

# Pennsylvania Compensation Rating Bureau

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August 30, 2002

### **VIA OVERNIGHT DELIVERY**

The Honorable M. Diane Koken Insurance Commissioner Commonwealth of Pennsylvania Insurance Department 1311 Strawberry Square Harrisburg, PA 17120

Attention: Chester J. Szczepanski

RE: Bureau Filing C-344 - F-Classification and USL&HW Rating Value Filing

Proposed Effective Date February 1, 2003

Dear Commissioner Koken:

On behalf of the members of the Pennsylvania Compensation Rating Bureau (PCRB) I am filing herewith proposed revisions to rates and rating values pertaining to F-Classification and United States Longshore and Harbor Workers (USL&HW) Compensation Act coverages. These revisions are proposed to be effective on a new and renewal basis as of 12:01 a.m., **February 1, 2003.** 

#### **DEFINITION OF COVERAGES SUBJECT TO THIS FILING**

F-Classification coverages provide insurance for liability under the USL&HW Compensation Act for maritime or federal employment subject thereto. Examples of employment generally subject to this Act are longshoremen, harbor workers, ship repairmen, shipbuilders, ship breakers and other employees engaged in loading, unloading, repairing or building a vessel(s). Businesses predominantly subject to this law are assigned a classification(s) designated by an "F" suffix, and insurance provided to these employers is thus commonly referred to as F-Classification business.

On occasion, employer operations not subject to assignment to an F-Classification(s) may involve some employees whose duties are subject to the USL&HW Act. State Act classifications (those not designated by an F suffix) do not contemplate liability under the USL&HW Act. Accordingly, a United States Longshore and Harbor Workers Compensation Coverage Percentage is provided in the PCRB Manual to adjust rating values otherwise applicable to State Act classifications for the different (and higher) benefits pay-able under the USL&HW Act.

### SUMMARY OF PROPOSALS ADVANCED IN THIS FILING

The following points identify the key proposals submitted for approval in this filing:

- An overall average increase of 10.52 percent in collectible F-Classification rates is proposed.
- Consistent with the proposed overall average change in collectible rates, an overall average increase in manual rates for F-Classifications of 9.75 percent is proposed.

- Proposed changes in manual rates for individual F-Classifications range from an increase of 4.5
  percent (Classification 7366F) to an increase of 16.5 percent (Classification 7327F).
- The United States Longshore and Harbor Workers Compensation Coverage Percentage is proposed to change from 78.7 percent to 79.3 percent. This proposed percentage would apply a factor of 1.793 to the approved carrier rate(s) in State Act classifications to produce appropriate rates for employees whose duties are subject to USL&HW Act benefits.

### DISCUSSION OF THIS FILING'S METHODS, ANALYSIS AND FINDINGS

This narrative will provide detail in regard to the Bureau's preparation and presentation of this filing. It is organized in the following sections:

- Data Used for Loss and Exposures
- Analysis of Loss Experience
- Data Used for Expenses
- Analysis of Expense Experience
- Derivation of Permissible Loss, Loss Adjustment and Fixed Expense Ratio
- Analysis of USL&HW Factor
- Proposed Classification Rates
- Miscellaneous Rating Values

### **Data Used for Loss and Exposures**

This filing has used loss and exposure data attributed to F-Classification business as submitted on unit reports under the approved Statistical Plan in Pennsylvania. Unit statistical data has been used in lieu of financial data because the PCRB has found this information to be more consistent, accurate and reliable than the separate reporting for F-Classification business in Financial Calls.

Unit statistical data has historically been limited to case-incurred losses separately reported for indemnity and medical benefits for a series of five successive annual evaluations beginning 18 months after the inception of each policy period.

Supporting information for this filing includes standard earned premium from unit statistical data for the policy periods 1988 through 1999. Incurred loss data for varying periods of development were available for Policy Years 1986 through 1999.

Unit statistical data used for the analysis of the overall indicated rate level change in this filing is presented on Exhibit 5 enclosed.

#### **Analysis of Loss Experience**

The PCRB performed incurred loss development analyses separately for indemnity and medical benefits. For indemnity losses the most recent three-year average age-to-age development factors were used as the basis for a curve-fitting procedure intended to smooth age-to-age factors within the development periods available in unit statistical data and to extrapolate the development observed in that available data to an ultimate basis after fifth report. For medical losses five-year average age-to-age development factors were used where available (first through fifth reports), and three-year average age-to-age development factors were used from fifth through eighth reports. The age-to-age development factors thus obtained were used as the basis for curve-fitting procedures to smooth observed values and to extrapolate values to an ultimate basis for medical losses.

A number of different curve-fitting procedures were tried and considered in the preparation of this filing. The process selected for use is based on a line of the form y = a + b/x fitted to the differences between the observed average age-to-age development factors and unity (1.000). These differences or "residuals" were used for the curve-fitting process because the expected behavior of the development factors was to converge to 1.000 over time, and the use of the residuals allowed the selected curve to more closely replicate this expected behavior. As an additional step to align the general shape of the fitted development factors with expected results, a factor of 1.000 (residual of 0.000) was selected for the 10th to 11th development points in applying the curve-fitting formulas.

Development factors derived by cumulatively multiplying the age-to-age factors implied by the fitted residuals were used to estimate ultimate losses for indemnity and medical benefits by policy year.

Linear and exponential trend models were applied to the developed indemnity and medical loss ratio points using all possible numbers of policy year data points from three to ten. After consideration of the metrics of the various trend models, the most recent three-year average loss ratios were selected as the basis for the indicated change in F-Classification rates.

The Bureau's loss development and trend analyses are included in the pages of Exhibit 5 enclosed.

### **Data Used for Expenses**

Expense data is not reported to the PCRB separately for F-Classification business. Accordingly, much of the expense data used in preparation of this filing is total Pennsylvania workers compensation expense data, related to total Pennsylvania workers compensation premiums.

The Bureau's expense study performed in support of this filing is enclosed as Exhibit 3. Provisions were separately measured therein based on total Pennsylvania workers compensation experience for the following expense components:

Commission and brokerage Other acquisition General expense Loss adjustment expense

Using unit statistical data, an indicated provision in proposed rates for premium discounts was obtained separately and specifically for F-Classification business. This derivation is also presented within Exhibit 3 enclosed. The premium discount schedules underlying these proposed provisions are presented in the enclosed Exhibit 13.

# **Analysis of Expense Experience**

Historical ratios of expense to premium were obtained from the most recent available three years of experience. Provisions for the Security Fund and Premium Tax were based on current assessment levels. Miscellaneous taxes were estimated based on historical relationships between such taxes and premiums. Loss adjustment expenses were measured in relation to losses on the basis of the most recent available three years' experience.

Consistent with practice adopted in prior Pennsylvania rate filings, expense attributable to the Security Fund, General Expenses and Other Acquisition have been treated as "fixed expenses" in the preparation of this filing. "Fixed expenses" are presumed to be independent of premium levels, so that their relationships to premiums will change as rate levels rise or fall.

Historical ratios of expenses to premium were used as starting points in the determination of final proposed expense loadings. Preliminary rate level indications were used to revise the proposed fixed expense needs as a function of premium, and new rate level indications were successively determined until the fixed expense needs and indicated rate level change were in balance. These balanced indications serve as the basis for the proposed changes in rates submitted with this filing.

The proposed expense loadings consistent with this filing are shown on the enclosed Exhibit 2.

# <u>Derivation of Permissible Loss, Loss Adjustment and Fixed Expense Ratio</u>

The Bureau retained an economic consultant to accomplish the following portions of the analysis supporting this filing:

- Determine an appropriate rate of return for the enterprise of writing workers compensation insurance in Pennsylvania
- Prepare a model to account for all applicable cash flows attendant with the writing of workers compensation insurance business in Pennsylvania
- Using the aforementioned model, compute a permissible portion of premium to be attributed to loss, loss adjustment expense and loss-based assessments in combination and a separate provision for profit consistent with the anticipated cash flows and rate of return noted above

As noted above with respect to the Bureau's analysis of expense data, preliminary indicated changes in rate level were derived. Fixed expense provisions were then modified consistent with the previous indicated rate change, and a new indicated rate change was determined. This process continued until proposed fixed expense needs and the overall rate level change were in balance.

Detail of the model applied in preparation of this filing with a summary of key inputs, outputs and assumptions is provided as the enclosed Exhibit 4.

#### Analysis of USL&HW Factor

The USL&HW Factor is based on a comparison of benefit levels between State Act coverage and the USL&HW Act. This comparison is performed by type of claim and type of benefit to measure the respective potential obligations arising from injuries occurring under the jurisdiction of federal, as compared to state, law. Such a comparison then serves as the basis for the factor to adjust premiums in state classifications for the contingency of exposure to federal benefits.

The derivation of the proposed USL&HW Factor is presented on the enclosed Exhibit 6.

### **Proposed Classification Rates**

The Bureau has applied the same classification pricing methods customarily used in loss cost filings for State Act coverage to derive rate relativities for the F-Classifications subject to this filing. The rate formulae used are set forth in Exhibit 10 enclosed. Summaries of unit statistical data for the experience period included in the derivation of F-Classification rate relativities in this filing are shown in the enclosed Exhibit 7. Details of individual F-Classification experience and the application of the prescribed rating formulae are presented in the enclosed Exhibit 14. Proposed F-Classification rates are shown in Exhibit 12.

### **Miscellaneous Rating Values**

<u>Tax Multiplier</u> – A factor to account for assessments made on losses when policies are written on retrospective rating plans for F-Classification business is derived as shown on the enclosed Exhibit 8.

<u>Experience Rating Plan Parameters</u> – The approved Experience Rating Plan applies to F-Classification business in Pennsylvania. Expected loss rates are required for the F- Classifications in order to incorporate experience under those classifications into the determination of employers' experience modifications. Derivation of expected loss rate factors to be multiplied times proposed rates to produce the necessary expected loss rates by year in each F-Classification is shown in the enclosed Exhibit 11.

### **EXHIBITS AND SUPPORTING MATERIALS INCLUDED WITH THIS FILING**

The following exhibits and supporting information are submitted with this filing:

- Memorandum of August 7, 2002 to Actuarial and Classification and Rating Committees
- Discussion of Exhibits
- Exhibit 1 Indicated Change in Rate Level
- Exhibit 2 Expense Loading
- Exhibit 3 Expense Study
- Exhibit 4 Internal Rate of Return Model
- Exhibit 5 Analysis of Experience
- Exhibit 6 U. S. Longshoremen & Harbor Workers Coverage Factor
- Exhibit 7 Table II Unit Statistical Data
- Exhibit 8 Tax Multiplier
- Exhibit 9 Derivation of "F" Class Rates
- Exhibit 10 Rate Formulae
- Exhibit 11 Calculation of Expected Loss Rate Factors
- Exhibit 12 Manual Rates and Expected Loss Rates
- Exhibit 14 "F-Class" Exhibits and Class Book

### CONCLUSION

The Bureau would be pleased to assist your offices in any way possible during your review of this filing. In order that appropriate notice be given to all parties in the marketplace, the Bureau would respectfully ask that the Insurance Department's review of this filing be conducted and approval be given as expeditiously as possible.

Sincerely,

Timothy L. Wisecarver President

TLW/kg Enclosures