



AMERICAN ACADEMY *of* ACTUARIES

July 2, 1999

Ms. Elise Liebers,
Deputy Chief Casualty Actuary
New York State Insurance Department
25 Beaver Street
New York, NY 10004

Dear Ms. Liebers:

The American Academy of Actuaries appreciates the opportunity to comment on the Catastrophe Reserve - Probable Maximum Loss Cap Proposal, developed by the NAIC Catastrophe Reserve Sub-Group. The American Academy of Actuaries is the public policy organization for actuaries practicing in all specialties within the United States. A major purpose of the Academy is to act as the public information organization for the profession. The Academy is non-partisan and assists the public policy process through the presentation of clear and objective actuarial analysis. The Academy regularly prepares testimony for Congress, provides information to federal elected officials, comments on proposed federal regulations, and works closely with state officials on issues related to insurance. The Academy also develops and upholds actuarial standards of conduct, qualification and practice, and the Code of Professional Conduct for all actuaries practicing in the United States.

We understand you have requested our comments on three aspects of the Proposal:

- ! Are actuaries professionally qualified to render an Opinion on the PML Cap;
- ! Can an individual PML Cap be determined with reasonable accuracy; and
- ! What issues or parameters does the NAIC need to specify to ensure consistency in determining PML Caps.

Our comments are as follows:

- 1) Actuaries are professionally qualified to render an opinion on the PML Cap.

An actuary's training in both pricing and reserving is relevant to determining the PML Cap. The Statement of Principles Regarding Property and Casualty Insurance Rate Making of the Casualty Actuarial Society states that consideration should be given to the impact of catastrophes and that procedures should be developed to include an allowance for the catastrophe exposure in the rate. In this regard, actuaries are trained in: data analysis, including identifying and assessing the quality of historical insurance data; the

adjustments that might be necessary to reflect future conditions; and the use of non-insurance data where historical data does not provide sufficient information to reflect the pricing is relevant to the PML Cap determination as it makes provision for future contingent events.

that have already occurred, is

programs; analyses of data profiling an insurer's book of business; and selection of statistical techniques and interpretation of relevant models, including determination of

actual catastrophic risk exposure, net of reinsurance.

We recommend that the NAIC adopt signatory requirements for rendering an opinion on

Loss and Loss Adjustment Expense (LAE) Reserve Opinions. We recommend that individual insurers have the option to provide a combined (with the Loss and LAE)

documentation of methodology and assumptions be

- 2) We believe an individual insurer's PML Cap can be determined with reasonable accuracy.

these assessments in meeting their fiduciary responsibilities. Assessment of these exposures is necessary for: a) management of the accumulation of these exposures within structure of reinsurance programs and; c) compilation of information on these exposures and underwriting considerations for reinsurance submissions to reinsurers.

catastrophic loss. Risk Management Solutions, Inc. (RMS), and Applied Insurance Research (AIR) for example, have models that are in wide-spread use within the

evaluating a company's exposure to catastrophic risk, depending on the insurer's portfolio and risk characteristics. We believe determining the Probable Maximum Loss Cap and

for this purpose.

We do not believe the NAIC needs to list or certify in some way the various commercial

Cap. However, the actuary needs to understand the model and its appropriateness for the insurer, the input to the model and its quality, including exposure and reinsurance data,

selection of a model that is appropriate for the insurer's portfolio and risk characteristics is

an appropriate and necessary area for judgement, with the actuary's reasoning being documented in the Opinion.

The NAIC proposal lists eight specific types of events and nine lines of business for determining the Catastrophe Reserve. For some of these lines and event combinations, models are not available and the actuary's estimates may require significant judgement. Similarly, potential exposures to catastrophic loss, such as workers compensation losses following an earthquake, are not contemplated. While we don't believe these issues would prevent an actuary from rendering a meaningful determination of the PML Cap, we want the NAIC to be aware of these limitations.

The actual catastrophe reserve carried by an insurer at a given point in time will be the result of the state/line of business factors, the PML Cap, relative changes, and the timing into the accumulation period. It is important to note that the actuary would be providing an opinion on the catastrophe exposures underlying the PML Cap, which may be a different amount than the catastrophe reserve as determined in the current NAIC proposal.

3) Outstanding issues or parameters that the NAIC needs to address include the following:

- ! The return period is a critical parameter for the NAIC to set, in order to ensure consistency and minimum reserve standards among insurers. For example, should the PML Cap contemplate a 1-in-100 year probability or 1-in-250 years? Should the Cap reflect exposure from a single event? Or annual losses beyond a 1-in-100 or 1-in-250 probability? Should it also allow for potential severity over the cap? Should these parameters be the same for both insurers and reinsurers? Should they vary based on the relationship between the PML Cap and RBC? And, should insurers be allowed to select a higher return period (say 1-in-250 years) than the NAIC guideline (if it were to be 1-in-100 years)?
- ! Reinsurance needs to be contemplated by the actuary in determining the PML Cap. The NAIC should consider whether any restrictions or limitations should apply to reinsurance with unauthorized reinsurers and/or alternative risk transfer mechanisms.
- ! Different models and estimating techniques may be expected to yield different estimates of catastrophic loss and hence the PML Cap. Similarly, decisions on how to address the possibility of Demand Surge (higher prices for labor and supplies following a catastrophe), Storm Surge (a wave of water in conjunction with a storm), Fire Following and other factors impacting a Probable Maximum Loss need to be determined by the actuary. However, given the wide differences between insurers and their exposures to catastrophic loss, we believe selection of an appropriate model, if used, and the associated parameters are best left to the actuary's judgement and documentation in the Opinion. A related issue that needs to be addressed is whether, and to what extent, regulators can review any model

used by the actuary to determine the PML cap. While this is not strictly an actuarial issue, regulators who would review models might need to take steps to protect the confidentiality of these models which are generally regarded as highly proprietary information.

- ! The NAIC Risk Based Capital factors implicitly include a provision for catastrophe risk as a function of the variability of results. If the NAIC adopts a Catastrophe Reserve, consideration will need to be given to the Interaction of the Reserve and RBC to ensure the catastrophe component is not double-counted. This will be increasingly important as the catastrophe reserve increases in the years after implementation.

Thank you again for the opportunity to provide these comments. The Academy is available for further discussion if that would be of benefit to the Subgroup. Please contact Greg Vass, Academy Casualty Policy Analyst at (202) 223-8196 to facilitate further discussion of this issue.

Sincerely,

Wayne Fisher
Chairperson,
Catastrophe Insurance Working Group

CC: Susan Taylor, NAIC

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