

STATEMENT OF ACTUARIAL OPINION
Annual Statement of the Dorinco Reinsurance Company
For the Year Ended December 31, 2018
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IDENTIFICATION

I, Yi Jing, am associated with Willis Towers Watson. I am a member of the American Academy of Actuaries and meet its qualification standards for signing statements of actuarial opinion regarding property and casualty insurance company statutory annual statements. I am a Fellow of the Casualty Actuarial Society. I was appointed by the Board of Directors of Dorinco Reinsurance Company (the Company) on May 17, 2018 to render this opinion.

SCOPE

I have examined the reserves listed in Exhibit A, as shown in the Annual Statement of the Company as prepared for filing with state regulatory officials, as of December 31, 2018. The items listed in Exhibit A, where applicable, reflect disclosure items 8 through 14 in Exhibit B. The applicable accounting standards are statutory accounting practices prescribed or permitted by the insurance regulatory authority of Michigan, as per Note 1 in the Company's Notes to Financial Statement.

My examination of the loss and loss adjustment expense reserves was based upon data and related information prepared by the Company. In this regard, I relied on Ms. Julie Premo, Vice President and Controller, Dorinco Reinsurance Company, as to the accuracy and completeness of the data. I evaluated the data used in my analysis for reasonableness and consistency. My evaluation did not reveal any data points materially affecting my analysis that fell outside of the range of reasonable possibilities. In performing this evaluation, I have assumed that the Company (a) used its best efforts to supply accurate and complete data and (b) did not knowingly provide any inaccurate data. I also reconciled the earned premium, paid loss and allocated loss adjustment expense amounts and case reserve amounts as of December 31, 2018 used in my analysis against Schedule P - Part 1 of the Company's current Annual Statement. In other respects, my examination included the use of such actuarial assumptions and methods and such tests of calculations as I considered necessary.

My examination was based on data and related information through the valuation date of December 31, 2018. My opinion was formed based on information provided to me through the review date of February 21, 2019 and my projections do not take into account any developments subsequent to this date.

My review was limited to the items in Exhibit A and did not include an analysis of any income statement items or other balance sheet items. My opinion on the reserves is based upon the assumption that all reserves are backed by valid assets, which have suitably scheduled maturities and/or adequate liquidity to meet cash flow requirements.

RELEVANT COMMENTS

Salvage and Subrogation

Reserves are stated net of anticipated salvage and subrogation. The Company's anticipated salvage and subrogation recoveries are zero, as stated in Exhibit B item 8.

Discounting

The Company does not discount loss and loss adjustment expense reserves.

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Pools and Associations

The Company participates in a small number of voluntary and involuntary pools. Company practice is to record the loss and loss adjustment expense reserves reported to it by the pools without accrual for any reporting lag. I consider reserve exposure with respect to pools to be immaterial.

Asbestos and Environmental Exposures

I have reviewed the Company's exposure to asbestos and environmental claims, and have included such claims in my opinion on the loss and loss adjustment expense reserves. Estimation of ultimate liabilities is unusually difficult due to outstanding issues such as whether coverage exists, definition of an occurrence, determination of ultimate damages, and allocation of such damages to financially responsible parties. Therefore, any estimation of these liabilities is subject to significantly greater than normal variation and uncertainty.

In 2001, The Dow Chemical Company (TDCC) acquired Union Carbide Corporation (UCC), which has exposure to asbestos claims. It is our understanding that the Company does not provide coverage for UCC asbestos claims arising from asbestos exposure prior to February 6, 2001. My opinion regarding the reserves is based on this assumption.

Extended Loss and Loss Adjustment Expense Reserve

The Company does not provide extended reporting coverage at no additional premium in the event of death, disability or retirement (DD&R) of an insured. Therefore, the Company has not established a provision for DD&R waiver of premium endorsement.

Accident and Health (A&H) Long Duration Contracts

The Company has represented to me that it has no reserves for A&H long duration contracts, defined as A&H contracts in which the contract term is greater than or equal to thirteen months and contract reserves are required.

Reinsurance

Based solely on discussions with Company management and their description of the Company's ceded and assumed reinsurance, I am not aware of any reinsurance transaction that either has been or should have been accounted for as retroactive reinsurance or as financial reinsurance (defined as contractual arrangements that do not include a transfer of both timing and underwriting risk).

My opinion on the loss and loss adjustment expense reserves net of ceded reinsurance assumes that all ceded reinsurance is valid and collectible. The majority of the Company's ceded loss and loss adjustment expense reserves are with an affiliated company that is unrated. These cessions total approximately \$326 million, or approximately 54% of surplus, and are fully secured. The remainder of the cessions are with companies rated A or better by a reputable insurance rating agency or are not material. In addition, the Company has represented to me that it knows of no uncollectible reinsurance cessions. I have not anticipated any contingent liabilities that could arise if the reinsurers do not meet their obligations to the Company as reflected in the data and other information provided to me.

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P&C Long Duration Unearned Premium

The Company has represented to me that it has no unearned premium for P&C long duration contracts, defined as single or fixed premium policies with coverage periods of thirteen months or greater which are non-cancelable and not subject to premium increase (except financial guaranty contracts, mortgage guaranty contracts, and surety contracts).

IRIS Tests 11, 12 and 13

I have reviewed the calculations of IRIS Test numbers 11, 12 and 13. The Company shows an exceptional value for IRIS Test 13, Estimated Current Reserve Deficiency to Policyholders' Surplus. The exceptional value on Test 13 is due to the increase in net earned premium for the non-standard auto liability line. The increase in net earned premium for the non-standard auto liability line accounts for 70% of the increase in total net earned premium in 2018. The non-standard auto liability line has much shorter loss development than the other lines the Company has exposure to including general liability, excess liability and products liability and a much lower reserve to premium ratio than those lines. Therefore, I do not believe the exceptional value for IRIS Test 13 indicates that the Company's current carried reserves are deficient.

Company-Specific Risk Factors

In my evaluation, I considered the following risk factors which increase the uncertainty inherent in the Company's loss and loss adjustment expense reserves:

- The Company writes excess of loss insurance, for which unpaid loss and loss adjustment reserves are generally subject to greater uncertainty.
- The Company provides its parent company Dow Chemical Company with products liability coverage that has mass tort exposures.
- The Company cedes a material amount (54% of surplus) to Dorintal Reinsurance Ltd., a non-rated affiliate.

Risk of Material Adverse Deviation

In consideration of the use of this opinion for purposes of solvency monitoring, I consider \$120,810,000 to be material for the Company, calculated as 20% of policyholders' surplus.

I do not believe that there are significant risks and uncertainties that could result in material adverse deviation in the Company's loss and loss adjustment expense reserves. This conclusion is based on the following mitigating factors, separately and in combination:

- The position of the held reserves relative to my estimate. Carried reserves are higher than my estimate.
- The cession to Dorintal Reinsurance Ltd. is fully secured.
- The consistency in the Company's claim functions over the recent past. There have been no operational changes that would significantly affect claim reserving or payment patterns.

The absence of significant risks and uncertainties at this time does not imply that factors will not be identified in the future as having been a significant influence on the Company's reserves.

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OPINION

In my opinion, the amounts recorded in the Annual Statement of the Company for the sum of items 1, 2, 5, and 6, as well as the sum of items 3, 4, 5, and 6 in Exhibit A:

- a) meet the requirements of the insurance laws of Michigan
- b) are consistent with amounts computed in accordance with the Casualty Actuarial Society Statement of Principles Regarding Property and Casualty Unpaid Claims Estimates and relevant standards of practice promulgated by the Actuarial Standards Board
- c) make a reasonable provision for all unpaid loss and loss adjustment expense obligations of the Company under the terms of its contracts and agreements

VARIABILITY

In evaluating whether the reserves make a reasonable provision for unpaid losses and loss expenses, it is necessary to project future loss and loss adjustment expense payments. Actual future losses and loss adjustment expenses will not develop exactly as projected and may, in fact, vary significantly from the projections.

Further, my projections make no provision for extraordinary future emergence of new classes of losses or types of losses not sufficiently represented in the Company's historical data, or which are not yet quantifiable.

An actuarial report, including underlying workpapers supporting the findings expressed in this Statement of Actuarial Opinion, will be provided to the Company to be retained for a period of seven years and available for regulatory examination. This Statement of Actuarial Opinion is solely for the use of, and only to be relied upon by, the Company and the various state insurance departments with which it files its Annual Statement.



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February 22, 2019

Exhibit A: SCOPE

<u>Loss and Loss Adjustment Expense Reserves:</u>	<u>Amount</u>
1. Unpaid Losses (Liabilities, Surplus and Other Funds page, Col 1, Line 1)	\$620,474,179
2. Unpaid Loss Adjustment Expenses (Liabilities, Surplus and Other Funds page, Col 1, Line 3)	\$178,916,099
3. Unpaid Losses – Direct and Assumed (Should equal Schedule P, Part 1, Summary, Totals from Cols. 13 and 15, Line 12 * 1000)	\$968,563,000
4. Unpaid Loss Adjustment Expenses – Direct and Assumed (Should equal Schedule P, Part 1, Summary, Totals from Cols. 17, 19 and 21, Line 12 * 1000)	\$185,581,000
5. The Page 3 write-in item reserve, "Retroactive Reinsurance Reserve Assumed"	\$0
6. Other Loss Reserve items on which the Appointed Actuary is expressing an Opinion (list separately, adding additional lines as needed)	\$0

<u>Premium Reserves:</u>	<u>Amount</u>
7. Reserve for Direct and Assumed Unearned Premiums for P&C Long Duration Contracts	\$0
8. Reserve for Net Unearned Premiums for P&C Long Duration Contracts	\$0
9. Other Premium Reserve items on which the Appointed Actuary is expressing an Opinion (list separately, adding additional lines as needed)	\$0

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Exhibit B: DISCLOSURES

NOTE: Exhibit B should be completed for Net dollar amounts included in the SCOPE. If an answer would be different for Direct and Assumed amounts, identify and discuss the difference within RELEVANT COMMENTS.

	Column 1	Column 2 Jing	Column 3 Yi	Column 4
1. Name of the Appointed Actuary				
2. The Appointed Actuary's relationship to the Company. Enter E or C based upon the following: E if an Employee of Company or Group C if a Consultant			C	
3. The Appointed Actuary has the following designation: F if a Fellow of the Casualty Actuarial Society (FCAS) A if an Associate of the Casualty Actuarial Society (ACAS) M if not a Member of the Casualty Actuarial Society, but a Member of the American Academy of Actuaries (MAAA) approved by the Casualty Practice Council, as documented with the attached approval letter. O for Other			F	
4. Type of Opinion, as identified in the OPINION paragraph. Enter R, I, E, Q, or N based upon the following: R if Reasonable I if Inadequate or Deficient Provision E if Excessive or Redundant Provision Q if Qualified. Use Q when part of the OPINION is Qualified. N if No Opinion			R	
5. Materiality Standard expressed in US dollars (used to Answer Question #6)	\$120,810,000			
6. Are there significant risks that could result in Material Adverse Deviation?		Yes []	No [x]	Not Applicable []
7. Statutory Surplus (Liabilities, Surplus and Other Funds page, Col 1, Line 37)	\$604,049,978			
8. Anticipated net salvage and subrogation included as a reduction to loss reserves as reported in Schedule P (should equal Part 1 Summary, Col 23, Line 12 * 1000)	\$0			
9. Discount included as a reduction to loss reserves and loss adjustment expense reserves as reported in Schedule P				
9.1 Nontabular Discount [Notes, Line 32B23, (Amounts 1, 2, 3 & 4)], Electronic Filing Cols 1, 2, 3 & 4	\$0			
9.2 Tabular Discount [Notes, Line 32A23, (Amounts 1 & 2)], Electronic Filing Col 1 & 2	\$0			
10. The net reserves for losses and loss adjustment expenses for the Company's share of voluntary and involuntary underwriting pools' and associations' unpaid losses and loss adjustment expenses that are included in reserves shown on the Liabilities, Surplus and Other Funds page, Losses and Loss Adjustment Expenses lines	\$4,011,000			
11. The net reserves for losses and loss adjustment expenses that the Company carries for the following liabilities included on the Liabilities, Surplus and Other Funds page, Losses and Loss Adjustment Expenses lines*				
11.1 Asbestos, as disclosed in the Notes to Financial Statements (Notes, Line 33A03D, ending net asbestos reserves for current year) Electronic Filing Col 5	\$7,089,075			
11.2 Environmental, as disclosed in the Notes to Financial Statements (Notes, Line 33D03D, ending net environmental reserves for current year), Electronic Filing Col 5	\$1,459,506			

* The reserves disclosed in item 11 above, should exclude amounts relating to contracts specifically written to cover asbestos and environmental exposures. Contracts specifically written to cover these exposures include Environmental Impairment Liability (post 1986), Asbestos Abatement, Pollution Legal Liability, Contractor's Pollution Liability, Consultant's Environmental Liability, and Pollution and Remediation Legal Liability.

Exhibit B: DISCLOSURES

12. The total claims made extended loss and loss adjustment expense reserve, and unearned premium reserves (Greater than or equal to Schedule P Interrogatories)	
12.1 Amount reported as loss and loss adjustment expense reserves.	\$0
12.2 Amount reported as unearned premium reserves	\$0
13. The net reserves for the A&H Long Duration Contracts that the Company carries on the following lines on the Liabilities, Surplus and Other Funds page:	
13.1 Losses	\$0
13.2 Loss Adjustment Expenses	\$0
13.3 Unearned Premium	\$0
13.4 Write-In (list separately, adding additional lines as needed, and identify (e.g., "Premium Deficiency Reserves", "Contract Reserves other than Premium Deficiency Reserves", or "AG51 Reserves"))	\$0
14. Other items on which the Appointed Actuary is providing relevant comment (list separately, adding additional lines as needed)	\$0