District of Columbia Insurance Department
P&C Actuarial Checklist

Personal Lines – Auto/ Homeowners/ Dwelling Fire & Extended Coverage/ Personal Umbrella
and other lines of business as appropriate or deemed necessary by the Department

Instructions for Sections A - C:

• Please complete in its entirety. If Not Applicable (N/A) is selected, provide explanation as necessary.

• It is expected that actuarial exhibits will follow Actuarial Standards of Practice as promoted
  by the American Academy of Actuaries. Actuarial documentation is expected to include actuarial
  memo/narrative to explain the methodology together with comprehensive technical exhibits annotated
  with accurate formulas and footnotes.

• Please contact Supervisory Actuary Robert Nkojo at Robert.Nkojo@dc.gov if you have actuarial
  questions.

SECTION A: Rate Level Indications	YES	NO	N/A
1. Actuarial Memo describes the actuarial methodology and exhibits.			
2. Price Optimization is not used.			
3. Territorial Rating (geographic region, zip code, location, etc.) is used.			
4. For personal automobile insurance the lookback experience window is on a rolling three year basis for both applicants and insureds.			
5. Rate Level Indication Exhibits - provide as appropriate to filing: a. Statewide Total Indication exhibit/chart to match Rate/Rule Schedule tab.			
b. Statewide by Form (HO); by Coverage (Auto); per company.			
c. HO - By peril indications are provided if rates/rating factors are changing by peril.			
6. Premium Adjustments a. Shows on-level factors for parallelogram method with rate change history shown; or states in Actuarial Memo that "extension of exposures"/re-rating at current rates method was used.			
b. Premium Trend includes trend data, source of selected annual trend, trend period for historical and prospective trend periods, and calculated trend factors.			

Actuarial Checklist January 2024

District of Columbia Insurance Department
P&C Actuarial Checklist

Personal Lines – Auto/ Homeowners/ Dwelling Fire & Extended Coverage/ Personal Umbrella and other lines of business as appropriate or deemed necessary by the Department

SECTION A: Rate Level Indications - continued	YES	NO	N/A
7. Loss Adjustments a. Loss Development Factors show data and source of selected factors.			
b. Loss Trend includes trend data, source of selected annual trend, trend period for historical and prospective trend periods, and calculated trend factors.			
c. Auto Loss Trend exhibit(s) are provided to demonstrate for frequency, severity, and pure premium: the historical data considered with interpretable descriptions, each selected trend factor or index used, and date details underlying the derivation of the trending period used.			
d. Documentation is provided to support the selection of Ultimate Losses if other than the development methodology has been used.			
e. Ultimate Losses have not been discounted. Investment Income on reserves is to be reflected as an offset to Underwriting Profit.			
8. Loss Loads provide support that includes both a narrative and exhibits to show the derivation of all the selected factors including: a. Large Loss and Excess Loss ratios/loads.			
b. Catastrophes include internal data and/or modeled data. *Note: If using AIR/RMS, short paragraph about the parameters selected for the model (i.e., model version, Demand on/off status), and trending (with support for trend factors for use in the filing) is included.*			
c. Adjusting Other Expense and/or Defense Cost Containment Expense is supported by a three year history of DC experience.			
9. Reinsurance Costs and Net Retained Risk amounts a. A narrative is provided to explain sources for these amounts and how these items are treated in the indications; i.e., as loss components and/or expense loads.			
b. Exhibits are provided to show derivation of the numbers selected for use in the indication.			
10. Expenses a. Provides a three year history based on DC experience and any other noted experience used to support selections; provides an explanation if other than DC experience is used for selected expense support.			

Actuarial Checklist January 2024

District of Columbia Insurance Department
P&C Actuarial Checklist
Personal Lines – Auto/ Homeowners/ Dwelling Fire & Extended Coverage/ Personal Umbrella
and other lines of business as appropriate or deemed necessary by the Department

SECTION A: Rate Level Indications - continued	YES	NO	N/A
b. An expense summary is included to show expenses split by fixed and variable expenses which ties to numbers used in the Indication pages.			
c. Permissible Loss Ratios used in the indications are derived in the expense summary exhibit.			
d. If fixed expense trend is used, both the source of the expense trend and the trending time period are provided.			
e. Support is shown for the development of Expense Fees that are changing showing current, indicated, selected, and % change.			
11. Underwriting Profit/Contingencies The profit provision has not increased for renewal business. *The Department holds that it is unfair for policyholders brought in at a given profit provision to be subject to future rate increases at renewal without clearly demonstrable support. Within the filing contents the Company should provide the following:* *a. the prior applicable rate filing's profit provision assumption (N/A is not an acceptable response if the prior filing was a rule only or a rate neutral type of filing with no indicated rate need analysis and the current filing does include an indicated rate need analysis and overall rate level impact of some kind);* *b. the current filing's profit provision assumption;* *c. reasonable support and disclosure of the current filing's profit provision's underlying assumptions and methods, and;* *d. a clear description and demonstration of the support for any change in assumptions and methods that contributed to a higher profit provision assumption in b) relative to a) (e.g., target return on equity/surplus, tax rates, investment income return, cash flow patterns, leverage ratios, etc.)*			
12. Credibility and Complement of Credibility a. Credibility standard is discussed and shown in narrative/exhibits.			
b. Calculation of credibility for each use in the filing is shown; indications, trends, CAT loads, etc.			
c. Complement of Credibility methodology is discussed.			
d. Complement of Credibility derivation is shown with sources of information used in the calculation included.			

District of Columbia Insurance Department
P&C Actuarial Checklist

Personal Lines – Auto/ Homeowners/ Dwelling Fire & Extended Coverage/ Personal Umbrella
and other lines of business as appropriate or deemed necessary by the Department

SECTION A: Rate Level Indications - continued	YES	NO	N/A
13. Indication Formulas to show the mathematics a. Weights for the Accident Year experience and formula to derive the weighted average is provided.			
b. Formulas to show all the components of the Indication; i.e., Non-CAT, CAT, fixed expense and fixed expense trending are clearly labeled.			
c. Exact formulas to show derivation of the resulting indications are included in a comprehensible and readable presentation.			
14. Base Rates a. Base rate exhibits show current rate/factor, indicated, selected and % change.			
b. The actuarial memo provides an explanation of how base rates are derived or selected.			

District of Columbia Insurance Department
P&C Actuarial Checklist

Personal Lines – Auto/ Homeowners/ Dwelling Fire & Extended Coverage/ Personal Umbrella
and other lines of business as appropriate or deemed necessary by the Department

Section B: Rates/Rules/Rating Factor Changes Support and Impacts	YES	NO	N/A
1. In lieu of marked pages a spreadsheet is provided that itemizes the following for each rule change: 1) language of the currently approved rule; 2) language of the proposed rule revision; 3) the purpose of the rule revision; and 4) the overall premium impact of the proposed rule revision on DC policyholders.			
2. Histograms by percent change and dollar amount change are provided if any individual's impact would be greater than 10%.			
3. Filing Memo explains what changes are taking place. a. The filing memo provides a narrative to explain all rates and rating factors including expense fees, minimum premium changes, rating algorithms and capping that are changing.			
b. The filing memo or actuarial memo discusses the methodology or process for each changing element to arrive at the selected rates/factors.			
4. Exhibit to show Roll-up of all changes: A cumulative rate change worksheet is included that provides separate rows for each changed Rating element beginning with the Base Rate to show the impact of each factor to arrive at the overall impact of the change shown in the Rate/Rule Schedule tab.			
5. Support is needed for all rates/rating factors and elements that are changing. It is not enough to discuss changes in the memo, and show only proposed rates/rating factors as new pages. a. Exhibits with current, indicated, and selected rates/rating factors with % change are shown for each changed element.			
b. Rating elements from GLM output - Exhibits to show the indications for each set of rating factors from the models together with the current and proposed factors are provided. Specific explanation when the model results are not selected is provided.			
c. Support for selected factors using competitor's information- SERFF tracking number/State tracking number for the competitor's filing that shows the rates/rating factors is provided. *Note 1:* DISB specifically wants the SERFF tracking number for the filing that actually shows the factors being cited with page number references from the filing.			

Actuarial Checklist January 2024

District of Columbia Insurance Department
P&C Actuarial Checklist
Personal Lines – Auto/ Homeowners/ Dwelling Fire & Extended Coverage/ Personal Umbrella
and other lines of business as appropriate or deemed necessary by the Department

Section B: Rates/Rules/Rating Factor Changes Support and Impacts - continued	YES	NO	N/A
Note 2: DISB does not allow market basket competitor comparisons from rate quoter organizations to support company changes. While DISB understands that the company may be using this to decide to make a change, DISB needs to see exhibits with each competitor's rates/rating elements as support for the rates/factors that have been selected.			
d. Support using ISO loss costs/relativities – SERFF Tracking Number/State Tracking numbers and page references are provided.			
e. Support for changing LCM (Loss Cost Multipliers) – Exhibits and narrative is provided to explain the LCM changes. *Note 1: For LCMs, this includes a comparison of the proposed and current LCMs total broken out by the "pure LCM" component based on filed expense ratios (1 / (1- total expense ratio)), and the "loss modification factors"* *Note 2: Exhibits need to show % changes for the proposed LCMs in total and separately by "pure LCM" and "loss modification" components.*			
6. Automatic Rate Increases – Please confirm that there is NO mechanism in your rating algorithm that includes an automatic trend factor. *Note: All rate changes must be filed with the DISB.*			
7. NEW PROGRAMS or Vastly Overhauled Existing Programs In addition to Items 1-5 in Section C, support is expected to be provided for the development of the following including narrative to explain this: • Base Rates, Territory Base Rates, Base Rates by Peril • Expected Expense Exhibit with support for the selection of these ratios. • Minimum premium support • Expense Fee support • Rating algorithm chart *Note: Company is encouraged to call DISB to discuss before the company makes such a filing.*			

District of Columbia Insurance Department
P&C Actuarial Checklist

Personal Lines – Auto/ Homeowners/ Dwelling Fire & Extended Coverage/ Personal Umbrella and other lines of business as appropriate or deemed necessary by the Department

Section C: Models*	YES	NO	N/A
1. The DC GLM Checklist is completed and submitted for all GLMs (Generalized Linear Models) used in this filing including "refreshes" of a model that is already filed in DC, along with the methodology, narrative and exhibits to explain the methodology.			
2. For non-GLM models used in this filing, narratives of the methodology with explanatory exhibits/charts to show the effectiveness of these methods over the current rating plan including a discussion of the data sources used (both internal company and external data) is provided. *Note 1:* DISB is looking for analogous information for these non-GLM models that is required for GLM models. DISB encourages Company to adapt DISB'S current GLM checklist as applicable for the non-GLM model for efficiency to assist in DISB'S review of the non-GLM model. *Note 2:* This includes non-GLM models such as multivariate, Gradient Boosted Tree, regression, and other innovated methodologies by the Company.			
3. Artificial intelligence (AI) and /or Machine Learning used for rates or rating factors in this filing is described with methodology narrative including exhibits to explain the methodology.			

Note: DISB means Company developed and used models here; DISB is not asking for AIR, RMS or vendor models.

- Vendor models (including telematics devices or score models) must be submitted as separate filings to DISB.

- If Company is using AIR/RMS modeled loss information in its CAT models as its data source, Company must still supply GLM checklist information around its own modelling with this CAT data for its CAT rates/rating factor for CAT perils.

Actuarial Checklist January 2024