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Mr. Louis Felice
Chair – NAIC Capital Adequacy Task Force
Chief – Health Bureau
New York State Insurance Department

New York, NY, 10010

Re **Proposed Updates to the NAIC RBC Instructions for the LR025 Schedule**

Dear Lou

The ACLI[1] wishes to propose a correction to the NAIC Life RBC instructions for the LR025 Schedule to be effective for 2012 RBC reports.

Summary

Beginning for year-end 2000, the NAIC RBC instructions that calculate the required capital for interest rate risk and market risk (currently schedule LR025) were updated to incorporate scenario based testing on defined blocks of business and to add a risk factor for callable assets. This change is commonly referred to as C-3 Phase 1. For the time period leading up to the implementation of the new instructions, NAIC meeting minutes consistently indicated that the callable assets that support business that is *not* cash flow tested ("CFT") would have a new risk charge and further, in some instances, specified that the calculation was to *exclude* callable assets supporting CFT business. This was appropriate since the risks related to the callable assets included in cash flow testing are captured in the results of the modeling. In 2000, just prior to implementation of the instructions a wording change was made what was a clear statement to not include the callable assets that support CFT business, to a less clear phrase, creating ambiguity in the calculation methodology as it relates to callable assets supporting CFT business. ACLI proposes updates to the language to clarify that if a company performs CFT, then the callable assets supporting CFT should not be included in the calculation of the factor-based floor.

[1] The American Council of Life Insurers ("ACLI") represents more than 300 legal reserve life insurer and fraternal benefit society member companies operating in the United States. These member companies represent over 90% of the assets and premiums of the U.S. life insurance and annuity industry.

Proposed Solution

ACLI requests the NAIC Capital Adequacy Task Force to review and update the LR025 instructions. Since the intent of the instructions was to not include callable/ pre-payable assets that support cash flow tested business, ACLI suggests making the following change to the LR025 instructions to clearly *not include* the value of those assets in the calculation. The proposal is to refine the instructions in the following two sections:

> Reserves on Certain Annuities and Single Premium Life Insurance that were Cash Flow Tested for Asset Adequacy – Factor-Based RBC; Additional Component for Callable/Pre-Payable Assets:
>
> Identify the amount of callable/pre-payable assets (including IOs and similar investments) supporting reserves classified in this section. The C-3 requirement after taxes is 50 percent of the excess, if any, of book/adjusted carrying value above current call price. The calculation is done on an asset-by-asset basis. NOTE: If a company is required to calculate part of the RBC based on cash flow testing for C-3 RBC, the factor requirement for callable/pre-payable assets used in that testing is zero.
>
> All Other Reserves; Additional Component for Callable/Pre-Payable Assets:
>
> Identify the amount of callable/pre-payable assets (including IOs and similar investments) not reported elsewhere in this schedule. This excludes callable/pre-payable assets that were used in the Cash Flow Testing under Reserves on Certain Annuities and Single Premium Life Insurance or used in the Interest Rate Risk Component for products included under the "Recommended Approach for Setting Risk-Based Capital Requirements for Variable Annuities and Similar Products.(C3P2)" This includes callable/pre-payable assets supporting reserves that were not cash flow tested and capital and surplus. The C-3 requirement after taxes is 50 percent of the excess, if any, of book/adjusted carrying value above current call price. The calculation is done on an asset-by-asset basis and reported in aggregate.
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> Appendix 1 – Cash Flow Testing for C-3 RBC:
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> (d) For callable/pre-payable assets (including IOs and similar investments) other than those used for testing in component (a) above and other than those used in C3P2 testing, the C-3 requirement is 76.9 percent of the excess, if any, of book/adjusted carrying value above current call price. The calculation is to be done on an asset by asset basis. For callable/pre-payable assets used for testing in component (a) above as well as those used in C3P2 testing, the C-3 factor requirement is zero.

This proposed update clarifies that the value of callable assets supporting CFT business should be zero, while preserving the treatment of callable assets supporting business not cash flow tested.

Background

In the late 1990's through 2000, the NAIC Life RBC Working Group charged the AAA Life RBC Task Force to review and recommend revisions to the C-3 component of the RBC formula. Consistently through that time period, the developers of the C3-Phase I methodology recommended the inclusion of callable assets supporting *untested products* be charged an RBC Factor. Their recommendations did not suggest applying a factor based charge for callable assets supporting CFT business. A review of the historical NAIC meeting minutes reflect proposed language that focuses solely on callable assets supporting untested business.

> Winter 1998 NAIC Meeting: "In addition to the above, assets supporting *untested* products and surplus will generate a C-3 charge if they fall into certain risk categories: poor convexity, carrying value above call price, or long duration assets which might be needed for unexpected cash demands.[2]"
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> Fall 1999 NAIC Meeting: "c) For callable assets (including interest only and similar investments) supporting *untested* products and surplus, the C-3 requirement is 50% of the excess, if any, of statement value above current call price (calculated on an asset-by-asset basis)."[3]
>
> Draft instructions prepared in 1999: "(16) CALLABLE ASSETS SUPPORTING SURPLUS AND RESERVES NOT TESTED BY ASSET ADEQUACY ANALYSIS"[4]

In the final instructions prepared in 2000, a wording change that was intended to "promote a higher degree of readability,"[5] actually created ambiguity and confusion with respect to what had been a clear exclusion of callable assets that support CFT businesses from the floor calculation. In the section titled, "Reserves which were Cash Flow Tested for Reserve Adequacy - Factor-Based RBC," in the paragraph titled "Additional Component for Callable Assets," the following sentence was changed *from*:

> "Callable assets used in cash flow scenario testing are not included in this calculation."[6]
>
> *to:*
>
> "Note, if a company is required to calculate part of the RBC based on cash flow scenario testing, the callable assets adjustment for any such assets used in that testing is reversed in a later step of the calculation."[7]

However, instead of simply excluding altogether callable assets subject to cash flow testing from the floor calculation, the amended instructions appeared to call for cash flow tested callable assets to be included in the line (32) floor calculation, then backed out in a later step of the calculation. The instructions then failed to specify the process for "the later step" for "reversing" inclusion of CFT callable assets in the floor calculation.

In early 2001, one of ACLI's member companies began working with the newly implemented Interest Rate Risk schedule and discovered that the callable asset component appeared to be included in the calculation of the floor even for callable assets backing business that was CFT. Since that company believed that having the callable assets that support CFT business in the factor-based floor was an unintended consequence of the updates, they approached the AAA Task Force chair, Bob Brown, to validate their conclusion. In the course of their discussions, AAA Task Force members noted:

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[2] NAIC Winter 1998 Meeting Minutes, page 31
[3] NAIC Fall 1999 Meeting Minutes, 1999_NAIC_Proc_3RD_QTR.doc, page 8
[4] Draft 1999 NAIC Life Risk-Based Capital Report Including Instructions for C-3, page 13
[5] NAIC Summer Meeting Minutes; 2000_NAIC_Proc_2ND _QTR.doc, page 24
[6] NAIC Summer 2000 Meeting Minutes; 2000_NAIC_Proc_2ND_QTR.doc, page 26
[7] NAIC Summer 2000 Meeting Minutes; 2000_NAIC_Proc_2ND_QTR.doc, page 24

- that the impact of the callable asset component on the floor calculation "…didn't get much discussion, in part because the 50% floor discussion was sort of separate from the callable asset one, but also because we thought the callable asset piece would be very small…" and
- that the issue had gone unnoticed to the working group and was likely not a major issue to other companies because "we were unaware [that more] than a few companies held portfolios with lots of matched IOs and POs"[8]

They acknowledged that the revised wording changes were either flawed or incomplete and suggested a "work around" solution – a reading of another section of the final instructions that would support exclusion and/or provide a way to achieve "reversal" of the callable asset component on cash flow tested business from the calculation of the overall floor for C3-PI. The company has been using that work around solution since 2000, with the realization that it would not work for all companies in all circumstances. ACLI proposes at this time to have the language of the RBC instructions clarified, and the computer code supporting page LR025 modified, so that no work around solution in necessary and all companies can automatically avail themselves of the intended exclusion.

Attached is a proposed change to the instructions for LR025 as discussed above. We appreciate the consideration of the Task Force for this issue, and will be available to answer any questions.

[8] C3-PI e-mail chain between a company and AAA task force members

INTEREST RATE RISK AND MARKET RISK
LR027

Basis of Factors

The interest rate risk is the risk of losses due to changes in interest rate levels. The factors chosen represent the surplus necessary to provide for a lack of synchronization of asset and liability cash flows.

The impact of interest rate changes will be greatest on those products where the guarantees are most in favor of the policyholder and where the policyholder is most likely to be responsive to changes in interest rates. Therefore, risk categories vary by withdrawal provision. Factors for each risk category were developed based on the assumption of well matched asset and liability durations. A loading of 50 percent was then added on to represent the extra risk of less well-matched portfolios. Companies must submit an unqualified actuarial opinion based on asset adequacy testing to be eligible for a credit of one-third of the RBC otherwise needed.

Consideration is needed for products with credited rates tied to an index, as the risk of synchronization of asset and liability cash flows is tied not only to changes in interest rates but also to changes in the underlying index. In particular, equity-indexed products have recently grown in popularity with many new product variations evolving. The same C-3 factors are to be applied for equity-indexed products as for their non-indexed counterparts; i.e., based on guaranteed values ignoring those related to the index.

In addition, some companies may choose to or be required to calculate part of the RBC on Certain Annuities and Single Premium Life Insurance under a method using cash flow testing techniques. Refer to **LR046** Exemption Test: Cash Flow Testing for C-3 RBC for determination of exemption from this cash flow testing requirement.

Reserves on Certain Annuities and Single Premium Life Insurance that were Cash Flow Tested for Asset Adequacy – Factor-Based RBC
See Appendix 1 of the instructions for more details.

The risk categories are:

(a) Low-Risk Category

The basic risk-based capital developed for annuities and life insurance in the low-risk category was based on an assumed asset/liability duration mismatch of 0.125 (i.e., a well matched portfolio). This durational gap was combined with a possible 4 percent one-year swing in interest rates (the maximum historical interest rate swing 95 percent of the time) to produce a pre-tax factor of 0.0077. In addition to the 50 percent loading discussed above, the risk-based capital pre-tax factor is 0.0115.

(b) Medium and High-Risk Category

The factors for the medium and high-risk categories were determined by measuring the value of the additional risk from the more discretionary withdrawal provisions based on assumptions of policyholder behavior and 1,000 random interest rate scenarios. Supplementary contracts not involving life contingencies and dividend accumulations are included in the medium-risk category due to the historical tendency of these policyholders to be relatively insensitive to interest rate changes.

Additional Component for Callable/Pre-Payable Assets

Identify the amount of callable/pre-payable assets (including IOs and similar investments) supporting reserves classified in this section. The C-3 requirement after taxes is 50 percent of the excess, if any, of book/adjusted carrying value above current call price. The calculation is done on an asset-by-asset basis. NOTE: If a company is required to calculate part of the RBC based on cash flow testing for C-3 RBC, the **factor based requirements for** callable/pre-payable assets ~~adjustment for any such assets~~ used in that testing is **zero**~~reversed in a later step of the calculation~~.

All Other Reserves

This captures all reserves not included in Reserves on Certain Annuities and Single Premium Life Insurance that were Cash Flow Tested or products included under the "Recommended Approach for Setting Risk-Based Capital Requirements for Variable Annuities and Similar Products."

The risk categories are:

(a) Low-Risk Category

The basic risk-based capital developed for annuities and life insurance in the low-risk category was based on an assumed asset/liability duration mismatch of 0.125 (i.e., a well-matched portfolio). This durational gap was combined with a possible 4 percent one-year swing in interest rates (the maximum historical interest rate swing 95 percent of the time) to produce a pre-tax factor of 0.0077. In addition to the 50 percent loading discussed above, the risk-based capital pre-tax factor is 0.0115.

(b) Medium and High-Risk Category

The factors for the medium and high-risk categories were determined by measuring the value of the additional risk from the more discretionary withdrawal provisions based on assumptions of policyholder behavior and 1,000 random interest rate scenarios. Supplementary contracts not involving life contingencies and dividend accumulations are included in the medium-risk category due to the historical tendency of these policyholders to be relatively insensitive to interest rate changes.

Additional Component for Callable/Pre-Payable Assets

Identify the amount of callable/pre-payable assets (including IOs and similar investments) not reported **elsewhere in this schedule. This excludes callable/pre-payable assets supporting**~~for~~ Reserves on Certain Annuities and Single Premium Life Insurance that were Cash Flow Tested or **supporting** the Interest Rate Risk Component for products included under the "Recommended Approach for Setting Risk-Based Capital Requirements for Variable Annuities and Similar Products." This includes callable/pre-payable assets supporting other reserves and capital and surplus. The C-3 requirement after taxes is 50 percent of the excess, if any, of book/adjusted carrying value above current call price. The calculation is done on an asset-by-asset basis and reported in aggregate.

Cash Flow Testing for C-3 RBC

A company may be required or choose to perform cash flow testing to determine its RBC requirement. Because of the widespread use of increasingly well-disciplined scenario testing for actuarial opinions based upon an asset adequacy analysis involving cash flow testing, it was determined that a practical method of measuring the degree of asset/liability mismatch existed. It involves further cash flow testing. See Appendix 1 – Cash Flow Testing for C-3 RBC for details.

Specific Instructions for Application of the Formula

Lines (2) through (16)

These lines deal with Certain Annuities and Single Premium Life Insurance for which reserves were cash flow tested for asset adequacy. The fixed portion of equity-based variable products should not be included. Guaranteed indexed separate accounts following a Class I investment strategy are reported as low-risk Line 2 and those following a Class II investment strategy are excluded. Company source records entered in Column (3) of Lines (13), (15) and (16) should be adjusted to a pre-tax basis.

Line (17)

Should equal the sum of Lines (6) + (11) + (14) + (15). Line (16) is not included in the Line (17) total. Instead, it is included in the Line (32) total.

Lines (18) through (31)

These lines cover:

(a) The remaining company business that was not cash flow tested for asset adequacy (see Appendix 1 for details) excluding products included under the "Recommended Approach for Setting Risk-Based Capital Requirements for Variable Annuities and Similar Products" and

(b) Business in companies that did not cash flow test for asset adequacy.

The calculation for risk-based capital should not include unitized separate accounts without guarantees even though they may be included in Item 32 of the Notes to Financial Statements. Separate accounts with guarantees should be included, except for those separate accounts that guarantee an index and follow a Class II investment strategy and certain other guaranteed separate accounts as defined below. Synthetic GICs net of certain credits should be included in this section. The provisions for these credits to C-3 requirements is provided in the Separate Accounts section of the risk-based capital instructions. Experience-rated pension contracts defined below should be excluded from "annuity reserves with fair value adjustment" and "annuity reserves not withdrawable." All amounts should be reported net of reinsurance, net of policy loans and adjusted for assumed and ceded modified coinsurance.

Experience-rated group and individual pension business that meets all of the following four conditions is excluded from C–3 factor-based risk:

(a) General account funded;
(b) Reserve interest rate is carried at no greater than 4 percent and/or fund long-term interest guarantee (in excess of a year) does not exceed 4 percent;
(c) Experience rating mechanism is immediate participation, retroactive credits, or other technique other than participating dividends; and
(d) Either is not subject to discretionary withdrawal or is subject to fair value adjustment, but only if the contractually defined lump sum fair value adjustment reflects portfolio experience as well as current interest rates and is expected to pass both credit risk and rate risk to the policyholder at withdrawal. (A lump sum settlement based only on changes in prevailing rates does not meet this test. Book value cash out options meet this test as long as the present value of payments using U.S. Treasury spot rates is less than or equal to the lump sum fair value on the valuation date and the policyholder does not have an option to change the payment period once payments begin.)

For companies not exempt from cash flow testing for C-3 RBC, such testing is to include those experience-rated products exempted from the formula factors, but for which cash flow testing is done as a part of the asset adequacy testing.

Non-indexed separate account business with guarantees that satisfy both conditions (b) and (d) above is excluded from C–3 factor-based risk.

Guaranteed indexed separate account business following a Class I investment strategy is reported on Line (18). Note that in the AAA Report "Proposed New Risk-Based Capital Method for Separate Accounts That Guarantee an Index (adopted by the NAIC Life Risk-Based Capital Working Group in New York, NY, June 2003), there is a stress test applicable to Class I investment strategies for a company that is not subject to scenario testing requirements.

Company source records entered in Column (3) of Lines (30) and (31) should be adjusted to a pre-tax basis.

<u>Line (33)</u>
Enter in Column (3) the pre-tax interest rate risk results of cash flow testing per the Appendix 1a methodology. Line (33) should be completed by all companies who do cash flow testing of Certain Annuities and Single Premium Life Insurance for asset adequacy (see Appendix 1) except those with less than $100 million in admitted assets at year-end, unless the answer to Line (14) or Line (22) of **LR046** Exemption Test: Cash Flow Testing for C-3 RBC is "Yes" or if the company chooses to do C-3 RBC cash flow testing on a continuing basis. Once a company chooses to use the C-3 RBC cash flow testing method to calculate RBC it must continue to do so unless regulatory approval from the domiciliary jurisdiction is received to go back to the factor-based method. The interest rate risk component for Variable Annuities and Similar Products should be entered into Line (35).

<u>Line (34)</u>
If Line (33) is equal to zero, then Line (34) should equal Line (32). Otherwise, Line (34) should equal Line (32) plus Line (33) less Line (16) less Line (17) subject to a minimum of 0.5 times Line (32).

<u>Line (35)</u>
Enter the interest rate risk component for Variable Annuities and Similar Products. The interest rate risk component should be entered on a pre-tax basis.

Appendix 1 – Cash Flow Testing for C-3 RBC

This appendix is applicable for all companies who do Cash Flow Testing for C-3 RBC.

The method of developing the C-3 component is building on the work of the asset adequacy modeling, but using interest scenarios designed to help approximate the 95^{th} percentile C-3 risk.

The C-3 component is to be calculated as the sum of four amounts, but subject to a minimum. The calculation is:

(a) For Certain Annuities or Single Premium Life Insurance products other than equity-indexed products, whether written directly or assumed through reinsurance, that the company tests for asset adequacy analysis using cash flow testing, an actuary should calculate the C-3 requirement based on the same cash flow models and assumptions used and same "as-of" date as for asset adequacy, but with a different set of interest scenarios and a different measurement of results. A weighted average of a subset of the scenario-specific results is used to determine the C-3 requirement. The result is to be divided by 0.65 to put it on a pre-tax basis for **LR027** Interest Rate Risk and Market Risk Column (2) Line (33).

If the "as-of" date of this testing is not Dec. 31, the ratio of the C-3 requirement to reserves on the "as-of" date is applied to the year-end reserves, similarly grouped, to determine the year-end C-3 requirement for this category.

(b) Equity-indexed products are to use the existing C-3 RBC factors, not the results of cash flow testing.

(c) For all other products (either non-cash-flow-tested or those outside the product scope defined above) the C-3 requirements are calculated using current existing C-3 RBC factors and instructions.

(d) For callable/pre-payable assets (including IOs and similar investments other than those used for testing in component a) above, the C-3 requirement is 76.9 percent of the excess, if any, of book/adjusted carrying value above current call price. The calculation is to be done on an asset-by-asset basis. **For callable/pre-payable assets used for testing in component a) above as well as those used in C3P2 testing, the C-3 factor requirement is zero.**

The total C-3 component is the sum of (a), (b), (c) and (d), but not less than half the C-3 component based on current factors and instructions.

- For this C-3 calculation, "Certain Annuities" means products with the characteristics of deferred and immediate annuities, structured settlements, guaranteed separate accounts (excluding guaranteed indexed separate accounts following a Class II investment strategy) and GICs (including synthetic GICs and funding agreements). Debt incurred for funding an investment account is included if cash flow testing of the arrangement is required by the insurer's state of domicile for asset adequacy analysis. The equity-based portions of variable products are not to be included, but guaranteed fixed options within such products are. See Appendix 1b for further discussion.

- The company may use either a standard 50 scenario set of interest rates or an alternative, but more conservative, 12 scenario set (for part a, above). It may use the smaller set for some products and the larger one for others. Details of the cash flow testing for C-3 RBC methodology are contained in Appendix 1a.

- In order to allow time for the additional work effort, an estimated value is permitted for the year-end annual statement. For the RBC electronic filing, the actual results of the cash flow testing for C-3 RBC will be required. If the actual RBC value exceeds that estimated earlier in the blanks filing by more than 5 percent, or if the actual value triggers regulatory action, a revised filing with the NAIC and the state of domicile is required by June 15; otherwise, re-filing is permitted but not required.

- The risk-based capital submission is to be accompanied by a statement from the appointed actuary certifying that in his or her opinion the assumptions used for these calculations are not unreasonable for the products, scenarios and purpose being tested. This C-3 Assumption Statement is required from the appointed actuary even if the cash flow testing for C-3 RBC is done by a different actuary.

- The cash flow testing used for this purpose will use assumptions as to cash flows, assets associated with tested liabilities, future investment strategy, rate spreads, “as-of” date and how negative cash flow is reflected consistent with those used for cash flow testing for asset adequacy purposes (except that if negative cash flow is modeled by borrowing, the actuary needs to make sure that the amount and cost of borrowing are reasonable for that particular scenario of the C-3 testing). The other differences are the interest scenarios assumptions and how the results are used.

  It is important that assumptions be reviewed for reasonableness under the severe scenarios used for C-3 RBC cash flow testing. The assumptions used for cash flow testing may need to be modified so as to produce reasonable results in severe scenarios.

- The actuary must also ensure that the cash flow testing used for the 50 or 12 scenarios does not double-count cash flow offsets to the interest rate risks. That is, that the calculations do not reduce C-3 and another RBC component for the same margins. For example, certain reserve margins on some guaranteed separate account products serve an AVR role and are credited against the C-1o requirement. To that degree, these margins should be removed from the reserve used for C-3 RBC cash flow testing.