	77	10	16	51	200.4274	216.4274	27.940187	2,006,374,649	37.940187			37,229.1	1.014761	
AVERAGE													0.101476	0.092952

Source: Claim counts - CMCRB OD Database as of 4/30/2015
IBNR: Exhibit VIII
Payroll- Exhibit X-A
The Award Ratio is equal to Awarded ÷ (Awarded plus Denied). Other Classes use the Total Award Ratio: 0.156=10 / [10 + 54]
The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)
Freqency per 100 Miner Years = (Expected Ult. Awarded / Est. Miner Years) x 100

FEDERAL BASIC OCCUPATIONAL DISEASE

COKE (0154)

Year	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.156 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	10-Year Payroll Weighted Frequency
2005	0	0	0	0	0.1194	0.1194	0.018626	12,860,979	0.018626	716	1.047	329.9	0.005646	
2006	0	0	0	0	0.1359	0.1359	0.021200	12,737,394	0.021200	745	1.047	314.0	0.006752	
2007	0	0	0	0	0.1658	0.1658	0.025865	13,669,925	0.025865	779	1.047	322.3	0.008025	
2008	0	0	0	0	0.1330	0.1330	0.020748	9,761,146	0.020748	807	1.047	222.2	0.009338	
2009	0	0	0	0	0.0784	0.0784	0.012230	5,173,552	0.012230	836	1.047	113.7	0.010757	
2010	0	0	0	0	0.0907	0.0907	0.014149	5,435,658	0.014149	845	1.047	118.2	0.011971	
2011	0	0	0	0	0.0662	0.0662	0.010327	3,599,086	0.010327	858	1.047	77.0	0.013412	
2012	0	0	0	0	0.1155	0.1155	0.018018	5,738,105	0.018018	888	1.047	118.7	0.015179	
2013	0	0	0	0	0.1052	0.1052	0.016411	4,791,910	0.016411	917	1.047	96.0	0.017095	
2014	0	0	0	0	0.1075	0.1075	0.016770	4,464,398	0.016770	932	1.047	88.0	0.019057	
TOTAL	0	0	0	0	1.1176	1.1176	0.174346	78,232,153	0.174346			1,800.0	0.117232	
AVERAGE													0.011723	

AUGER (0157)

IBNR Factor adjusted by 0.4000

YEAR	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.156 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Weighted Frequency
2005	0	0	0	0	0.0191	0.0191	0.002980	1,026,537	0.002980	716	1.047	26.3	0.011329	
2006	0	0	0	0	0.0228	0.0228	0.003557	1,066,831	0.003557	745	1.047	26.3	0.013524	
2007	0	0	0	0	0.0272	0.0272	0.004243	1,121,156	0.004243	779	1.047	26.4	0.016073	
2008	0	0	0	0	0.0683	0.0683	0.010655	2,506,758	0.010655	807	1.047	57.1	0.018660	
2009	0	0	0	0	0.0287	0.0287	0.004477	946,963	0.004477	836	1.047	20.8	0.021525	
2010	0	0	0	0	0.0276	0.0276	0.004306	827,496	0.004306	845	1.047	18.0	0.023920	
2011	0	0	0	0	0.0432	0.0432	0.006739	1,176,255	0.006739	858	1.047	25.2	0.026743	
2012	0	0	0	0	0.0325	0.0325	0.005070	808,208	0.005070	888	1.047	16.7	0.030359	
2013	0	0	0	0	0.0460	0.0460	0.007176	1,046,947	0.007176	917	1.047	21.0	0.034171	
2014	0	0	0	0	0.0448	0.0448	0.006989	930,810	0.006989	932	1.047	18.3	0.038190	
TOTAL	0	0	0	0	0.3602	0.3602	0.056191	11,457,961	0.056191			256.1	0.234494	
AVERAGE													0.023449	

ANTHRACITE CO-GEN (0181)

IBNR Factor adjusted by 0.5000

YEAR	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.156 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Weighted Frequency
2005	1	0	0	1	0.1823	0.1823	0.028439	7,855,289	0.028439	716	1.047	201.5	0.014114	
2006	0	0	0	0	0.2244	0.2244	0.035006	8,412,527	0.035006	745	1.047	207.4	0.016879	
2007	0	0	0	0	0.2786	0.2786	0.043462	9,186,706	0.043462	779	1.047	216.6	0.020065	
2008	0	0	0	0	0.2562	0.2562	0.039967	7,521,400	0.039967	807	1.047	171.2	0.023345	
2009	0	0	0	0	0.2854	0.2854	0.044522	7,534,735	0.044522	836	1.047	165.5	0.026902	
2010	0	0	0	0	0.3319	0.3319	0.051776	7,958,048	0.051776	845	1.047	173.0	0.029929	
2011	0	0	0	0	0.5046	0.5046	0.078718	10,981,642	0.078718	858	1.047	235.1	0.033483	
2012	0	0	0	0	0.4687	0.4687	0.073117	9,311,812	0.073117	888	1.047	192.6	0.037963	
2013	1	0	0	1	0.4188	0.4188	0.065333	7,630,762	0.065333	917	1.047	152.8	0.042757	
2014	0	0	0	0	0.5155	0.5155	0.080418	8,565,937	0.080418	932	1.047	168.8	0.047641	
TOTAL	2	0	0	2	3.4664	3.4664	0.540758	84,958,858	0.540758			1,884.5	0.293078	
AVERAGE													0.029308	

BITUMINOUS CO-GEN (0182)

IBNR Factor adjusted by 0.5000

YEAR	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.156 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Weighted Frequency
2005	0	0	0	0	0.1979	0.1979	0.030872	8,524,752	0.030872	716	1.439	159.1	0.019404	
2006	0	0	0	0	0.2514	0.2514	0.039218	9,423,575	0.039218	745	1.439	169.0	0.023206	
2007	0	0	0	0	0.3284	0.3284	0.051230	10,829,140	0.051230	779	1.439	185.8	0.027573	
2008	0	0	0	0	0.2889	0.2889	0.045068	8,481,888	0.045068	807	1.439	140.5	0.032077	
2009	0	0	0	0	0.2980	0.2980	0.046488	7,866,413	0.046488	836	1.439	125.7	0.036983	
2010	0	0	0	0	0.3642	0.3642	0.056815	8,732,701	0.056815	845	1.439	138.1	0.041141	
2011	0	0	0	0	0.4183	0.4183	0.065255	9,102,411	0.065255	858	1.439	141.8	0.046019	
2012	0	0	0	0	0.4554	0.4554	0.071042	9,047,745	0.071042	888	1.439	136.2	0.052160	
2013	0	0	0	0	0.5683	0.5683	0.088655	10,355,884	0.088655	917	1.439	150.9	0.058751	
2014	0	0	0	0	0.6891	0.6891	0.107500	11,451,621	0.107500	932	1.439	164.2	0.065469	
TOTAL	0	0	0	0	3.8599	3.8599	0.602144	93,816,130	0.602144			1,511.3	0.402783	
AVERAGE													0.040278	

Source: Claim counts - CMCRB OD Database as of 4/30/2015
IBNR: Exhibit VIII-C
Payroll- Exhibit X-A-1
The Award Ratio is equal to Awarded ÷ (Awarded plus Denied). Other Classes use the Total Award Ratio: 0.156=10 / [10 + 54]
The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)
Freqency per 100 Miner Years = (Expected Ult. Awarded / Est. Miner Years) x 100

FEDERAL BASIC OCCUPATIONAL DISEASE

ANTHRACITE PREP PLANT (0183)

Year	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.156 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	10-Year Payroll Weighted Frequency
2005	0	0	0	0	0.2400	0.2400	0.037440	5,170,069	0.037440	716	1.047	132.6	0.028235	
2006	0	0	0	0	0.2607	0.2607	0.040669	4,885,882	0.040669	745	1.047	120.5	0.033750	
2007	0	0	0	0	0.3529	0.3529	0.055052	5,817,291	0.055052	779	1.047	137.2	0.040126	
2008	0	0	0	0	0.3906	0.3906	0.060934	5,733,543	0.060934	807	1.047	130.5	0.046692	
2009	0	0	0	0	0.4746	0.4746	0.074038	6,264,606	0.074038	836	1.047	137.6	0.053806	
2010	0	0	0	0	0.4068	0.4068	0.063461	4,876,927	0.063461	845	1.047	106.0	0.059869	
2011	0	0	0	0	0.5627	0.5627	0.087781	6,123,259	0.087781	858	1.047	131.1	0.066957	
2012	0	0	0	0	0.7619	0.7619	0.118856	7,569,023	0.118856	888	1.047	156.6	0.075898	
2013	0	0	0	0	0.7765	0.7765	0.121134	7,074,886	0.121134	917	1.047	141.7	0.085486	
2014	0	0	0	0	0.7766	0.7766	0.121150	6,452,662	0.121150	932	1.047	127.2	0.095243	
TOTAL	0	0	0	0	5.0033	5.0033	0.780515	59,968,148	0.780515			1,321.0	0.586062	
Average													0.058606	

BITUMINOUS PREP PLANT (0184)

IBNR Factor adjusted by 0.5000

YEAR	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.156 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Weighted Frequency
2005	1	0	1	0	0.3841	1.3841	0.215920	16,548,307	0.215920	716	1.439	308.9	0.069900	
2006	1	0	1	0	0.4549	1.4549	0.226964	17,050,967	0.226964	745	1.439	305.9	0.074196	
2007	0	0	0	0	0.5731	0.5731	0.089404	18,895,192	0.089404	779	1.439	324.2	0.027577	
2008	0	0	0	0	0.7239	0.7239	0.112928	21,250,256	0.112928	807	1.439	351.9	0.032091	
2009	1	0	1	0	0.7511	1.7511	0.273172	19,828,012	0.273172	836	1.439	317.0	0.086174	
2010	0	0	0	0	1.0975	1.0975	0.171210	26,313,130	0.171210	845	1.439	416.2	0.041136	
2011	1	0	0	1	1.6154	1.6154	0.252002	35,155,068	0.252002	858	1.439	547.6	0.046019	
2012	0	0	0	0	1.7219	1.7219	0.268616	34,211,729	0.268616	888	1.439	514.9	0.052169	
2013	0	0	0	0	1.8436	1.8436	0.287602	33,593,761	0.287602	917	1.439	489.6	0.058742	
2014	0	0	0	0	1.9270	1.9270	0.300612	32,023,187	0.300612	932	1.439	459.2	0.065464	
TOTAL	4	0	3	1	11.0925	14.0925	2.198430	254,869,609	2.198430			4,035.4	0.553468	
Average													0.055347	

TOTAL OTHER CLASSES

YEAR	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.156 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Weighted Frequency
2005	2	0	1	1	1.1428	2.1428	0.334277	51,985,933	0.334277	716		1,158.3	0.028859	
2006	1	0	1	0	1.3501	2.3501	0.366616	53,577,176	0.366616	745		1,143.1	0.032072	
2007	0	0	0	0	1.7260	1.7260	0.269256	59,519,410	0.269256	779		1,212.5	0.022207	
2008	0	0	0	0	1.8609	1.8609	0.290300	55,254,991	0.290300	807		1,073.4	0.027045	
2009	1	0	1	0	1.9162	2.9162	0.454927	47,614,281	0.454927	836		880.3	0.051679	
2010	0	0	0	0	2.3187	2.3187	0.361717	54,143,960	0.361717	845		969.5	0.037310	
2011	1	0	0	1	3.2104	3.2104	0.500822	66,137,721	0.500822	858		1,157.8	0.043256	
2012	0	0	0	0	3.5559	3.5559	0.554720	66,686,622	0.554720	888		1,135.7	0.048844	
2013	1	0	0	1	3.7584	3.7584	0.586310	64,494,150	0.586310	917		1,052.0	0.055733	
2014	0	0	0	0	4.0605	4.0605	0.633438	63,888,615	0.633438	932		1,025.7	0.061757	
TOTAL	6	0	3	3	24.8999	27.8999	4.352384	583,302,859	4.352384			10,808.3	0.408762	
Average													0.040876	0.042988

GRAND TOTAL

YEAR	Reported	Awarded	Pending	Denied	IBNR	IBNR + Pending	0.156 Award Ratio	Payroll	Expected Ultimate Awarded	Statewide Average Weekly Wage	Adjustment Factor	Estimated Miner Years	Frequency Claims per 100 Miner Years	Weighted Frequency
2005	6	1	1	4	7.9405	8.9405	1.394713	196,691,729	2.177181	716		4,407.2	0.049401	
2006	9	2	3	4	9.5045	12.5045	1.950700	201,349,462	3.994035	745		4,313.1	0.092602	
2007	10	3	2	5	12.1952	14.1952	2.214450	220,760,862	4.703108	779		4,501.1	0.104488	
2008	7	1	2	4	16.3445	18.3445	2.861747	249,567,143	3.456018	807		4,867.5	0.071002	
2009	9	0	2	7	17.3884	19.3884	3.024590	229,498,510	2.833863	836		4,269.8	0.066370	
2010	3	0	0	3	22.4540	22.4540	3.502816	268,411,486	2.640789	845		4,884.4	0.054066	
2011	8	0	2	6	30.2951	32.2951	5.038034	323,119,308	4.213914	858		5,793.2	0.072739	
2012	16	2	2	12	35.0345	37.0345	5.777385	323,923,770	7.334838	888		5,590.9	0.131192	
2013	10	1	3	6	35.0532	38.0532	5.936305	289,925,717	5.937181	917		4,793.6	0.123856	
2014	5	0	2	3	39.1174	41.1174	6.414311	286,429,521	5.001645	932		4,616.6	0.108340	
TOTAL	83	10	19	54	225.3273	244.3273	38.115053	2,589,677,508	42.292572			48,037.4	0.874056	
Average													0.087406	0.081698

Source: Claim counts - CMCRB OD Database as of 4/30/2015
IBNR: Exhibit VIII
Payroll- Exhibit X-A-1
The Award Ratio is equal to Awarded ÷ (Awarded plus Denied). Other Classes use the Total Award Ratio: 0.156=10 / [10 + 54]
The Wage Adjustment Factor was derived from CMCRB data. See Exhibit X-G
Estimated Miner Years = Payroll / (SAWW x Adj. Factor x 52)
Freqency per 100 Miner Years = (Expected Ult. Awarded / Est. Miner Years) x 100

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE
ANTHRACITE UNDERGROUND (0160)

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Year																										
12	4	5	4	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
24	5	5	5	1	1	2	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	2	
36	5	7	7	1	1	2	1	0	0	0	0	0	1	2	0	0	0	0	1	0	0	1	0	1	0		
48	5	8	9	1	1	2	1	0	0	0	0	0	1	2	0	0	0	0	1	0	0	1	0	2			
60	5	11	9	1	2	2	1	0	0	0	0	1	1	2	0	0	0	0	1	0	0	1	0				
72	5	11	10	1	2	2	1	1	0	0	0	1	1	3	0	0	0	0	1	0	1	1					
84	7	11	13	1	2	2	1	1	0	0	0	1	1	4	0	0	0	0	1	0	1						
96	7	12	14	1	2	2	1	1	0	0	0	1	1	4	0	1	0	0	1	0							
108	7	12	14	1	2	2	1	1	0	0	0	1	1	4	0	1	0	0	1								
120	7	12	14	1	2	2	1	1	0	0	0	1	1	4	0	1	0	0									
132	7	12	14	1	2	2	1	1	0	0	0	1	1	4	0	1	0										
144	7	12	14	1	2	2	1	1	0	0	0	1	1	4	0	1											
156	8	12	14	1	2	2	1	2	0	0	0	2	1	4	1												
168	8	12	14	1	2	2	1	2	0	0	0	2	1	4													
180	9	12	14	1	2	2	1	2	0	0	1	3	1														
192	9	12	14	1	2	2	1	2	0	0	1	3															
204	9	12	14	1	2	2	1	2	0	0	1																
216	9	12	14	1	2	2	1	2	0	0																	
228	9	12	15	2	2	2	1	2	0																		
240	9	12	15	2	2	2	1	2																			

Incremental Changes

12-24													1	0	0	0	0	0	1	0	0	0	0	0	0	1	
24-36												0	0	2	0	0	0	0	0	0	0	0	0	1	0		
36-48											0	0	0	0	0	0	0	0	0	0	0	0	0	1			
48-60										0	0	1	0	0	0	0	0	0	0	0	0	0	0				
60-72									0	0	0	0	0	1	0	0	0	0	0	0	1	0					
72-84								0	0	0	0	0	0	1	0	0	0	0	0	0	0						
84-96							0	0	0	0	0	0	0	0	0	1	0	0	0	0							
96-108						0	0	0	0	0	0	0	0	0	0	0	0	0	0								
108-120					0	0	0	0	0	0	0	0	0	0	0	0	0	0									
120-132				0	0	0	0	0	0	0	0	0	0	0	0	0	0										
132-144			0	0	0	0	0	0	0	0	0	0	0	0	0	0											
144-156		0	0	0	0	0	0	1	0	0	0	1	0	0	1												
156-168	0	0	0	0	0	0	0	0	0	0	0	0	0	0													
168-180	1	0	0	0	0	0	0	0	0	0	1	1	0														
180-192	0	0	0	0	0	0	0	0	0	0	0	0															
192-204	0	0	0	0	0	0	0	0	0	0	0																
204-216	0	0	0	0	0	0	0	0	0	0																	
216-228	0	0	1	1	0	0	0	0	0																		
228-240	0	0	0	0	0	0	0	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Smoothed
	2.74569	2.06629	1.54705	0.71815	0.93280	1.18200	1.31068	1.49352	1.61270	1.57161	1.76229	1.81416	1.37016	1.63652	1.38655	1.35427	1.34532	1.41757	1.44252	1.66254	2.13671	1.33587	1.29959	1.25794	1.02926	0.38188	0.25881		
12-24														0.00000	0.00000	0.00000	0.00000	0.00000	0.69323	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	2.61862		0.25476	0.25476
24-36													0.00000	1.22211	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.79495	0.00000			0.15516	0.22654
36-48												0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.79495				0.06115	0.15516
48-60											0.00000	0.55122	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					0.04240	0.14938
60-72										0.00000	0.00000	0.00000	0.00000	0.61105	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.46801	0.00000						0.08300	0.11407
72-84									0.00000	0.00000	0.00000	0.00000	0.00000	0.61105	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000							0.04700	0.08300
84-96								0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.73841	0.00000	0.00000	0.00000	0.00000								0.05680	0.06115
96-108							0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000									0.00000	0.05680
108-120						0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000										0.00000	0.04700
120-132					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000											0.00000	0.04240
132-144				0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000												0.00000	0.00000
144-156			0.00000	0.00000	0.00000	0.00000	0.00000	0.66956	0.00000	0.00000	0.00000	0.55122	0.00000	0.00000	0.72121													0.14938	0.00000
156-168		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000														0.00000	0.00000
168-180	0.36421	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.56744	0.55122	0.00000															0.11407	0.00000
180-192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																0.00000	0.00000
192-204	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																	0.00000	0.00000
204-216	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																		0.00000	0.00000
216-228	0.00000	0.00000	0.64639	1.39247	0.00000	0.00000	0.00000	0.00000	0.00000																			0.22654	0.00000
228-240	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																				0.00000	0.00000
																											Total=	1.19026	1.19026

IBNR Claims

Cumulative Factor									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.04240	0.08940	0.14620	0.20735	0.29035	0.40442	0.55380	0.70896	0.93550	1.19026
times Payroll									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.06010	0.12896	0.24306	0.44305	0.38787	0.52558	0.69665	0.72970	0.35725	0.30805

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A-1 & X-A-2

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE
BITUMINOUS UNDERGROUND (0158)

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
12	4	4	3	2	2	1	4	3	0	0	1	2	3	1	1	0	0	0	1	0	0	0	0	2	2	2	3
24	7	5	3	6	4	1	4	3	2	1	2	4	5	1	3	0	0	0	1	0	0	1	2	2	4	3	
36	9	5	7	7	5	2	7	5	2	4	5	6	5	2	5	0	1	0	1	2	0	1	2	2	6		
48	10	5	8	9	9	3	8	6	2	5	5	7	5	2	6	0	2	0	2	2	0	4	2	2			
60	10	5	9	9	11	4	9	7	3	6	5	7	5	3	7	0	2	0	2	3	0	4	2				
72	10	6	10	9	14	4	9	8	4	7	5	7	5	4	7	0	2	0	2	3	0	5					
84	10	6	12	10	14	4	9	8	4	8	5	7	7	4	7	0	2	1	2	3	0						
96	11	7	12	10	14	5	9	8	5	8	5	8	7	4	8	0	2	1	2	4							
108	11	8	13	11	15	5	11	8	5	8	5	9	7	6	8	1	2	1	2								
120	12	9	14	12	19	5	11	8	5	8	5	10	7	6	12	1	2	1									
132	12	9	14	12	19	5	11	8	5	9	5	11	9	7	12	1	2										
144	12	10	14	13	19	6	11	8	5	10	5	15	12	7	14	1											
156	12	10	16	14	19	6	11	8	5	10	5	16	12	7	15												
168	12	10	16	14	20	6	11	9	5	10	6	16	15	7													
180	13	10	17	14	20	7	12	9	5	10	6	17	22														
192	14	11	17	15	21	7	13	9	5	10	7	17															
204	16	11	17	19	21	8	13	10	6	10	7																
216	16	12	17	19	21	8	14	10	8	11																	
228	16	12	17	19	23	9	15	10	8																		
240	16	12	17	19	25	9	17	10																			

Incremental Changes

12-24													2	0	2	0	0	0	0	0	0	1	2	0	2	1	
24-36												2	0	1	2	0	1	0	0	2	0	0	0	0	2		
36-48											0	1	0	0	1	0	1	0	1	0	0	3	0	0			
48-60										1	0	0	0	1	1	0	0	0	0	1	0	0	0				
60-72									1	1	0	0	0	1	0	0	0	0	0	0	0	1					
72-84								0	0	1	0	0	2	0	0	0	0	1	0	0	0						
84-96							0	0	1	0	0	1	0	0	1	0	0	0	0	1							
96-108						0	2	0	0	0	0	1	0	2	0	1	0	0	0								
108-120					4	0	0	0	0	0	0	1	0	0	4	0	0	0									
120-132				0	0	0	0	0	0	1	0	1	2	1	0	0	0										
132-144			0	1	0	1	0	0	0	1	0	4	3	0	2	0											
144-156		0	2	1	0	0	0	0	0	0	0	1	0	0	1												
156-168	0	0	0	0	1	0	0	1	0	0	1	0	3	0													
168-180	1	0	1	0	0	1	1	0	0	0	0	1	7														
180-192	1	1	0	1	1	0	1	0	0	0	1	0															
192-204	2	0	0	4	0	1	0	1	1	0	0																
204-216	0	1	0	0	0	0	1	0	2	1																	
216-228	0	0	0	0	2	1	1	0	0																		
228-240	0	0	0	0	2	0	2	0																			

Payroll	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
($Millions)	51.13343	58.50753	63.27152	58.31824	63.40130	52.75653	60.59094	65.27115	75.22304	70.39669	61.08733	58.68524	47.52056	48.52263	40.83800	36.49841	46.07390	66.27576	70.46594	79.90427	101.35398	101.34814	125.39358	148.48571	153.60219	141.79287	148.06622		
																												Average	Smoothed
12-24														0.00000	0.04897	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00987	0.01595	0.00000	0.01302	0.00705		0.00730	0.01809
24-36													0.00000	0.02061	0.04897	0.00000	0.02170	0.00000	0.00000	0.02503	0.00000	0.00000	0.00000	0.00000	0.01302			0.00995	0.01774
36-48												0.01704	0.00000	0.00000	0.02449	0.00000	0.02170	0.00000	0.01419	0.00000	0.00000	0.02960	0.00000	0.00000				0.00823	0.01411
48-60											0.00000	0.00000	0.00000	0.02061	0.02449	0.00000	0.00000	0.00000	0.00000	0.01251	0.00000	0.00000	0.00000					0.00443	0.00995
60-72										0.01421	0.00000	0.00000	0.00000	0.02061	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00987						0.00344	0.00913
72-84									0.00000	0.01421	0.00000	0.00000	0.04209	0.00000	0.00000	0.00000	0.00000	0.01509	0.00000	0.00000	0.00000							0.00549	0.00885
84-96								0.00000	0.01329	0.00000	0.00000	0.01704	0.00000	0.00000	0.02449	0.00000	0.00000	0.00000	0.00000	0.01251								0.00518	0.00854
96-108							0.03301	0.00000	0.00000	0.00000	0.00000	0.01704	0.00000	0.04122	0.00000	0.02740	0.00000	0.00000	0.00000									0.00913	0.00851
108-120						0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01704	0.00000	0.00000	0.09795	0.00000	0.00000	0.00000										0.00885	0.00823
120-132					0.00000	0.00000	0.00000	0.00000	0.00000	0.01421	0.00000	0.01704	0.04209	0.02061	0.00000	0.00000	0.00000											0.00723	0.00807
132-144				0.01715	0.00000	0.01895	0.00000	0.00000	0.00000	0.01421	0.00000	0.06816	0.06313	0.00000	0.04897	0.00000												0.01774	0.00744
144-156			0.03161	0.01715	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01704	0.00000	0.00000	0.02449													0.00695	0.00744
156-168		0.00000	0.00000	0.00000	0.01577	0.00000	0.00000	0.01532	0.00000	0.00000	0.01637	0.00000	0.06313	0.00000														0.00851	0.00730
168-180	0.01956	0.00000	0.01580	0.00000	0.00000	0.01895	0.01650	0.00000	0.00000	0.00000	0.00000	0.01704	0.14730															0.01809	0.00723
180-192	0.01956	0.01709	0.00000	0.01715	0.01577	0.00000	0.01650	0.00000	0.00000	0.00000	0.01637	0.00000																0.00854	0.00695
192-204	0.03911	0.00000	0.00000	0.06859	0.00000	0.01895	0.00000	0.01532	0.01329	0.00000	0.00000																	0.01411	0.00549
204-216	0.00000	0.01709	0.00000	0.00000	0.00000	0.00000	0.01650	0.00000	0.02659	0.01421																		0.00744	0.00518
216-228	0.00000	0.00000	0.00000	0.00000	0.03155	0.01895	0.01650	0.00000	0.00000																			0.00744	0.00443
228-240	0.00000	0.00000	0.00000	0.00000	0.03155	0.00000	0.03301	0.00000																				0.00807	0.00344
																											Total=	0.16612	0.16612

IBNR Claims

Cumulative Factor									0.00344	0.00787	0.01305	0.01854	0.02549	0.03272	0.04002	0.04746	0.05490	0.06297	0.07120	0.07971	0.08825	0.09710	0.10623	0.11618	0.13029	0.14803	0.16612
times Payroll									0.25877	0.55402	0.79719	1.08802	1.21130	1.58766	1.63434	1.73221	2.52946	4.17338	5.01717	6.36917	8.94449	9.84090	13.32056	17.25107	20.01283	20.98960	24.59676

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A-1 & X-A-2

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE
ANTHRACITE SURFACE (0153)

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Year																										
12	10	13	5	11	5	10	11	2	5	4	4	0	1	2	3	0	2	1	0	2	0	0	0	0	0	1	1
24	14	15	15	16	10	14	14	6	6	7	6	0	4	2	3	1	3	2	0	2	1	0	0	1	0	1	
36	14	17	17	17	11	16	17	10	6	7	6	0	4	2	4	3	3	2	0	2	1	1	0	1	1		
48	14	18	20	20	13	21	19	12	6	8	7	0	5	4	5	3	3	2	1	2	1	1	0	1			
60	14	18	22	22	14	21	21	13	6	8	7	0	5	5	5	3	4	2	1	2	1	1	0				
72	15	19	23	24	14	22	21	13	8	8	8	0	5	5	6	3	4	2	1	2	1	2					
84	17	20	24	25	14	23	21	15	8	8	8	0	5	5	6	4	4	2	1	2	1						
96	19	20	26	25	14	24	21	16	9	8	8	0	5	5	6	4	4	2	1	2							
108	22	20	26	25	14	24	21	19	9	8	8	0	5	6	6	4	4	2	1								
120	23	21	26	25	14	24	22	21	9	8	8	1	7	6	6	4	4	2									
132	24	22	26	25	14	24	23	21	9	8	8	1	7	7	6	4	4										
144	24	22	26	25	14	24	23	21	9	8	9	1	7	7	6	4											
156	24	22	26	26	14	24	23	21	9	9	9	1	7	7	6												
168	24	24	27	26	14	25	24	23	9	9	9	1	7	7													
180	24	25	28	26	14	25	24	24	10	9	9	1	7														
192	24	25	28	26	14	25	24	24	10	9	9	1															
204	24	26	28	26	14	25	24	24	11	9	9																
216	24	26	28	26	14	25	24	24	11	9																	
228	25	27	28	26	15	25	24	24	11																		
240	25	27	29	26	15	25	25	24																			

Incremental Changes

12-24													3	0	0	1	1	1	0	0	1	0	0	1	0	0	
24-36												0	0	0	1	2	0	0	0	0	0	1	0	0	1		
36-48											1	0	1	2	1	0	0	0	1	0	0	0	0	0			
48-60										0	0	0	0	1	0	0	1	0	0	0	0	0	0				
60-72									2	0	1	0	0	0	1	0	0	0	0	0	0	1					
72-84								2	0	0	0	0	0	0	0	1	0	0	0	0	0						
84-96							0	1	1	0	0	0	0	0	0	0	0	0	0	0							
96-108						0	0	3	0	0	0	0	0	1	0	0	0	0	0								
108-120					0	0	1	2	0	0	0	1	2	0	0	0	0	0									
120-132				0	0	0	1	0	0	0	0	0	0	1	0	0	0										
132-144			0	0	0	0	0	0	0	0	1	0	0	0	0	0											
144-156		0	0	1	0	0	0	0	0	1	0	0	0	0	0												
156-168	0	2	1	0	0	1	1	2	0	0	0	0	0	0													
168-180	0	1	1	0	0	0	0	1	1	0	0	0	0														
180-192	0	0	0	0	0	0	0	0	0	0	0	0															
192-204	0	1	0	0	0	0	0	0	1	0	0																
204-216	0	0	0	0	0	0	0	0	0	0																	
216-228	1	1	0	0	1	0	0	0	0																		
228-240	0	0	1	0	0	0	1	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Smoothed
	23.09936	27.04451	32.39289	30.95658	29.47612	30.10339	30.21045	20.28889	16.19217	17.78314	17.37629	18.44114	16.80781	12.92375	11.04657	11.92821	12.35973	12.14091	12.06532	14.86656	16.22023	15.89353	13.31919	19.50743	24.73471	20.72001	18.86887		
12-24														0.00000	0.00000	0.08383	0.08091	0.08237	0.00000	0.00000	0.06165	0.00000	0.00000	0.05126	0.00000	0.00000		0.02769	0.02982
24-36													0.00000	0.00000	0.09053	0.16767	0.00000	0.00000	0.00000	0.00000	0.00000	0.06292	0.00000	0.00000	0.04043			0.02781	0.02781
36-48												0.00000	0.05950	0.15475	0.09053	0.00000	0.00000	0.00000	0.08288	0.00000	0.00000	0.00000	0.00000	0.00000				0.02982	0.02769
48-60											0.00000	0.00000	0.00000	0.07738	0.00000	0.00000	0.08091	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					0.01218	0.02345
60-72										0.00000	0.05755	0.00000	0.00000	0.00000	0.09053	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.06292						0.01623	0.02075
72-84									0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.08383	0.00000	0.00000	0.00000	0.00000	0.00000							0.00645	0.01733
84-96								0.04929	0.06176	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								0.00854	0.01623
96-108							0.00000	0.14786	0.00000	0.00000	0.00000	0.00000	0.00000	0.07738	0.00000	0.00000	0.00000	0.00000	0.00000									0.01733	0.01376
108-120						0.00000	0.03310	0.09858	0.00000	0.00000	0.00000	0.05423	0.11899	0.00000	0.00000	0.00000	0.00000	0.00000										0.02345	0.01269
120-132					0.00000	0.00000	0.03310	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.07738	0.00000	0.00000	0.00000											0.00850	0.01218
132-144				0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.05755	0.00000	0.00000	0.00000	0.00000	0.00000												0.00443	0.00898
144-156			0.00000	0.03230	0.00000	0.00000	0.00000	0.00000	0.00000	0.05623	0.00000	0.00000	0.00000	0.00000	0.00000													0.00681	0.00854
156-168		0.07395	0.03087	0.00000	0.00000	0.03322	0.03310	0.09858	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000														0.02075	0.00850
168-180	0.00000	0.03698	0.03087	0.00000	0.00000	0.00000	0.00000	0.04929	0.06176	0.00000	0.00000	0.00000	0.00000															0.01376	0.00800
180-192	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																0.00000	0.00681
192-204	0.00000	0.03698	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.06176	0.00000	0.00000																	0.00898	0.00645
204-216	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																		0.00000	0.00443
216-228	0.04329	0.03698	0.00000	0.00000	0.03393	0.00000	0.00000	0.00000	0.00000																			0.01269	0.00000
228-240	0.00000	0.00000	0.03087	0.00000	0.00000	0.00000	0.03310	0.00000																				0.00800	0.00000
																											Total=	0.25342	0.25342

IBNR Claims

Cumulative Factor	0.00000	0.00000	0.00443	0.01088	0.01769	0.02569	0.03419	0.04273	0.05171	0.06389	0.07658	0.09034	0.10657	0.12390	0.14465	0.16810	0.19579	0.22360	0.25342
times Payroll	0.00000	0.00000	0.07698	0.20064	0.29733	0.33201	0.37768	0.50969	0.63912	0.77568	0.92396	1.34305	1.72859	1.96921	1.92662	3.27920	4.84281	4.63299	4.78175

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A-1 & X-A-2

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE
BITUMINOUS SURFACE (0156)

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
12	7	10	10	6	6	1	1	5	4	2	0	0	3	0	1	0	1	0	0	2	0	0	1	0	3	2	1
24	7	12	18	12	13	3	5	7	5	3	2	2	3	1	2	0	1	0	1	2	1	0	1	1	8	3	
36	7	14	19	17	17	5	6	8	5	3	2	2	3	1	2	1	1	1	1	2	1	0	1	1	9		
48	8	14	22	20	19	6	7	10	6	5	2	2	5	1	2	1	1	1	2	3	1	0	1	2			
60	8	16	22	21	19	8	8	11	7	5	2	2	6	1	2	1	1	1	2	3	1	0	1				
72	8	16	23	23	20	9	9	13	8	5	3	2	7	1	2	1	1	1	2	4	4	0					
84	8	18	26	25	20	9	10	14	9	7	3	2	7	2	2	1	1	1	4	4	5						
96	8	18	28	27	20	9	11	15	10	7	4	2	7	2	2	1	1	1	4	4							
108	9	19	28	27	22	10	12	18	10	7	5	2	7	2	2	2	1	1	4								
120	9	20	29	30	23	10	13	21	10	8	5	2	7	2	3	3	2	1									
132	10	20	29	30	23	10	13	21	11	8	5	2	7	3	4	3	2										
144	10	20	30	30	23	10	13	21	11	8	6	2	7	3	4	4											
156	11	20	31	31	23	10	13	21	11	8	6	2	7	3	4												
168	12	20	33	31	24	10	14	22	12	8	6	2	7	4													
180	14	21	33	33	24	11	14	22	13	8	6	2	7														
192	14	21	34	33	24	11	14	22	13	9	6	2															
204	14	21	36	34	25	13	15	22	13	10	7																
216	14	21	36	34	26	13	15	24	14	10																	
228	14	21	36	34	26	13	15	24	14																		
240	14	22	37	35	27	13	15	24																			

Incremental Changes

12-24													0	1	1	0	0	0	1	0	1	0	0	1	5	1	
24-36												0	0	0	0	1	0	1	0	0	0	0	0	0	1		
36-48											0	0	2	0	0	0	0	0	1	1	0	0	0	1			
48-60										0	0	0	1	0	0	0	0	0	0	0	0	0	0				
60-72									1	0	1	0	1	0	0	0	0	0	0	1	3	0					
72-84								1	1	2	0	0	0	1	0	0	0	0	2	0	1						
84-96							1	1	1	0	1	0	0	0	0	0	0	0	0	0							
96-108						1	1	3	0	0	1	0	0	0	0	1	0	0	0								
108-120					1	0	1	3	0	1	0	0	0	0	1	1	1	0									
120-132				0	0	0	0	0	1	0	0	0	0	1	1	0	0										
132-144			1	0	0	0	0	0	0	0	1	0	0	0	0	1											
144-156		0	1	1	0	0	0	0	0	0	0	0	0	0	0												
156-168	1	0	2	0	1	0	1	1	1	0	0	0	0	1													
168-180	2	1	0	2	0	1	0	0	1	0	0	0	0														
180-192	0	0	1	0	0	0	0	0	0	1	0	0															
192-204	0	0	2	1	1	2	1	0	0	1	1																
204-216	0	0	0	0	1	0	0	2	1	0																	
216-228	0	0	0	0	0	0	0	0	0																		
228-240	0	1	1	1	1	0	0	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	Smoothed
	126.49321	125.36171	124.18907	104.58350	100.99938	94.55659	92.46464	78.75261	77.82841	67.90579	63.65156	54.16227	49.93562	58.15133	53.50209	47.87374	56.21730	64.87156	63.79850	64.80809	74.60123	63.30670	74.25518	87.73051	77.87099	62.53681	55.34701		
12-24														0.01720	0.01869	0.00000	0.00000	0.00000	0.01567	0.00000	0.01340	0.00000	0.00000	0.01140	0.06421	0.01599		0.01204	0.01204
24-36													0.00000	0.00000	0.00000	0.02089	0.00000	0.01542	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01284			0.00378	0.00931
36-48												0.00000	0.04005	0.00000	0.00000	0.00000	0.00000	0.00000	0.01567	0.01543	0.00000	0.00000	0.00000	0.01140				0.00635	0.00891
48-60											0.00000	0.00000	0.02003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000					0.00154	0.00802
60-72										0.00000	0.01571	0.00000	0.02003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01543	0.04021	0.00000						0.00703	0.00703
72-84									0.01285	0.02945	0.00000	0.00000	0.00000	0.01720	0.00000	0.00000	0.00000	0.00000	0.03135	0.00000	0.01340							0.00802	0.00658
84-96								0.01270	0.01285	0.00000	0.01571	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000								0.00317	0.00635
96-108							0.01081	0.03809	0.00000	0.00000	0.01571	0.00000	0.00000	0.00000	0.00000	0.02089	0.00000	0.00000	0.00000									0.00658	0.00612
108-120						0.00000	0.01081	0.03809	0.00000	0.01473	0.00000	0.00000	0.00000	0.00000	0.01869	0.02089	0.01779	0.00000										0.00931	0.00510
120-132					0.00000	0.00000	0.00000	0.00000	0.01285	0.00000	0.00000	0.00000	0.00000	0.01720	0.01869	0.00000	0.00000											0.00375	0.00482
132-144				0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01571	0.00000	0.00000	0.00000	0.00000	0.02089												0.00282	0.00444
144-156			0.00805	0.00956	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000													0.00135	0.00378
156-168		0.00000	0.01610	0.00000	0.00990	0.00000	0.01081	0.01270	0.01285	0.00000	0.00000	0.00000	0.00000	0.01720														0.00612	0.00375
168-180	0.01581	0.00798	0.00000	0.01912	0.00000	0.01058	0.00000	0.00000	0.01285	0.00000	0.00000	0.00000	0.00000															0.00510	0.00317
180-192	0.00000	0.00000	0.00805	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.01473	0.00000	0.00000																0.00190	0.00282
192-204	0.00000	0.00000	0.01610	0.00956	0.00990	0.02115	0.01081	0.00000	0.00000	0.01473	0.01571																	0.00891	0.00190
204-216	0.00000	0.00000	0.00000	0.00000	0.00990	0.00000	0.00000	0.02540	0.01285	0.00000																		0.00482	0.00154
216-228	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000																			0.00000	0.00135
228-240	0.00000	0.00798	0.00805	0.00956	0.00990	0.00000	0.00000	0.00000																				0.00444	0.00000
																											Total=	0.09703	0.09703

IBNR Claims

Cumulative Factor									0.00000	0.00135	0.00289	0.00479	0.00761	0.01078	0.01453	0.01831	0.02275	0.02757	0.03267	0.03879	0.04514	0.05172	0.05875	0.06677	0.07568	0.08499	0.09703
times Payroll									0.00000	0.09167	0.18395	0.25944	0.38001	0.62687	0.77739	0.87657	1.27894	1.78851	2.08430	2.51391	3.36750	3.27422	4.36249	5.85777	5.89328	5.31500	5.37032

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A-1 & X-A-2

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE
OTHER CLASSIFICATIONS - FEDERAL

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
														Year													
12	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0
24	0	0	0	0	1	1	0	0	0	2	2	1	0	0	1	0	1	1	0	0	0	0	0	0	0	1	
36	0	0	0	0	1	1	0	0	0	4	2	3	1	0	1	0	1	1	0	0	0	0	0	1	0		
48	0	0	0	0	1	1	0	0	0	4	2	3	1	0	1	0	1	1	0	0	0	0	0	1			
60	0	0	0	0	2	1	0	0	0	5	2	4	1	0	1	0	1	1	0	0	0	0	0				
72	0	0	0	0	2	1	0	0	0	6	2	4	1	0	2	0	1	1	0	0	0	1					
84	0	0	0	0	2	1	0	0	0	6	3	4	1	0	2	1	1	1	0	0	0						
96	0	0	0	0	2	1	0	0	0	6	3	4	1	0	2	1	1	2	0	0							
108	0	0	0	0	2	1	0	0	0	6	3	4	1	0	2	1	1	2	1								
120	0	0	0	0	2	1	0	0	0	6	3	4	1	0	2	1	1	2									
132	0	0	0	0	2	1	0	0	0	6	3	4	1	0	2	1	1										
144	0	0	0	0	2	1	0	0	0	6	3	5	1	0	2	1											
156	0	0	0	0	2	1	0	0	0	6	3	5	1	0	2												
168	0	0	0	0	2	1	0	0	0	6	3	5	1	0													
180	0	0	0	0	2	1	0	0	0	7	3	5	1														
192	0	0	0	0	2	1	0	0	0	7	3	5															
204	0	0	0	0	2	1	0	0	0	7	3																
216	0	0	0	0	2	1	0	0	0	7																	
228	0	0	0	0	2	1	0	0	0																		
240	0	0	0	0	2	1	0	0																			

Payroll ($Millions)	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	20.12482	14.47189	64.28048	55.26295	47.49607	58.74792	60.28848	60.34187	62.83464	73.62183	31.35678	30.45186	29.53686	30.95943	32.09811	36.30165	44.70077	51.98594	53.57718	59.51942	55.25500	47.61428	54.14397	66.13773	66.68663	64.49415	63.88862

Source: Coal Mine Compensation Rating Bureau Database as of 4-30-2015
Payrolls: Exhibit X-A-1 & X-A-2

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE
ALL CLASSIFICATIONS

Claims with File Dates on or before 12-31-2014, Valued as of 4-30-2015

Incremental Frequency and IBNR

Reported Claims

Months	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
	Year																										
12	25	32	22	20	14	13	17	10	9	7	6	2	7	3	6	0	4	2	1	4	0	1	1	2	5	6	5
24	33	37	41	35	29	21	24	16	13	13	12	7	13	4	9	1	5	3	3	4	2	2	3	4	12	10	
36	35	43	50	42	35	26	31	23	13	18	15	11	14	7	12	4	6	4	3	6	2	3	3	6	16		
48	37	45	59	50	43	33	35	28	14	22	16	12	17	9	14	4	7	4	6	7	2	6	3	8			
60	37	50	62	53	48	36	39	31	16	24	16	14	18	11	15	4	8	4	6	8	2	6	3				
72	38	52	66	57	52	38	40	35	20	26	18	14	19	13	17	4	8	4	6	9	6	9					
84	42	55	75	61	52	39	41	38	21	29	19	14	21	15	17	6	8	5	8	9	7						
96	45	57	80	63	52	41	42	40	24	29	20	15	21	15	18	7	8	6	8	10							
108	49	59	81	64	55	42	45	46	24	29	21	16	21	18	18	9	8	6	9								
120	51	62	83	68	60	42	47	51	24	30	21	18	23	18	23	10	9	6									
132	53	63	83	68	60	42	48	51	25	31	21	19	25	21	24	10	9										
144	53	64	84	69	60	43	48	51	25	32	23	24	28	21	26	11											
156	55	64	87	72	60	43	48	52	25	33	23	26	28	21	28												
168	56	66	90	72	62	44	50	56	26	33	24	26	31	22													
180	60	68	92	74	62	46	51	57	28	34	25	28	38														
192	61	69	93	75	63	46	52	57	28	35	26	28															
204	63	70	95	80	64	49	53	58	30	36	27																
216	63	71	95	80	65	49	54	60	33	37																	
228	64	72	96	81	68	50	55	60	33																		
240	64	73	98	82	71	50	58	60																			

Incremental Changes

12-24													6	1	3	1	1	1	2	0	2	1	2	2	7	4	
24-36												4	1	3	3	3	1	1	0	2	0	1	0	2	4		
36-48											1	1	3	2	2	0	1	0	3	1	0	3	0	2			
48-60										2	0	2	1	2	1	0	1	0	0	1	0	0	0				
60-72									4	2	2	0	1	2	2	0	0	0	0	1	4	3					
72-84								3	1	3	1	0	2	2	0	2	0	1	2	0	1						
84-96							1	2	3	0	1	1	0	0	1	1	0	1	0	1							
96-108						1	3	6	0	0	1	1	0	3	0	2	0	0	1								
108-120					5	0	2	5	0	1	0	2	2	0	5	1	1	0									
120-132				0	0	0	1	0	1	1	0	1	2	3	1	0	0										
132-144			1	1	0	1	0	0	0	1	2	5	3	0	2	1											
144-156		0	3	3	0	0	0	1	0	1	0	2	0	0	2												
156-168	1	2	3	0	2	1	2	4	1	0	1	0	3	1													
168-180	4	2	2	2	0	2	1	1	2	1	1	2	7														
180-192	1	1	1	1	1	0	1	0	0	1	1	0															
192-204	2	1	2	5	1	3	1	1	2	1	1																
204-216	0	1	0	0	1	0	1	2	3	1																	
216-228	1	1	1	1	3	1	1	0	0																		
228-240	0	1	2	1	3	0	3	0																			

Payroll	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014		
($Millions)	223.59651	227.45194	285.68101	249.83942	242.30566	237.34642	244.86518	226.14804	233.69095	231.27905	175.23425	163.55467	145.17101	152.19366	138.87131	133.95627	160.69703	196.69173	201.34946	220.76086	249.56714	229.49851	268.41149	323.11931	323.92377	289.92572	286.42952		
																												Average	Smoothed
12-24														0.00657	0.02160	0.00747	0.00622	0.00508	0.00993	0.00000	0.00801	0.00436	0.00745	0.00619	0.02161	0.01380		0.00910	0.01059
24-36													0.00689	0.01971	0.02160	0.02240	0.00622	0.00508	0.00000	0.00906	0.00000	0.00436	0.00000	0.00619	0.01235			0.00876	0.00910
36-48												0.00611	0.02067	0.01314	0.01440	0.00000	0.00622	0.00000	0.01490	0.00453	0.00000	0.01307	0.00000	0.00619				0.00763	0.00876
48-60											0.00000	0.01223	0.00689	0.01314	0.00720	0.00000	0.00622	0.00000	0.00000	0.00453	0.00000	0.00000	0.00000					0.00386	0.00848
60-72										0.00865	0.01141	0.00000	0.00689	0.01314	0.01440	0.00000	0.00000	0.00000	0.00000	0.00453	0.01603	0.01307						0.00678	0.00766
72-84									0.00428	0.01297	0.00571	0.00000	0.01378	0.01314	0.00000	0.01493	0.00000	0.00508	0.00993	0.00000	0.00401							0.00645	0.00763
84-96								0.00884	0.01284	0.00000	0.00571	0.00611	0.00000	0.00000	0.00720	0.00747	0.00000	0.00508	0.00000	0.00453								0.00444	0.00747
96-108							0.01225	0.02653	0.00000	0.00000	0.00571	0.00611	0.00000	0.01971	0.00000	0.01493	0.00000	0.00000	0.00497									0.00694	0.00730
108-120						0.00000	0.00817	0.02211	0.00000	0.00432	0.00000	0.01223	0.01378	0.00000	0.03600	0.00747	0.00622	0.00000										0.00848	0.00694
120-132					0.00000	0.00000	0.00408	0.00000	0.00428	0.00432	0.00000	0.00611	0.01378	0.01971	0.00720	0.00000	0.00000											0.00458	0.00678
132-144				0.00400	0.00000	0.00421	0.00000	0.00000	0.00000	0.00432	0.01141	0.03057	0.02067	0.00000	0.01440	0.00747												0.00747	0.00645
144-156			0.01050	0.01201	0.00000	0.00000	0.00000	0.00442	0.00000	0.00432	0.00000	0.01223	0.00000	0.00000	0.01440													0.00445	0.00500
156-168		0.00879	0.01050	0.00000	0.00825	0.00421	0.00817	0.01769	0.00428	0.00000	0.00571	0.00000	0.02067	0.00657														0.00730	0.00458
168-180	0.01789	0.00879	0.00700	0.00801	0.00000	0.00843	0.00408	0.00442	0.00856	0.00432	0.00571	0.01223	0.04822															0.01059	0.00445
180-192	0.00447	0.00440	0.00350	0.00400	0.00413	0.00000	0.00408	0.00000	0.00000	0.00432	0.00571	0.00000																0.00288	0.00444
192-204	0.00894	0.00440	0.00700	0.02001	0.00413	0.01264	0.00408	0.00442	0.00856	0.00432	0.00571																	0.00766	0.00412
204-216	0.00000	0.00440	0.00000	0.00000	0.00413	0.00000	0.00408	0.00884	0.01284	0.00432																		0.00386	0.00386
216-228	0.00447	0.00440	0.00350	0.00400	0.01238	0.00421	0.00408	0.00000	0.00000																			0.00412	0.00386
228-240	0.00000	0.00440	0.00700	0.00400	0.01238	0.00000	0.01225	0.00000																				0.00500	0.00288
																											Total=	0.12035	0.12035

IBNR Claims

Cumulative Factor									0.00288	0.00674	0.01060	0.01472	0.01916	0.02361	0.02819	0.03319	0.03964	0.04642	0.05336	0.06066	0.06813	0.07576	0.08342	0.09190	0.10066	0.10976	0.12035
times Payroll									0.67303	1.55882	1.85748	2.40752	2.78148	3.59329	3.91478	4.44601	6.37003	9.13043	10.74401	13.39135	17.00301	17.38681	22.39089	29.69466	32.60617	31.82225	34.47179

Source: Counts and Payrolls: Sum of Exhibits VIII-C-1 thru VIII-C-5

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE
ALL CLASSIFICATIONS

IBNR By Class

	CLASSIFICATION					
A. IBNR Factor	Coke	Auger	Anthracite Co-Gen	Bituminous Co-Gen	Anthracite Prep Plant	Bituminous Prep Plant
Year	0154	0157	0181	0182	0183	0184
2005	0.0464	0.0464	0.0464	0.0464	0.0464	0.0464
2006	0.0534	0.0534	0.0534	0.0534	0.0534	0.0534
2007	0.0607	0.0607	0.0607	0.0607	0.0607	0.0607
2008	0.0681	0.0681	0.0681	0.0681	0.0681	0.0681
2009	0.0758	0.0758	0.0758	0.0758	0.0758	0.0758
2010	0.0834	0.0834	0.0834	0.0834	0.0834	0.0834
2011	0.0919	0.0919	0.0919	0.0919	0.0919	0.0919
2012	0.1007	0.1007	0.1007	0.1007	0.1007	0.1007
2013	0.1098	0.1098	0.1098	0.1098	0.1098	0.1098
2014	0.1204	0.1204	0.1204	0.1204	0.1204	0.1204
B. Adjustment Factor	0.2000	0.4000	0.5000	0.5000	1.0000	0.5000
C. Payroll Per $1M						
2005	12.86098	1.02654	7.85529	8.52475	5.17007	16.54831
2006	12.73739	1.06683	8.41253	9.42358	4.88588	17.05097
2007	13.66993	1.12116	9.18671	10.82914	5.81729	18.89519
2008	9.76115	2.50676	7.52140	8.48189	5.73354	21.25026
2009	5.17355	0.94696	7.53474	7.86641	6.26461	19.82801
2010	5.43566	0.82750	7.95805	8.73270	4.87693	26.31313
2011	3.59909	1.17626	10.98164	9.10241	6.12326	35.15507
2012	5.73811	0.80821	9.31181	9.04775	7.56902	34.21173
2013	4.79191	1.04695	7.63076	10.35588	7.07489	33.59376
2014	4.46440	0.93081	8.56594	11.45162	6.45266	32.02319
D. IBNR						
2005	0.1194	0.0191	0.1823	0.1979	0.2400	0.3841
2006	0.1359	0.0228	0.2244	0.2514	0.2607	0.4549
2007	0.1658	0.0272	0.2786	0.3284	0.3529	0.5731
2008	0.1330	0.0683	0.2562	0.2889	0.3906	0.7239
2009	0.0784	0.0287	0.2854	0.2980	0.4746	0.7511
2010	0.0907	0.0276	0.3319	0.3642	0.4068	1.0975
2011	0.0662	0.0432	0.5046	0.4183	0.5627	1.6154
2012	0.1155	0.0325	0.4687	0.4554	0.7619	1.7219
2013	0.1052	0.0460	0.4188	0.5683	0.7765	1.8436
2014	0.1075	0.0448	0.5155	0.6891	0.7766	1.9270

Source: IBNR Factor - Exhibit VIII-C-6
Adjustment Factor - Judgement
Payroll = Exhibit X-A
IBNR = A times B times C

COAL MINE COMPENSATION RATING BUREAU
FEDERAL OCCUPATIONAL DISEASE
ALL CLASSIFICATIONS

IBNR By Class

	CLASSIFICATION					
			Anthracite	Bituminous	Anthracite	Bituminous
A. IBNR Factor	Coke	Auger	Co-Gen	Co-Gen	Prep Plant	Prep Plant
	0154	0157	0181	0182	0183	0184
1995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1996	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029
1997	0.0067	0.0067	0.0067	0.0067	0.0067	0.0067
1998	0.0106	0.0106	0.0106	0.0106	0.0106	0.0106
1999	0.0147	0.0147	0.0147	0.0147	0.0147	0.0147
2000	0.0192	0.0192	0.0192	0.0192	0.0192	0.0192
2001	0.0236	0.0236	0.0236	0.0236	0.0236	0.0236
2002	0.0282	0.0282	0.0282	0.0282	0.0282	0.0282
2003	0.0332	0.0332	0.0332	0.0332	0.0332	0.0332
2004	0.0396	0.0396	0.0396	0.0396	0.0396	0.0396
B. Adjustment Factor	0.2000	0.4000	0.5000	0.5000	1.0000	0.5000
C. Payroll						
1995	55.00022	1.49964	3.48185	0.36016	0.00000	0.00000
1996	54.57121	0.84662	3.75897	0.37020	0.22107	3.06657
1997	53.11908	1.19349	3.52016	0.85605	1.14940	13.78365
1998	13.35390	1.23790	3.45878	1.16120	1.03290	11.11210
1999	12.29348	1.13689	3.60431	1.49428	1.23112	10.69178
2000	12.09257	1.20588	4.47346	1.87072	1.31947	8.57476
2001	10.37583	1.42913	4.66181	2.12133	2.21630	10.15503
2002	10.48501	1.15084	5.65877	2.38612	2.32282	10.09455
2003	11.53408	1.10222	7.00962	3.05252	3.40800	10.19521
2004	12.04913	1.05880	7.35151	6.37448	4.40665	13.46020
D. IBNR						
1995	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
1996	0.0314	0.0010	0.0054	0.0005	0.0006	0.0044
1997	0.0716	0.0032	0.0119	0.0029	0.0077	0.0465
1998	0.0283	0.0052	0.0183	0.0062	0.0109	0.0589
1999	0.0362	0.0067	0.0265	0.0110	0.0181	0.0787
2000	0.0463	0.0092	0.0429	0.0179	0.0253	0.0821
2001	0.0490	0.0135	0.0550	0.0250	0.0523	0.1199
2002	0.0591	0.0130	0.0798	0.0336	0.0655	0.1423
2003	0.0766	0.0146	0.1163	0.0507	0.1131	0.1692
2004	0.0955	0.0168	0.1457	0.1263	0.1747	0.2668

Source: IBNR Factor - Exhibit VIII-C-6
Adjustment Factor - Judgement
Payrolls: Exhibit X-A pages 1 & 2
IBNR = A times B times C

Occupational Disease
Federal Benefits

TABLE OF MONTHLY BLACK LUNG BENEFIT RATES

Time Period			Claimant Benefit	Dependent Benefit	Yearly Percentage Increase
10/1/1981	to	9/30/1982	293.20	146.60	
10/1/1982	to	12/31/1983	304.90	152.50	4.0%
1/1/1984	to	12/31/1984	317.10	158.60	4.0%
1/1/1985	to	12/31/1985	328.20	164.10	3.5%
1/1/1986	to	12/31/1986	328.20	164.10	0.0%
1/1/1987	to	12/31/1987	338.00	169.00	3.0%
1/1/1988	to	12/31/1988	344.80	172.40	2.0%
1/1/1989	to	12/31/1989	358.90	179.50	4.1%
1/1/1990	to	12/31/1990	371.80	185.90	3.6%
1/1/1991	to	12/31/1991	387.10	193.60	4.1%
1/1/1992	to	12/31/1992	403.30	201.70	4.2%
1/1/1993	to	12/31/1993	418.20	209.10	3.7%
1/1/1994	to	12/31/1994	427.40	213.70	2.2%
1/1/1995	to	12/31/1995	427.40	213.70	0.0%
1/1/1996	to	12/31/1996	435.10	217.60	1.8%
1/1/1997	to	12/31/1997	445.10	222.60	2.3%
1/1/1998	to	12/31/1998	455.10	227.60	2.2%
1/1/1999	to	12/31/1999	469.50	234.80	3.2%
1/1/2000	to	12/31/2000	487.40	243.60	3.8%
1/1/2001	to	12/31/2001	500.50	250.30	2.7%
1/1/2002	to	12/31/2002	518.50	259.30	3.6%
1/1/2003	to	12/31/2003	534.60	267.30	3.1%
1/1/2004	to	12/31/2004	549.00	274.50	2.7%
1/1/2005	to	12/31/2005	562.80	281.30	2.5%
1/1/2006	to	12/31/2006	574.60	287.20	2.1%
1/1/2007	to	12/31/2007	584.40	292.20	1.7%
1/1/2008	to	12/31/2008	599.00	299.00	2.5%
1/1/2009	to	12/31/2009	616.30	308.20	2.9%
1/1/2010	to	12/31/2010	625.60	312.80	1.5%
1/1/2011	to	12/31/2011	625.60	312.80	0.0%
1/1/2012	to	12/31/2012	625.60	312.80	0.0%
1/1/2013	to	12/31/2013	625.60	312.80	0.0%
1/1/2014	to	12/31/2014	631.80	315.90	1.0%
1/1/2015	to	12/31/2015	638.10	319.10	1.0%

All Years	Average	2.4%
Last 10 Yrs	Average	1.3%
Last 5 Yrs	Average	0.4%
Last 3 Yrs	Average	0.7%

Selected Benefit Change from	2015	to	2016	0.50%
Selected Benefit Change from	2016	to	2017	1.50%
Selected Benefit Change from	2017	to	2018	2.50%

Selected Average Annual Benefit Change (Last Year's Selection: 2.5%) 2.5%

			Projected Benefit- Claimant	Dependant	Weight
1/1/2016	to	12/31/2016	641.30 a	320.70	28.125%
1/1/2017	to	12/31/2017	650.90 a	325.50	68.750%
1/1/2018	to	12/31/2018	667.20 a	333.60	3.125%
Average Monthly Benefit During the Policy Period Beginning 04/01/2016			648.70 b	324.40	
Average Weekly Benefit During the Policy Period Beginning 04/01/2016			149.70 c	74.90	
Annual (Weekly X 52)			7,784.40	3,892.20	
Annual Miner and Spouse				11,676.60	

a Previous year's benefit times selected benefit change
b Weighted average of projected benefit levels from 01-01-16 to 12-31-18
c Monthly Benefit times 12 months divided by 52 weeks

Sources: US Department of Labor
Employment Standards Administration
Office of Workers' Compensation Programs
Division of Coal Mine Workers' Compensation

PAB

Anthracite Underground (0160)

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded
2005	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00
2006	1	1	-	-	-	-	-
2007	-	-	-	-	-	-	-
2008	1	-	-	1	-	0.05	0.05
2009	1	-	-	1	-	0.05	0.05
2010	-	-	-	-	-	-	-
2011	2	-	1	1	0.30	0.05	0.05
2012	-	-	-	-	-	-	-
2013	2	-	1	1	0.30	0.05	0.05
2014	-	-	-	-	-	-	-
Total	7	1	2	4	0.60	0.20	0.20

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.00	# 0.00	# 0.0601	# 0.0133	# 0.0133	$ 1,417,568	0.0094
2006	1.00	-	0.1290	0.0286	1.0286	1,442,524	0.7130
2007	-	-	0.2431	0.0539	0.0539	1,662,537	0.0324
2008	0.05	0.95	0.4431	0.0982	0.1482	2,136,713	0.0694
2009	0.05	0.95	0.3879	0.0860	0.1360	1,335,866	0.1018
2010	-	-	0.5256	0.1165	0.1165	1,299,588	0.0897
2011	0.35	1.65	0.6967	0.1544	0.5044	1,257,944	0.4010
2012	-	-	0.7297	0.1618	0.1618	1,029,260	0.1572
2013	0.35	1.65	0.3573	0.0792	0.4292	381,876	1.1239
2014	-	-	0.3081	0.0683	0.0683	258,809	0.2639
Total	1.80	5.20	3.8803	0.8603	2.6603	$ 12,222,685	0.2176

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.0470	36.4	0.0366
2006	745	1.0470	35.6	2.8893
2007	779	1.0470	39.2	0.1375
2008	807	1.0470	48.6	0.3050
2009	836	1.0470	29.3	0.4641
2010	845	1.0470	28.2	0.4132
2011	858	1.0470	26.9	1.8753
2012	888	1.0470	21.3	0.7595
2013	917	1.0470	7.6	5.6474
2014	932	1.0470	5.1	1.3391
Total			278.2	0.9562

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Bituminous Underground (0158)

	Counts						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded
2005	# 1	# 0	# 0	# 1	# 0.00	# 0.05	# 0.05
2006	2	1	-	1	-	0.05	0.05
2007	4	-	2	2	0.60	0.10	0.10
2008	-	-	-	-	-	-	-
2009	5	-	-	5	-	0.25	0.25
2010	2	-	-	2	-	0.10	0.10
2011	2	-	-	2	-	0.10	0.10
2012	6	-	-	6	-	0.30	0.30
2013	3	-	1	2	0.30	0.10	0.10
2014	3	-	1	2	0.30	0.10	0.10
Total	28	1	4	23	1.20	1.15	1.15

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.05	# 0.95	# 4.1734	# 0.9252	# 0.9752	$ 66,275,755	0.0147
2006	1.05	0.95	5.0172	1.1123	2.1623	70,465,937	0.0307
2007	0.70	3.30	6.3692	1.4120	2.1120	79,904,266	0.0264
2008	-	-	8.9445	1.9830	1.9830	101,353,977	0.0196
2009	0.25	4.75	9.8409	2.1817	2.4317	101,348,140	0.0240
2010	0.10	1.90	13.3206	2.9532	3.0532	125,393,576	0.0243
2011	0.10	1.90	17.2511	3.8246	3.9246	148,485,709	0.0264
2012	0.30	5.70	20.0128	4.4368	4.7368	153,602,187	0.0308
2013	0.40	2.60	20.9896	4.6534	5.0534	141,792,870	0.0356
2014	0.40	2.60	24.5968	5.4531	5.8531	148,066,216	0.0395
Total	3.35	24.65	130.5159	28.9354	32.2854	$ 1,136,688,633	0.0284

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.4390	1,237.0	0.0788
2006	745	1.4390	1,264.0	0.1711
2007	779	1.4390	1,370.8	0.1541
2008	807	1.4390	1,678.4	0.1181
2009	836	1.4390	1,620.1	0.1501
2010	845	1.4390	1,983.1	0.1540
2011	858	1.4390	2,312.8	0.1697
2012	888	1.4390	2,311.6	0.2049
2013	917	1.4390	2,066.4	0.2446
2014	932	1.4390	2,123.1	0.2757
Total			17,967.3	0.1797

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Anthracite Surface (0153)

	Counts						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded
2005	# 2	# 1	# 0	# 1	# 0.00	# 0.05	# 0.05
2006	1	-	1	-	0.30	-	-
2007	2	2	-	-	-	-	-
2008	1	-	-	1	-	0.05	0.05
2009	2	-	1	1	0.30	0.05	0.05
2010	-	-	-	-	-	-	-
2011	1	-	-	1	-	0.05	0.05
2012	1	-	1	-	0.30	-	-
2013	1	1	-	-	-	-	-
2014	1	-	-	1	-	0.05	0.05
Total	12	4	3	5	0.90	0.25	0.25

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 1.05	# 0.95	# 0.7757	# 0.1720	# 1.2220	$ 12,140,911	0.1006
2006	0.30	0.70	0.9240	0.2048	0.5048	12,065,323	0.0418
2007	2.00	-	1.3431	0.2978	2.2978	14,866,556	0.1546
2008	0.05	0.95	1.7286	0.3832	0.4332	16,220,231	0.0267
2009	0.35	1.65	1.9692	0.4366	0.7866	15,893,528	0.0495
2010	-	-	1.9266	0.4271	0.4271	13,319,185	0.0321
2011	0.05	0.95	3.2792	0.7270	0.7770	19,507,428	0.0398
2012	0.30	0.70	4.8428	1.0737	1.3737	24,734,711	0.0555
2013	1.00	-	4.6330	1.0271	2.0271	20,720,014	0.0978
2014	0.05	0.95	4.7818	1.0601	1.1101	18,868,872	0.0588
Total	5.15	6.85	26.2039	5.8094	10.9594	$ 168,336,759	0.0651

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.0470	311.4	0.3924
2006	745	1.0470	297.5	0.1697
2007	779	1.0470	350.5	0.6556
2008	807	1.0470	369.2	0.1173
2009	836	1.0470	349.2	0.2253
2010	845	1.0470	289.5	0.1475
2011	858	1.0470	417.6	0.1861
2012	888	1.0470	511.6	0.2685
2013	917	1.0470	415.0	0.4885
2014	932	1.0470	371.9	0.2985
Total			3,683.4	0.2975

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Bituminous Surface (0156)

	Counts						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded
2005	# 1	# 0	# 0	# 1	# 0.00	# 0.05	# 0.05
2006	4	-	1	3	0.30	0.15	0.15
2007	4	1	-	3	-	0.15	0.15
2008	5	1	2	2	0.60	0.10	0.10
2009	-	-	-	-	-	-	-
2010	1	-	-	1	-	0.05	0.05
2011	2	-	1	1	0.30	0.05	0.05
2012	9	2	1	6	0.30	0.30	0.30
2013	3	-	1	2	0.30	0.10	0.10
2014	1	-	1	-	0.30	-	-
Total	30	4	7	19	2.10	0.95	0.95

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.05	# 0.95	# 1.7885	# 0.3965	# 0.4465	$ 64,871,562	0.0069
2006	0.45	3.55	2.0843	0.4621	0.9121	63,798,502	0.0143
2007	1.15	2.85	2.5139	0.5573	1.7073	64,808,093	0.0263
2008	1.70	3.30	3.3675	0.7466	2.4466	74,601,231	0.0328
2009	-	-	3.2742	0.7259	0.7259	63,306,695	0.0115
2010	0.05	0.95	4.3625	0.9672	1.0172	74,255,177	0.0137
2011	0.35	1.65	5.8578	1.2987	1.6487	87,730,506	0.0188
2012	2.60	6.40	5.8933	1.3065	3.9065	77,870,990	0.0502
2013	0.40	2.60	5.3150	1.1783	1.5783	62,536,807	0.0252
2014	0.30	0.70	5.3703	1.1906	1.4906	55,347,009	0.0269
Total	7.05	22.95	39.8273	8.8297	15.8797	$ 689,126,572	0.0230

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.0470	1,664.1	0.0268
2006	745	1.0470	1,572.9	0.0580
2007	779	1.0470	1,528.1	0.1117
2008	807	1.0470	1,697.9	0.1441
2009	836	1.0470	1,390.9	0.0522
2010	845	1.0470	1,614.1	0.0630
2011	858	1.0470	1,878.1	0.0878
2012	888	1.0470	1,610.7	0.2425
2013	917	1.0470	1,252.6	0.1260
2014	932	1.0470	1,090.8	0.1367
Total			15,300.2	0.1038

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Four Standard Classes

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded
2005	# 4	# 1	# 0	# 3	# 0.00	# 0.15	# 0.15
2006	8	2	2	4	0.60	0.20	0.20
2007	10	3	2	5	0.60	0.25	0.25
2008	7	1	2	4	0.60	0.20	0.20
2009	8	-	1	7	0.30	0.35	0.35
2010	3	-	-	3	-	0.15	0.15
2011	7	-	2	5	0.60	0.25	0.25
2012	16	2	2	12	0.60	0.60	0.60
2013	9	1	3	5	0.90	0.25	0.25
2014	5	-	2	3	0.60	0.15	0.15
Total	77	10	16	51	4.80	2.55	2.55

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 1.15	# 2.85	# 6.7977	# 1.5070	# 2.6570	$ 144,705,796	0.0184
2006	2.80	5.20	8.1544	1.8078	4.6078	147,772,286	0.0312
2007	3.85	6.15	10.4692	2.3210	6.1710	161,241,452	0.0383
2008	1.80	5.20	14.4836	3.2110	5.0110	194,312,152	0.0258
2009	0.65	7.35	15.4722	3.4302	4.0802	181,884,229	0.0224
2010	0.15	2.85	20.1353	4.4640	4.6140	214,267,526	0.0215
2011	0.85	6.15	27.0847	6.0047	6.8547	256,981,587	0.0267
2012	3.20	12.80	31.4786	6.9788	10.1788	257,237,148	0.0396
2013	2.15	6.85	31.2948	6.9381	9.0881	225,431,567	0.0403
2014	0.75	4.25	35.0569	7.7721	8.5221	222,540,906	0.0383
Total	17.35	59.65	200.4274	44.4347	61.7847	$ 2,006,374,649	0.0308

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716		3,248.9	0.0818
2006	745		3,170.0	0.1454
2007	779		3,288.6	0.1876
2008	807		3,794.1	0.1321
2009	836		3,389.5	0.1204
2010	845		3,914.9	0.1179
2011	858		4,635.4	0.1479
2012	888		4,455.2	0.2285
2013	917		3,741.6	0.2429
2014	932		3,590.9	0.2373
Total			37,229.1	0.1660

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Sum of Pages 1 to 4
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Coke (0154)

	Counts						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded
2005	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00
2006	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.00	# 0.00	# 0.1194	# 0.0265	# 0.0265	$ 12,860,979	0.0021
2006	-	-	0.1359	0.0301	0.0301	12,737,394	0.0024
2007	-	-	0.1658	0.0368	0.0368	13,669,925	0.0027
2008	-	-	0.1330	0.0295	0.0295	9,761,146	0.0030
2009	-	-	0.0784	0.0174	0.0174	5,173,552	0.0034
2010	-	-	0.0907	0.0201	0.0201	5,435,658	0.0037
2011	-	-	0.0662	0.0147	0.0147	3,599,086	0.0041
2012	-	-	0.1155	0.0256	0.0256	5,738,105	0.0045
2013	-	-	0.1052	0.0233	0.0233	4,791,910	0.0049
2014	-	-	0.1075	0.0238	0.0238	4,464,398	0.0053
Total	-	-	1.1176	0.2478	0.2478	$ 78,232,153	0.0032

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.0470	329.9	0.0080
2006	745	1.0470	314.0	0.0096
2007	779	1.0470	322.3	0.0114
2008	807	1.0470	222.2	0.0133
2009	836	1.0470	113.7	0.0153
2010	845	1.0470	118.2	0.0170
2011	858	1.0470	77.0	0.0191
2012	888	1.0470	118.7	0.0216
2013	917	1.0470	96.0	0.0243
2014	932	1.0470	88.0	0.0271
Total			1,800.0	0.0138

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Auger (0157)

	Counts						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded
2005	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00
2006	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.00	# 0.00	# 0.0191	# 0.0042	# 0.0042	$ 1,026,537	0.0041
2006	-	-	0.0228	0.0051	0.0051	1,066,831	0.0047
2007	-	-	0.0272	0.0060	0.0060	1,121,156	0.0054
2008	-	-	0.0683	0.0151	0.0151	2,506,758	0.0060
2009	-	-	0.0287	0.0064	0.0064	946,963	0.0067
2010	-	-	0.0276	0.0061	0.0061	827,496	0.0074
2011	-	-	0.0432	0.0096	0.0096	1,176,255	0.0081
2012	-	-	0.0325	0.0072	0.0072	808,208	0.0089
2013	-	-	0.0460	0.0102	0.0102	1,046,947	0.0097
2014	-	-	0.0448	0.0099	0.0099	930,810	0.0107
Total	-	-	0.3602	0.0799	0.0799	$ 11,457,961	0.0070

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.0470	26.3	0.0161
2006	745	1.0470	26.3	0.0192
2007	779	1.0470	26.4	0.0228
2008	807	1.0470	57.1	0.0265
2009	836	1.0470	20.8	0.0306
2010	845	1.0470	18.0	0.0340
2011	858	1.0470	25.2	0.0380
2012	888	1.0470	16.7	0.0431
2013	917	1.0470	21.0	0.0486
2014	932	1.0470	18.3	0.0543
Total			256.1	0.0312

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Anthracite Co-Gen (181)

	Counts						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded
2005	# 1	# 0	# 0	# 1	# 0.00	# 0.05	# 0.05
2006	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-
2013	1	-	-	1	-	0.05	0.05
2014	-	-	-	-	-	-	-
Total	2	-	-	2	-	0.10	0.10

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.05	# 0.95	# 0.1823	# 0.0404	# 0.0904	$ 7,855,289	0.0115
2006	-	-	0.2244	0.0497	0.0497	8,412,527	0.0059
2007	-	-	0.2786	0.0618	0.0618	9,186,706	0.0067
2008	-	-	0.2562	0.0568	0.0568	7,521,400	0.0076
2009	-	-	0.2854	0.0633	0.0633	7,534,735	0.0084
2010	-	-	0.3319	0.0736	0.0736	7,958,048	0.0092
2011	-	-	0.5046	0.1119	0.1119	10,981,642	0.0102
2012	-	-	0.4687	0.1039	0.1039	9,311,812	0.0112
2013	0.05	0.95	0.4188	0.0928	0.1428	7,630,762	0.0187
2014	-	-	0.5155	0.1143	0.1143	8,565,937	0.0133
Total	0.10	1.90	3.4664	0.7685	0.8685	$ 84,958,858	0.0102

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.0470	201.5	0.0449
2006	745	1.0470	207.4	0.0240
2007	779	1.0470	216.6	0.0285
2008	807	1.0470	171.2	0.0332
2009	836	1.0470	165.5	0.0382
2010	845	1.0470	173.0	0.0425
2011	858	1.0470	235.1	0.0476
2012	888	1.0470	192.6	0.0540
2013	917	1.0470	152.8	0.0935
2014	932	1.0470	168.8	0.0677
Total			1,884.5	0.0461

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Bituminous Co-Gen (182)

	Counts						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded
2005	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00
2006	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.00	# 0.00	# 0.1979	# 0.0439	# 0.0439	$ 8,524,752	0.0051
2006	-	-	0.2514	0.0557	0.0557	9,423,575	0.0059
2007	-	-	0.3284	0.0728	0.0728	10,829,140	0.0067
2008	-	-	0.2889	0.0640	0.0640	8,481,888	0.0076
2009	-	-	0.2980	0.0661	0.0661	7,866,413	0.0084
2010	-	-	0.3642	0.0807	0.0807	8,732,701	0.0092
2011	-	-	0.4183	0.0927	0.0927	9,102,411	0.0102
2012	-	-	0.4554	0.1010	0.1010	9,047,745	0.0112
2013	-	-	0.5683	0.1260	0.1260	10,355,884	0.0122
2014	-	-	0.6891	0.1528	0.1528	11,451,621	0.0133
Total	-	-	3.8599	0.8557	0.8557	$ 93,816,130	0.0091

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.4390	159.1	0.0276
2006	745	1.4390	169.0	0.0330
2007	779	1.4390	185.8	0.0392
2008	807	1.4390	140.5	0.0456
2009	836	1.4390	125.7	0.0526
2010	845	1.4390	138.1	0.0585
2011	858	1.4390	141.8	0.0654
2012	888	1.4390	136.2	0.0741
2013	917	1.4390	150.9	0.0835
2014	932	1.4390	164.2	0.0930
Total			1,511.3	0.0566

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Anthracite Prep-Plant (183)

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded
2005	# 0	# 0	# 0	# 0	# 0.00	# 0.00	# 0.00
2006	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-
2009	-	-	-	-	-	-	-
2010	-	-	-	-	-	-	-
2011	-	-	-	-	-	-	-
2012	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.00	# 0.00	# 0.2400	# 0.0532	# 0.0532	$ 5,170,069	0.0103
2006	-	-	0.2607	0.0578	0.0578	4,885,882	0.0118
2007	-	-	0.3529	0.0782	0.0782	5,817,291	0.0134
2008	-	-	0.3906	0.0866	0.0866	5,733,543	0.0151
2009	-	-	0.4746	0.1052	0.1052	6,264,606	0.0168
2010	-	-	0.4068	0.0902	0.0902	4,876,927	0.0185
2011	-	-	0.5627	0.1248	0.1248	6,123,259	0.0204
2012	-	-	0.7619	0.1689	0.1689	7,569,023	0.0223
2013	-	-	0.7765	0.1722	0.1722	7,074,886	0.0243
2014	-	-	0.7766	0.1722	0.1722	6,452,662	0.0267
Total	-	-	5.0033	1.1092	1.1092	$ 59,968,148	0.0185

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.0470	132.6	0.0401
2006	745	1.0470	120.5	0.0480
2007	779	1.0470	137.2	0.0570
2008	807	1.0470	130.5	0.0664
2009	836	1.0470	137.6	0.0765
2010	845	1.0470	106.0	0.0851
2011	858	1.0470	131.1	0.0952
2012	888	1.0470	156.6	0.1079
2013	917	1.0470	141.7	0.1215
2014	932	1.0470	127.2	0.1354
Total			1,321.0	0.0840

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Bituminous Prep-Plant (184)

	Counts						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded
2005	# 1	# 0	# 1	# 0	# 0.30	# 0.00	# 0.00
2006	1	-	1	-	0.30	-	-
2007	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-
2009	1	-	1	-	0.30	-	-
2010	-	-	-	-	-	-	-
2011	1	-	-	1	-	0.05	0.05
2012	-	-	-	-	-	-	-
2013	-	-	-	-	-	-	-
2014	-	-	-	-	-	-	-
Total	4	-	3	1	0.90	0.05	0.05

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.30	# 0.70	# 0.3841	# 0.0852	# 0.3852	$ 16,548,307	0.0233
2006	0.30	0.70	0.4549	0.1009	0.4009	17,050,967	0.0235
2007	-	-	0.5731	0.1271	0.1271	18,895,192	0.0067
2008	-	-	0.7239	0.1605	0.1605	21,250,256	0.0076
2009	0.30	0.70	0.7511	0.1665	0.4665	19,828,012	0.0235
2010	-	-	1.0975	0.2433	0.2433	26,313,130	0.0092
2011	0.05	0.95	1.6154	0.3581	0.4081	35,155,068	0.0116
2012	-	-	1.7219	0.3817	0.3817	34,211,729	0.0112
2013	-	-	1.8436	0.4087	0.4087	33,593,761	0.0122
2014	-	-	1.9270	0.4272	0.4272	32,023,187	0.0133
Total	0.95	3.05	11.0925	2.4592	3.4092	$ 254,869,609	0.0134

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716	1.4390	308.9	0.1247
2006	745	1.4390	305.9	0.1310
2007	779	1.4390	324.2	0.0392
2008	807	1.4390	351.9	0.0456
2009	836	1.4390	317.0	0.1472
2010	845	1.4390	416.2	0.0585
2011	858	1.4390	547.6	0.0745
2012	888	1.4390	514.9	0.0741
2013	917	1.4390	489.6	0.0835
2014	932	1.4390	459.2	0.0930
Total			4,035.4	0.0845

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Exhibit X
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Total Other Classes

	Counts						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Reported	Awarded	Pending	Denied	Pending Awarded (3) * 30%	Denied Reopened	Denied Awarded
2005	# 2	# 0	# 1	# 1	# 0.30	# 0.05	# 0.05
2006	1	-	1	-	0.30	-	-
2007	-	-	-	-	-	-	-
2008	-	-	-	-	-	-	-
2009	1	-	1	-	0.30	-	-
2010	-	-	-	-	-	-	-
2011	1	-	-	1	-	0.05	0.05
2012	-	-	-	-	-	-	-
2013	1	-	-	1	-	0.05	0.05
2014	-	-	-	-	-	-	-
Total	6	-	3	3	0.90	0.15	0.15

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 0.35	# 1.65	# 1.1428	# 0.2534	# 0.6034	$ 51,985,933	0.0116
2006	0.30	0.70	1.3501	0.2993	0.5993	53,577,176	0.0112
2007	-	-	1.7260	0.3827	0.3827	59,519,410	0.0064
2008	-	-	1.8609	0.4126	0.4126	55,254,991	0.0075
2009	0.30	0.70	1.9162	0.4248	0.7248	47,614,281	0.0152
2010	-	-	2.3187	0.5141	0.5141	54,143,960	0.0095
2011	0.05	0.95	3.2104	0.7117	0.7617	66,137,721	0.0115
2012	-	-	3.5559	0.7883	0.7883	66,686,622	0.0118
2013	0.05	0.95	3.7584	0.8332	0.8832	64,494,150	0.0137
2014	-	-	4.0605	0.9002	0.9002	63,888,615	0.0141
Total	1.05	4.95	24.8999	5.5203	6.5703	$ 583,302,859	0.0113

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716		1,158.3	0.0521
2006	745		1,143.1	0.0524
2007	779		1,212.5	0.0316
2008	807		1,073.4	0.0384
2009	836		880.3	0.0823
2010	845		969.5	0.0530
2011	858		1,157.8	0.0658
2012	888		1,135.7	0.0694
2013	917		1,052.0	0.0840
2014	932		1,025.7	0.0878
Total			10,808.3	0.0608

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Sum of Pages 6 to 11
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

Grand Total

Year	Counts (1) Reported	(2) Awarded	(3) Pending	(4) Denied	(5) Pending Awarded (3) * 30%	(6) Denied Reopened	(7) Denied Awarded
2005	# 6	# 1	# 1	# 4	# 0.30	# 0.20	# 0.20
2006	9	2	3	4	0.90	0.20	0.20
2007	10	3	2	5	0.60	0.25	0.25
2008	7	1	2	4	0.60	0.20	0.20
2009	9	-	2	7	0.60	0.35	0.35
2010	3	-	-	3	-	0.15	0.15
2011	8	-	2	6	0.60	0.30	0.30
2012	16	2	2	12	0.60	0.60	0.60
2013	10	1	3	6	0.90	0.30	0.30
2014	5	-	2	3	0.60	0.15	0.15
Total	83	10	19	54	5.70	2.70	2.70

Year	(8) Ultimate Awarded (2)+(5)+(7)	(9) Ultimate Denied (1)-(8)	(10) IBNR	(11) IBNR Awarded (10)xAward Ratio	(12) Total Awarded (8)+(11)	(13) Payroll	(14) Frequency (12)/(13) x 1000000
2005	# 1.50	# 4.50	# 7.9405	# 1.7604	# 3.2604	$ 196,691,729	0.0166
2006	3.10	5.90	9.5045	2.1071	5.2071	201,349,462	0.0259
2007	3.85	6.15	12.1952	2.7037	6.5537	220,760,862	0.0297
2008	1.80	5.20	16.3445	3.6236	5.4236	249,567,143	0.0217
2009	0.95	8.05	17.3884	3.8550	4.8050	229,498,510	0.0209
2010	0.15	2.85	22.4540	4.9780	5.1280	268,411,486	0.0191
2011	0.90	7.10	30.2951	6.7164	7.6164	323,119,308	0.0236
2012	3.20	12.80	35.0345	7.7672	10.9672	323,923,770	0.0339
2013	2.20	7.80	35.0532	7.7713	9.9713	289,925,717	0.0344
2014	0.75	4.25	39.1174	8.6723	9.4223	286,429,521	0.0329
Total	18.40	64.60	225.3273	49.9551	68.3551	$ 2,589,677,508	0.0264

Year	(15) Statewide Average Weekly Wage	(16) Adjustment Factor	(17) Estimated Miner Years	(18) Frequency Claims per 100 Miner Years
2005	716		4,407.2	0.0740
2006	745		4,313.1	0.1207
2007	779		4,501.1	0.1456
2008	807		4,867.5	0.1114
2009	836		4,269.8	0.1125
2010	845		4,884.4	0.1050
2011	858		5,793.2	0.1315
2012	888		5,590.9	0.1962
2013	917		4,793.6	0.2080
2014	932		4,616.6	0.2041
Total			48,037.4	0.1423

Sources:
Cols.(1) to (4): CMCRB Claims Database
Col.(6): (0.05)xCol.(4)
Col.(7): (1.00)xCol.(6)
Col.(10): Exh. VIII-C
Col.(13): Sum of Pages 5 & 12
Col.(15): Exhibit XII-D
Col.(16): Exhibit X-G
Col.(17): (13) /((15) x (16) x 52)
Col.(18): (12) / (17) x 100

IBNR Award Ratio: 0.2217

COAL MINE COMPENSATION RATING BUREAU
INDIVIDUAL CLAIM DETAIL FOR STATE AND FEDERAL EXCESS

														"All Permanent Partial" Scenario (see note)						
											Federal Excess:							Federal Excess:		
		Awd (2)		Exp.	Age of Miner at	State	Medical	Act 44	Act	Offsets for:		After Offsets:			State	State plus	Offsets for:		After Offsets:	
ID No.	Class	Pend (1)	Type*	Yr.	Comp Date	Benefit	Bef. Act 44	Factor	44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP	Benefit	Act 44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP
000-00-0045	1011	2		1992	49.97	1,293,520	31,542	1.00	31,542	260,235	153,160	21	47,273	179,012	471,197	-	-	-	400,727	400,727	400,727
000-00-0046	1011	2		1992	47.39	1,580,407	34,781	1.00	34,781	286,653	178,040	0	28,754	162,892	571,362	-	-	-	398,834	398,834	398,834
000-00-0047	1011	2		2011	49.92	1,655,099	31,542	1.00	31,542	297,859	217,455	-	18,079	161,165	601,065	-	-	-	388,233	388,233	388,233
000-00-0048	1011	2	LS	1999	62.24	133,432	19,444	1.00	19,444	-	66,197	201,504	201,504	261,475	133,432	-	-	66,197	201,504	201,504	261,475
000-00-0049	1011	2		1990	66.83	582,298	15,235	1.00	15,235	-	-	-	-	-	406,098	-	-	-	47,323	47,323	47,323
000-00-0050	1011	2		1993	61.26	565,295	20,358	1.00	20,358	-	138,600	42	42	5,833	295,441	-	-	74,975	168,540	168,540	168,540
000-00-0051	1011	2		1993	61.22	429,430	20,358	1.00	20,358	-	137,418	-	-	320	261,209	-	-	74,336	80,159	80,159	80,159
000-00-0052	1011	2		1993	64.79	533,011	16,849	1.00	16,849	-	149,366	14	14	2,897	297,566	-	-	98,928	140,348	140,348	141,022
Total Underground Anthracite				8		6,772,491	190,107		190,107	844,747	1,040,237	201,581	295,666	773,595	3,037,371	0	0	314,436	1,825,668	1,825,668	1,886,313
Average of 8 claims						846,561	23,763		23,763	105,593	130,030	25,198	36,958	96,699	379,671	0	0	39,304	228,208	228,208	235,789
						6,962,599															
Medical plus Indemnity						870,325				105,593	130,030	25,198	36,958	96,699	403,435		0	39,304	228,208	228,208	235,789
Adjusted															403,435		0	39,304	228,208	228,208	235,789

* Type code is as follows: CC is Commuted or Compromised; WO is Widow Only; LS is Lump Sum.
For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

Sources Individual claim data from CMCRB.

COAL MINE COMPENSATION RATING BUREAU
INDIVIDUAL CLAIM DETAIL FOR STATE AND FEDERAL EXCESS

															"All Permanent Partial" Scenario (see note)						
										Offsets for:		Federal Excess: After Offsets:					Offsets for:		Federal Excess: After Offsets:		
ID No.	Class	Awd (2) Pend (1)	Type*	Exp. Yr.	Age of Miner at Comp Date	State Benefit	Medical Bef. Act 44	Act 44 Factor	Act 44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP	State Benefit	State plus Act 44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP
000-00-0001	1002	2	CC	1990	67.38	46,855	15,235	1.00	15,235	-	43,670	216,590	216,590	260,260	46,855	-	-	43,670	216,590	216,590	260,260
000-00-0002	1002	2	CC	1992	62.84	137,538	18,555	1.00	18,555	-	42,471	212,680	212,680	231,082	137,538	-	-	42,471	212,680	212,680	231,082
000-00-0003	1002	2	CC	1992	62.49	92,392	19,444	1.00	19,444	-	65,713	96,121	96,121	148,417	92,392	-	-	65,713	96,121	96,121	148,417
000-00-0004	1002	2	CC	1993	63.31	372,196	18,555	1.00	18,555	-	114,923	246,202	246,202	246,202	372,196	-	-	114,923	246,202	246,202	246,202
000-00-0005	1002	2		1992	62.41	1,201,776	19,444	1.00	19,444	-	316,669	-	-	1	590,143	-	-	172,952	184,924	184,924	186,575
000-00-0006	1002	2		1994	58.76	1,451,665	22,252	1.00	22,252	296,789	292,718	-	3,391	121,917	598,372	-	98,036	117,809	281,920	283,553	303,514
000-00-0007	1002	2	LS	2000	44.43	69,084	38,005	1.00	38,005	-	-	673,029	673,029	673,029	69,084	-	-	-	673,029	673,029	673,029
000-00-0008	1002	2	LS	2005	54.58	84,242	26,260	1.00	26,260	2,160	-	336,356	338,516	338,516	84,242	-	2,160	-	336,356	338,516	338,516
000-00-0009	1002	2		2005	60.48	582,025	21,294	1.00	21,294	-	186,249	-	-	2	356,619	-	-	101,722	77,674	77,674	78,646
000-00-0010	1002	2	LS	2008	57.98	106,508	23,230	1.00	23,230	28,135	-	347,058	375,011	375,011	106,508	-	28,135	-	347,058	375,011	375,011
000-00-0011	1002	2		2012	63.34	1,147,474	18,555	1.00	18,555	-	269,477	-	-	0	556,795	-	-	159,281	205,992	205,992	207,322
000-00-0012	1002	2		2012	62.39	1,147,252	19,444	1.00	19,444	-	304,830	-	-	0	586,503	-	-	166,486	168,836	168,836	170,426
000-00-0013	1002	1		2013	62.69	1,122,962	18,555	1.00	18,555	-	305,715	-	-	0	583,088	-	-	180,700	163,602	163,602	165,110
000-00-0014	1002	2	LS	1992	63.60	160,414	17,690	1.00	17,690	-	129,216	198,938	198,938	296,366	160,414	-	-	129,216	198,938	198,938	296,366
000-00-0015	1002	2	LS	1992	65.08	107,438	16,849	1.00	16,849	-	85,857	200,147	200,147	286,004	107,438	-	-	85,857	200,147	200,147	286,004
000-00-0016	1002	2	LS	1993	64.91	102,917	16,849	1.00	16,849	-	87,361	203,850	203,850	290,463	102,917	-	-	87,361	203,850	203,850	290,463
000-00-0017	1002	2	LS	1994	66.34	16,818	16,030	1.00	16,030	-	12,779	227,429	227,429	240,208	16,818	-	-	12,779	227,429	227,429	240,208
000-00-0018	1002	2	LS	1995	58.06	281,195	23,230	1.00	23,230	54,049	20,231	257,163	273,995	290,488	281,195	-	54,049	20,231	257,163	273,995	290,488
000-00-0019	1002	2	LS	1997	56.50	139,211	24,226	1.00	24,226	24,772	45	267,346	290,798	290,843	139,211	-	24,772	45	267,346	290,798	290,843
000-00-0020	1002	2	LS	1999	54.98	3,134	26,260	1.00	26,260	80	-	448,316	448,396	448,396	3,134	-	80	-	448,316	448,396	448,396
000-00-0021	1002	2	LS	2000	61.77	494,845	19,444	1.00	19,444	-	136,658	212,451	212,451	214,249	494,845	-	-	136,658	212,451	212,451	214,249
000-00-0022	1002	2	LS	2000	66.09	84,727	16,030	1.00	16,030	-	64,938	176,797	176,797	241,735	84,727	-	-	64,938	176,797	176,797	241,735
000-00-0023	1002	2	LS	2000	59.02	84,295	22,252	1.00	22,252	29,597	-	271,558	301,155	301,155	84,295	-	29,597	-	271,558	301,155	301,155
000-00-0024	1002	2	LS	2000	57.74	84,329	23,230	1.00	23,230	22,276	-	295,189	317,465	317,465	84,329	-	22,276	-	295,189	317,465	317,465
000-00-0025	1002	2	LS	2000	61.43	82,504	20,358	1.00	20,358	-	49,624	233,843	233,843	283,441	82,504	-	-	49,624	233,843	233,843	283,441
000-00-0026	1002	2	LS	2001	59.31	120,788	22,252	1.00	22,252	42,315	95	268,209	309,829	309,923	120,788	-	42,315	95	268,209	309,829	309,923
000-00-0027	1002	2	LS	2001	53.43	332,473	28,346	1.00	28,346	-	-	477,386	477,386	477,386	332,473	-	-	-	477,386	477,386	477,386
000-00-0028	1002	2	LS	2001	61.37	124,012	20,358	1.00	20,358	-	72,897	250,734	250,734	321,541	124,012	-	-	72,897	250,734	250,734	321,541
000-00-0029	1002	2	LS	2002	45.33	176,491	36,937	1.00	36,937	-	-	508,972	508,972	508,972	176,491	-	-	-	508,972	508,972	508,972
000-00-0030	1002	2	LS	2002	58.68	146,511	22,252	1.00	22,252	51,389	52	241,926	287,071	287,123	146,511	-	51,389	52	241,926	287,071	287,123
000-00-0031	1002	2	LS	2004	52.31	82,209	29,404	1.00	29,404	-	-	399,087	399,087	399,087	82,209	-	-	-	399,087	399,087	399,087
000-00-0032	1002	2	LS	2005	61.64	208,427	19,444	1.00	19,444	-	124,640	200,049	200,049	263,391	208,427	-	-	124,640	200,049	200,049	263,391
000-00-0033	1002	2	LS	2011	65.26	502,478	16,849	1.00	16,849	-	148,025	161,387	161,387	161,387	502,478	-	-	148,025	161,387	161,387	161,387
000-00-0034	1002	2	LS	2011	65.82	500,724	16,030	1.00	16,030	-	-	67,777	67,777	67,777	500,724	-	-	-	67,777	67,777	67,777
000-00-0035	1002	2	LS	2012	67.99	82,466	14,463	1.00	14,463	-	63,733	206,163	206,163	269,897	82,466	-	-	63,733	206,163	206,163	269,897
000-00-0036	1002	2	LS	2013	58.48	511,061	23,230	1.00	23,230	46,595	56,292	275,035	275,035	282,446	511,061	-	46,595	56,292	275,035	275,035	282,446
000-00-0037	1002	2	LS	2013	59.65	511,061	21,294	1.00	21,294	73,795	88,731	108,555	108,555	109,601	511,061	-	73,795	88,731	108,555	108,555	109,601
000-00-0038	1002	2		1990	66.69	1,045,368	15,235	1.00	15,235	-	320,478	-	-	18	584,947	-	-	251,521	121,004	121,004	122,355
000-00-0039	1002	2		1992	63.51	1,117,853	17,690	1.00	17,690	-	327,120	-	-	0	583,655	-	-	207,248	158,285	158,285	159,806
000-00-0040	1002	2		1992	55.50	1,349,128	25,236	1.00	25,236	277,281	229,788	-	4,754	98,524	574,804	-	50,760	52,827	280,005	281,598	286,891
000-00-0041	1002	2	WO	1992	N/A	597,506	-	1.00	-	-	-	-	-	-	597,506	-	-	-	-	-	-
000-00-0042	1002	2		1992	60.69	1,082,125	20,358	1.00	20,358	-	265,114	-	-	0	562,826	-	-	156,702	174,772	174,772	176,080
000-00-0043	1002	2	LS	1999	52.91	46,192	28,346	1.00	28,346	-	-	424,035	424,035	424,035	46,192	-	-	-	424,035	424,035	424,035
000-00-0044	1002	2	LS	2008	49.57	280,525	31,542	1.00	31,542	-	-	454,426	454,426	454,426	280,525	-	-	-	454,426	454,426	454,426
Total Underground Bituminous				44		18,021,193	930,543		930,543	949,234	4,226,107	9,164,806	9,382,064	10,330,780	12,351,316	0	523,960	2,975,195	10,981,821	11,194,160	11,967,044
Average of 44 claims						409,573	21,149		21,149	21,573	96,048	208,291	213,229	234,790	280,712	0	11,908	67,618	249,587	254,413	271,978
						18,951,737															
Medical plus Indemnity						430,721				21,573	96,048	208,291	213,229	234,790	301,860		11,908	67,618	249,587	254,413	271,978
Adjusted															301,860		11,908	67,618	249,587	254,413	271,978

* Type code is as follows: CC is Commuted or Compromised; WO is Widow Only; LS is Lump Sum.
For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

Sources: Individual claim data from CMCRB.

COAL MINE COMPENSATION RATING BUREAU
INDIVIDUAL CLAIM DETAIL FOR STATE AND FEDERAL EXCESS

															"All Permanent Partial" Scenario (see note)						
											Federal Excess:							Federal Excess:			
		Awd (2)		Exp.	Age of Miner at	State	Medical	Act 44	Act	Offsets for:		After Offsets:			State	State plus	Offsets for:		After Offsets:		
ID No.	Class	Pend (1)	Type*	Yr.	Comp Date	Benefit	Bef. Act 44	Factor	44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP	Benefit	Act 44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP
000-00-0069	1016	2	LS	1998	67.80	475,882	14,463	1.00	14,463	-	119,681	134,403	134,403	134,403	475,882	-	-	119,681	134,403	134,403	134,403
000-00-0070	1016	2		1993	71.83	40,222	11,640	1.00	11,640	-	-	61,909	61,909	61,909	31,725	-	-	-	70,405	70,405	70,405
000-00-0071	1016	2		2004	79.61	528,412	7,165	1.00	7,165	-	147,997	-	-	0	457,180	-	-	145,117	14,487	14,487	14,624
000-00-0072	1016	2		2005	60.16	627,537	21,294	1.00	21,294	-	146,820	37	37	4,244	320,710	-	-	80,187	184,461	184,461	185,227
000-00-0073	1016	2	LS	2011	76.68	97,353	8,674	1.00	8,674	-	44,891	96,712	96,712	141,603	97,353	-	-	44,891	96,712	96,712	141,603
000-00-0074	1016	2	LS	1991	43.13	280,008	39,063	1.00	39,063	-	-	253,612	253,612	253,612	280,008	-	-	-	253,612	253,612	253,612
000-00-0075	1016	2	LS	1991	59.49	475,489	22,252	1.00	22,252	48,324	46,693	116,184	116,184	116,184	475,489	-	48,324	46,693	116,184	116,184	116,184
000-00-0076	1016	2	LS	1997	62.59	26,335	18,555	1.00	18,555	-	18,737	287,917	287,917	306,654	26,335	-	-	18,737	287,917	287,917	306,654
000-00-0077	1016	2	LS	2000	74.58	17,640	9,794	1.00	9,794	-	12,027	220,181	220,181	232,208	17,640	-	-	12,027	220,181	220,181	232,208
000-00-0078	1016	2	LS	2003	61.47	89,588	20,358	1.00	20,358	-	53,884	98,677	98,677	149,269	89,588	-	-	53,884	98,677	98,677	149,269
000-00-0079	1016	2	LS	2003	61.41	186,641	20,358	1.00	20,358	-	74,854	261,254	261,254	298,343	186,641	-	-	74,854	261,254	261,254	298,343
000-00-0080	1016	2	LS	2007	68.81	99,366	13,717	1.00	13,717	-	74,517	164,798	164,798	239,315	99,366	-	-	74,517	164,798	164,798	239,315
000-00-0081	1016	2	LS	2007	72.89	42,054	11,002	1.00	11,002	-	27,726	148,275	148,275	176,001	42,054	-	-	27,726	148,275	148,275	176,001
000-00-0082	1016	2	LS	2007	60.60	74,952	20,358	1.00	20,358	-	50,716	99,441	99,441	150,157	74,952	-	-	50,716	99,441	99,441	150,157
000-00-0083	1016	2	WO	1990	N/A	444,391	-	1.00	-	-	-	-	-	-	444,391	-	-	-	-	-	-
000-00-0084	1016	2		1990	65.74	566,196	16,030	1.00	16,030	-	126,118	6	6	1,446	314,905	-	-	95,789	142,781	142,781	143,328
000-00-0085	1016	2	WO	1990	N/A	486,058	-	1.00	-	-	-	-	-	-	486,058	-	-	-	-	-	-
000-00-0086	1016	2		1990	63.64	784,286	17,690	1.00	17,690	-	139,998	23,393	23,393	36,080	282,863	-	-	88,696	424,215	424,215	424,866
000-00-0087	1016	2	WO	1991	N/A	247,419	-	1.00	-	-	-	-	-	-	247,419	-	-	-	-	-	-
000-00-0088	1016	2		1992	69.33	638,038	13,717	1.00	13,717	-	137,923	-	-	0	422,048	-	-	117,716	78,072	78,072	78,576
000-00-0089	1016	2		1992	66.08	675,929	16,030	1.00	16,030	-	149,263	-	-	3	413,432	-	-	120,526	102,636	102,636	103,246
000-00-0090	1016	2		1992	67.23	701,740	15,235	1.00	15,235	-	155,501	-	-	9	408,944	-	-	122,042	122,935	122,935	123,591
000-00-0091	1016	2		1993	59.70	638,179	21,294	1.00	21,294	228,325	179,304	-	5,332	73,982	371,379	-	86,286	81,587	91,332	92,563	101,026
000-00-0092	1016	2	WO	1993	N/A	580,685	-	1.00	-	-	-	-	-	-	580,685	-	-	-	-	-	-
000-00-0093	1016	2		1993	65.92	894,830	16,030	1.00	16,030	-	196,113	-	-	-	555,678	-	-	160,271	95,791	95,791	96,578
000-00-0094	1016	2		1994	62.25	510,362	19,444	1.00	19,444	-	128,648	103	103	9,603	272,493	-	-	70,262	157,427	157,427	158,139
000-00-0095	1016	2		1994	69.02	728,199	13,717	1.00	13,717	-	158,365	-	-	0	474,493	-	-	133,819	82,707	82,707	83,301
000-00-0096	1016	2	WO	1994	N/A	661,950	-	1.00	-	-	-	-	-	-	661,950	-	-	-	-	-	-
000-00-0097	1016	2		1995	67.59	419,456	14,463	1.00	14,463	-	92,321	6	6	2,754	265,948	-	-	76,325	93,145	93,145	93,508
000-00-0098	1016	2		1995	66.97	1,221,132	15,235	1.00	15,235	-	298,300	-	-	1	589,131	-	-	222,783	178,771	178,771	180,075
000-00-0099	1016	2		1995	69.81	366,838	12,996	1.00	12,996	-	79,404	76	76	6,373	234,569	-	-	66,712	91,559	91,559	93,289
000-00-0100	1016	2		1996	63.07	621,010	18,555	1.00	18,555	-	211,388	-	-	-	390,497	-	-	124,946	70,756	70,756	71,799
000-00-0101	1016	2		1997	62.27	546,747	19,444	1.00	19,444	-	174,960	-	-	7	335,003	-	-	95,556	77,700	77,700	78,612
000-00-0102	1016	2		1997	66.58	469,771	15,235	1.00	15,235	-	-	-	-	-	327,620	-	-	-	47,829	47,829	47,829
000-00-0103	1016	2	LS	1999	73.64	20,312	10,387	1.00	10,387	-	-	76,247	76,247	76,247	20,312	-	-	-	76,247	76,247	76,247
000-00-0104	1016	2		2001	48.10	913,017	33,699	1.00	33,699	202,410	90,330	2,077	111,825	199,081	331,911	-	-	-	397,422	397,422	397,422
Total Surface Anthracite				36		16,198,021	527,892		527,892	479,059	3,136,481	2,045,310	2,160,389	2,669,489	11,106,656	0	134,610	2,326,061	4,482,133	4,483,365	4,819,436
Average of 36 claims						449,945	14,664		14,664	13,307	87,124	56,814	60,011	74,152	308,518	0	3,739	64,613	124,504	124,538	133,873
						16,725,913															
Medical plus Indemnity						464,609				13,307	87,124	56,814	60,011	74,152	323,182		3,739	64,613	124,504	124,538	133,873
Adjusted															323,182		3,739	64,613	124,504	124,538	133,873

* Type code is as follows: CC is Commuted or Compromised; WO is Widow Only; LS is Lump Sum.
For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

Sources: Individual claim data from CMCRB.

COAL MINE COMPENSATION RATING BUREAU
INDIVIDUAL CLAIM DETAIL FOR STATE AND FEDERAL EXCESS

															"All Permanent Partial" Scenario (see note)						
											Federal Excess:							Federal Excess:		
		Awd (2)		Exp.	Age of Miner at	State	Medical	Act 44	Act	Offsets for:		After Offsets:			State	State plus	Offsets for:		After Offsets:		
ID No.	Class	Pend (1)	Type*	Yr.	Comp Date	Benefit	Bef. Act 44	Factor	44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP	Benefit	Act 44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP
000-00-0053	1013	2		2011	61.51	695,277	19,444	1.00	19,444	-	236,668	-	-	-	434,084	-	-	138,721	73,478	73,478	73,478
000-00-0054	1013	2	LS	1990	45.48	533,409	36,937	1.00	36,937	-	-	494,061	494,061	494,061	533,409	-	-	-	494,061	494,061	494,061
000-00-0055	1013	2	LS	1991	69.22	177,326	13,717	1.00	13,717	-	118,560	88,532	88,532	171,481	177,326	-	-	118,560	88,532	88,532	171,481
000-00-0056	1013	2	LS	1994	59.11	60,096	22,252	1.00	22,252	21,100	-	329,433	350,534	350,534	60,096	-	21,100	-	329,433	350,534	350,534
000-00-0057	1013	2	LS	1996	64.21	71,312	17,690	1.00	17,690	-	57,443	92,926	92,926	150,369	71,312	-	-	57,443	92,926	92,926	150,369
000-00-0058	1013	2	LS	1996	61.04	165,876	20,358	1.00	20,358	-	99,769	216,248	216,248	289,789	165,876	-	-	99,769	216,248	216,248	289,789
000-00-0059	1013	2	LS	1997	61.04	9,827	20,358	1.00	20,358	-	5,911	288,307	288,307	294,218	9,827	-	-	5,911	288,307	288,307	294,218
000-00-0060	1013	2	LS	1998	62.52	105,048	18,555	1.00	18,555	-	74,740	89,201	89,201	148,462	105,048	-	-	74,740	89,201	89,201	148,462
000-00-0061	1013	2	LS	2005	46.21	32,533	35,861	1.00	35,861	-	-	276,322	276,322	276,322	32,533	-	-	-	276,322	276,322	276,322
000-00-0062	1013	2	CC	1991	43.69	399,464	38,005	1.00	38,005	-	-	244,925	244,925	244,925	399,464	-	-	-	244,925	244,925	244,925
000-00-0063	1013	2		1993	64.41	1,208,434	17,690	1.00	17,690	-	359,455	-	-	2	590,585	-	-	227,733	179,432	179,432	181,104
000-00-0064	1013	2		1993	57.79	923,211	23,230	1.00	23,230	231,095	171,815	1	19,716	140,410	415,213	-	65,148	60,169	247,603	248,896	274,431
000-00-0065	1013	2		1994	45.76	1,508,174	35,861	1.00	35,861	275,638	147,032	11	56,866	187,527	512,978	-	-	-	460,333	460,333	460,333
000-00-0066	1013	2		1995	56.89	781,534	24,226	1.00	24,226	198,070	131,993	360	49,888	169,276	334,345	-	46,111	39,561	281,586	282,711	311,475
000-00-0067	1013	2		1999	53.50	969,751	27,297	1.00	27,297	226,261	145,376	26	41,653	166,847	398,566	-	18,624	16,155	304,795	306,116	313,565
000-00-0068	1013	2	LS	1999	59.19	40,210	22,252	1.00	22,252	14,118	-	301,303	315,421	315,421	40,210	-	14,118	-	301,303	315,421	315,421
Total Surface Bituminous				16		7,681,483	393,732		393,732	966,282	1,548,762	2,421,654	2,624,598	3,399,642	4,280,871	0	165,101	838,761	3,968,483	4,007,442	4,349,965
Average of 16 claims						480,093	24,608		24,608	60,393	96,798	151,353	164,037	212,478	267,554	0	10,319	52,423	248,030	250,465	271,873
						8,075,215															
Medical plus Indemnity						504,701				60,393	96,798	151,353	164,037	212,478	292,163		10,319	52,423	248,030	250,465	271,873
Adjusted															292,163		10,319	52,423	248,030	250,465	271,873

* Type code is as follows: CC is Commuted or Compromised; WO is Widow Only; LS is Lump Sum.
For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

Sources: Individual claim data from CMCRB.

COAL MINE COMPENSATION RATING BUREAU
INDIVIDUAL CLAIM DETAIL FOR STATE AND FEDERAL EXCESS

												Federal Excess:			"All Permanent Partial" Scenario (see note)				Federal Excess:		
		Awd (2)		Exp.	Age of Miner at	State	Medical	Act 44	Act	Offsets for:		After Offsets:			State	State plus	Offsets for:		After Offsets:		
ID No.	Class	Pend (1)	Type*	Yr.	Comp Date	Benefit	Bef. Act 44	Factor	44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP	Benefit	Act 44 Med.	Soc. Sec.	Pension	Base	SS	SS, PP
000-00-0105	1017	2	LS	1992	56.91	203,062	24,226	1.00	24,226	33,053	3,146	299,860	320,752	323,848	203,062	-	33,053	3,146	299,860	320,752	323,848
000-00-0106	1017	2		1993	60.76	1,351,060	20,358	1.00	20,358	-	365,561	-	-	116	592,551	-	-	216,073	233,215	233,215	235,019
000-00-0107	1022	2	LS	2003	53.06	78,959	28,346	1.00	28,346	-	-	353,488	353,488	353,488	78,959	-	-	-	353,488	353,488	353,488
000-00-0108	1024	2	LS	2006	59.96	109,316	21,294	1.00	21,294	48,012	-	110,624	148,762	148,762	109,316	-	48,012	-	110,624	148,762	148,762
000-00-0109	1026	2		2007	43.15	1,090,120	39,063	1.00	39,063	205,834	66,265	15,820	162,861	228,325	335,600	-	-	-	575,095	575,095	575,095
000-00-0110	1026	2		2010	74.49	414,443	10,387	1.00	10,387	-	87,121	-	-	3	315,454	-	-	80,599	41,972	41,972	42,189
000-00-0111	1026	2	LS	1997	54.71	35,113	26,260	1.00	26,260	900	-	194,761	195,662	195,662	35,113	-	900	-	194,761	195,662	195,662
000-00-0112	1026	2		1997	55.39	440,707	26,260	1.00	26,260	161,672	83,940	81	58,035	137,873	226,389	-	21,509	16,188	131,252	132,190	144,277
000-00-0113	1026	2	LS	2004	78.06	69,164	8,148	1.00	8,148	-	41,037	118,411	118,411	159,448	69,164	-	-	41,037	118,411	118,411	159,448
000-00-0114	1028	2	LS	2000	78.26	62,280	8,148	1.00	8,148	-	36,363	164,972	164,972	201,335	62,280	-	-	36,363	164,972	164,972	201,335
Total Other Classes				10		3,854,225	212,490		212,490	449,471	683,432	1,258,018	1,522,942	1,748,859	2,027,889	0	103,474	393,406	2,223,651	2,284,520	2,379,122
Average of 10 claims						385,423	21,249		21,249	44,947	68,343	125,802	152,294	174,886	202,789	0	10,347	39,341	222,365	228,452	237,912
						4,066,715															
Medical plus Indemnity						406,671				44,947	68,343	125,802	152,294	174,886	224,038		10,347	39,341	222,365	228,452	237,912
Adjusted															224,038		10,347	39,341	222,365	228,452	237,912

* Type code is as follows: CC is Commuted or Compromised; WO is Widow Only; LS is Lump Sum.
For the "All Permanent Partial" Scenario, Permanent claims for a Miner or Miner and Spouse were re-run with 630 weeks of State Indemnity benefits. Widow Only, Commuted/Compromised and Lump Sums were the same as in the Base Scenario.

Sources: Individual claim data from CMCRB.

Coal Mine Compensation Rating Bureau
Individual Claim Detail for Federal Basic

ID No.	Class	Awd (2) Pend (1)	Exp. Yr.	Type*	Age of Miner at Comp. Date	Federal Benefit	Medical
148	160	2	2001	0	51.00	424,255	73,548
149	160	1	2013	0	52.58	543,184	68,420
150	160	1	2002	0	57.39	419,178	58,476
151	160	2	2006	0	53.47	543,184	68,420
152	160	2	1990	0	64.94	284,308	40,670
153	160	2	1990	0	60.50	388,986	51,399
154	160	2	1990	0	52.39	563,629	70,975
155	160	2	1990	0	67.11	408,882	36,774
156	160	1	2011	0	58.26	381,700	56,073
157	160	2	2003	0	65.28	268,693	40,670
158	160	1	1991	0	61.78	399,075	46,934
159	160	1	1999	0	59.16	192,710	53,712
160	160	1	1999	0	54.42	419,799	65,890
161	160	2	1990	0	56.42	352,371	60,915
162	160	2	1994	0	61.23	176,689	49,139
163	160	2	2001	0	64.89	276,344	40,670
164	160	2	1990	WO	N/A	229,878	-
165	160	2	1990	0	67.34	281,708	36,774
166	160	2	1992	WO	N/A	262,552	-
167	160	2	1993	0	59.78	410,934	51,399
168	160	2	1990	0	54.50	516,479	63,387

Total Underground Anthracite		7,744,537	1,034,245
Average of 21 claims	59.08	368,787	49,250
Medical plus Indemnity		418,037	

*Type is "WO" for Widow Only claims; 0 for all other claims.

Source: Individual claim detail from CMCRB.

ID No.	Class	Awd (2) Pend (1)	Exp. Yr.	Type*	Age of Miner at Comp. Date	Federal Benefit	Medical
88	158	1	2007	0	55.18	490,715	63,387
89	158	2	1991	0	81.18	122,802	16,190
90	158	2	2001	0	61.75	327,723	46,934
91	158	2	1995	0	70.65	245,502	29,700
92	158	2	2001	0	68.19	217,423	34,911
93	158	1	2014	0	64.50	329,200	40,670
94	158	1	1991	0	39.62	718,383	101,749
95	158	2	1992	0	79.44	150,951	18,454
96	158	2	2001	0	66.61	290,461	36,774
97	158	1	1997	0	63.22	360,577	44,788
98	158	2	1991	0	68.11	244,515	34,911
99	158	1	1991	0	41.77	704,818	96,811
100	158	1	1999	0	73.18	192,670	26,556
101	158	1	2000	0	60.52	362,243	49,139
102	158	2	1993	0	66.43	270,656	38,694
103	158	1	1990	0	36.42	849,697	111,007
104	158	1	1992	0	48.38	288,113	81,342
105	158	1	2002	0	55.31	443,740	63,387
106	158	1	2000	0	65.24	292,598	40,670
107	158	1	2000	0	63.07	312,825	44,788
108	158	2	2006	0	60.41	378,587	51,399
109	158	2	1994	0	60.97	352,468	49,139
110	158	2	2002	0	70.29	113,827	31,371
111	158	1	1999	0	52.10	487,552	70,975
112	158	1	1996	0	51.46	674,921	73,548
113	158	1	2000	0	65.06	319,520	40,670
114	158	2	2001	0	60.19	368,524	51,399
115	158	1	2013	0	65.37	284,308	40,670
116	158	2	2004	0	68.27	237,272	34,911
117	158	2	1994	0	72.51	192,670	26,556
118	158	1	1991	0	71.12	215,163	29,700
119	158	2	1997	0	79.15	145,175	18,454
120	158	1	2004	0	61.27	334,009	49,139
121	158	1	1992	0	37.69	1,008,537	106,498
122	158	2	2003	0	67.68	294,540	34,911
123	158	2	1999	0	56.03	395,627	60,915
124	158	2	2002	0	55.34	226,394	63,387
125	158	2	1990	0	57.91	381,700	56,073
126	158	2	1999	0	63.36	417,069	44,788
127	158	2	1991	0	54.11	461,876	65,890
128	158	1	1996	0	45.60	708,322	86,561
129	158	1	2007	0	50.16	620,114	76,135
130	158	1	1992	0	43.09	697,991	94,289
131	158	1	1992	0	62.54	161,388	44,788
132	158	2	1992	0	71.39	262,483	29,700
133	158	2	1992	0	62.76	330,854	44,788
134	158	2	1993	0	62.00	356,173	46,934
135	158	1	2000	0	56.62	209,333	58,476
136	158	2	1994	WO	N/A	229,878	-
137	158	1	1993	WO	N/A	448,422	-
138	158	1	1994	WO	N/A	393,690	-
139	158	2	1993	0	64.46	424,024	42,700
140	158	2	1990	0	73.06	192,670	26,556
141	158	2	1999	0	70.49	219,982	31,371
142	158	1	1992	WO	N/A	345,271	-
143	158	2	1999	WO	N/A	189,912	-
144	158	2	1992	0	65.60	278,690	38,694
145	158	2	1992	WO	N/A	101,676	-
146	158	2	1990	WO	N/A	309,008	-
147	158	2	1997	WO	N/A	209,380	-
Total Underground Bituminous						21,194,608	2,642,246
Average of 60 claims					61.29	353,243	44,037
Medical plus Indemnity						397,281	

*Type is "WO" for Widow Only claims; 0 for all other claims.

Source: Individual claim detail from CMCRB.

Coal Mine Compensation Rating Bureau
Individual Claim Detail for Federal Basic

ID No.	Class	Awd (2) Pend (1)	Exp. Yr.	Type*	Age of Miner at Comp. Date	Federal Benefit	Medical
1	153	2	2002	0	75.14	198,110	23,640
2	153	2	1995	0	68.28	259,926	34,911
3	153	2	2004	0	56.70	398,408	58,476
4	153	1	1996	0	65.58	295,739	38,694
5	153	2	1990	0	64.20	436,679	42,700
6	153	2	2004	0	56.26	405,376	60,915
7	153	1	1990	0	54.96	543,715	63,387
8	153	2	2005	0	60.49	378,587	51,399
9	153	1	2006	0	71.22	222,290	29,700
10	153	2	2000	0	76.19	173,967	22,261
11	153	2	2003	0	68.92	280,526	33,109
12	153	2	2007	0	76.31	81,193	22,261
13	153	2	2013	0	53.83	473,355	65,890
14	153	1	2012	0	57.97	200,955	56,073
15	153	1	2009	0	52.68	468,987	68,420
16	153	2	1993	0	62.41	346,329	46,934
17	153	1	1998	0	66.38	314,160	38,694
18	153	2	1996	0	58.31	372,154	56,073
19	153	2	2003	0	65.00	146,850	40,670
20	153	2	2003	0	65.03	276,344	40,670
21	153	1	1994	0	63.92	306,915	42,700
22	153	2	2000	0	66.03	304,776	38,694
23	153	2	2007	0	59.55	399,792	51,399
24	153	2	1990	0	60.12	184,616	51,399
25	153	2	1995	0	65.56	241,628	38,694
26	153	2	1995	0	66.54	133,050	36,774
27	153	2	1992	0	65.72	228,989	38,694
28	153	2	1990	0	71.50	197,144	28,096
29	153	2	1992	0	73.09	237,000	26,556
30	153	2	1997	0	60.04	378,587	51,399
31	153	2	1998	0	73.04	174,590	26,556
32	153	2	1995	0	77.64	154,393	19,668
33	153	2	1990	0	73.92	91,295	25,072
34	153	2	1990	WO	N/A	180,550	-
35	153	2	1997	WO	N/A	189,912	-
36	153	2	1993	0	63.45	371,186	44,788
37	153	2	1991	0	73.48	186,347	26,556
38	153	2	1990	0	72.80	180,324	26,556
39	153	1	1992	0	65.99	139,858	38,694

Total Surface Anthracite		10,554,602	1,507,171
Average of 39 claims	65.63	270,631	38,645
Medical plus Indemnity		309,276	

*Type is "WO" for Widow Only claims; 0 for all other claims.
Source: Individual claim detail from CMCRB.

Coal Mine Compensation Rating Bureau
Individual Claim Detail for Federal Basic

ID No.	Class	Awd (2) Pend (1)	Exp. Yr.	Type*	Age of Miner at Comp. Date	Federal Benefit	Medical
40	156	2	1994	0	81.59	55,533	15,159
41	156	2	1992	0	62.67	312,825	44,788
42	156	1	2008	0	68.11	252,067	34,911
43	156	1	2003	0	62.65	350,317	44,788
44	156	2	1996	0	67.08	290,461	36,774
45	156	1	2001	0	63.09	371,186	44,788
46	156	1	1995	0	57.95	423,547	56,073
47	156	2	1993	0	82.26	106,334	15,159
48	156	2	1994	0	80.24	126,042	17,294
49	156	1	2013	0	66.49	255,519	38,694
50	156	2	1994	0	57.24	477,633	58,476
51	156	2	1992	0	52.41	523,837	70,975
52	156	1	2014	0	70.47	113,827	31,371
53	156	2	1995	0	61.87	346,329	46,934
54	156	2	2012	0	60.03	368,524	51,399
55	156	1	2011	0	55.59	459,728	60,915
56	156	1	2006	0	62.84	350,317	44,788
57	156	2	2007	0	63.94	220,224	42,700
58	156	1	2012	0	64.48	274,673	42,700
59	156	2	1990	0	70.45	219,982	31,371
60	156	2	1994	0	74.94	177,899	23,640
61	156	2	1995	WO	N/A	180,550	-
62	156	2	1992	0	66.18	287,048	38,694
63	156	2	1992	0	69.69	234,420	31,371
64	156	2	1995	0	65.13	329,200	40,670
65	156	1	1997	WO	N/A	427,973	-
66	156	2	1995	0	76.03	167,774	22,261
67	156	2	1991	WO	N/A	162,577	-
68	156	2	1996	0	77.58	143,212	19,668
69	156	2	1991	0	84.18	100,779	13,303
70	156	2	2012	WO	N/A	229,878	-
71	156	2	1995	0	70.51	208,350	29,700
72	156	1	1991	0	62.11	366,371	46,934
73	156	2	2008	WO	N/A	162,577	-
74	156	2	1991	WO	N/A	472,766	-
75	156	2	1990	0	61.43	416,467	49,139
76	156	1	2008	WO	N/A	145,685	-
77	156	2	1991	0	77.89	138,028	19,668
78	156	2	2000	0	55.51	471,732	60,915
79	156	2	1990	0	71.51	102,130	28,096
80	156	2	1990	0	70.79	215,163	29,700
81	156	1	1993	0	80.02	141,875	17,294
82	156	2	1994	0	54.92	516,479	63,387
83	156	2	1991	0	79.99	126,042	17,294
84	156	2	1995	0	65.86	270,656	38,694
85	156	2	2000	0	62.11	336,844	46,934
86	156	2	1992	0	71.10	201,847	29,700
87	156	2	1995	0	61.86	327,723	46,934

Total Surface Bituminous		12,960,947	1,544,055
Average of 48 claims	67.58	270,020	32,168
Medical plus Indemnity		302,188	

*Type is "WO" for Widow Only claims; 0 for all other claims.

Source: Individual claim detail from CMCRB.

Coal Mine Compensation Rating Bureau
Individual Claim Detail for Federal Basic

ID No.	Class	Awd (2) Pend (1)	Exp. Yr.	Type*	Age of Miner at Comp. Date	Federal Benefit	Medical
169	181	2	1997	0	62.00	346,329	46,934
170	183	1	2004	0	62.34	336,844	46,934
171	183	1	1997	0	53.33	243,801	68,420
172	183	2	1997	0	80.31	131,043	17,294
173	184	1	2005	0	62.06	168,943	46,934
174	184	1	2006	0	56.10	395,627	60,915
175	184	1	2009	0	62.73	304,342	44,788
176	184	2	2002	0	79.05	191,608	18,454

Total Other Classes		2,118,535	350,675
Average of 8 claims	64.74	264,817	43,834
Medical plus Indemnity		308,651	

*Type is "WO" for Widow Only claims; 0 for all other claims.

Source: Individual claim detail from CMCRB.

COAL MINE COMPENSATION RATING BUREAU
Summary of Developed & Adjusted Payrolls

	Anthracite Underground	Bituminous Underground	Anthracite Surface	Bituminous Surface	Coke	Auger	Anthracite Co-gen	Bituminous Co-gen	Anthracite Prep Plant	Bituminous Prep Plant	Total
Traumatic											
	(1010)	(1001)	(1012)	(1014)	(1469)	(1015)	(1021)	(1023)	(1025)	(1027)	
1997	591,339	71,376,959	17,783,135	67,905,789	53,119,079	1,193,492	3,520,161	856,052	1,149,401	13,783,647	231,279,054
1998	507,288	62,342,332	17,376,290	63,651,561	13,353,903	1,237,897	3,458,775	1,161,196	1,032,902	11,112,104	175,234,248
1999	537,329	59,962,066	18,441,144	54,162,273	12,293,477	1,136,891	3,604,305	1,494,276	1,231,124	10,691,780	163,554,665
2000	336,885	48,553,836	16,807,810	49,935,622	12,092,574	1,205,877	4,473,458	1,870,720	1,319,466	8,574,760	145,171,008
2001	434,499	49,724,653	13,940,797	58,151,332	10,375,826	1,429,131	5,234,468	2,121,331	3,609,649	10,155,025	155,176,711
2002	197,351	50,439,544	12,251,258	53,502,085	10,485,005	1,150,843	6,358,543	2,386,124	3,781,693	12,649,826	153,202,272
2003	75,855	55,493,906	12,166,211	47,873,740	11,534,080	1,102,223	7,137,655	3,052,523	3,721,296	14,752,318	156,909,807
2004	-	66,842,986	12,359,731	56,217,298	12,049,126	1,058,799	7,351,514	6,374,483	4,406,653	18,067,286	184,727,876
2005	-	72,290,188	12,140,911	64,871,562	12,860,979	1,026,537	7,855,289	8,524,752	5,170,069	17,690,358	202,430,645
2006	530	71,907,931	11,946,382	63,008,975	12,737,394	1,066,831	8,405,393	9,397,580	4,885,882	17,050,967	200,407,865
2007	-	81,566,803	14,555,579	63,295,774	13,669,925	1,121,156	9,160,450	10,789,214	5,756,439	18,895,192	218,810,532
2008	-	103,490,690	16,954,313	73,054,482	9,761,146	2,488,558	7,958,335	8,468,561	6,390,767	21,250,256	249,817,108
2009	-	102,684,006	16,445,462	61,784,394	5,173,552	926,163	8,004,644	7,866,413	6,749,748	19,828,012	229,462,394
2010	5,700	126,687,464	14,295,288	72,711,558	5,435,658	806,696	8,481,228	8,732,701	5,762,086	26,313,130	269,231,509
2011	110,125	149,633,528	21,034,600	86,074,064	3,599,086	1,176,255	11,720,035	9,102,411	7,236,583	35,155,068	324,841,755
2012	219,407	154,412,040	26,295,907	76,433,301	5,738,105	808,208	10,273,004	9,047,745	8,671,140	34,211,729	326,110,586
2013	175,900	146,599,685	22,449,824	61,168,491	4,791,910	1,025,399	8,342,651	10,355,884	8,265,665	34,207,489	297,382,898
2014	258,809	235,444,691	20,496,172	54,137,563	4,464,398	876,196	9,279,611	11,451,621	8,100,471	43,762,160	388,271,692
State OD											
	(1011)	(1002)	(1016)	(1013)	(1017)	(1019)	(1022)	(1024)	(1026)	(1028)	
1997	1,571,605	70,396,693	17,783,135	67,905,789	53,119,079	1,193,492	3,520,161	856,052	1,149,401	13,783,647	231,279,054
1998	1,762,286	61,087,334	17,376,290	63,651,561	13,353,903	1,237,897	3,458,775	1,161,196	1,032,902	11,112,104	175,234,248
1999	1,814,157	58,685,238	18,441,144	54,162,273	12,293,477	1,136,891	3,604,305	1,494,276	1,231,124	10,691,780	163,554,665
2000	1,370,159	47,520,562	16,807,810	49,935,622	12,092,574	1,205,877	4,473,458	1,870,720	1,319,466	8,574,760	145,171,008
2001	1,636,522	48,522,630	13,940,797	58,151,332	10,375,826	1,429,131	5,234,468	2,121,331	3,609,649	10,155,025	155,176,711
2002	1,386,545	49,250,350	12,251,258	53,502,085	10,485,005	1,150,843	6,358,543	2,386,124	3,781,693	12,649,826	153,202,272
2003	1,354,265	54,215,496	12,166,211	47,873,740	11,534,080	1,102,223	7,137,655	3,052,523	3,721,296	14,752,318	156,909,807
2004	1,345,321	65,497,665	12,359,731	56,217,298	12,049,126	1,058,799	7,351,514	6,374,483	4,406,653	18,067,286	184,727,876
2005	1,417,568	70,872,620	12,140,911	64,871,562	12,860,979	1,026,537	7,855,289	8,524,752	5,170,069	17,690,358	202,430,645
2006	1,442,524	70,465,937	11,946,382	63,008,975	12,737,394	1,066,831	8,405,393	9,397,580	4,885,882	17,050,967	200,407,865
2007	1,662,537	79,904,266	14,555,579	63,295,774	13,669,925	1,121,156	9,160,450	10,789,214	5,756,439	18,895,192	218,810,532
2008	2,136,713	101,353,977	16,954,313	73,054,482	9,761,146	2,488,558	7,958,335	8,468,561	6,390,767	21,250,256	249,817,108
2009	1,335,866	101,348,140	16,445,462	61,784,394	5,173,552	926,163	8,004,644	7,866,413	6,749,748	19,828,012	229,462,394
2010	1,299,588	125,393,576	14,295,288	72,711,558	5,435,658	806,696	8,481,228	8,732,701	5,762,086	26,313,130	269,231,509
2011	1,257,944	148,485,709	21,034,600	86,074,064	3,599,086	1,176,255	11,720,035	9,102,411	7,236,583	35,155,068	324,841,755
2012	1,029,260	153,602,187	26,295,907	76,433,301	5,738,105	808,208	10,273,004	9,047,745	8,671,140	34,211,729	326,110,586
2013	381,876	146,393,709	22,449,824	61,168,491	4,791,910	1,025,399	8,342,651	10,355,884	8,265,665	34,207,489	297,382,898
2014	258,809	235,444,691	20,496,172	54,137,563	4,464,398	876,196	9,279,611	11,451,621	8,100,471	43,762,160	388,271,692
Federal OD											
	(0160)	(0158)	(0153)	(0156)	(0154)	(0157)	(0181)	(0182)	(0183)	(0184)	
1997	1,571,605	70,396,693	17,783,135	67,905,789	53,119,079	1,193,492	3,520,161	856,052	1,149,401	13,783,647	231,279,054
1998	1,762,286	61,087,334	17,376,290	63,651,561	13,353,903	1,237,897	3,458,775	1,161,196	1,032,902	11,112,104	175,234,248
1999	1,814,157	58,685,238	18,441,144	54,162,273	12,293,477	1,136,891	3,604,305	1,494,276	1,231,124	10,691,780	163,554,665
2000	1,370,159	47,520,562	16,807,810	49,935,622	12,092,574	1,205,877	4,473,458	1,870,720	1,319,466	8,574,760	145,171,008
2001	1,636,522	48,522,630	12,923,748	58,151,332	10,375,826	1,429,131	4,661,813	2,121,331	2,216,299	10,155,025	152,193,657
2002	1,386,545	40,837,995	11,046,570	53,502,085	10,485,005	1,150,843	5,658,774	2,386,124	2,322,815	10,094,549	138,871,305
2003	1,354,265	36,498,406	11,928,209	47,873,740	11,534,080	1,102,223	7,009,619	3,052,523	3,407,998	10,195,206	133,956,269
2004	1,345,321	46,073,900	12,359,731	56,217,298	12,049,126	1,058,799	7,351,514	6,374,483	4,406,653	13,460,201	160,697,026
2005	1,417,568	66,275,755	12,140,911	64,871,562	12,860,979	1,026,537	7,855,289	8,524,752	5,170,069	16,548,307	196,691,729
2006	1,442,524	70,465,937	12,065,323	63,798,502	12,737,394	1,066,831	8,412,527	9,423,575	4,885,882	17,050,967	201,349,462
2007	1,662,537	79,904,266	14,866,556	64,808,093	13,669,925	1,121,156	9,186,706	10,829,140	5,817,291	18,895,192	220,760,862
2008	2,136,713	101,353,977	16,220,231	74,601,231	9,761,146	2,506,758	7,521,400	8,481,888	5,733,543	21,250,256	249,567,143
2009	1,335,866	101,348,140	15,893,528	63,306,695	5,173,552	946,963	7,534,735	7,866,413	6,264,606	19,828,012	229,498,510
2010	1,299,588	125,393,576	13,319,185	74,255,177	5,435,658	827,496	7,958,048	8,732,701	4,876,927	26,313,130	268,411,486
2011	1,257,944	148,485,709	19,507,428	87,730,506	3,599,086	1,176,255	10,981,642	9,102,411	6,123,259	35,155,068	323,119,308
2012	1,029,260	153,602,187	24,734,711	77,870,990	5,738,105	808,208	9,311,812	9,047,745	7,569,023	34,211,729	323,923,770
2013	381,876	141,792,870	20,720,014	62,536,807	4,791,910	1,046,947	7,630,762	10,355,884	7,074,886	33,593,761	289,925,717
2014	258,809	148,066,216	18,868,872	55,347,009	4,464,398	930,810	8,565,937	11,451,621	6,452,662	32,023,187	286,429,521

Note: Federal and State OD payrolls are derived from Traumatic payrolls after adjustments on Exhibits X-C & X-D

Source: Exhibits X-C and X-D
Prior filing for 1997 - 2003

COAL MINE COMPENSATION RATING BUREAU
History of Reported OD Payrolls 1979-1996

State OD

	Anthracite Underground	Bituminous Underground	Anthracite Surface	Bituminous Surface	Coke	Auger	Anthracite Co-gen	Bituminous Co-gen	Anthracite Prep Plant	Bituminous Prep Plant	
	(1011)	(1002)	(1016)	(1013)	(1017)	(1019)	(1022)	(1024)	(1026)	(1028)	Total
1979	3,398,172	155,459,760	33,547,630	189,274,623	8,602,156	1,250,040	0	0	0	0	391,532,381
1980	3,933,740	146,370,736	39,976,938	180,192,249	4,240,988	1,445,092	0	0	0	0	376,159,743
1981	4,989,959	141,497,489	45,905,609	193,710,747	3,521,616	1,581,422	0	0	0	0	391,206,842
1982	5,295,887	170,306,624	42,724,737	194,074,092	1,831,640	1,682,037	0	0	0	0	415,915,017
1983	4,169,015	82,776,145	34,841,224	146,423,067	124,805	1,260,780	0	0	0	0	269,595,036
1984	4,137,720	77,024,693	34,531,000	174,212,221	2,078,069	1,778,957	0	0	0	0	293,762,660
1985	4,507,670	46,693,499	31,216,341	143,422,695	2,528,033	1,561,675	0	0	0	0	229,929,913
1986	4,896,054	43,203,448	32,077,958	136,641,573	19,044,481	1,669,241	0	0	0	0	237,532,755
1987	4,061,875	55,036,577	25,008,155	134,305,891	26,573,681	1,695,582	0	0	0	0	246,681,761
1988	2,745,685	64,843,301	23,099,360	126,493,210	18,498,632	1,626,194	0	0	0	0	237,306,382
1989	2,066,292	74,335,286	27,044,506	125,361,713	12,583,451	1,888,442	0	0	0	0	243,279,690
1990	1,547,051	77,524,448	32,392,891	124,189,071	61,308,712	2,295,585	676,180	0	0	0	299,933,938
1991	718,147	59,439,370	30,956,584	104,583,500	52,451,102	1,718,758	1,093,089	0	0	0	250,960,550
1992	932,801	63,646,939	29,476,120	100,999,381	42,761,324	1,181,625	3,505,476	47,640	0	0	242,551,306
1993	1,181,997	52,756,526	30,103,392	94,556,592	53,619,736	1,112,232	3,624,439	391,507	0	0	237,346,421
1994	1,310,675	60,590,938	30,210,452	92,464,635	54,721,324	1,485,044	3,704,499	377,617	0	0	244,865,184
1995	1,493,523	65,271,146	20,288,894	78,752,605	55,000,220	1,499,639	3,481,847	360,161	0	0	226,148,035
1996	1,612,698	75,223,041	16,192,165	77,828,405	54,571,209	846,623	3,758,973	370,201	221,068	3,066,567	233,690,950

Federal OD

	Anthracite Underground	Bituminous Underground	Anthracite Surface	Bituminous Surface	Coke	Auger	Anthracite Co-gen	Bituminous Co-gen	Anthracite Prep Plant	Bituminous Prep Plant	
	(0160)	(0158)	(0153)	(0156)	(0154)	(0157)	(0181)	(0182)	(0183)	(0184)	Total
1979	3,398,172	155,459,760	33,547,630	189,274,623	8,602,156	1,250,040	0	0	0	0	391,532,381
1980	3,933,740	146,370,736	39,976,938	180,192,249	4,240,988	1,445,092	0	0	0	0	376,159,743
1981	4,989,959	141,497,489	45,905,609	193,710,747	3,521,616	1,581,422	0	0	0	0	391,206,842
1982	5,295,887	170,306,624	42,724,737	194,074,092	1,831,640	1,682,037	0	0	0	0	415,915,017
1983	4,169,015	82,776,145	34,841,224	146,423,067	124,805	1,260,780	0	0	0	0	269,595,036
1984	4,137,720	77,024,693	34,531,000	174,212,221	2,078,069	1,778,957	0	0	0	0	293,762,660
1985	4,507,670	46,693,499	31,216,341	143,422,695	2,528,033	1,561,675	0	0	0	0	229,929,913
1986	4,896,054	43,203,448	32,077,958	136,641,573	19,044,481	1,669,241	0	0	0	0	237,532,755
1987	4,061,875	42,076,700	25,008,155	134,305,891	26,573,681	1,695,582	0	0	0	0	233,721,884
1988	2,745,685	51,133,431	23,099,360	126,493,210	18,498,632	1,626,194	0	0	0	0	223,596,512
1989	2,066,292	58,507,532	27,044,506	125,361,713	12,583,451	1,888,442	0	0	0	0	227,451,936
1990	1,547,051	63,271,520	32,392,891	124,189,071	61,308,712	2,295,585	676,180	0	0	0	285,681,010
1991	718,147	58,318,242	30,956,584	104,583,500	52,451,102	1,718,758	1,093,089	0	0	0	249,839,422
1992	932,801	63,401,297	29,476,120	100,999,381	42,761,324	1,181,625	3,505,476	47,640	0	0	242,305,664
1993	1,181,997	52,756,526	30,103,392	94,556,592	53,619,736	1,112,232	3,624,439	391,507	0	0	237,346,421
1994	1,310,675	60,590,938	30,210,452	92,464,635	54,721,324	1,485,044	3,704,499	377,617	0	0	244,865,184
1995	1,493,523	65,271,146	20,288,894	78,752,605	55,000,220	1,499,639	3,481,847	360,161	0	0	226,148,035
1996	1,612,698	75,223,041	16,192,165	77,828,405	54,571,209	846,623	3,758,973	370,201	221,068	3,066,567	233,690,950

Source: Prior Filings

COAL MINE COMPENSATION RATING BUREAU
TRAUMATIC LOSS COST PREMIUM

	ANTHRACITE UNDERGROUND (1010)			BITUMINOUS UNDERGROUND (1001)			ANTHRACITE SURFACE (1012)			BITUMINOUS SURFACE (1014)		
YEAR	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM
2004	20.36	0	0	5.78	66,842,986	3,863,525	9.21	12,359,731	1,138,331	2.21	56,217,298	1,242,402
2005	20.36	0	0	5.78	72,290,188	4,178,373	9.21	12,140,911	1,118,178	2.21	64,871,562	1,433,662
2006	20.36	530	108	5.78	71,907,931	4,156,278	9.21	11,946,382	1,100,262	2.21	63,008,975	1,392,498
2007	20.36	0	0	5.78	81,566,803	4,714,561	9.21	14,555,579	1,340,569	2.21	63,295,774	1,398,837
2008	20.36	0	0	5.78	103,490,690	5,981,762	9.21	16,954,313	1,561,492	2.21	73,054,482	1,614,504
2009	20.36	0	0	5.78	102,684,006	5,935,136	9.21	16,445,462	1,514,627	2.21	61,784,394	1,365,435
2010	20.36	5,700	1,161	5.78	126,687,464	7,322,535	9.21	14,295,288	1,316,596	2.21	72,711,558	1,606,925
2011	20.36	110,125	22,421	5.78	149,633,528	8,648,818	9.21	21,034,600	1,937,287	2.21	86,074,064	1,902,237
2012	20.36	219,407	44,671	5.78	154,412,040	8,925,016	9.21	26,295,907	2,421,853	2.21	76,433,301	1,689,176
2013	20.36	175,900	35,813	5.78	146,599,685	8,473,462	9.21	22,449,824	2,067,629	2.21	61,168,491	1,351,824
2014	20.36	258,809	52,694	5.78	235,444,691	13,608,703	9.21	20,496,172	1,887,697	2.21	54,137,563	1,196,440

	COKE (1469)			AUGER (1015)			ANTHRACITE CO-GEN (1021)			BITUMINOUS CO-GEN (1023)		
YEAR	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM
2004	5.82	12,049,126	701,259	15.94	1,058,799	168,773	2.46	7,351,514	180,847	1.09	6,374,483	69,482
2005	5.82	12,860,979	748,509	15.94	1,026,537	163,630	2.46	7,855,289	193,240	1.09	8,524,752	92,920
2006	5.82	12,737,394	741,316	15.94	1,066,831	170,053	2.46	8,405,393	206,773	1.09	9,397,580	102,434
2007	5.82	13,669,925	795,590	15.94	1,121,156	178,712	2.46	9,160,450	225,347	1.09	10,789,214	117,602
2008	5.82	9,761,146	568,099	15.94	2,488,558	396,676	2.46	7,958,335	195,775	1.09	8,468,561	92,307
2009	5.82	5,173,552	301,101	15.94	926,163	147,630	2.46	8,004,644	196,914	1.09	7,866,413	85,744
2010	5.82	5,435,658	316,355	15.94	806,696	128,587	2.46	8,481,228	208,638	1.09	8,732,701	95,186
2011	5.82	3,599,086	209,467	15.94	1,176,255	187,495	2.46	11,720,035	288,313	1.09	9,102,411	99,216
2012	5.82	5,738,105	333,958	15.94	808,208	128,828	2.46	10,273,004	252,716	1.09	9,047,745	98,620
2013	5.82	4,791,910	278,889	15.94	1,025,399	163,449	2.46	8,342,651	205,229	1.09	10,355,884	112,879
2014	5.82	4,464,398	259,828	15.94	876,196	139,666	2.46	9,279,611	228,278	1.09	11,451,621	124,823

	ANTHRACITE PREP PLANT (1025)			BITUMINOUS PREP PLANT (1027)			TOTAL	
YEAR	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM	LOSS COST	DEVELOPED PAYROLL	LOSS COST PREMIUM	DEVELOPED PAYROLL	LOSS COST PREMIUM
2004	4.89	4,406,653	215,485	1.18	18,067,286	213,194	184,727,876	7,793,298
2005	4.89	5,170,069	252,816	1.18	17,690,358	208,746	202,430,645	8,390,074
2006	4.89	4,885,882	238,920	1.18	17,050,967	201,201	200,407,865	8,309,843
2007	4.89	5,756,439	281,490	1.18	18,895,192	222,963	218,810,532	9,275,671
2008	4.89	6,390,767	312,509	1.18	21,250,256	250,753	249,817,108	10,973,877
2009	4.89	6,749,748	330,063	1.18	19,828,012	233,971	229,462,394	10,110,621
2010	4.89	5,762,086	281,766	1.18	26,313,130	310,495	269,231,509	11,588,244
2011	4.89	7,236,583	353,869	1.18	35,155,068	414,830	324,841,755	14,063,953
2012	4.89	8,671,140	424,019	1.18	34,211,729	403,698	326,110,586	14,722,555
2013	4.89	8,265,665	404,191	1.18	34,207,489	403,648	297,382,898	13,497,013
2014	4.89	8,100,471	396,113	1.18	43,762,160	516,393	388,271,692	18,410,635

Payroll - Exhibit X-D, pages 1, 2, 3, 4 and 5; Loss Costs - Exhibit X-B Page 2

PAB

Effective Date - April 01, 2016

Coal Mine Compensation Rating Bureau
Traumatic & OD Loss costs
Approved Effective April 1, 2015

CLASS DESCRIPTION	CLASS CODE	CURRENT MANUAL LOSS COST	CLASS CODE	CURRENT MANUAL LOSS COST	CLASS CODE	CURRENT MANUAL LOSS COST
	TRAUMATIC		STATE O D		FEDERAL O D	
UNDERGROUND						
Anthracite	1010	$20.36	1011	$5.10	0160	$12.68
Bituminous	1001	$5.78	1002	$0.68	0158	$0.81
SURFACE						
Anthracite	1012	$9.21	1016	$2.29	0153	$3.31
Bituminous	1014	$2.21	1013	$0.15	0156	$0.50
COKE	1469	$5.82	1017	$0.12	0154	$0.11
AUGER	1015	$15.94	1019	$0.25	0157	$0.40
CO-GEN						
Anthracite	1021	$2.46	1022	$0.37	0181	$0.49
Bituminous	1023	$1.09	1024	$0.40	0182	$0.35
PREP PLANT						
Anthracite	1025	$4.89	1026	$2.69	0183	$1.17
Bituminous	1027	$1.18	1028	$0.29	0184	$0.45

CLASS DESCRIPTION	CLASS CODE	UNLOADED APPROVED LOSS COST	CLASS CODE	UNLOADED APPROVED LOSS COST	CLASS CODE	UNLOADED APPROVED LOSS COST
	TRAUMATIC		STATE O D		FEDERAL O D	
UNDERGROUND						
Anthracite	1010	$19.75	1011	$5.10	0160	$12.68
Bituminous	1001	$5.44	1002	$0.68	0158	$0.81
SURFACE						
Anthracite	1012	$9.01	1016	$2.29	0153	$3.31
Bituminous	1014	$2.14	1013	$0.15	0156	$0.50
COKE	1469	$5.68	1017	$0.12	0154	$0.11
AUGER	1015	$15.54	1019	$0.25	0157	$0.40
CO-GEN						
Anthracite	1021	$2.38	1022	$0.37	0181	$0.49
Bituminous	1023	$1.04	1024	$0.40	0182	$0.35
PREP PLANT						
Anthracite	1025	$4.77	1026	$2.69	0183	$1.17
Bituminous	1027	$1.13	1028	$0.29	0184	$0.45

Source: Manual Loss Costs approved effective April 1, 2015; Section 2, pages 2 and 3 of Approved Manual
Unloaded Approved Loss Costs from Exhibit V-A, column (9) of current approved filing.

Coal Mine Compensation Rating Bureau
Adjustments from 2015 Filing

Section 1 Catastrophic Loss Cost (2015)

Underground		
Anthracite	0.23	
Bituminous	0.23	
Auger	0.10	(1/3 Underground, 2/3 Surface)
Other Classes	0.03	

Section 2 Load Factors (2015)

Experience Rating	1.0000
Merit Rating (Exh XIV-A, page 1)	1.0005
Safety Committee (Exh. XIV-B)	1.0184
	1.0189
Small Business Advocate (XI-A)	1.0001

ANTHRACITE UNDERGROUND (1010)

Year	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	1,345,321	0	0	1.0000	1,345,321	1.345321
2005	1,417,568	0	0	1.0000	1,417,568	1.417568
2006	1,442,524	0	0	1.0000	1,442,524	1.442524
2007	1,662,537	0	0	1.0000	1,662,537	1.662537
2008	2,136,713	0	0	1.0000	2,136,713	2.136713
2009	1,335,866	0	0	1.0000	1,335,866	1.335866
2010	1,299,588	0	0	1.0000	1,299,588	1.299588
2011	1,257,944	0	0	1.0000	1,257,944	1.257944
2012	1,029,260	0	0	1.0000	1,029,260	1.029260
2013	381,876	0	0	1.0000	381,876	0.381876
2014	258,809	0	0	1.0000	258,809	0.258809

BITUMINOUS UNDERGROUND (1001)

Year	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	65,497,665	19,423,765	0	1.0000	46,073,900	46.073900
2005	70,872,620	4,596,865	0	1.0000	66,275,755	66.275755
2006	70,465,937	0	0	1.0000	70,465,937	70.465937
2007	79,904,266	0	0	1.0000	79,904,266	79.904266
2008	101,353,977	0	0	1.0000	101,353,977	101.353977
2009	101,348,140	0	0	1.0000	101,348,140	101.348140
2010	125,393,576	0	0	1.0000	125,393,576	125.393576
2011	148,485,709	0	0	1.0000	148,485,709	148.485709
2012	153,602,187	0	0	1.0000	153,602,187	153.602187
2013	146,393,709	4,600,839	0	1.0000	141,792,870	141.792870
2014	235,444,691	87,013,020	0	1.0042	148,066,216	148.066216

ANTHRACITE SURFACE (1012)

Year	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	12,359,731	0	0	1.0000	12,359,731	12.359731
2005	12,140,911	0	0	1.0000	12,140,911	12.140911
2006	11,946,382	0	118,941	1.0000	12,065,323	12.065323
2007	14,555,579	0	310,977	1.0000	14,866,556	14.866556
2008	16,954,313	1,047,741	313,659	1.0000	16,220,231	16.220231
2009	16,445,462	903,752	351,818	1.0000	15,893,528	15.893528
2010	14,295,288	1,205,978	229,875	1.0000	13,319,185	13.319185
2011	21,034,600	1,929,891	402,719	1.0000	19,507,428	19.507428
2012	26,295,907	1,973,449	412,253	1.0000	24,734,711	24.734711
2013	22,449,824	2,307,223	577,413	1.0000	20,720,014	20.720014
2014	20,496,172	2,210,807	589,344	1.0036	18,868,872	18.868872

BITUMINOUS SURFACE (1014)

Year	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	56,217,298	0	0	1.0000	56,217,298	56.217298
2005	64,871,562	0	0	1.0000	64,871,562	64.871562
2006	63,008,975	0	789,527	1.0000	63,798,502	63.798502
2007	63,295,774	0	1,512,319	1.0000	64,808,093	64.808093
2008	73,054,482	0	1,546,749	1.0000	74,601,231	74.601231
2009	61,784,394	0	1,522,301	1.0000	63,306,695	63.306695
2010	72,711,558	0	1,543,619	1.0000	74,255,177	74.255177
2011	86,074,064	0	1,656,442	1.0000	87,730,506	87.730506
2012	76,433,301	0	1,437,689	1.0000	77,870,990	77.870990
2013	61,168,491	0	1,368,316	1.0000	62,536,807	62.536807
2014	54,137,563	0	1,209,446	1.0000	55,347,009	55.347009

Source: Anthracite Underground (1010) - Exhibit X-C, page 4
Bituminous Underground (1001) - Exhibit X-C, page 4
Anthracite Surface (1012) - Exhibit X-D, page 2
Bituminous Surface (1014) - Exhibit X-D, page 2

COKE (1469)

Year	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	12,049,126	0	0	1.0000	12,049,126	12.049126
2005	12,860,979	0	0	1.0000	12,860,979	12.860979
2006	12,737,394	0	0	1.0000	12,737,394	12.737394
2007	13,669,925	0	0	1.0000	13,669,925	13.669925
2008	9,761,146	0	0	1.0000	9,761,146	9.761146
2009	5,173,552	0	0	1.0000	5,173,552	5.173552
2010	5,435,658	0	0	1.0000	5,435,658	5.435658
2011	3,599,086	0	0	1.0000	3,599,086	3.599086
2012	5,738,105	0	0	1.0000	5,738,105	5.738105
2013	4,791,910	0	0	1.0000	4,791,910	4.791910
2014	4,464,398	0	0	1.0000	4,464,398	4.464398

AUGER (1015)

Year	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	1,058,799	0	0	1.0000	1,058,799	1.058799
2005	1,026,537	0	0	1.0000	1,026,537	1.026537
2006	1,066,831	0	0	1.0000	1,066,831	1.066831
2007	1,121,156	0	0	1.0000	1,121,156	1.121156
2008	2,488,558	0	18,200	1.0000	2,506,758	2.506758
2009	926,163	0	20,800	1.0000	946,963	0.946963
2010	806,696	0	20,800	1.0000	827,496	0.827496
2011	1,176,255	0	0	1.0000	1,176,255	1.176255
2012	808,208	0	0	1.0000	808,208	0.808208
2013	1,025,399	0	21,548	1.0000	1,046,947	1.046947
2014	876,196	0	54,614	1.0000	930,810	0.930810

ANTHRACITE CO-GEN (1021)

Year	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	7,351,514	0	0	1.0000	7,351,514	7.351514
2005	7,855,289	0	0	1.0000	7,855,289	7.855289
2006	8,405,393	0	7,134	1.0000	8,412,527	8.412527
2007	9,160,450	0	26,256	1.0000	9,186,706	9.186706
2008	7,958,335	477,298	40,363	1.0000	7,521,400	7.521400
2009	8,004,644	505,653	35,744	1.0000	7,534,735	7.534735
2010	8,481,228	594,188	71,008	1.0000	7,958,048	7.958048
2011	11,720,035	827,364	88,971	1.0000	10,981,642	10.981642
2012	10,273,004	1,025,112	63,920	1.0000	9,311,812	9.311812
2013	8,342,651	792,519	80,630	1.0000	7,630,762	7.630762
2014	9,279,611	838,824	125,150	1.0000	8,565,937	8.565937

BITUMINOUS CO-GEN (1023)

Year	State OD Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	6,374,483	0	0	1.0000	6,374,483	6.374483
2005	8,524,752	0	0	1.0000	8,524,752	8.524752
2006	9,397,580	0	25,995	1.0000	9,423,575	9.423575
2007	10,789,214	0	39,926	1.0000	10,829,140	10.829140
2008	8,468,561	0	13,327	1.0000	8,481,888	8.481888
2009	7,866,413	0	0	1.0000	7,866,413	7.866413
2010	8,732,701	0	0	1.0000	8,732,701	8.732701
2011	9,102,411	0	0	1.0000	9,102,411	9.102411
2012	9,047,745	0	0	1.0000	9,047,745	9.047745
2013	10,355,884	0	0	1.0000	10,355,884	10.355884
2014	11,451,621	0	0	1.0000	11,451,621	11.451621

Source: Auger (1015) - Exhibit X-D, page 3
Coke (1469) - Exhibit X-D, page 3
Anthracite Co-Gen (1021) - Exhibit X-D, page 4
Bituminous Co-Gen (1023) - Exhibit X-D, page 4

ANTHRACITE PREP PLANT (1025)

Year	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	4,406,653	0	0	1.0000	4,406,653	4.406653
2005	5,170,069	0	0	1.0000	5,170,069	5.170069
2006	4,885,882	0	0	1.0000	4,885,882	4.885882
2007	5,756,439	0	60,852	1.0000	5,817,291	5.817291
2008	6,390,767	766,824	109,600	1.0000	5,733,543	5.733543
2009	6,749,748	584,144	99,002	1.0000	6,264,606	6.264606
2010	5,762,086	1,016,835	131,676	1.0000	4,876,927	4.876927
2011	7,236,583	1,246,194	132,870	1.0000	6,123,259	6.123259
2012	8,671,140	1,248,180	146,063	1.0000	7,569,023	7.569023
2013	8,265,665	1,400,236	209,457	1.0000	7,074,886	7.074886
2014	8,100,471	1,877,979	230,499	1.0002	6,452,662	6.452662

BITUMINOUS PREP PLANT (1027)

Year	State OD Developed Payroll (1)	Federal Exempt Reported Payroll (2)	Partnership Reported Payroll (3)	Development Factor (4)	Federal OD Payroll (1) + [(3)-(2)]*(4) (5)	Payroll Per Million (5)/1000000 (6)
2004	18,067,286	4,607,085	0	1.0000	13,460,201	13.460201
2005	17,690,358	1,142,051	0	1.0000	16,548,307	16.548307
2006	17,050,967	0	0	1.0000	17,050,967	17.050967
2007	18,895,192	0	0	1.0000	18,895,192	18.895192
2008	21,250,256	0	0	1.0000	21,250,256	21.250256
2009	19,828,012	0	0	1.0000	19,828,012	19.828012
2010	26,313,130	0	0	1.0000	26,313,130	26.313130
2011	35,155,068	0	0	1.0000	35,155,068	35.155068
2012	34,211,729	0	0	1.0000	34,211,729	34.211729
2013	34,207,489	613,728	0	1.0000	33,593,761	33.593761
2014	43,762,160	11,641,187	0	1.0084	32,023,187	32.023187

Source: Anthracite Prep Plant (1025) - Exhibit X-D, page 5
Bituminous Prep Plant (1027) - Exhibit X-D, page 5

ANTHRACITE UNDERGROUND (1010)

Year	Developed Payroll (1)	Files 258,330,4027 & 4049 Developed Payroll* (2)	OD Payroll (3) = (1) + (2)	Payroll Per Million (4) = (3)/1000000
2004	0	1,345,321	1,345,321	1.345321
2005	0	1,417,568	1,417,568	1.417568
2006	530	1,441,994	1,442,524	1.442524
2007	0	1,662,537	1,662,537	1.662537
2008	0	2,136,713	2,136,713	2.136713
2009	0	1,335,866	1,335,866	1.335866
2010	5,700	1,293,888	1,299,588	1.299588
2011	110,125	1,147,819	1,257,944	1.257944
2012	219,407	809,853	1,029,260	1.029260
2013	175,900	205,976	381,876	0.381876
2014	258,809	0	258,809	0.258809

BITUMINOUS UNDERGROUND (1001)

Year	Developed Payroll (1)	Files 258,330,4027 & 4049 Developed Payroll* (2)	(2)	OD Payroll (3) = (1) - (2)	Payroll Per Million (4) = (3)/1000000
2004	66,842,986	1,345,321		65,497,665	65.497665
2005	72,290,188	1,417,568		70,872,620	70.872620
2006	71,907,931	1,441,994		70,465,937	70.465937
2007	81,566,803	1,662,537		79,904,266	79.904266
2008	103,490,690	2,136,713		101,353,977	101.353977
2009	102,684,006	1,335,866		101,348,140	101.348140
2010	126,687,464	1,293,888		125,393,576	125.393576
2011	149,633,528	1,147,819		148,485,709	148.485709
2012	154,412,040	809,853		153,602,187	153.602187
2013	146,599,685	205,976		146,393,709	146.393709
2014	235,444,691	0		235,444,691	235.444691

* The reclassification from Anthracite U/G to Bituminous U/G applies to Traumatic, but not to OD. For Traumatic Files 258, 330, 4027 & 4049 are coded 1001 (payroll and losses). The above reclassification is made to move State and Federal O.D. exposures from Class 1001 (Bituminous U/G) back to Class 1010 (Anthracite U/G)

Other classification payrolls for these four files are unaffected by the re-classification.

Source: Developed Payroll - Exhibit X-D, page 1
CMCRB database for file 258, 330, 4027 and 4049 Payrolls as of 4-30-2015

ANTHRACITE UNDERGROUND (1010)

Year	REPORTED PAYROLL*	DEVELOPMENT FACTORS**	DEVELOPED PAYROLL
2004	1,345,321	1.0000	1,345,321
2005	1,417,568	1.0000	1,417,568
2006	1,441,994	1.0000	1,441,994
2007	1,662,537	1.0000	1,662,537
2008	2,136,713	1.0000	2,136,713
2009	1,335,866	1.0000	1,335,866
2010	1,293,888	1.0000	1,293,888
2011	1,147,819	1.0000	1,147,819
2012	809,853	1.0000	809,853
2013	205,976	1.0000	205,976
2014	0	1.0021	0

Source: CMCRB database for file 258, 330, 4027 and 4049 Payrolls as of 4-30-2015
* For Traumatic Files 258, 330, 4027 and 4049 only.
** Development Factors are averages of U/G Ant. and U/G Bit. Development Factors from Exhibit X-E-1

ANTHRACITE UNDERGROUND (1010)

YEAR	REPORTED PAYROLL (1)	DEVELOPMENT FACTORS (2)	DEVELOPED PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	-	1.0000	-	0.000000
2005	-	1.0000	-	0.000000
2006	530	1.0000	530	0.000530
2007	-	1.0000	-	0.000000
2008	-	1.0000	-	0.000000
2009	-	1.0000	-	0.000000
2010	5,700	1.0000	5,700	0.005700
2011	110,125	1.0000	110,125	0.110125
2012	219,407	1.0000	219,407	0.219407
2013	175,900	1.0000	175,900	0.175900
2014	258,809	1.0000	258,809	0.258809

BITUMINOUS UNDERGROUND (1001)

YEAR	REPORTED PAYROLL (1)	DEVELOPMENT FACTORS (2)	DEVELOPED PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	66,842,986 *	1.0000	66,842,986	66.842986
2005	72,290,188	1.0000	72,290,188	72.290188
2006	71,907,931	1.0000	71,907,931	71.907931
2007	81,566,803	1.0000	81,566,803	81.566803
2008	103,490,690	1.0000	103,490,690	103.490690
2009	102,684,006	1.0000	102,684,006	102.684006
2010	126,687,464	1.0000	126,687,464	126.687464
2011	149,633,528	1.0000	149,633,528	149.633528
2012	154,412,040	1.0000	154,412,040	154.412040
2013	146,599,685	1.0000	146,599,685	146.599685
2014	234,459,959	1.0042	235,444,691	235.444691

(1) Payroll and (2) Development - Exhibit X-E, page 1
* The Reported Payroll for 2004 was drawn from the CMCRB Data Base
for classes 1001,1014 and 1027 because there was development beyond 5th report.

ANTHRACITE SURFACE (1012)

YEAR	REPORTED PAYROLL (1)	DEVELOP FACTORS (2)	DEVELOPMENT PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	12,359,731	1.0000	12,359,731	12.359731
2005	12,140,911	1.0000	12,140,911	12.140911
2006	11,946,382	1.0000	11,946,382	11.946382
2007	14,555,579	1.0000	14,555,579	14.555579
2008	16,954,313	1.0000	16,954,313	16.954313
2009	16,445,462	1.0000	16,445,462	16.445462
2010	14,295,288	1.0000	14,295,288	14.295288
2011	21,034,600	1.0000	21,034,600	21.034600
2012	26,295,907	1.0000	26,295,907	26.295907
2013	22,449,824	1.0000	22,449,824	22.449824
2014	20,422,650	1.0036	20,496,172	20.496172

BITUMINOUS SURFACE (1014)

YEAR	REPORTED PAYROLL (1)	DEVELOP FACTORS (2)	PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	56,217,298 *	1.0000	56,217,298	56.217298
2005	64,871,562	1.0000	64,871,562	64.871562
2006	63,008,975	1.0000	63,008,975	63.008975
2007	63,295,774	1.0000	63,295,774	63.295774
2008	73,054,482	1.0000	73,054,482	73.054482
2009	61,784,394	1.0000	61,784,394	61.784394
2010	72,711,558	1.0000	72,711,558	72.711558
2011	86,074,064	1.0000	86,074,064	86.074064
2012	76,433,301	1.0000	76,433,301	76.433301
2013	61,168,491	1.0000	61,168,491	61.168491
2014	54,137,563	1.0000	54,137,563	54.137563

(1) Payroll and (2) Development - Exhibit X-E, page 2
* The Reported Payroll for 2004 was drawn from the CMCRB Data Base
for classes 1001,1014 and 1027 because there was development beyond 5th report.

COKE (1469)

YEAR	REPORTED PAYROLL (1)	DEVELOPMENT FACTORS (2)	DEVELOPED PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	12,049,126	1.0000	12,049,126	12.049126
2005	12,860,979	1.0000	12,860,979	12.860979
2006	12,737,394	1.0000	12,737,394	12.737394
2007	13,669,925	1.0000	13,669,925	13.669925
2008	9,761,146	1.0000	9,761,146	9.761146
2009	5,173,552	1.0000	5,173,552	5.173552
2010	5,435,658	1.0000	5,435,658	5.435658
2011	3,599,086	1.0000	3,599,086	3.599086
2012	5,738,105	1.0000	5,738,105	5.738105
2013	4,791,910	1.0000	4,791,910	4.791910
2014	4,464,398	1.0000	4,464,398	4.464398

AUGER (1015)

YEAR	REPORTED PAYROLL (1)	DEVELOPMENT FACTORS (2)	DEVELOPED PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	1,058,799	1.0000	1,058,799	1.058799
2005	1,026,537	1.0000	1,026,537	1.026537
2006	1,066,831	1.0000	1,066,831	1.066831
2007	1,121,156	1.0000	1,121,156	1.121156
2008	2,488,558	1.0000	2,488,558	2.488558
2009	926,163	1.0000	926,163	0.926163
2010	806,696	1.0000	806,696	0.806696
2011	1,176,255	1.0000	1,176,255	1.176255
2012	808,208	1.0000	808,208	0.808208
2013	1,025,399	1.0000	1,025,399	1.025399
2014	876,196	1.0000	876,196	0.876196

Source: (1) Payroll and (2) Development - Exhibit X-E, page 3

ANTHRACITE CO-GEN (1021)

YEAR	REPORTED PAYROLL (1)	DEVELOPMENT FACTORS (2)	DEVELOPED PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	7,351,514	1.0000	7,351,514	7.351514
2005	7,855,289	1.0000	7,855,289	7.855289
2006	8,405,393	1.0000	8,405,393	8.405393
2007	9,160,450	1.0000	9,160,450	9.160450
2008	7,958,335	1.0000	7,958,335	7.958335
2009	8,004,644	1.0000	8,004,644	8.004644
2010	8,481,228	1.0000	8,481,228	8.481228
2011	11,720,035	1.0000	11,720,035	11.720035
2012	10,273,004	1.0000	10,273,004	10.273004
2013	8,342,651	1.0000	8,342,651	8.342651
2014	9,279,611	1.0000	9,279,611	9.279611

BITUMINOUS CO-GEN (1023)

YEAR	REPORTED PAYROLL (1)	DEVELOPMENT FACTORS (2)	PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	6,374,483	1.0000	6,374,483	6.374483
2005	8,524,752	1.0000	8,524,752	8.524752
2006	9,397,580	1.0000	9,397,580	9.397580
2007	10,789,214	1.0000	10,789,214	10.789214
2008	8,468,561	1.0000	8,468,561	8.468561
2009	7,866,413	1.0000	7,866,413	7.866413
2010	8,732,701	1.0000	8,732,701	8.732701
2011	9,102,411	1.0000	9,102,411	9.102411
2012	9,047,745	1.0000	9,047,745	9.047745
2013	10,355,884	1.0000	10,355,884	10.355884
2014	11,451,621	1.0000	11,451,621	11.451621

Source: (1) Payroll and (2) Development - Exhibit X-E, page 4

ANTHRACITE PREP PLANT (1025)

YEAR	REPORTED PAYROLL (1)	DEVELOPMENT FACTORS (2)	DEVELOPED PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	4,406,653	1.0000	4,406,653	4.406653
2005	5,170,069	1.0000	5,170,069	5.170069
2006	4,885,882	1.0000	4,885,882	4.885882
2007	5,756,439	1.0000	5,756,439	5.756439
2008	6,390,767	1.0000	6,390,767	6.390767
2009	6,749,748	1.0000	6,749,748	6.749748
2010	5,762,086	1.0000	5,762,086	5.762086
2011	7,236,583	1.0000	7,236,583	7.236583
2012	8,671,140	1.0000	8,671,140	8.671140
2013	8,265,665	1.0000	8,265,665	8.265665
2014	8,098,851	1.0002	8,100,471	8.100471

BITUMINOUS PREP PLANT (1027)

YEAR	REPORTED PAYROLL (1)	DEVELOPMENT FACTORS (2)	PAYROLL (3) =(1) x (2)	PAYROLL PER MILLION (4) =(1)X(2)/1000000
2004	18,067,286 *	1.0000	18,067,286	18.067286
2005	17,690,358	1.0000	17,690,358	17.690358
2006	17,050,967	1.0000	17,050,967	17.050967
2007	18,895,192	1.0000	18,895,192	18.895192
2008	21,250,256	1.0000	21,250,256	21.250256
2009	19,828,012	1.0000	19,828,012	19.828012
2010	26,313,130	1.0000	26,313,130	26.313130
2011	35,155,068	1.0000	35,155,068	35.155068
2012	34,211,729	1.0000	34,211,729	34.211729
2013	34,207,489	1.0000	34,207,489	34.207489
2014	43,397,620	1.0084	43,762,160	43.762160

(1) Payroll and (2) Development - Exhibit X-E, page 5
* The Reported Payroll for 2004 was drawn from the CMCRB Data Base
for classes 1001,1014 and 1027 because there was development beyond 5th report.

COAL MINE COMPENSATION RATING BUREAU
Payroll Development

PAYROLLS
ANTHRACITE UNDERGROUND (1010)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	0	0	530	0	0	0	5,700	110,125	219,407	175,900	258,809
2ND	0	0	530	0	0	0	5,700	110,125	219,407	175,900	
3RD	0	0	530	0	0	0	5,700	110,125	219,407		
4TH	0	0	530	0	0	0	5,700	110,125			
5TH	0	0	530	0	0	0	5,700				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1-2			1.0000				1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2-3			1.0000				1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4			1.0000				1.0000	1.0000			1.0000	1.0000	1.0000
4-5			1.0000				1.0000				1.0000	1.0000	1.0000

PAYROLLS
BITUMINOUS UNDERGROUND (1001)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	65,374,101	70,247,185	71,756,779	81,366,980	102,595,885	100,337,635	126,269,667	150,087,771	156,005,503	145,505,456	234,459,959
2ND	66,554,476	70,464,920	71,907,931	81,566,803	103,490,690	102,684,006	126,687,464	149,633,528	154,412,040	146,599,685	
3RD	66,554,476	70,464,920	71,907,931	81,566,803	103,490,690	102,684,006	126,687,464	149,633,528	154,412,040		
4TH	66,554,476	70,464,920	71,907,931	81,566,803	103,490,690	102,684,006	126,687,464	149,633,528			
5TH	66,554,476	72,290,188	71,907,931	81,566,803	103,490,690	102,684,006	126,687,464				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1-2	1.0181	1.0031	1.0021	1.0025	1.0087	1.0234	1.0033	0.9970	0.9898	1.0075	1.0042	1.0042	1.0042
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0259	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2015 - Traumatic Payroll Reports

COAL MINE COMPENSATION RATING BUREAU
Payroll Development

PAYROLLS
ANTHRACITE SURFACE (1012)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	12,362,643	12,146,875	11,844,081	14,568,659	17,094,165	16,464,925	14,316,712	21,041,889	26,061,126	22,127,846	20,422,650
2ND	12,361,324	12,140,911	11,946,382	14,555,579	16,999,485	16,445,462	14,302,955	21,034,600	26,295,907	22,449,824	
3RD	12,359,731	12,140,911	11,946,382	14,555,579	16,954,313	16,445,462	14,295,288	21,034,600	26,295,907		
4TH	12,359,731	12,140,911	11,946,382	14,555,579	16,954,313	16,445,462	14,295,288	21,034,600			
5TH	12,359,731	12,140,911	11,946,382	14,555,579	16,954,313	16,445,462	14,295,288				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1ST	0.9999	0.9995	1.0086	0.9991	0.9945	0.9988	0.9990	0.9997	1.0090	1.0146	1.0042	1.0036	1.0036
2-3	0.9999	1.0000	1.0000	1.0000	0.9973	1.0000	0.9995	1.0000	1.0000		0.9994	0.9994	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

PAYROLLS
BITUMINOUS SURFACE (1014)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	55,856,915	64,005,855	63,013,132	62,335,653	72,508,648	62,272,331	72,008,001	84,685,809	77,131,715	63,292,323	54,137,563
2ND	56,031,862	64,429,416	63,084,439	63,295,774	73,054,482	61,784,394	72,711,558	86,074,064	76,433,301	61,168,491	
3RD	56,128,132	64,342,262	63,008,975	63,295,774	73,054,482	61,784,394	72,711,558	86,074,064	76,433,301		
4TH	56,128,132	64,342,262	63,008,975	63,295,774	73,054,482	61,784,394	72,711,558	86,074,064			
5TH	56,128,132	64,871,562	63,008,975	63,295,774	73,054,482	61,784,394	72,711,558				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1-2	1.0031	1.0066	1.0011	1.0154	1.0075	0.9922	1.0098	1.0164	0.9909	0.9664	0.9951	0.9951	1.0000
2-3	1.0017	0.9986	0.9988	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0082	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2015 - Traumatic Payroll Reports

COAL MINE COMPENSATION RATING BUREAU
Payroll Development

PAYROLLS
COKE (1469)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	12,049,126	12,860,979	12,737,394	13,669,925	9,761,146	5,173,552	5,435,658	3,599,086	5,738,105	4,791,910	4,464,398
2ND	12,049,126	12,860,979	12,737,394	13,669,925	9,761,146	5,173,552	5,435,658	3,599,086	5,738,105	4,791,910	
3RD	12,049,126	12,860,979	12,737,394	13,669,925	9,761,146	5,173,552	5,435,658	3,599,086	5,738,105		
4TH	12,049,126	12,860,979	12,737,394	13,669,925	9,761,146	5,173,552	5,435,658	3,599,086			
5TH	12,049,126	12,860,979	12,737,394	13,669,925	9,761,146	5,173,552	5,435,658				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1-2	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

PAYROLLS
AUGER (1015)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	1,048,056	1,026,537	1,066,831	1,121,967	2,489,280	935,743	793,313	1,151,902	789,136	1,082,639	876,196
2ND	1,058,799	1,026,537	1,066,831	1,121,156	2,488,558	926,163	806,696	1,176,255	808,208	1,025,399	
3RD	1,058,799	1,026,537	1,066,831	1,121,156	2,488,558	926,163	806,696	1,176,255	808,208		
4TH	1,058,799	1,026,537	1,066,831	1,121,156	2,488,558	926,163	806,696	1,176,255			
5TH	1,058,799	1,026,537	1,066,831	1,121,156	2,488,558	926,163	806,696				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1-2	1.0103	1.0000	1.0000	0.9993	0.9997	0.9898	1.0169	1.0211	1.0242	0.9471	0.9998	0.9998	1.0000
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2015 - Traumatic Payroll Reports

COAL MINE COMPENSATION RATING BUREAU
Payroll Development

PAYROLLS
ANTHRACITE CO-GEN (1021)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	7,389,096	7,836,042	8,378,307	9,157,398	7,974,156	8,083,804	8,455,858	11,710,908	10,377,312	8,678,376	9,279,611
2ND	7,351,514	7,855,289	8,405,393	9,160,450	7,958,335	8,004,644	8,481,228	11,720,035	10,273,004	8,342,651	
3RD	7,351,514	7,855,289	8,405,393	9,160,450	7,958,335	8,004,644	8,481,228	11,720,035	10,273,004		
4TH	7,351,514	7,855,289	8,405,393	9,160,450	7,958,335	8,004,644	8,481,228	11,720,035			
5TH	7,351,514	7,855,289	8,405,393	9,160,450	7,958,335	8,004,644	8,481,228				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1-2	0.9949	1.0025	1.0032	1.0003	0.9980	0.9902	1.0030	1.0008	0.9899	0.9613	0.9890	0.9890	1.0000
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

PAYROLLS
BITUMINOUS CO-GEN (1023)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	6,313,976	8,450,693	9,292,226	9,873,810	8,469,399	7,861,068	9,236,721	9,015,644	9,057,266	13,079,796	11,451,621
2ND	6,374,483	8,553,082	9,397,580	10,789,214	8,468,561	7,866,413	8,732,701	9,102,411	9,047,745	10,355,884	
3RD	6,374,483	8,524,752	9,397,580	10,789,214	8,468,561	7,866,413	8,732,701	9,102,411	9,047,745		
4TH	6,374,483	8,524,752	9,397,580	10,789,214	8,468,561	7,866,413	8,732,701	9,102,411			
5TH	6,374,483	8,524,752	9,397,580	10,789,214	8,468,561	7,866,413	8,732,701				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1-2	1.0096	1.0121	1.0113	1.0927	0.9999	1.0007	0.9454	1.0096	0.9989	0.7917	0.9493	0.9493	1.0000
2-3	1.0000	0.9967	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2015 - Traumatic Payroll Reports

COAL MINE COMPENSATION RATING BUREAU
Payroll Development

PAYROLLS
ANTHRACITE PREP PLANT (1025)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	4,391,048	5,176,012	4,885,882	5,756,521	6,320,163	6,785,937	5,723,658	7,300,075	8,617,327	8,249,896	8,098,851
2ND	4,406,653	5,170,069	4,885,882	5,756,439	6,390,767	6,749,748	5,762,086	7,236,583	8,671,140	8,265,665	
3RD	4,406,653	5,170,069	4,885,882	5,756,439	6,390,767	6,749,748	5,762,086	7,236,583	8,671,140		
4TH	4,406,653	5,170,069	4,885,882	5,756,439	6,390,767	6,749,748	5,762,086	7,236,583			
5TH	4,406,653	5,170,069	4,885,882	5,756,439	6,390,767	6,749,748	5,762,086				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1-2	1.0036	0.9989	1.0000	1.0000	1.0112	0.9947	1.0067	0.9913	1.0062	1.0019	1.0002	1.0002	1.0002
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

PAYROLLS
BITUMINOUS PREP PLANT (1027)

RPT	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1ST	18,012,677	17,490,567	17,116,808	18,852,719	20,315,099	19,852,091	25,843,606	34,632,323	34,353,700	33,730,152	43,397,620
2ND	18,029,182	17,489,118	17,050,967	18,895,192	21,250,256	19,828,012	26,313,130	35,155,068	34,211,729	34,207,489	
3RD	18,029,182	17,489,118	17,050,967	18,895,192	21,250,256	19,828,012	26,313,130	35,155,068	34,211,729		
4TH	18,029,182	17,489,118	17,050,967	18,895,192	21,250,256	19,828,012	26,313,130	35,155,068			
5TH	18,029,182	17,690,358	17,050,967	18,895,192	21,250,256	19,828,012	26,313,130				

DEV.	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	5 YEAR AVERAGE	ACCUM.	SELECTED
1-2	1.0009	0.9999	0.9962	1.0023	1.0460	0.9988	1.0182	1.0151	0.9959	1.0142	1.0084	1.0084	1.0084
2-3	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000	1.0000	1.0000
3-4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000			1.0000	1.0000	1.0000
4-5	1.0000	1.0115	1.0000	1.0000	1.0000	1.0000	1.0000				1.0000	1.0000	1.0000

Source: CMCRB Database as of 4-30-2015 - Traumatic Payroll Reports

COAL MINE COMPENSATION RATING BUREAU
OD Frequencies From Approved Filing

		State OD Class Code	State OD Indicated Frequency (Eff. 4/1/2015) (1)	Federal OD Class Code	Fedeal OD Basic Indicated Frequency (Eff. 4/1/2015) (2)	Fedeal OD Excess Indicated Frequency (Eff. 4/1/2015) (3)
Underground:	Anthracite	1011	0.068774	160	0.334437	0.044829
	Bituminous	1002	0.020580	158	0.017906	0.007590
Surface:	Anthracite	1016	0.052897	153	0.107978	0.020712
	Bituminous	1013	0.003739	156	0.014194	0.001572
	Coke	1017	0.003069	154	0.002493	0.001308
	Auger	1019	0.006267	157	0.010230	0.002667
Co-Gen:	Anthracite	1022	0.008528	181	0.016029	0.003152
	Bituminous	1024	0.010134	182	0.008382	0.003523
Prep Plants:	Anthracite	1026	0.062180	183	0.033842	0.028047
	Bituminous	1028	0.007380	184	0.011804	0.002893

Source: (1): Exhibit III Column (3) of prior filing.
(2) & (3): Exhibit IV-A Column (3) of prior filing.

COAL MINE COMPENSATION RATING BUREAU

Exhibit X-G

Calculation of Coal Class Adjustment Factor to SAWW

Average Coal Class Weekly Wages

Year	Anthracite Underground 1010	Bituminous Underground 1001	Anthracite Surface 1012	Bituminous Surface 1014	Coke 1469	Auger 1015	Anthracite Co-gen 1021	Bituminous Co-gen 1023	Anthracite Prep Plant 1025	Bituminous Prep Plant 1027
2005	#	1000.99	871.67	714.52	718.89	436.91	632.08	924.67	745.57	1203.30
2006	#	997.03	780.70	821.68	855.68	384.15	640.00	1092.50	795.63	978.40
2007	#	999.30	888.96	792.88	865.75	506.05	961.14	1004.50	709.24	1059.33
2008	#	1122.46	933.69	897.20	808.50	362.00	455.00	1117.25	786.87	980.01
2009	#	1186.72	889.44	882.89	699.10	450.40	994.20		1054.05	1006.54
2010	#	1196.34	875.36	869.71	428.37	559.30	650.50	868.00	670.27	1056.50
2011	#	1267.37	956.16	965.20	509.19	583.00	638.00	902.00	709.93	1168.50
2012	#	1401.33	1026.52	1027.03		405.00	1049.67	1370.33	1225.08	1074.90
2013	#	1467.88	961.94	1061.21	630.72	571.00	933.53	1188.00	821.92	1268.33
2014	#	1503.84	989.06	965.28		440.00	658.00	908.00	943.94	1282.85

Number of Wage Records Used to Calculate Average Coal Class Weekly Wages

Year	1010	1001	1012	1014	1469	1015	1021	1023	1025	1027
2005		119	13	44	20	4	2	6	10	10
2006		84	23	31	11	3	1	2	5	5
2007		87	17	28	11	2	5	2	8	3
2008		111	24	32	15	2	1	4	8	5
2009		119	21	30	10	2	4		4	6
2010		113	24	21	1	2	4	2	5	6
2011		105	21	31	3	4	2	2	8	12
2012		123	20	29		1	6	3	7	10
2013		81	25	28	1	4	7	1	8	9
2014		152	20	18		1	2	5	6	13
Total		1094	208	292	72	25	34	27	69	79

Average Coal Class Weekly Wage Indexed to Statewide Average Weekly Wage

Year	SAWW	1010	1001	1012	1014	1469	1015	1021	1023	1025	1027
2005	716	#	1.398	1.217	0.998	1.004	0.610	0.883	1.291	1.041	1.681
2006	745	#	1.338	1.048	1.103	1.149	0.516	0.859	1.466	1.068	1.313
2007	779	#	1.283	1.141	1.018	1.111	0.650	1.234	1.289	0.910	1.360
2008	807	#	1.391	1.157	1.112	1.002	0.449	0.564	1.384	0.975	1.214
2009	836	#	1.420	1.064	1.056	0.836	0.539	1.189		1.261	1.204
2010	845	#	1.416	1.036	1.029	0.507	0.662	0.770	1.027	0.793	1.250
2011	858	#	1.477	1.114	1.125	0.593	0.679	0.744	1.051	0.827	1.362
2012	888	#	1.578	1.156	1.157		0.456	1.182	1.543	1.380	1.210
2013	917	#	1.601	1.049	1.157	0.688	0.623	1.018	1.296	0.896	1.383
2014	932	#	1.614	1.061	1.036		0.472	0.706	0.974	1.013	1.376
Average			1.452	1.104	1.079	0.861	0.566	0.915	1.258	1.016	1.335

Average Coal Class Weekly Wage Indexed to Statewide Average Weekly Wage - Classes Combined

	SAWW	Bit. Und.,Co-Gen & Prep	All Other Classes
2005	716	1.414	1.015
2006	745	1.339	1.063
2007	779	1.286	1.055
2008	807	1.383	1.069
2009	836	1.410	1.032
2010	845	1.401	0.971
2011	858	1.458	1.027
2012	888	1.550	1.173
2013	917	1.576	1.042
2014	932	1.577	1.018
Average		1.439	1.047
Selected Coal Class Adjt. Factor to SAWW		1.439	1.047

Notes: Average Coal Class Weekly Wages were derived from CMCRB database for Traumatic Claims.
Average Weekly Wages by class exclude years with zero claims.
# Data for Anthracite Underground was too thin for inclusion.
SAWW = Statewide Average Weekly Wage
The number of records with wage histories are very close to, but less than, lost time claim counts due to missing wage records for some lost time accidents.
For these Classes and Years, there isn't any data.

PAB

File: 2-C:02-KITBUILT\Coal Mine\2015 Rate Filing\[10.xlsm]X-G

Effective Date - April 01, 2016

Run Date: 08/24/15 10:24:09

Checksum:209,866.203415

SMALL BUSINESS ADVOCATE ASSESSMENT

1. 2015-2016 Small Business Advocate Assessment	$	194,000
2. 2014 Insurance Carrier Paid Losses		
CMCRB		23,487,444
PCRB		2,290,061,913
Total		**2,313,549,357**
3. Insurer Assessment Ratio (item 1 divided by item 2)		0.0001

Source: 1. Pa. Dept. of Labor & Industry
2. PCRB
3. CMCRB

COAL MINE COMPENSATION RATING BUREAU

EMPLOYER ASSESSMENT FACTOR

PROPOSED EFFECTIVE April 1, 2016

1) 2015/2016 INSURANCE CARRIER ASSESSMENT AMOUNTS		
A)	Administrative Fund	47,152,072
B)	Subsequent Injury Fund	151,576
C)	Supersedeas Fund	10,033,104
D)	Uninsured Employers Guaranty Fund	2,316,691
TOTAL		59,653,443
2) 2014 Employer Assessment Premium Base		3,512,219,318
3) 2014 Coal Mine Premium Base		24,942,166
4) Coal Premium percent of Total	(3)/(2)	0.710%
5) Assessments to be paid by coal employers		423,631
6) Coal Employer Assessment Factor		0.0170

Sources:
1) Pa. Dept. of Labor & Industry
2) PCRB
3) CMCRB

CATASTROPHE - Spread of Loss Cost to Classes

Classification		(1) 2014 Developed Payrolls	(2) Hazard Weights	(3) Payroll Weight (1)x(2)/1000	(4) Percentage of Exposure	(5) Catastrophe Losses (4)xAverage	(6) Actual Loss Cost Spread [(5)/(1)]x100	(7) Approved Loss Cost Eff 4/1/2015	(8) Selected	(9) Rate Change (8)/(7) - 1
Underground										
Anthracite	1010	$258,809								
Bituminous	1001	235,444,691								
Total		235,703,500	7	1,649,925	91.5%	273,512	0.12	0.23	0.17	-26.1%
Surface										
Anthracite	1012	20,496,172								
Bituminous	1014	54,137,563								
Coke	1469	4,464,398								
Auger	1015	876,196								
Co-Gen Anth.	1021	9,279,611								
Co-Gen Bit.	1023	11,451,621								
Prep Anth.	1025	8,100,471								
Prep Bit.	1027	43,762,160								
Total		152,568,192	1	152,568	8.5%	25,292	0.02	0.03	0.02	-33.3%
Grand Total		388,271,692	8	1,802,493	100.0%	298,804	0.08	a-0.15	0.11	-26.7%

a - Current Total Loss Cost is based on 2014 Payroll weights
b- Auger = one-third underground & two-thirds surface or $0.07

Source: Payroll - Exhibit X-A (Developed 2014 Payroll)
Hazard Weights - Judgement
Catastrophe Losses, Grand Total - Exhibit XII-B

PAB

COAL MINE COMPENSATION RATING BUREAU
CATASTROPHE CALCULATION
TRAUMATIC ON-LEVEL LOSSES IN EXCESS OF $1,250,000

Accident Year	Number of Excess Claims	Excess Loss Dollars
1995	1	438,909
1996	2	677,168
1997	3	571,792
1998	-	-
1999	1	226,415
2000	-	-
2001	-	-
2002	2	489,534
2003	2	268,990
2004	2	966,338
2005	2	323,379
2006	-	-
2007	1	2,013,555
2008	-	-
2009	-	-
2010	-	-
2011	-	-
2012	-	-
2013	-	-
2014	-	-
	16	5,976,080

Average over 20 years	298,804
2014 Payroll from Exhibit XII-A	388,271,692
Loss Cost	0.08

Source: Claims detail from Exhibit XII-C

PAB

COAL MINE COMPENSATION RATING BUREAU
CATASTROPHE CALCULATION
TRAUMATIC LOSSES OVER $1,250,000

(1) Key Number	(2) Class	(3) Accident Year	(4) Injury Type	(5) Incurred Indemnity & Funeral	(6) Incurred Medical	(7) Paid Medical	(8) O/S Medical	(9) Act 44 Factor	(10) Trend	(11) Medical w/Trend & Act 44 Factor	(12) Loss at Current Level	(13) Excess Over $1,250,000
31219	100100	1995	9	235,407	626,853	278,982	347,871	1.0000	1.9587	1,227,817	1,688,909	438,909
32287	100100	1996	1	819,288	4,261	4,261	-	1.0000	1.8918	8,061	1,557,990	307,990
32473	101200	1996	2	779,168	76,725	38,967	37,758	1.0000	1.8918	145,148	1,619,178	369,178
33129	100100	1997	9	117,115	586,621	260,536	326,085	1.0000	1.8395	1,079,089	1,294,522	44,522
33176	100100	1997	9	173,195	717,419	452,056	265,363	1.0000	1.8395	1,319,692	1,638,284	388,284
33295	100100	1997	1	743,494	11,595	11,595	-	1.0000	1.8395	21,329	1,388,986	138,986
34602	100100	1999	9	358,233	512,500	512,500	-	1.0000	1.6956	868,995	1,476,415	226,415
39274	101500	2002	1	973,684	2,209	2,209	-	1.0000	1.5060	3,327	1,469,695	219,695
Que Creek	100100	2002	9	892,793	116,396	116,396	-	1.0000	1.5060	175,292	1,519,839	269,839
39840	100100	2003	2	419,207	486,075	266,889	219,186	1.0000	1.4770	717,933	1,337,102	87,102
39990	100100	2003	1	966,457	3,000	3,000	-	1.0000	1.4770	4,431	1,431,888	181,888
40926	100100	2004	9	645,488	603,807	426,950	176,857	1.0000	1.4449	872,441	1,805,106	555,106
41102	102700	2004	2	505,991	643,730	643,730	-	1.0000	1.4449	930,125	1,661,232	411,232
41672	100100	2005	2	813,886	175,000	113,277	61,723	1.0000	1.3925	243,688	1,377,024	127,024
41676	100100	2005	2	913,675	125,000	72,600	52,400	1.0000	1.3925	174,063	1,446,355	196,355
43059	101200	2007	2	550,051	2,000,000	1,511,545	488,455	1.0000	1.2798	2,559,600	3,263,555	2,013,555
Totals	16										25,976,080	5,976,080

Sources: Columns (2) through (8) from CMCRB Database.
Injury types are as follows: 1 (Death), 2 (Permanent Total), 9 (Permanent Partial).
Column (9): Exhibit VI-B page 1
Column (10): Exhibit XII-D.
Column (11) is equal to Columns [(7) X (9) + (8)] x (10)
Column (12) is equal to Columns (5) X (10) + (11)
Column (13) is equal to Column (12), minus $1,250,000

20 Year Average	298,804
2014 Developed Payroll	388,271,692
Loss Cost	0.08

PAB

Coal Mine Compensation Rating Bureau
Catastrophe Calculation
Trend Factors for Medical and Indemnity

Year	Statewide Average Weekly Wage	Yearly Percentage Change	Trend Factor	Year	Statewide Average Weekly Wage	Yearly Percentage Change	Trend Factor
1995	509		1.9587				
1996	527	3.5%	1.8918	2006	745	4.1%	1.3383
1997	542	2.8%	1.8395	2007	779	4.6%	1.2798
1998	561	3.5%	1.7772	2008	807	3.6%	1.2354
1999	588	4.8%	1.6956	2009	836	3.6%	1.1926
2000	611	3.9%	1.6318	2010	845	1.1%	1.1799
2001	644	5.4%	1.5481	2011	858	1.5%	1.1620
2002	662	2.8%	1.5060	2012	888	3.5%	1.1227
2003	675	2.0%	1.4770	2013	917	3.3%	1.0872
2004	690	2.2%	1.4449	2014	932	1.6%	1.0697
2005	716	3.8%	1.3925	2015	951	2.0%	1.0484

Average of All Years=	3.18%	
Average of last 10 years=	2.89%	
Average of last 5 years=	2.40%	
Average of last 3 years=	2.31%	
Selected=	2.75%	(Last Year's Selection was 3.00%)

	Projected Wage		Weight
01-01-2016	977.00	a	28.125%
01-01-2017	1,004.00	a	68.750%
01-01-2018	1,032.00	a	3.125%

Average Weekly Wage For Policies effective between 04-01-2016 and 04-01-2018

$997 b

a. Previous year's wage times annual increase of 2.75%
b. Weighted average of projected wage levels from 01-01-2016 to 01-01-2018

Source: Statewide Average Weekly Wage data is from the Pennsylvania Workers' Compensation Act booklet or the Department of Labor and Industry website.

PAB

Coal Mine Compensation Rating Bureau
Catastrophe Calculation
Traumatic Losses by Class

Class Code	Description	Number of Claims	Excess Over $1,250,000
1010	Underground Anthracite	-	-
1001	Underground Bituminous	12	2,962,420
1012	Surface Anthracite	2	2,382,733
1014	Surface Bituminous	-	-
1469	Coke		-
1015	Auger	1	219,695
1021	Anthracite Co-Gen	-	-
1023	Bituminous Co-Gen	-	-
1025	Anthracite Prep Plant	-	-
1027	Bituminous Prep Plant	1	411,232
	Total	16	$5,976,080

Sources: Adjusted to On-Level and Post-Act 44 basis in Exhibit XII-C

PAB

Coal Mine Compensation Rating Bureau of Pennsylvania

Experience Rating Plan

Basic Data Lookup Tables

2016 plan factors at 50k and 150 k splits:

Table A: Ratemaking Factors

Year:	2014	2013	2012	Average
Loss Develop.	1.8549	1.2851	1.1452	split by
Layers:	Split of total losses by Layer			Layer
0- 50	0.69776	0.54578	0.52140	0.58831
50-150	0.03673	0.13781	0.12997	0.10150
Over 150	0.26551	0.31641	0.34863	0.31018
Trend	1.0025	1.0051	1.0079	1.0000

Table B: Payroll Development

Classification		Payroll Development
1001	Bit deep	1.0042
1010	Anth deep	1.0000
1012	Anth surf	1.0036
1014	Bit surf	1.0000
1015	Auger	1.0000
1021	Anth Co-gen	1.0000
1023	Bit Co-gen	1.0000
1025	Anth Prep	1.0002
1027	Bit Prep	1.0084
1469	Coke	1.0000

Table C: Unloaded Loss Costs - Traumatic

Classification		Unloaded Loss Cost (1)
1001	Bit deep	5.88
1010	Anth deep	21.61
1012	Anth surf	10.84
1014	Bit surf	2.26
1015	Auger	15.05
1021	Anth Co-gen	2.73
1023	Bit Co-gen	1.15
1025	Anth Prep	4.99
1027	Bit Prep	1.41
1469	Coke	5.00

Table D: Manual Loss Costs - Traumatic

Classification		Unloaded Loss Cost (1)	Loadings: Catastrophe Exh. XII-A (2)	Loadings: Small Business Assessment (3)	Loadings: Off-Balances# (4)	Manual Loss Cost (5)
1001	Bit deep	5.88	0.17	1.0001	1.0127	6.13
1010	Anth deep	21.61	0.17	1.0001	1.0127	22.06
1012	Anth surf	10.84	0.02	1.0001	1.0127	11.00
1014	Bit surf	2.26	0.02	1.0001	1.0127	2.31
1015	Auger	15.05	0.07	1.0001	1.0127	15.31
1021	Anth Co-gen	2.73	0.02	1.0001	1.0127	2.78
1023	Bit Co-gen	1.15	0.02	1.0001	1.0127	1.18
1025	Anth Prep	4.99	0.02	1.0001	1.0127	5.07
1027	Bit Prep	1.41	0.02	1.0001	1.0127	1.45
1469	Coke	5.00	0.02	1.0001	1.0127	5.08

	Off-* Balances
Merit Rating Exh. XIV-A	1.0002
Safety Rating Exh XIV-B	1.0125
Combined	1.0127

Table E: Expected Traumatic Loss Costs

Classification		Unloaded Manual Loss Cost	2014 All Layers: De-trended Loss Cost*	2014 All Layers: Undeveloped Losses**	2014 Layer 0-50 (0.69776): Undeveloped Expected Loss Cost***	2014 Layer 50-150 (0.03673): Undeveloped Expected Loss Cost***	2014 XS over 150 (0.26551): Undeveloped Expected Loss Cost***	2013 All Layers: De-trended Loss Cost*	2013 All Layers: Undeveloped Losses**	2013 Layer 0-50 (0.54578): Undeveloped Expected Loss Cost***	2013 Layer 50-150 (0.13781): Undeveloped Expected Loss Cost***	2013 XS over 150 (0.31641): Undeveloped Expected Loss Cost***	2012 All Layers: De-trended Loss Cost*	2012 All Layers: Undeveloped Losses**	2012 Layer 0-50 (0.52140): Undeveloped Expected Loss Cost***	2012 Layer 50-150 (0.12997): Undeveloped Expected Loss Cost***	2012 XS over 150 (0.34863): Undeveloped Expected Loss Cost***
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1001	Bit deep	5.88	5.87	3.16	2.20	0.12	0.84	5.85	4.55	2.48	0.63	1.44	5.83	5.09	2.65	0.66	1.77
1010	Anth deep	21.61	21.56	11.62	8.11	0.43	3.09	21.50	16.73	9.13	2.31	5.29	21.44	18.72	9.76	2.43	6.53
1012	Anth surf	10.84	10.81	5.83	4.07	0.21	1.55	10.78	8.39	4.58	1.16	2.65	10.76	9.40	4.90	1.22	3.28
1014	Bit surf	2.26	2.25	1.21	0.84	0.04	0.32	2.25	1.75	0.96	0.24	0.55	2.24	1.96	1.02	0.25	0.68
1015	Auger	15.05	15.01	8.09	5.64	0.30	2.15	14.97	11.65	6.36	1.61	3.69	14.93	13.04	6.80	1.69	4.55
1021	Anth Co-gen	2.73	2.72	1.47	1.03	0.05	0.39	2.72	2.12	1.16	0.29	0.67	2.71	2.37	1.24	0.31	0.83
1023	Bit Co-gen	1.15	1.15	0.62	0.43	0.02	0.16	1.14	0.89	0.49	0.12	0.28	1.14	1.00	0.52	0.13	0.35
1025	Anth Prep	4.99	4.98	2.68	1.87	0.10	0.71	4.96	3.86	2.11	0.53	1.22	4.95	4.32	2.25	0.56	1.51
1027	Bit Prep	1.41	1.41	0.76	0.53	0.03	0.20	1.40	1.09	0.59	0.15	0.34	1.40	1.22	0.64	0.16	0.43
1469	Coke	5.00	4.99	2.69	1.88	0.10	0.71	4.97	3.87	2.11	0.53	1.22	4.96	4.33	2.26	0.56	1.51
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

* Detrended loss costs are calculated by dividing the unloaded manual lost costs (Table C) by the trend factors (table A row 7), and rounding.

** The total undeveloped loss costs are calculated by dividing the De-trended loss cost by the Total Limits loss development factor (Table A row 2), and rounding; then the costs are allocated to layers.

*** Detrended, undeveloped loss costs are allocated to layers by the splitting factors (Table A rows 4-6) based on the average shares for the same report age for the latest 6 years, and rounded to 2 decimal places.

Coal Mine Compensation Rating Bureau of Pennsylvania

Experience Rating Plan

Loss Development and Trend Factors by Experience Year

		Reported Losses	LDF	Untrended Developed Losses	Weight: Percent Indemnity vs Medical	Medical Loss Development	Indemnity Loss Development	Combined Loss Development Weighted by % indemnity vs medical by year
Indemnity	2012	$8,319,223	1.0904	$9,071,281	57.90%	1.2205	1.0904	1.1452
	2013	$6,028,932	1.3085	$7,888,858	61.69%	1.2474	1.3085	1.2851
	2014	$5,950,691	2.1351	$12,705,320	62.37%	1.3906	2.1351	1.8549
				$29,665,459	60.76%			
Medical	2012	$5,404,121	1.2205	$6,595,730	42.10%			
	2013	$3,927,444	1.2474	$4,899,094	38.31%			
	2014	$5,513,027	1.3906	$7,666,415	37.63%			
				$19,161,239	39.24%			
	Total			$48,826,698	1.0000			

		Years of Trend	Medical Trend at 0.5%	Indemnity Trend at 0.1%	Combined Trend Weighted by % indemnity vs medical by year
Average Exp date AY 2012	7/1/2012	4.75	1.0121	1.0048	1.0079
Average Exp date AY 2013	7/1/2013	3.75	1.0071	1.0038	1.0051
Average Exp date AY 2014	7/1/2014	2.75	1.0020	1.0028	1.0025
Average Date of Accident	4/1/2017				

Source: Loss Development - Exhibit V-C
Trend - Exhibit V-F
Reported Losses - Exhibit V-B page 1

2016 Credibility Tables

PCRB shape

Expected Losses Greater than	Equivalent Modified Payroll at $4.92 *	Primary Credibility	Excess Credibility
14,394	300,000	0.30	0.06
17,632	358,379	0.31	0.06
21,218	431,260	0.32	0.06
23,729	482,302	0.33	0.06
25,895	526,321	0.34	0.07
28,223	573,643	0.35	0.07
31,724	644,797	0.36	0.07
33,340	677,632	0.37	0.07
36,148	734,715	0.38	0.07
39,261	797,979	0.39	0.07
42,723	868,359	0.40	0.07
46,173	938,468	0.41	0.07
50,260	1,021,540	0.42	0.07
54,480	1,107,308	0.43	0.07
58,930	1,197,759	0.44	0.07
64,137	1,303,603	0.45	0.07
69,460	1,411,786	0.46	0.07
72,885	1,481,400	0.47	0.07
75,602	1,536,617	0.48	0.07
78,457	1,594,658	0.49	0.07
81,395	1,654,364	0.50	0.07
84,414	1,715,733	0.51	0.07
87,590	1,780,292	0.52	0.07
90,840	1,846,338	0.53	0.07
94,219	1,915,024	0.54	0.07
97,737	1,986,529	0.55	0.07
101,336	2,059,672	0.56	0.07
105,125	2,136,679	0.57	0.07
109,027	2,215,986	0.58	0.07
113,042	2,297,591	0.59	0.07
117,273	2,383,587	0.60	0.08
121,605	2,471,649	0.61	0.08
126,119	2,563,392	0.62	0.08
130,628	2,655,048	0.63	0.08
135,136	2,746,667	0.64	0.08
146,976	2,987,320	0.65	0.08
159,790	3,247,773	0.66	0.08
174,343	3,543,564	0.67	0.08
190,774	3,877,526	0.68	0.08
208,366	4,235,088	0.69	0.08
228,292	4,640,078	0.70	0.09
249,705	5,075,305	0.71	0.09
274,047	5,570,067	0.72	0.09
302,119	6,140,630	0.73	0.09
333,210	6,772,561	0.74	0.10
366,752	7,454,299	0.75	0.10
407,662	8,285,813	0.76	0.10
450,677	9,160,095	0.77	0.11
498,112	10,124,228	0.78	0.11
558,410	11,349,804	0.79	0.12
624,012	12,683,168	0.80	0.12
697,648	14,179,837	0.81	0.13
788,985	16,036,280	0.82	0.13
894,945	18,189,939	0.83	0.14
1,018,370	20,698,577	0.84	0.15
1,157,231	23,520,958	0.85	0.16
1,321,831	26,866,480	0.86	0.17
1,528,079	31,058,520	0.87	0.18
1,795,880	36,501,618	0.88	0.19
1,795,880	39,562,251	0.88	0.20
2,120,319	43,095,915	0.89	0.21
2,505,663	50,928,110	0.90	0.22
2,505,663	55,913,525	0.90	0.23
3,000,680	60,989,424	0.91	0.24
3,000,680	70,084,630	0.91	0.25
3,851,016	78,272,676	0.92	0.26
4,547,151	92,421,768	0.93	0.27
4,547,151	99,118,112	0.93	0.28
4,547,151	111,852,096	0.93	0.29
6,019,437	122,346,283	0.94	0.30
6,019,437	144,482,928	0.94	0.31
6,019,437	165,861,750	0.94	0.32
6,019,437	192,174,145	0.94	0.33
6,019,437	225,350,644	0.94	0.34
6,019,437	268,480,093	0.94	0.35
6,019,437	326,831,699	0.94	0.36
6,019,437	410,191,138	0.94	0.37

Credibility Zp or Ze
= (S*Payroll+I*G)/(J*S*Payroll+K*G)
[where S adjusts Payroll to Expected Losses]

Variable	Layer 1	Layer 2
Av Claim G	N/A	11,512
S	N/A	0.054
I	N/A	43.50
J	N/A	2.4000
K	N/A	700.00

* The average unloaded loss cost underlying the proposed filing is $4.92.
the table was updated to reflect this change.

Coal Mine Compensation Rating Bureau of Pennsylvania
Experience Rating 2016
Mod Comparisons

File	Proposed Manual Premium	Proposed 2016 Mod	Proposed Experience Rated Premium	2015 Mod	Change in Mod Factor
2	2,330	1.200	2,796	1.200	0.000
37	48,644	0.895	43,536	1.165	-0.270
52	8,518	0.749	6,380	0.763	-0.014
55	452,526	0.592	267,895	0.804	-0.212
66	4,484	0.844	3,784	0.812	0.032
99	21,108	0.807	17,034	0.827	-0.020
101	12,064	1.235	14,899	1.309	-0.074
119	149,696	1.374	205,682	1.062	0.312
121	303,050	0.586	177,587	0.638	-0.052
124	14,960	0.679	10,158	0.719	-0.040
214	17,589	0.666	11,714	0.691	-0.025
237	0	1.300	0	1.251	0.049
283	18,700	0.582	10,883	0.597	-0.015
288	2,813	0.796	2,239	0.857	-0.061
306	208,699	0.648	135,237	0.757	-0.109
322	44,832	0.824	36,942	1.124	-0.300
325	26,759	0.739	19,775	0.757	-0.018
330	0	1.655	0	1.771	-0.116
342	6,672	2.251	15,019	0.974	1.277
352	10,104	0.747	7,548	0.782	-0.035
354	19,476	4.110	80,046	1.823	2.287
360	2,594	0.820	2,127	0.830	-0.010
370	3,080	0.861	2,652	0.874	-0.013
403	10,460	1.712	17,908	1.760	-0.048
418	14,889	0.709	10,556	0.736	-0.027
421	9,356	0.739	6,914	0.745	-0.006
426	41,486	2.236	92,763	2.877	-0.641
437	31,769	0.590	18,744	0.790	-0.200
444	0	0.794	0	0.792	0.002
451	5,849	0.778	4,551	0.805	-0.027
491	15,191	0.777	11,803	0.810	-0.033
652	362,343	1.006	364,517	0.988	0.018
690	12,000	0.822	9,864	0.831	-0.009
722	10,494	0.672	7,052	0.661	0.011
910	7,040	0.952	6,702	0.879	0.073
954	17,656	0.682	12,041	0.700	-0.018
1016	8,867	0.749	6,641	0.772	-0.023
1037	51,163	0.794	40,623	1.179	-0.385
1361	3,090	1.200	3,708	1.300	-0.100
1382	7,162	1.014	7,262	1.024	-0.010
1444	362,616	1.072	388,724	1.067	0.005
1700	53,339	1.004	53,552	1.152	-0.148
1843	3,527	0.819	2,889	0.829	-0.010
2065	11,702	1.222	14,300	0.958	0.264
2265	6,495	0.762	4,949	0.768	-0.006

Coal Mine Compensation Rating Bureau of Pennsylvania
Experience Rating 2016
Mod Comparisons

File	Proposed Manual Premium	Proposed 2016 Mod	Proposed Experience Rated Premium	2015 Mod	Change in Mod Factor
2353	15,520	1.634	25,360	1.114	0.520
2458	4,438	0.806	3,577	0.803	0.003
2687	55,432	0.919	50,942	0.712	0.207
2839	38,908	1.323	51,475	1.619	-0.296
3157	27,537	0.772	21,259	0.773	-0.001
3190	15,127	0.640	9,681	0.735	-0.095
3194	13,572	1.300	17,644	1.390	-0.090
3270	2,560	0.821	2,102	0.825	-0.004
3506	3,027	0.809	2,449	0.829	-0.020
3527	2,942	1.200	3,530	0.823	0.377
3552	10,800	0.746	8,057	0.766	-0.020
3614	43,931	1.112	48,851	0.854	0.258
3619	41,074	1.144	46,989	1.142	0.002
3629	31,199	0.846	26,394	0.779	0.067
3691	98,246	0.900	88,421	0.916	-0.016
3798	4,865	0.802	3,902	0.819	-0.017
3804	41,551	0.745	30,955	0.677	0.068
3932	13,400	0.717	9,608	0.754	-0.037
3941	27,028	0.737	19,920	0.720	0.017
3944	2,191	1.300	2,848	2.044	-0.744
3952	4,199	1.300	5,459	1.300	0.000
3967	2,678	0.840	2,250	0.835	0.005
3969	1,813	0.824	1,494	0.821	0.003
3970	6,751	0.871	5,880	0.814	0.057
3972	17,003	1.591	27,052	1.220	0.371
3973	43,811	0.758	33,209	0.790	-0.032
3977	43,853	1.227	53,808	1.270	-0.043
3978	16,132	0.629	10,147	0.626	0.003
3981	5,345	0.784	4,190	0.795	-0.011
3982	70,040	1.066	74,663	1.366	-0.300
3988	9,450	1.087	10,272	0.840	0.247
3995	806	0.831	670	0.832	-0.001
3997	4,417	0.965	4,262	0.961	0.004
4001	46,291	1.053	48,744	0.760	0.293
4011	11,014	0.742	8,172	0.819	-0.077
4016	28,667	2.054	58,882	1.478	0.576
4021	0	0.742	0	0.701	0.041
4024	12,170	0.981	11,939	1.076	-0.095
4030	17,355	0.768	13,329	0.804	-0.036
4031	44,593	0.759	33,846	0.781	-0.022
4035	1,495	0.829	1,239	0.828	0.001
4041	8,643	0.830	7,174	0.836	-0.006
4042	152,394	0.592	90,217	0.647	-0.055
4044	118,301	0.884	104,578	1.033	-0.149
4054	4,102	1.200	4,922	n/a	n/a

Coal Mine Compensation Rating Bureau of Pennsylvania
Experience Rating 2016
Mod Comparisons

File	Proposed Manual Premium	Proposed 2016 Mod	Proposed Experience Rated Premium	2015 Mod	Change in Mod Factor
4056	8,337	0.782	6,520	0.789	-0.007
4058	13,922	1.058	14,729	0.752	0.306
4060	22,871	0.734	16,787	0.805	-0.071
4061	6,365	0.820	5,219	0.808	0.012
4062	18,092	1.125	20,354	1.121	0.004
4063	6,961	0.806	5,611	0.833	-0.027
4065	30,100	0.637	19,174	0.749	-0.112
4070	0	0.747	0	0.733	0.014
4072	294,686	0.735	216,594	0.776	-0.041
4074	27,638	1.020	28,191	0.815	0.205
4077	451,876	0.883	399,007	0.850	0.033
4078	92,713	0.618	57,297	0.660	-0.042
4081	4,280	0.853	3,651	n/a	n/a
4088	15,684	0.849	13,316	0.827	0.022
4089	93,014	1.775	165,100	n/a	n/a
4094	41,071	1.810	74,339	1.200	0.610
4100	2,975,742	0.865	2,574,017	1.163	-0.298
4101	2,550,774	1.441	3,675,665	0.638	0.803
4104	227,554	0.840	191,145	n/a	n/a
999008	4,319	0.764	3,300	0.987	-0.223
999011	39,300	0.675	26,528	0.721	-0.046
999013	24,862	2.680	66,630	2.945	-0.265
999019	552,526	0.907	501,141	1.141	-0.234
999020	35,527	1.142	40,572	1.079	0.063
999024	5,240	0.796	4,171	0.808	-0.012
999038	53,284	1.325	70,601	1.596	-0.271
999039	162,025	1.568	254,055	1.848	-0.280
999051	1,828,866	0.850	1,554,536	0.889	-0.039
999052	4,647	1.300	6,041	1.300	0.000
999053	39,398	3.418	134,662	3.211	0.207
999056	10,977	0.826	9,067	0.836	-0.010
999061	1,368,609	0.738	1,010,033	0.873	-0.135
999063	3,559,485	1.094	3,894,077	1.159	-0.065
999065	5,334	1.300	6,934	1.400	-0.100
999075	37,222	1.756	65,362	0.886	0.870
999077	1,459,269	0.878	1,281,238	n/a	n/a

Coal Mine Compensation Rating Bureau of Pennsylvania
Experience Rating 2016
Mod Comparisons

The following files have indicated increases or decreases in their Experience Mods of greater than 0.35 as displayed on Exhibit XIII-B, pages 1-3. This list includes all files with increases or decreases of this magnitude. It is proposed that the indicated increases or decreases be limited to a maximum of 0.35. Below are the affected files, their current mod and their proposed mod. If approved, the below stated limited mod would apply to the respective file number.

Experience Mod Caps (plus or minus 0.35)

File	2015 Mod	Proposed 2016 Mod	Limited Mod
342	0.974	2.251	1.324
354	1.823	4.110	2.173
426	2.877	2.236	2.527
1037	1.179	0.794	0.829
2353	1.114	1.634	1.464
3527	0.823	1.200	1.173
3944	2.044	1.300	1.694
3972	1.220	1.591	1.570
4016	1.478	2.054	1.828
4094	1.200	1.810	1.550
4101	0.638	1.441	0.988
999075	0.886	1.756	1.236

MERIT RATING PLAN OFF-BALANCE CALCULATION

Class	(1) 2014 Developed Payroll	(2) Traumatic Proposed Unloaded Loss Cost	(3) Credits/ Surcharge	(4) Loss Cost Premium	Off-Balance
Underground Anthracite (1010)					
Total	$258,809	21.61		$55,929	
Credit	26,884	21.61	-5.00%	(290)	
Surcharge	0	21.61	5.00%	0	
Underground Bituminous (1001)					
Total	$235,444,691	5.88		$13,844,148	
Credit	7,745	5.88	-5.00%	(23)	
Surcharge	0	5.88	5.00%	0	
Surface Anthracite (1012)					
Total	$20,496,172	10.84		$2,221,785	
Credit	290,224	10.84	-5.00%	(1,573)	
Surcharge	0	10.84	5.00%	0	
Surface Bituminous (1014)					
Total	$54,137,563	2.26		$1,223,509	
Credit	1,213,655	2.26	-5.00%	(1,371)	
Surcharge	0	2.26	5.00%	0	
Coke (1469)					
Total	$4,464,398	5.00		$223,220	
Credit	0	5.00	-5.00%	0	
Surcharge	0	5.00	5.00%	0	
Auger (1015)					
Total	$876,196	15.05		$131,867	
Credit	80,287	15.05	-5.00%	(604)	
Surcharge	0	15.05	5.00%	0	
Anthracite Co-Gen (1021)					
Total	$9,279,611	2.73		$253,333	
Credit	196,320	2.73	-5.00%	(268)	
Surcharge	0	2.73	5.00%	0	
Bituminous Co-Gen (1023)					
Total	$11,451,621	1.15		$131,694	
Credit	0	1.15	-5.00%	0	
Surcharge	0	1.15	5.00%	0	
Anthracite Prep Plant (1025)					
Total	$8,100,471	4.99		$404,214	
Credit	167,733	4.99	-5.00%	(418)	
Surcharge	0	4.99	5.00%	0	
Bituminous Prep Plant (1027)					
Total	$43,762,160	1.41		$617,046	
Credit	30,185	1.41	-5.00%	(21)	
Surcharge	0	1.41	5.00%	0	
All Classes Combined					
Total	$388,271,692			$19,106,745	
Credit	2,013,033		-5.00%	($4,568)	
Surcharge	0		5.00%	$0	
				$19,102,177	1.0002

Source: (1) Exhibit XIV-A Page2
(2) Exhibit II
(4)=(1)*(2)*(3)

2014 PAYROLL BY CLASS

Class	2014 Total Developed Payroll	2014 Experience Rated Payroll	2014 Merit Rated Payroll	2014 Manual Payroll
Underground Anthracite (1010)	$258,809	$0	$26,884	$231,925
Underground Bituminous(1001)	235,444,691	134,279,811	7,745	101,157,135
Surface Anthracite (1012)	20,496,172	19,664,796	290,224	541,152
Surface Bituminous (1014)	54,137,563	51,571,549	1,213,655	1,352,359
Coke (1469)	4,464,398	4,464,398	0	0
Auger (1015)	876,196	687,221	80,287	108,688
Anthracite Co-Gen (1021)	9,279,611	9,083,291	196,320	0
Bituminous Co-Gen (1023)	11,451,621	11,451,621	0	0
Anthracite Prep Plant(1025)	8,100,471	7,846,368	167,733	86,370
Bituminous Prep Plant(1027)	43,762,160	30,760,722	30,185	12,971,253
TOTAL	$388,271,692	$269,809,777	$2,013,033	$116,448,882

MERIT PAYROLL - CREDIT/SURCHARGE

Class	2014 Merit Rated Payroll	2014 Merit Credit Payroll	2014 Merit No Adjustment Payroll	2014 Merit Surcharge Payroll
Underground Anthracite (1010)	$26,884	$26,884	$0	$0
Underground Bituminous(1001)	7,745	7,745	0	0
Surface Anthracite (1012)	290,224	290,224	0	0
Surface Bituminous (1014)	1,213,655	1,213,655	0	0
Coke (1469)	0	0	0	0
Auger (1015)	80,287	80,287	0	0
Anthracite Co-Gen (1021)	196,320	196,320	0	0
Bituminous Co-Gen (1023)	0	0	0	0
Anthracite Prep Plant(1025)	167,733	167,733	0	0
Bituminous Prep Plant(1027)	30,185	30,185	0	0
TOTAL	$2,013,033	$2,013,033	$0	$0

Source: Exhibit X-A and CMCRB database as of 4/30/2015

COAL MINE COMPENSATION RATING BUREAU
SAFETY COMMITTEE CREDIT OFFSET

CLASS	(1) 2014 Developed Payroll	(2) Traumatic Proposed Unloaded Loss Cost	(3) Credit	(4) Loss Cost Premium	Off-Balance
Underground Anthracite(1010)					
Total	$258,809	$21.61		$55,929	
Safety Committee	0	21.61	-5.00%	0	
Underground Bituminous(1001)					
Total	235,444,691	5.88		$13,844,148	
Safety Committee	53,552,879	5.88	-5.00%	(157,445)	
Surface Anthracite(1012)					
Total	20,496,172	10.84		$2,221,785	
Safety Committee	9,137,684	10.84	-5.00%	(49,526)	
Surface Bituminous(1014)					
Total	54,137,563	2.26		$1,223,509	
Safety Committee	3,331,692	2.26	-5.00%	(3,765)	
Coke(1469)					
Total	4,464,398	5.00		$223,220	
Safety Committee	0	5.00	-5.00%	0	
Auger(1015)					
Total	876,196	15.05		$131,867	
Safety Committee	0	15.05	-5.00%	0	
Anthracite Co-gen(1021)					
Total	9,279,611	2.73		$253,333	
Safety Committee	2,613,783	2.73	-5.00%	(3,568)	
Bituminous Co-gen(1023)					
Total	11,451,621	1.15		$131,694	
Safety Committee	0	1.15	-5.00%	0	
Anthracite Prep Plant(1025)					
Total	8,100,471	4.99		$404,214	
Safety Committee	4,006,552	4.99	-5.00%	(9,996)	
Bituminous Prep Plant(1027)					
Total	43,762,160	1.41		$617,046	
Safety Committee	16,489,454	1.41	-5.00%	(11,625)	
All Classes Combined					
Total	388,271,692			19,106,745	
Safety Committee	89,132,044			(235,925)	
				18,870,820	1.0125

Source: (1) Exhibit X-A and CMCRB Database as of 4-30-2015
(2) Exhibit II
(4)=(1)*(2)*(3)

PAB