NAIC NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Draft date: 7/30/24

FINANCIAL CONDITION (E) COMMITTEE
Friday, August 2, 2024
12:00 – 1:00 p.m. ET / 11:00 a.m. – 12:00 p.m. CT / 10:00 – 11:00 a.m. MT / 9:00 – 10:00 a.m. PT

ROLL CALL

Nathan Houdek, Chair	Wisconsin	Mike Chaney	Mississippi
Michael Wise, Vice Chair	South Carolina	Chlora Lindley-Myers	Missouri
Cassie Brown, Vice Chair	Texas	Justin Zimmerman	New Jersey
Michael Conway	Colorado	Adrienne A. Harris	New York
Amy L. Beard	Indiana	Judith L. French	Ohio
Doug Ommen	Iowa	Elizabeth Kelleher Dwyer	Rhode Island
Vicki Schmidt	Kansas	Scott A. White	Virginia
Kevin P. Beagan	Massachusetts		

NAIC Support Staff: Dan Daveline/Julie Gann/Bruce Jenson

AGENDA

1. Consider Comments Received on 2024-20-CR-Climate Stress Test—*Nathan Houdek (WI)* — Attachment A
   - Mississippi Insurance Department — Attachment B
   - Revised Proposal from Joint P&C Trades (2024-20-CR MOD) — Attachment C

2. Consider Adoption of 2023-17-CR or 2024-20-CR MOD—*Nathan Houdek (WI)* — Attachment D, Attachment C

3. Any Other Matters Brought Before the Committee — *Nathan Houdek (WI)*

Capital Adequacy (E) Task Force

RBC Proposal Form

☐ Capital Adequacy (E) Task Force
☒ Catastrophe Risk (E) Subgroup
☐ Variable Annuities Capital. & Reserve (E/A) Subgroup
☐ Health RBC (E) Working Group
☐ P/C RBC (E) Working Group
☐ Economic Scenarios (E/A) Subgroup
☐ Life RBC (E) Working Group
☐ Longevity Risk (A/E) Subgroup
☐ RBC Investment Risk & Evaluation (E) Working Group

DATE:	**5/28/2024**
CONTACT PERSON:	**Steve Broadie**
TELEPHONE:	**847-736-8258**
EMAIL ADDRESS:	**steve.broadie@apci.org**
ON BEHALF OF:	**APCIA, NAMIC , and RAA ("the Associations")**
NAME:	**Steve Broadie**
TITLE:	**Vice Present, Financial & Counsel**
AFFILIATION:	**American Property Casualty Insurance Assoc**
ADDRESS:	

FOR NAIC USE ONLY

Agenda Item # 2024-20-CR
Year 2024

DISPOSITION

ADOPTED:
☐ TASK FORCE (TF) _____
☐ WORKING GROUP (WG) _____
☐ SUBGROUP (SG) _____

EXPOSED:
☐ TASK FORCE (TF) _____
☐ WORKING GROUP (WG) _____
☐ SUBGROUP (SG) _____

REJECTED:
☐ TF ☐ WG ☐ SG _____

OTHER:
☐ DEFERRED TO _____
☐ REFERRED TO OTHER NAIC GROUP
☐ (SPECIFY) _____

IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

☐ Health RBC Blanks ☒ Property/Casualty RBC Blanks ☐ Life and Fraternal RBC Blanks
☐ Health RBC Instructions ☒ Property/Casualty RBC Instructions ☐ Life and Fraternal RBC Instructions
☐ Health RBC Formula ☐ Property/Casualty RBC Formula ☐ Life and Fraternal RBC Formula
☐ OTHER _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

As a replacement for the climate risk scenario analysis proposal adopted by the Capital Adequacy (E) Task Force, the Associations propose that insurers required to calculate the RCAT charge perform catastrophe model runs on their current books of business with:

- a 50% increased frequency of major hurricanes (Category 3 and higher, but for wind losses only), and
- a 50% increased frequency of all wildfire events.

These frequency adjustments are selected to fall within the reasonable distribution of hurricane and wildfire impacts suggested by climate modeling research for SSP2-4.5 by mid-century (~2°C by 2041-2060). Domestic regulators can then compare the 1/50-, 1/100-, 1/250-, and 1/500-year probable maximum losses generated from the model runs with those currently reported in the insurer's RCAT filing and hold discussions with insurers that may have a greater degree of indicated risk levels for hurricane and wildfire perils.

Additional Staff Comments:

DISCLOSURE OF FREQUENCY STRESSED CAT EXPOSURE
PR027B2, PR027C2

These disclosures are intended to collect the impact of a major increase in the modeled losses for the perils of hurricane and wildfire that have been used in PR027B and PR027C respectively. The intent of these disclosures is for informational purposes only and not to determine a new RCAT charge. The impact should be estimated using the following specific instructions:

- The impact should be modeled using both a 50% frequency increase for major hurricanes (Category 3 and greater, but only for wind losses) and a 50% increase for all wildfire events.
- Assume a static book of business at year end (no changes to book of business, to reinsurance strategy or to total insured value (TIV) inflation).
- The impact can be modeled using the same CAT model used to develop the insurer's RCAT charge.

The same basic information is required to be completed for this PR027B2 and PR027C2 as the previous pages PR027B and PR027C, including specifically as follows:

Column 1 – Direct and Assumed Modeled Losses
These are the direct and assumed modeled losses per the first footnote, Include losses only: no loss adjustment expenses. For companies that are part of an inter-company pooling arrangement, the losses in this column should be consistent with those reported in Schedule P; i.e., losses reported in this column should be the gross losses for the pool multiplied by the company's share of the pool.

Column 2 – Net Modeled Losses
These are the net modeled losses per the footnote. Include losses only: no loss adjustment expenses.

Column 3 – Ceded Amounts Recoverable
These are the modeled losses ceded under any reinsurance contract. Include losses only, no loss adjustment expenses, and should be associated with the Net Modeled Losses.

CALCULATION OF CATASTROPHE RISK CHARGE FOR HURRICANE PR027B

Hurricane	Reference	Modeled Losses (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable	(4)†† Ceded Amounts Recoverable with zero Credit Risk Charge
(1) Worst Year in 50	Company Records				
(2) Worst Year in 100	Company Records				
(3) Worst Year in 250	Company Records				
(4) Worst Year in 500	Company Records				

	(5) Y/N
(5) Has the company reported above, its modeled hurricane losses using an occurrence exceedance probability (OEP) basis?	

	Reference	(6) Amount	Factor	(7) RBC Requirement (C(6) * Factor)
(6) Net Hurricane Risk	L(2) C(2)	0	1.000	0
(7) Contingent Credit Risk for Hurricane Risk	L(2) C(3) - C(4)	0	0.018	0
(8) Total Hurricane Catastrophe Risk (AEP Basis)	If L(5) C(5) = "N", L(8) C(6) = L(6) C(7)+ L(7) C(7), otherwise "0"	0	1.000	0
(9) Total Hurricane Catastrophe Risk (OEP Basis)	If L(5) C(5) = "Y", L(9) C(6) = L(7) C(7)+ L(7) C(7), otherwise "0"	0	1.000	0
(10) Total Hurricane Catastrophe Risk	L(8) C(7) + L(9) C(7)			0

Lines (1)-(4): Modeled losses to be entered on these lines are to be calculated using one of the following NAIC approved third party commercial vendor catastrophe models - AIR, CoreLogic, RMS, KCC, the ARA HurLoss Model, or the Florida Public Model for hurricane~~,~~ or a catastrophe model that is internally developed by the insurer and has received permission of use by the lead or domestic state. The insurance company's own insured property exposure information should be used as inputs to the model(s). The insurance company may elect to use the modeled results from any one of the models, or any combination of the results of two or more of the models. Each insurer will not be required to utilize any prescribed set of modeling assumptions, but will be expected to use the same data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. An attestation to this effect and an explanation of the company's key assumptions and model selection may be required, and the company's catastrophe data, assumptions, model and results may be subject to examination.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

††Column (4) is modeled catastrophe losses that would be ceded to the categories of reinsurers that are not subject to the RBC credit risk charge (i.e., U.S. affiliates and mandatory pools, whether authorized, unauthorized, or certified).

Denotes items that must be manually entered on the filing software.

CALCULATION OF CATASTROPHE RISK CHARGE FOR WILDFIRE PR027C
(For Informational Purposes Only)

	Wildfire	Reference	Modeled Losses (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable	(4)†† Ceded Amounts Recoverable with zero Credit Risk Charge
(1)	Worst Year in 50	Company Records				
(2)	Worst Year in 100	Company Records				
(3)	Worst Year in 250	Company Records				
(4)	Worst Year in 500	Company Records				

		(5) Y/N
(5)	Has the company reported above, its modeled wildfire losses using an occurrence exceedance probability (OEP) basis?	

		Reference	(6) Amount	Factor	(7) RBC Requirement (C(6) * Factor)
(6)	Net Wildfire Risk	L(2) C(2)	0	1.000	0
(7)	Contingent Credit Risk for Wildfire Risk	L(2) C(3) - C(4)	0	0.018	0
(8)	Total Wildfire Catastrophe Risk (AEP Basis)	If L(5) C(5) = "N", L(8) C(6) = L(6) C(7)+ L(7) C(7), otherwise "0"	0	1.000	0
(9)	Total Wildfire Catastrophe Risk (OEP Basis)	If L(5) C(5) = "Y", L(9) C(6) = L(6) C(7)+ L(7) C(7), otherwise "0"	0	1.000	0
(10)	Total Wildfire Catastrophe Risk	L(8) C(7) + L(9) C(7)			0

Disclosure in lieu of model-based reporting:

		(8) Direct and Assumed	(9) Net
(11)	For a company qualifying for the exemption under PR027INT C (10), complete 11a through 11c below:		
	a. Provide the company's gross and net 1-in-100-year wildfire losses on a best estimate basis in lieu of model-based reporting.		

b. Provide details on how the company estimated the amounts shown in 11a.

c. Provide a narrative disclosure about how the company manages its wildfire risk.

Lines (1)-(4): Modeled losses to be entered on these lines are to be calculated using one of the following NAIC approved third party commercial vendor catastrophe models - AIR, RMS, or KCC, or a catastrophe model that is internally developed by the insurer and has received permission of use by the lead or domestic state. The insurance company's own insured property exposure information should be used as inputs to the model(s). The insurance company may elect to use the modeled results from any one of the models, or any combination of the results of two or more of the models. Each insurer will not be required to utilize any prescribed set of modeling assumptions, but will be expected to use the same data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. An attestation to this effect and an explanation of the company's key assumptions and model selection may be required, and the company's catastrophe data, assumptions, model and results may be subject to examination.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

††Column (4) is modeled catastrophe losses that would be ceded to the categories of reinsurers that are not subject to the RBC credit risk charge (i.e., U.S. affiliates and mandatory pools, whether authorized, unauthorized, or certified).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF FREQUENCY STRESSED CAT EXPOSURE FOR HURRICANE PR027B2
(For Informational Purposes Only)

Hurricane	Reference	50% Frequency Increase for Major Hurricanes (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1) Worst Year in 50	Company Records			
(2) Worst Year in 100	Company Records			
(3) Worst Year in 250	Company Records			
(4) Worst Year in 500	Company Records			

Lines (1)-(4): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor catastrophe model, or combination of models, used to calculate the insurer's RCAT charge. Modeling assumptions should be the same as those used in the RCAT charge, but climate impact is constrained to wind frequency only - no adjustments should be made for other subperils. The impact should be modeled using a 50% frequency increase for major hurricanes (Category 3 and greater).

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF FREQUENCY STRESSED CAT EXPOSURE FOR WILDFIRE PR027C2
(For Informational Purposes Only)

			50% Increase for Wildfire Events		
			(1)	(2)	3†
Wildfire		Reference	Direct and Assumed	Net	Ceded Amounts Recoverable
(1)	Worst Year in 50	Company Records			
(2)	Worst Year in 100	Company Records			
(3)	Worst Year in 250	Company Records			
(4)	Worst Year in 500	Company Records			

Lines (1)-(4): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor catastrophe model, or combination of models, used to calculate the insurer's RCAT charge. The impact should be modeled using a 50% increase for all wildfire events.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

MISSISSIPPI INSURANCE DEPARTMENT

MIKE CHANEY
Commissioner of Insurance
State Fire Marshal

DAVID BROWNING
Deputy Commissioner of Insurance

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July 1, 2024

Mr. Dan Daveline
Director, Financial Regulatory Services
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64106-2197

RE: Financial Condition (E) Committee - Proposal 2024-20-CR Joint Trades Proposal

Dear Dan,

The Mississippi Insurance Department supports proposal 2024-20-CR as submitted by the joint trades. This proposal requires industry to generate test scenarios utilizing a 50% increased frequency of major hurricanes and a 50% increased frequency of wildfire events which regulators can then compare with the company's current RCAT filing. This will provide valuable data for the regulator and require only minimum resources by the insurer as the impact can be modeled using the same CAT model utilized to develop its RCAT charge. By generating this data it will allow regulators to identify insurers that may have a greater degree of climate risk for these two perils.

We believe this proposal to be a more measured and efficient use of industry resources while still providing regulators with data needed to evaluate climate related CAT exposure for these two perils. In addition, it would be beneficial to have a cost/time analysis to further evaluate the two proposals.

We appreciate the opportunity to comment on this proposal, and appreciate the work of the E Committee.

Sincerely,

MIKE CHANEY
COMMISSIONER OF INSURANCE

MC

Capital Adequacy (E) Task Force

RBC Proposal Form

☐ Plenary ☒ Financial Condition (E) Committee

☐ Capital Adequacy (E) Task Force ☐ Health RBC (E) Working Group ☐ Life RBC (E) Working Group
☐ Catastrophe Risk (E) Subgroup ☐ P/C RBC (E) Working Group ☐ Longevity Risk (A/E) Subgroup
☐ Variable Annuities Capital. & Reserve (E/A) Subgroup ☐ Economic Scenarios (E/A) Subgroup ☐ RBC Investment Risk & Evaluation (E) Working Group

DATE:	**5/28/2024**
CONTACT PERSON:	**Steve Broadie**
TELEPHONE:	**847-736-8258**
EMAIL ADDRESS:	**steve.broadie@apci.org**
ON BEHALF OF:	**American Property Casualty Insurance Assoc**
NAME:	**Steve Broadie**
TITLE:	**Vice Present, Financial & Counsel**
AFFILIATION:	**American Property Casualty Insurance Assoc**
ADDRESS:	

FOR NAIC USE ONLY

Agenda Item # 2023-17-CR MOD
Year 2024

DISPOSITION

ADOPTED:
☐ Plenary
☐ Financial Condition (E)
☐ TASK FORCE (TF)
☐ WORKING GROUP (WG)
☐ SUBGROUP (SG)

EXPOSED:
☐ TASK FORCE (TF)
☐ WORKING GROUP (WG)
☐ SUBGROUP (SG)

REJECTED:
☐ TF ☐ WG ☐ SG

OTHER:
☐ DEFERRED TO
☐ REFERRED TO OTHER NAIC GROUP
☐ (SPECIFY)

IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

☐ Health RBC Blanks ☒ Property/Casualty RBC Blanks ☐ Life and Fraternal RBC Blanks
☐ Health RBC Instructions ☒ Property/Casualty RBC Instructions ☐ Life and Fraternal RBC Instructions
☐ Health RBC Formula ☒ Property/Casualty RBC Formula ☐ Life and Fraternal RBC Formula
☐ OTHER _____

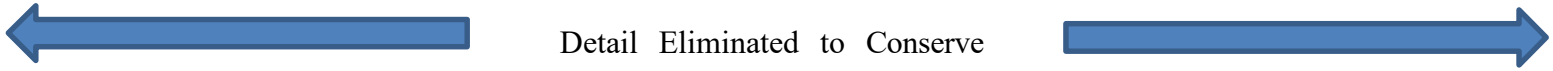
DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

The Solvency Workstream of the Climate & Resiliency (EX) Task Force was tasked with considering the development of climate scenario analysis. The workstream held three public panels on the topic in 2022 and in 2023 learned that commercial CAT modelers have products known as "Climate Conditioned Catalogs" that reflect adjusted frequency and severity for certain time horizons (e.g. 2040 or 2050) that if compared side by side with existing RBC data in PR027 would provide an estimate of climate change for hurricane and wildfire. The information is intended to be useful for domestic regulators holding conversations with insurers that may have a greater degree of risk levels for these perils.

Additional Staff Comments:

**** This section must be completed on all forms.** **Revised 2-2023**

CALCULATION OF CATASTROPHE RISK CHARGE RCAT
PR027A, PR027B, PR027C, PR027, PR027B2, PR027C2, PR027B3, PR027C3
AND PR027INT



DISCLOSURE OF CLIMATE IMPACT ON CATASTROPHE EXPOSURE
PR027B2, PR027B3, PR027C2, PR027C3

These disclosures aim at collecting the impact of climate related risks on the modeled losses for the perils of hurricane and wildfire that have been used in PR027B and PR027C respectively. These disclosures will be effective for YE 2024, YE 2025 and YE 2026 reporting. The intent of these disclosures is for informational purposes only and not to determine a new RCAT charge.

An insurer may elect to provide its response as either time-based or frequency-based, with the insurer responding to yes-no questions to indicate which approach is taken along with additional corresponding questions (if any). The impact should be estimated using the following specific instructions:

- For any approach used, the insurer must assume a static in-force book for business at year end (no changes to book of business, to reinsurance strategy, or to total insured value (TIV) inflation over the projected time horizon).
- For a time-based approach:
  - Representative Concentration Pathway (RCP) represents a set of projections that are meant to serve as an input for climate modeling, pattern scaling and atmospheric chemistry modeling. For purposes of these instructions, companies should utilize an RCP of 4.5 (or equivalent SSP).
  - The impact should be assessed separately under two-time horizons 2040 and 2050.
  - The impact can be modeled using either a Climate Conditioned Catalog developed by a commercial CAT model vendor or equivalent view of climate risk internally developed by the insurer or that is the result of adjustments made by the insurer to vendor provided catalogs to represent the own view of climate risk.
  - The two interrogatories PR027B2 for 2040 and 2050 should be populated for hurricane and the two interrogatories PR027C2 for 2040 and 2050 should populated for wildfire.
- For a frequency-based approach:
  - The impact should be modeled using both a 50% frequency increase for major hurricanes (Category 3 and higher, but only for wind losses) and all wildfire events, and a 10% increase in frequency for major hurricanes and all wildfire events.
  - The impact should be modeled using the same commercial CAT model or an equivalent model internally developed by the insurer used to develop the insurer's RCAT charge
  - The modeling assumptions should be the same as those used in the RCAT charge. For the hurricane peril, the adjustments should be constrained to wind frequency only—no adjustments should be made for other sub perils.
  - The two interrogatories PR027B3 10% and 50% should be populated for hurricane and the two interrogatories PR027C3 10% and 50% should populated for wildfire.

The same basic information is required to be completed for these PR027B2 and PR027C2 and PR027B3 and PR027C3 as the previous pages PR027B and PR027C, including specifically as follows:

Column (1) – Direct and Assumed Modeled Losses
These are the direct and assumed modeled losses per the first footnote. Include losses only; no loss adjustment expenses. For companies that are part of an inter-company pooling arrangement, the losses in this column should be consistent with those reported in Schedule P, i.e. losses reported in this column should be the gross losses for the pool multiplied by the company's share of the pool.

Column (2) – Net Modeled Losses
These are the net modeled losses per the footnote. Include losses only; no loss adjustment expenses.

Column (3) - Ceded Amounts Recoverable
These are the modeled losses ceded under any reinsurance contract. Include losses only, no loss adjustment expenses, and should be associated with the Net Modeled Losses.

For a time-based approach, in addition, the insurer should provide the following information about the view of climate risk used to determine the climate conditioned modeled losses under each time horizon:

- If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog.
- If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used

DISCLOSURE OF CLIMATE IMPACT ON EXPOSURE FOR HURRICANE PR027B2
(For Informational Purposes Only)

Hurricane	Reference	Climate Impact on Modeled Losses - 2040 (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1) Worst Year in 50	Company Records			
(2) Worst Year in 100	Company Records			
(3) Worst Year in 250	Company Records			
(4) Worst Year in 500	Company Records			
(5) Worst Year in 1000	Company Records			

View of climate impact used:	(4) Y/N
(5a) Was a Climate Conditioned Catalog developed by a commercial cat model vendor used?	
(5b) If the answer is yes, provide name and version of the catalog:	
(5c) Was this internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers?	
(5d) If the answer is yes, provide a brief description of assumptions/adjustments made, including the sources of climate science research used:	
(6a) Were the modeled losses calculated using the same commercial vendor/catastrophe model, or a combination of models used to calculate the CAT Risk Charge.	
(6b) If the answer is no, provide a brief description of the combination of models used:	

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE IMPACT ON EXPOSURE FOR HURRICANE PR027B2
(For Informational Purposes Only)

			Climate Impact on Modeled Losses - 2050		
Hurricane	Reference	(1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable	
(1) Worst Year in 50	Company Records				
(2) Worst Year in 100	Company Records				
(3) Worst Year in 250	Company Records				
(4) Worst Year in 500	Company Records				
(5) Worst Year in 1000	Company Records				

View of climate impact used:	(4) Y/N
(5a) Was a Climate Conditioned Catalog developed by a commercial cat model vendor used?	
(5b) If the answer is yes, provide name and version of the catalog:	
(5c) Was this internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers?	
(5d) If the answer is yes, provide a brief description of assumptions/adjustments made, including the sources of climate science research used:	
(6a) Were the modeled losses calculated using the same commercial vendor/catastrophe model, or a combination of models used to calculate the CAT Risk Charge.	
(6b) If the answer is no, provide a brief description of the combination of models used:	

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE IMPACT ON EXPOSURE FOR HURRICANE PR027B2
(For Informational Purposes Only)

Hurricane	Reference	Climate Impact on Modeled Losses - 10% Frequency Adjustment (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1) Worst Year in 50	Company Records			
(2) Worst Year in 100	Company Records			
(3) Worst Year in 250	Company Records			
(4) Worst Year in 500	Company Records			
(5) Worst Year in 1000	Company Records			

((6) The impact should be modeled using the same commercial CAT model or an equivalent model internally developed by the insurer used to develop the insurer's RCAT charge.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE IMPACT ON EXPOSURE FOR HURRICANE PR027B2
(For Informational Purposes Only)

Hurricane	Reference	Climate Impact on Modeled Losses - 50% Frequency Adjustment (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1) Worst Year in 50	Company Records			
(2) Worst Year in 100	Company Records			
(3) Worst Year in 250	Company Records			
(4) Worst Year in 500	Company Records			
(5) Worst Year in 1000	Company Records			

(6) The impact should be modeled using the same commercial CAT model or an equivalent model internally developed by the insurer used to develop the insurer's RCAT charge.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE IMPACT ON EXPOSURE FOR WILDFIRE PR027C2
(For Informational Purposes Only)

			Climate Impact on Modeled Losses - 2040		
Wildfire		Reference	(1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1)	Worst Year in 50	Company Records			
(2)	Worst Year in 100	Company Records			
(3)	Worst Year in 250	Company Records			
(4)	Worst Year in 500	Company Records			
(5)	Worst Year in 1000	Company Records			

View of climate impact used:

(4) Y/N

(5a) Was a Climate Conditioned Catalog developed by a commercial cat model vendor used?
(5b) If the answer is yes, provide name and version of the catalog:

(5c) Was this internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers?
(5d) If the answer is yes, provide a brief description of assumptions/adjustments made, including the sources of climate science research used:

(6a) Were the modeled losses calculated using the same commercial vendor/catastrophe model, or a combination of models used to calculate the CAT Risk Charge.
(6b) If the answer is no, provide a brief description of the combination of models used:

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE IMPACT ON EXPOSURE FOR WILDFIRE PR027C2
(For Informational Purposes Only)

			Climate Impact on Modeled Losses - 2050		
	Wildfire	Reference	(1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1)	Worst Year in 50	Company Records			
(2)	Worst Year in 100	Company Records			
(3)	Worst Year in 250	Company Records			
(4)	Worst Year in 500	Company Records			
(5)	Worst Year in 1000	Company Records			

View of climate impact used:	(4) Y/N
(5a) Was a Climate Conditioned Catalog developed by a commercial cat model vendor used?	
(5b) If the answer is yes, provide name and version of the catalog:	
(5c) Was this internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers?	
(5d) If the answer is yes, provide a brief description of assumptions/adjustments made, including the sources of climate science research used:	
(6a) Were the modeled losses calculated using the same commercial vendor/catastrophe model, or a combination of models used to calculate the CAT Risk Charge.	
(6b) If the answer is no, provide a brief description of the combination of models used:	

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE IMPACT ON EXPOSURE FOR WILDFIRE PR027C3
(For Informational Purposes Only)

Wildfire	Reference	Climate Impact on Modeled Losses - 10% Frequency Adjustment (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1) Worst Year in 50	Company Records			
(2) Worst Year in 100	Company Records			
(3) Worst Year in 250	Company Records			
(4) Worst Year in 500	Company Records			
(5) Worst Year in 1000	Company Records			

(6) The impact should be modeled using the same commercial CAT model or an equivalent model internally developed by the insurer used to develop the insurer's RCAT charge.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE IMPACT ON EXPOSURE FOR WILDFIRE PR027C3
(For Informational Purposes Only)

Wildfire	Reference	Climate Impact on Modeled Losses - 50% Frequency Adjustment (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1) Worst Year in 50	Company Records			
(2) Worst Year in 100	Company Records			
(3) Worst Year in 250	Company Records			
(4) Worst Year in 500	Company Records			
(5) Worst Year in 1000	Company Records			

(6) The impact should be modeled using the same commercial CAT model or an equivalent model internally developed by the insurer used to develop the insurer's RCAT charge.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

Capital Adequacy (E) Task Force

RBC Proposal Form

☐ Capital Adequacy (E) Task Force
☒ Catastrophe Risk (E) Subgroup
☐ Variable Annuities Capital. & Reserve (E/A) Subgroup
☐ Health RBC (E) Working Group
☐ P/C RBC (E) Working Group
☐ Economic Scenarios (E/A) Subgroup
☐ Life RBC (E) Working Group
☐ Longevity Risk (A/E) Subgroup
☐ RBC Investment Risk & Evaluation (E) Working Group

DATE: 1/23/24

CONTACT PERSON: Dan Daveline

TELEPHONE:

EMAIL ADDRESS: ddaveline@naic.org

ON BEHALF OF: Solvency Workstream of the Climate & Resiliency (EX) Task Force

NAME:

TITLE:

AFFILIATION:

ADDRESS:

FOR NAIC USE ONLY

Agenda Item # 2023-17-CR
Year 2024

DISPOSITION

ADOPTED:
☒ TASK FORCE (TF) 04/30/2024
☒ WORKING GROUP (WG) 04/25/2024
☒ SUBGROUP (SG) 04/23/2024

EXPOSED:
☐ TASK FORCE (TF)
☐ WORKING GROUP (WG)
☒ SUBGROUP (SG) 01/29/2024 03/17/24

REJECTED:
☐ TF ☐ WG ☐ SG

OTHER:
☐ DEFERRED TO
☐ REFERRED TO OTHER NAIC GROUP
☐ (SPECIFY)

IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

☐ Health RBC Blanks
☐ Health RBC Instructions
☐ Health RBC Formula
☒ Property/Casualty RBC Blanks
☒ Property/Casualty RBC Instructions
☒ Property/Casualty RBC Formula
☐ Life and Fraternal RBC Blanks
☐ Life and Fraternal RBC Instructions
☐ Life and Fraternal RBC Formula
☐ OTHER _____

DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

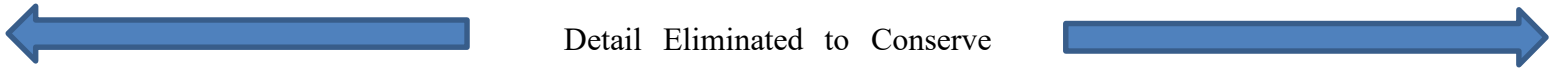
The Solvency Workstream of the Climate & Resiliency (EX) Task Force was tasked with considering the development of climate scenario analysis. The workstream held three public panels on the topic in 2022 and in 2023 learned that commercial CAT modelers have products known as "Climate Conditioned Catalogs" that reflect adjusted frequency and severity for certain time horizons (e.g. 2040 or 2050) that if compared side by side with existing RBC data in PR027 would provide an estimate of climate change for hurricane and wildfire. The information is intended to be useful for domestic regulators holding conversations with insurers that may have a greater degree of risk levels for these perils.

Additional Staff Comments:

4/22/24 – the proposal was revised based on the regulator inputs.

** **This section must be completed on all forms.** **Revised 2-2023**

CALCULATION OF CATASTROPHE RISK CHARGE RCAT
PR027A, PR027B, PR027C, PR027, PR027B2, PR027C2 AND PR027INT



DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE
PR027B2, PR027C2

These disclosures aim at collecting the impact of climate related risks on the modeled losses for the perils of hurricane and wildfire that have been used in PR027B and PR027C respectively. These disclosures will be effective for YE 2024, YE 2025 and YE 2026 reporting .The intent of these disclosures is for informational purposes only and not to determine a new RCAT charge. The impact should be estimated using the following specific instructions:

- Representative Concentration Pathway (RCP) represents a set of projections that are meant to serve as an input for climate modeling, pattern scaling and atmospheric chemistry modeling. For purposes of these instructions, companies should utilize an RCP of 4.5 (or equivalent SSP).
- The impact should be assessed separately under two-time horizons 2040 and 2050.
- Assume a static in-force book of business at year end (no changes to book of business, to reinsurance strategy or to total insured value (TIV) inflation over the projected time horizon).
- The impact can be modeled using either a Climate Conditioned Catalog developed by a commercial CAT model vendor or equivalent view of climate risk internally developed by the insurer or that is the result of adjustments made by the insurer to vendor provided catalogs to represent the own view of climate risk.

The same basic information is required to be completed for this PR027B2 and PR027C2 as the previous pages PR027B and PR027C, including specifically as follows:

Column (1) – Direct and Assumed Modeled Losses
These are the direct and assumed modeled losses per the first footnote. Include losses only; no loss adjustment expenses. For companies that are part of an inter-company pooling arrangement, the losses in this column should be consistent with those reported in Schedule P, i.e. losses reported in this column should be the gross losses for the pool multiplied by the company's share of the pool.

Column (2) – Net Modeled Losses
These are the net modeled losses per the footnote. Include losses only; no loss adjustment expenses.

Column (3) - Ceded Amounts Recoverable
These are the modeled losses ceded under any reinsurance contract. Include losses only, no loss adjustment expenses, and should be associated with the Net Modeled Losses.

In addition, the insurer should provide the following information about the view of climate risk used to determine the climate conditioned modeled losses under each time horizon:

- If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog.
- If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used

CALCULATION OF CATASTROPHE RISK CHARGE FOR HURRICANE PR027B

Hurricane	Reference	Modeled Losses (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable	(4)†† Ceded Amounts Recoverable with zero Credit Risk Charge
(1) Worst Year in 50	Company Records				
(2) Worst Year in 100	Company Records				
(3) Worst Year in 250	Company Records				
(4) Worst Year in 500	Company Records				
(5) Worst Year in 1000	**Company Records**				

	(5) Y/N
(6) Has the company reported above, its modeled hurricane losses using an occurrence exceedance probability (OEP) basis?	

	Reference	(6) Amount	Factor	(7) RBC Requirement (C(6) * Factor)
(7) Net Hurricane Risk	L(2) C(2)	0	1.000	0
(8) Contingent Credit Risk for Hurricane Risk	L(2) C(3) - C(4)	0	0.018	0
(9) Total Hurricane Catastrophe Risk (AEP Basis)	If L(6) C(5) = "N", L(9) C(6) = L(7) C(7)+ L(8) C(7), otherwise "0"	0	1.000	0
(10) Total Hurricane Catastrophe Risk (OEP Basis)	If L(6) C(5) = "Y", L(10) C(6) = L(7) C(7)+ L(8) C(7), otherwise "0"	0	1.000	0
(11) Total Hurricane Catastrophe Risk	L(9) C(7) + L(10) C(7)			0

Lines (1)-(5): Modeled losses to be entered on these lines are to be calculated using one of the following NAIC approved third party commercial vendor catastrophe models - AIR, CoreLogic, RMS, KCC, the ARA HurLoss Model, or the Florida Public Model for hurricane; or a catastrophe model that is internally developed by the insurer and has received permission of use by the lead or domestic state. The insurance company's own insured property exposure information should be used as inputs to the model(s). The insurance company may elect to use the modeled results from any one of the models, or any combination of the results of two or more of the models. Each insurer will not be required to utilize any prescribed set of modeling assumptions, but will be expected to use the same data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. An attestation to this effect and an explanation of the company's key assumptions and model selection may be required, and the company's catastrophe data, assumptions, model and results may be subject to examination.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

††Column (4) is modeled catastrophe losses that would be ceded to the categories of reinsurers that are not subject to the RBC credit risk charge (i.e., U.S. affiliates and mandatory pools, whether authorized, unauthorized, or certified).

Denotes items that must be manually entered on the filing software.

CALCULATION OF CATASTROPHE RISK CHARGE FOR WILDFIRE PR027C
(For Informational Purposes Only)

Wildfire	Reference	Modeled Losses (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable	(4)†† Ceded Amounts Recoverable with zero Credit Risk Charge
(1) Worst Year in 50	Company Records				
(2) Worst Year in 100	Company Records				
(3) Worst Year in 250	Company Records				
(4) Worst Year in 500	Company Records				
(5) Worst Year in 1000	**Company Records**				

	(5) Y/N
(6) Has the company reported above, its modeled wildfire losses using an occurrence exceedance probability (OEP) basis?	

	Reference	(6) Amount	Factor	(7) RBC Requirement (C(6) * Factor)
(7) Net Wildfire Risk	L(2) C(2)	0	1.000	0
(8) Contingent Credit Risk for Wildfire Risk	L(2) C(3) - C(4)	0	0.018	0
(9) Total Wildfire Catastrophe Risk (AEP Basis)	If L(6) C(5) = "N", L(9) C(6) = L(7) C(7)+ L(8) C(7), otherwise "0"	0	1.000	0
(10) Total Wildfire Catastrophe Risk (OEP Basis)	If L(6) C(5) = "Y", L(10) C(6) = L(7) C(7)+ L(8) C(7), otherwise "0"	0	1.000	0
(11) Total Wildfire Catastrophe Risk	L(9) C(7) + L(10) C(7)			0

Disclosure in lieu of model-based reporting:

	(8) Direct and Assumed	(9) Net
(12) For a company qualifying for the exemption under PR027INT C (10), complete 11a through 11c below:		
a. Provide the company's gross and net 1-in-100-year wildfire losses on a best estimate basis in lieu of model-based reporting.		

b. Provide details on how the company estimated the amounts shown in 11a.

c. Provide a narrative disclosure about how the company manages its wildfire risk.

Lines (1)-(**5**): Modeled losses to be entered on these lines are to be calculated using one of the following NAIC approved third party commercial vendor catastrophe models - AIR, RMS, or KCC, or a catastrophe model that is internally developed by the insurer and has received permission of use by the lead or domestic state. The insurance company's own insured property exposure information should be used as inputs to the model(s). The insurance company may elect to use the modeled results from any one of the models, or any combination of the results of two or more of the models. Each insurer will not be required to utilize any prescribed set of modeling assumptions, but will be expected to use the same data, modeling, and assumptions that the insurer uses in its own internal catastrophe risk management process. An attestation to this effect and an explanation of the company's key assumptions and model selection may be required, and the company's catastrophe data, assumptions, model and results may be subject to examination.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

††Column (4) is modeled catastrophe losses that would be ceded to the categories of reinsurers that are not subject to the RBC credit risk charge (i.e., U.S. affiliates and mandatory pools, whether authorized, unauthorized, or certified).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE FOR HURRICANE PR027BI
(For Informational Purposes Only)

Hurricane	Reference	Climate Conditioned Modeled Losses for 2040 (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1) Worst Year in 50	Company Records			
(2) Worst Year in 100	Company Records			
(3) Worst Year in 250	Company Records			
(4) Worst Year in 500	Company Records			
(5) Worst Year in 1000	Company Records			

View of climate risk used

(6) If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog

(7) If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used:

Lines (1)-(5): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor-catastrophe model, or combination of models used to calculate the CAT Risk Charge.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE FOR HURRICANE PR027BII
(For Informational Purposes Only)

	Hurricane	Reference	Climate Conditioned Modeled Losses for 2050 (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1)	Worst Year in 50	Company Records			
(2)	Worst Year in 100	Company Records			
(3)	Worst Year in 250	Company Records			
(4)	Worst Year in 500	Company Records			
(5)	Worst Year in 1000	Company Records			

View of climate risk used

(6) If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog

(7) If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used:

Lines (1)-(5): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor-catastrophe model, or combination of models used to calculate the CAT Risk Charge.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE FOR WILDFIRE PR027CI
(For Informational Purposes Only)

Wildfire	Reference	Climate Conditioned Modeled Losses for 2040 (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1) Worst Year in 50	Company Records			
(2) Worst Year in 100	Company Records			
(3) Worst Year in 250	Company Records			
(4) Worst Year in 500	Company Records			
(5) Worst Year in 1000	Company Records			

View of climate risk used

(6) If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog

(7) If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used:

Lines (1)-(5): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor catastrophe model, or combination of models used to calculate the CAT Risk Charge.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.

DISCLOSURE OF CLIMATE CONDITIONED CAT EXPOSURE FOR WILDFIRE PR027CII
(For Informational Purposes Only)

Wildfire	Reference	Climate Conditioned Modeled Losses for 2050 (1) Direct and Assumed	(2) Net	3† Ceded Amounts Recoverable
(1) Worst Year in 50	Company Records			
(2) Worst Year in 100	Company Records			
(3) Worst Year in 250	Company Records			
(4) Worst Year in 500	Company Records			
(5) Worst Year in 1000	Company Records			

View of climate risk used

(6) If a Climate Conditioned Catalog developed by a commercial CAT model vendor is used, provide name and version of the catalog

(7) If it is internally developed by the company or developed in collaboration with external climate specialists and/or reinsurance brokers, provide a brief description of assumptions/adjustments made including the sources of climate science research used:

Lines (1)-(5): Modeled losses to be entered on these lines are to be calculated using the same commercial vendor catastrophe model, or combination of models used to calculate the CAT Risk Charge.

† Column (3) is modeled catastrophe losses that would be ceded under reinsurance contracts. This should be associated with the Net Modeled Losses shown in Column (2).

Denotes items that must be manually entered on the filing software.