

TO: The Honorable Trinidad Navarro
Delaware Insurance Commissioner

FROM: Brent Otto, FCAS, MAAA
Senior Vice President and Chief Actuary

DATE: August 4, 2026

RE: DCRB Filing No. 2603
Workers Compensation F-Classification and USL&HW Rating Value Filing
Proposed Effective December 1, 2026

This actuarial memorandum provides a discussion of the analysis performed by the DCRB that results in proposed rating values for employment classifications subject to the United States Longshore and Harbor Workers (USL&HW) Compensation Act (the Act or the USL&HW Act). The overall impact of the proposed change to collectible premium level is -24.81%, while the associated impact to the collectible loss cost level is -26.28%. These changes are proposed to be effective on December 1, 2026.

The overall indication is primarily impacted by a change in methodology as was presented at the Actuarial Research Meeting on May 21, 2026. The P&C expense load only impacts the rates, and is, therefore, the primary driver for the difference between the proposed rates and loss costs.

DEFINITION OF COVERAGES SUBJECT TO THIS FILING

The employment classifications that are the subject of this filing, known as “F-Classifications” or “F-Classes,” provide insurance coverage for compensation liability for maritime or federal employment subject to the USL&HW Act. The F-Classes are used for employees that are “employed in maritime employment, in whole or in part, upon the navigable waters of the United States...”¹ 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 vessels.

On occasion, employer operations not subject to assignment to an F-Class 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 DCRB Manual to adjust rating values otherwise applicable to State Act classifications for the different (and higher) benefits payable under the USL&HW Act.

The volume of USL&HW business is relatively small in comparison to the total Delaware workers compensation market.

¹ 33 USC Ch.18.

SUMMARY OF THE PROPOSAL IN THIS FILING

The following summarizes the annualized overall impact of the proposed changes. The impacts by class code can be found in Exhibit 10. In addition, the USL&HW Compensation Coverage Percentage and associated factor, applied to the approved carrier rate(s) in the State Act classifications, is provided. This produces appropriate rates for employees whose duties are subject to USL&HW Act benefits. The Expense Constant and Tax Multiplier are also shown below.

	Indicated and Proposed Changes	
	Residual Market Rates	Voluntary Market Loss Costs
Overall Average Change (Collectible Basis)	-24.81%	-26.28%
Overall Average Change (Manual Basis)	-24.81%	-26.28%
Other Changes:		
- Revise USL&HW Compensation Coverage Percentage (Rule XII) from 108.4% to 108.6%. This results in a USL&HW factor revision from 2.0843 to 2.0859. - Revise Expense Constant from \$375 to \$410. - Revise the Tax Multiplier from 1.1312 to 1.1235.		

ADHERENCE TO ACTUARIAL PRINCIPLES AND STANDARDS OF PRACTICE

This filing has been developed using actuarial methods that are consistent with all applicable actuarial principles and standards of practice. Rates and loss costs, as developed, filed, and distributed by the DCRB represent estimates of future costs. These estimates rely on projections of loss experience (claim costs) to the prospective time period during which they will be in effect. That is, they are estimates of the costs of claims that are made under workers compensation insurance policies to be in effect starting December 1, 2026. The ultimate, true value of these claims is uncertain and will not be known until they have all closed. As a result, estimates of the future costs must be used. Adherence to actuarial principles and standards of practice ensures the reasonableness of the estimates, along with their compliance with regulatory requirements.

Four principles are provided in the Casualty Actuarial Society's Statement of Principles Regarding Property and Casualty Insurance Ratemaking. Principle 4 states:

"A rate is reasonable and not excessive, inadequate, or unfairly discriminatory if it is an actuarially sound estimate of the expected value of all future costs associated with an individual risk transfer."

Actuarial Standards of Practice (ASOPs) apply to this filing. These documents set forth the standards, including appropriate considerations, that guide an actuary to develop and present the methods and calculations in this filing. These include ASOPs regarding data quality (ASOP 23), credibility (ASOP 25), trend (ASOP 13), risk classification (ASOP 12), communications (ASOP 41), and unpaid claim estimates (ASOP 43) which states:

“The actuary should assess the reasonableness of the unpaid claim estimate, using appropriate indicators or tests that, in the actuary’s professional judgment, provide a validation that the unpaid claim estimate is reasonable. The reasonableness of an unpaid claim estimate should be determined based on facts known to, and circumstances known to or reasonably foreseeable by, the actuary at the time of estimation.”

Unpaid claim estimates are discussed in this filing in the Loss Development section. While ASOP 43 specifies that it does not apply to “estimates developed solely for ratemaking purposes,” the PCRb has nevertheless adhered to the spirit of this standard. The DCRB notes that the estimates for unpaid claims included in the referenced filing are inherently uncertain. Uncertainty stems from a dependence on facts and circumstances that are unknown currently and other limitations, including the use of aggregate data and legislative uncertainties may apply.

This filing relies on data provided by our member companies; however, in accordance with ASOP No. 23 Data Quality, the data has been reviewed for reasonableness and consistency. Some examples of review include, but are not limited to, identifying, and investigating questionable data, comparing the current premium, loss data and loss development patterns to the data and patterns used in the prior analysis.

Also, Actuarial Standard of Practice No. 25, Credibility Procedures (ASOP 25 or the Standard), provides guidance that is applicable to this filing. ASOP 25 defines the term “Credibility” as, “A measure of the predictive value in a given application that the actuary attaches to a particular set of data (predictive is used here in the statistical sense and not in the sense of predicting the future).”² The Standard provides guidance to actuaries for the use of credibility procedures. Relevant to this filing, the standard describes the use of professional judgment:

The actuary should use professional judgment when selecting, developing, or using a credibility procedure. The use of credibility procedures is not always a precise mathematical process. For example, in some situations, an acceptable procedure for blending the subject experience with the relevant experience may be based on the actuary assigning full, partial, or zero credibility to the subject experience without using a rigorous mathematical model.

In this F-Class filing, the pure premium from recent experience is the “subject experience” in the above quote, and the permissible loss ratio underlying current rates is the “relevant experience.” ASOP 25 also provides, “Whenever appropriate in the actuary’s professional judgment, the actuary should disclose the credibility procedures used and any material changes from prior credibility procedures.”³

DEVIATION FROM STANDARD METHODS

The current F-Class ratemaking methodology was patterned after the annual filing approach even though the F-Classes lack credibility to allow for rates to adjust accordingly. For this reason, the DCRB has chosen an updated methodology that still uses some state specific data, however, it also incorporates credible countrywide F-Class data when deriving F-Class rates. This results in a simplification of this process and may allow F-Class rates to be reviewed annually instead of the standard biennial updates. Previous filings included a comparison of F-Class rates for

² ASOP25, Section 2.1.

³ ASOP25, Section 4.1.

Delaware (DE) to F-Class rates in other states, so this filing continues the use of similar elements in the proposed methodology.

The proposed methodology uses countrywide data to complement the DE statewide experience. The countrywide pure premium uses ten years of experience as well as the pure premium class specific relativities. This data is accumulated and provided to DCRB by NCCI.

To improve rate adequacy and responsiveness, a new methodology has been adopted that assigns 20% weight to the statewide pure premium and the remaining 80% weight to countrywide pure premium.

Historically, the complement of credibility was anchored to current rate levels, which limited rate changes and did not incorporate countrywide data in the aggregate indications. Although recent filings began considering other states when setting individual class rates, the methodology still constrained F-Class rate adjustments, preventing them from reaching appropriate levels.

By using countrywide pure premium as the complement, DE can better align its rates with trends and levels observed countrywide. A countrywide pure premium tends to be more stable, which helps smooth out volatility in statewide data and allows class-level experience to have a more meaningful impact. It's important to note that differences between states are largely driven by expense variations. Therefore, the determination of the permissible loss, loss adjustment expenses (LAE) & loss-based assessment (LBA) ratio remains a state-based approach.

Once the statewide pure premium and the permissible loss, LAE & LBA ratio are calculated, they are combined along with the benefit level changes to determine the DE State Base Rate. Countrywide class relativities are used directly since the class specific DE experience lacks credibility. NCCI uses credibility weighting within their class-specific pure premiums, and the credibility weighted pure premiums were used to determine class relativities. These class relativities are applied to the State Base Rate to derive the State Class Rate.

Additional detail for this whole calculation is provided in F-Class Exhibit 9 and the calculations themselves are provided in F-Class Exhibit 10.

The deviations from previous methods are consistent with Actuarial Principles and Standards of Practice stated previously. The Standards also provide the following discussion:

A number of ratemaking methodologies have been established by precedent or common usage within the actuarial profession. Since it is desirable to encourage experimentation and innovation in ratemaking, the actuary need not be completely bound by these precedents. Regardless of the ratemaking methodology utilized, the material assumptions should be documented and available for disclosure. While no ratemaking methodology is appropriate in all cases, a number of considerations commonly apply ... Informed actuarial judgments can be used effectively in ratemaking. Such judgments may be applied throughout the ratemaking process and should be documented and available for disclosure.⁴

⁴ CAS Principles of Ratemaking, lines 59 through 64, 138 through 140.

FILING METHODS AND ANALYSIS

Data Used for Loss and Exposures

This filing uses Policy Year 2014 through 2023 loss and exposure data attributed to F-Class business as submitted on unit data reports under the approved DE Statistical Plan and shown in F-Class Exhibit 5. Unit statistical data is limited to case incurred losses, separately reported for indemnity and medical benefits, for a series of ten successive annual evaluations beginning 18 months after the inception of each policy period (First Report through Tenth Report). Further, countrywide data, as provided to DCRB by NCCI, is used to support the filing. This data includes countrywide loss and premium values as well as class relativities derived from this data.

Analysis of Loss Experience

The DCRB performed incurred loss development analyses, separately for indemnity and medical benefits. All available development points at each maturity (i.e. development factors for policy years containing reported loss amounts) were computed and formed the basis for a selected series of loss development factors. Those selected factors were smoothed by fitting curves to the differences (or “residuals”) between the selected loss development factors and unity (1.0). Several different curve-fitting alternatives were considered in the preparation of this filing.

The fitted values for loss development factor residuals were adjusted by adding back the value of unity (1.0) that was removed prior to the application of the curve-fitting process. Development factors derived by cumulatively multiplying the age-to-age factors were used to estimate ultimate losses for indemnity and medical benefits by policy year.

A weighted average of the seven most recent policy year pure premiums was selected as the basis for the indicated change in F-Class rates.

The DCRB’s loss development and trend analyses are included in F-Class Exhibit 5.

The estimated effect of the anticipated October 1, 2027 benefit change for USL&HW benefits is derived in Exhibit 14.

Data Used for Expenses

Expense data is not reported to the DCRB separately for F-Class business. Accordingly, much of the expense data used in preparation of this filing is DE experience for stock agency companies or total Delaware workers compensation expense data, each related to their respective workers compensation premiums.

The DCRB’s expense study performed in support of this filing is included in Exhibit 3. Provisions were separately measured based on DE experience for stock agency companies or total Delaware workers compensation experience for the following expense components: commission and brokerage, other acquisition, general expense, and loss adjustment expense.

Using Unit Statistical data, an indicated provision in proposed rates for premium discounts was obtained based on experience for businesses written by carriers using the Schedule Y discount

table. This derivation is also presented in Exhibit 3. A provision for uncollectible premium is included based on data collected by the NCCI for residual market business in the State of DE. The analysis appears on Page 7 of Exhibit 3.

Analysis of Expenses

Historical ratios of expense to premium were considered from the most recent available five years of experience. Provisions for the Federal Assessment and Premium Tax were based on currently available assessment levels. Miscellaneous taxes were estimated based on historical relationships between such taxes and premiums. Loss adjustment expenses were measured in relation to losses based on the most recent available five years' experience.

The proposed expense loadings consistent with this filing are shown in Exhibit 2.

Derivation of Permissible Loss and Loss Adjustment Expense Ratio

The DCRB 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 Delaware
- Prepare a model to account for all applicable cash flows attendant with the writing of workers compensation insurance business in Delaware
- Using this model, compute a permissible portion of premium to be attributed to loss, LAE and LBA in combination and a separate provision for profit consistent with the anticipated cash flows and rate of return noted above

The Cost of Capital was determined by weighting both debt capital along with equity capital when determining the Profit and Contingency load. Details of the model applied in preparation of this filing with a summary of key inputs, outputs and assumptions is provided in Exhibit 4.

DISCUSSION OF EXHIBITS

An index of all exhibits appears at the end of this memorandum. The following material provides discussion of the key elements.

F-Class Exhibit 2 – Expense Loading

Expense provisions are presented in Exhibit 2 and are broadly categorized as loss, loss adjustment, variable and fixed underwriting expenses. Variable expenses are those expenses which are expected to remain a constant percentage of premium regardless of the overall premium level or premium charge. Fixed expenses are assumed to be a function of changes in payroll levels and/or expense costs independent of changes in premium levels.

The columns of Exhibit 2 show current and proposed expense provisions. Proposed provisions for the Federal Assessment (2.74%) and State Premium Tax (2.00%) are based on currently available assessment levels. Other State Tax is estimated to be 0.29%. Provisions for general expense, other acquisition, premium discount, commissions, and uncollectible premiums are derived in Exhibit 3 – Expense Study.

The provisions for profit (-3.90%) and the combined provision for loss and loss-related expenses (79.39%) were derived from an internal rate of return model, as described in Exhibit 4.

F-Class Exhibit 3 – Expense Study

Exhibit 3, Page 1 derives provisions for commission, other acquisition, and general expense exclusive of expense constant dollars. Commissions are related to premium, including large deductible business on a net (as reported) basis. Other acquisition and general expense are related to premiums, including large deductible business on a gross (before deductible credits) basis. Average factors over five years, 2020 through 2024, were considered and a three-year average was selected. Experience for stock agency companies is included.

Loss adjustment expenses for Calendar Years 2020 through 2024 are related to incurred losses, including large deductible business on a gross (before reimbursement) basis. The selected five-year average factor of 25.20% is shown on Page 4. Experience for all companies is included.

An average premium discount figure of 8.06% is derived on pages 5-6 of Exhibit 3, based on the total DE premium for all policies from Schedule Y companies including those with F-Class exposure. The figure includes an adjustment to account for multi-state risks.

Based on data from the Delaware (Assigned Risk) Insurance Plan, an average uncollectible premium rate of 4.39% was selected.

F-Class Exhibit 4 – Internal Rate of Return Model

Exhibit 4 presents an internal rate of return model which tracks the premium, loss and expense cash flows of DE workers compensation F-Class business for the prospective rating period. The model combines expense assumptions from Exhibit 2, a premium collection pattern, loss and expense payout patterns, and a base standard premium of \$1 million to model the net cash flows for F-Class business.

A profit loading is chosen so that the net cash flows, when discounted to present value, provide a return on equity equal to the projected target rate of return or cost of capital. The cost of capital is derived in F-Class Exhibit 4 and is equal to 11.00%.

This filing recognizes investment income on reserve and surplus funds as well as the cost of debt capital in determining the overall expected return for carriers from writing workers compensation business in DE.

The inclusion of debt capital as part of the weighted average cost of capital. The primary reasons supporting this change were:

1. Debt capital is part of statutory surplus.

2. Insurance company debt/capital ratios have risen over the past 20 years.
3. Inclusion of debt capital brings the model into compliance with industry best practices

In the internal rate of return analysis, the profit provision is -3.90%. A loss ratio, including provision for loss, loss adjustment and the federal assessment, and consistent with the other expense values used in the model, was derived, and equals 79.39%. That loss ratio was split into the loss (61.22%), loss adjustment expense (15.43%) and the federal assessment (2.74%) components by maintaining a ratio of loss adjustment expense to loss of 25.20% and a ratio of federal assessment expense to loss of 4.48%.

F-Class Exhibit 5 – Analysis of Experience

F-Class Exhibit 5 presents a review of experience as reported under the Unit Statistical Plan. Experience for the most recent available years through 2023 was extracted from the updated rate revision database. This recent data has been supplemented by prior experience included in previous F-Class filings. Page 1 of Exhibit 5 shows reported standard earned premiums (2006 to 2023), indemnity incurred losses (2006 to 2023) and the associated age-to-age loss development factors. The step-shaped lines separating successive evaluations for a given policy period indicate that the data was extracted from successive reviews. The cells denoted with asterisks (****) represent points where an inconsistency in data was observed between successive extracts for a given report year and maturity. Where the inconsistency was deemed negligible, loss development factors were calculated to increase the number of factors available. The bottom section of Page 1 shows seven-year and all-years weighted averages as well as selected loss development factors, on both an age-to-age and ultimate basis. Then on Page 2, similar details are shown for F-Class medical experience.

The selected age-to-age factors for indemnity and medical are derived on Pages 3 and 4, respectively, and are the result of fitting a curve to the residuals (LDF-1) of the all-years weighted average age-to-age factors. Unity (1.0) is selected as the tail factor (10th-to-ultimate).

Ultimate incurred losses are calculated on Page 5 for indemnity, medical and in total. For the least mature policy year, a Bornheutter-Ferguson approach was used to overcome lack of claim data.

Given the very limited number of claims and no meaningful patterns, frequency trend was selected at 0.0%. Page 7 shows indemnity severity trend is based on changes in the National Average Weekly Wage (NAWW) using a 10-point exponential fit given that the NAWW is the basis for F-Class indemnity benefits. Page 8 shows medical severity utilized the Medicare index using a 10-point exponential fit given that F-Class medical fee schedule changes are based on changes in Medicare costs.

Page 9 shows a graph of the resulting projected ultimate loss ratios.

F-Class Exhibit 6 – U.S. Longshore & Harbor Workers Compensation Coverage Percentage

The USL&HW Compensation Coverage Percentage 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.

Exhibit 6 shows the derivation of a USL&HW factor which, when applied to State Act class rating values, provides for the pricing of State Act risks with USL&HW exposure. The proposed USL&HW factor changed from 2.0843 to 2.0859, representing a 108.6% load to State Act rating values.

F-Class Exhibit 8 – Tax Multiplier

Exhibit 8 provides a tax multiplier factor applicable to F-Class exposures for use in retrospective rating. The proposed factor changed from 1.1312 to 1.1235.

F-Class Exhibits 9, 10, 11, and 12 – Classification Analysis and Exhibits

These exhibits support the calculation of individual F-Class rates and loss costs.

Exhibit 9, Rate and Loss Cost Formulae, describes the steps used in the classification ratemaking process.

Exhibit 10, Derivation of F-Class Rates, contains the development of the proposed individual DE F-Class rates. It shows current and proposed rates by class and the respective percentage changes. Page 1 shows the derivation for DE's empirical F-Class expected pure premium. Page 2 introduces countrywide data to determine the credibility-weighted F-Class pure premium for the state. It also uses the permissible loss ratio in Exhibit 2 (60.93%) and the estimated change in benefit level for 10/1/27 from Exhibit 14 to determine the final State Base Rate. Class relativities consistent with NCCI's data are used on Page 3 to calculate final rates for these federal classifications, while considering standard capping procedures (+/- 25%). The pre-capped rates are also adjusted to balance back to the calculated State base rate (4.145). This balancing factor is determined by dividing the state base rate by the weighted average indicated pre-cap rate. Since this filing is based on a new methodology, that capping is done with respect to an overall "no change". Future filings will use the change in pure premium to determine maximum and minimum changes allowable.

Expected loss rate factors used to calculate expected losses for experience rating are derived in Exhibit 11, Calculation of Expected Loss Rate Factors.

Proposed Manual Rates, Loss Costs and Expected Loss Rates are shown in Exhibit 12.

F-Class Exhibit 14 – Estimated Effect from 10/1/27 Change in Benefit Levels

Exhibit 14 compares benefit levels from the prior filing to this filing. Based on the proportions of injury types in the latest approved state filing, the total benefit level change is calculated. That benefit level change is then scaled to represent the effect on policies for the policy year beginning 12/1/26.

CLOSING COMMENTS AND QUALIFICATIONS

The DCRB respectfully requests a timely review of this filing, allowing implementation on a new and renewal basis **effective December 1, 2026**. Toward that objective, the DCRB will be pleased to answer any questions or provide any available supplementary information as needed.

This filing has been developed by and under the direction of Brent Otto, FCAS. He meets the Qualification Standards of the American Academy of Actuaries to provide the actuarial opinion contained within this filing.

Please direct all questions to:

Brent Otto
Senior Vice President
& Chief Actuary
botto@dcrb.com
215-320-4451

Jesse Marass
Director of Actuarial Services
jmarass@dcrb.com
215-320-4477

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