



---

AMERICAN ACADEMY *of* ACTUARIES

---

*Objective. Independent. Effective.*<sup>™</sup>

November 11, 2015

Mr. Michael Boerner  
Chairperson, Life Actuarial Task Force  
National Association of Insurance Commissioners

Dear Mr. Boerner:

The American Academy of Actuaries<sup>1</sup> Deposit Fund Subgroup of the Annuity Reserves Work Group recommends changes to the Separate Accounts Funding Guaranteed Minimum Benefits Under Group Contracts Model Regulation for consistency with the changes to the Synthetic GIC Model Regulation approved by LATF in March 2015. The proposed changes impact the asset maintenance requirements for other than index contracts, as separate account contracts similar to Synthetic GICs are covered by these requirements. There are no proposed changes to the asset maintenance requirements for book value contracts and index contracts. The proposed changes include:

1. Determination of the discount rate; specifically, substituting 105% of the Treasury spot rate for a 50/50 blend of the Treasury spot rate and an investment grade Corporate bond index rate;
2. Clarify and strengthen the valuation requirements for pooled fund contracts;
3. Expand the requirements in the plan of operations for pooled fund contracts; and
4. Expand the actuarial memorandum requirements related to withdrawal risks.

The attached document reflects the proposed changes to the Model Regulation in marked to show format.

The Deposit Fund Subgroup looks forward to discussing the proposed changes to the Separate Accounts Funding Guaranteed Minimum Benefits Under Group Contracts Model Regulation on an upcoming LATF conference call. Please contact Scot Davies, the Academy's life policy analyst ([sdavies@actuary.org](mailto:sdavies@actuary.org); 202-785-6924), to schedule a discussion of this proposal.

Sincerely,

Tina Kennedy, MAAA, FSA  
Chairperson, Deposit Fund Subgroup

---

<sup>1</sup> The American Academy of Actuaries is an 18,500+ member professional association whose mission is to serve the public and the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

**SEPARATE ACCOUNTS FUNDING  
GUARANTEED MINIMUM BENEFITS UNDER GROUP CONTRACTS  
MODEL REGULATION**

**Table of Contents**

|             |   |
|-------------|---|
| Section 1.  | Authority   |
| Section 2.  | Purpose   |
| Section 3.  | Scope   |
| Section 4.  | Definitions   |
| Section 5.  | Plan of Operations Requirements   |
| Section 6.  | Required Contract Provisions and Filing Requirements  |
| Section 7.  | Asset Maintenance Requirements for Market Value Separate Accounts Supporting Contracts other than Index Contracts |
| Section 8.  | Asset Maintenance Requirements for Market Value Separate Accounts Supporting Index Contracts                      |
| Section 9.  | Asset Maintenance Requirements for Separate Accounts Supporting Book Value Contracts                              |
| Section 10. | Actuarial Opinion and Memorandum  |
| Section 11. | Asset Valuation Reserve   |
| Section 12. | Reserve Valuation   |
| Section 13. | Severability  |

**Section 1. Authority**

This regulation is issued pursuant to the authority vested in the commissioner of the State of [insert state] under [insert citation for authority].

**Drafting Note:** Insert title of the chief insurance regulatory official whenever the term “commissioner” appears.

**Section 2. Purpose**

This regulation prescribes rules for separate accounts that fund guaranteed minimum benefits under group contracts. In addition the regulation sets out the procedures for establishing and maintaining these separate accounts and the reserve requirements for these accounts.

**Section 3. Scope**

This regulation applies to a group life insurance contract providing survivor income benefits, a group annuity contract, or a funding agreement issued for delivery on or after the [insert prospective effective date for applicable state] if the contract is a group contract that utilizes a separate account and provides guaranteed minimum benefits. However, for contracts issued prior to [insert date 24 months after effective date of regulation] pursuant to applicable laws and regulations prior to the effective date of the regulation, the insurance company may continue to operate in accordance with the issued contract and plan of operations, if any, until such time as the applicable contract terms or provisions are substantially changed, at which time a filing complying with this regulation shall be required. This regulation shall not apply to modified guaranteed annuities or modified guaranteed life insurance or variable annuity or variable life insurance subject to Sections [insert reference] or equity index products but this regulation shall apply to index contracts as defined in Section 4.

**Drafting Note:** It is expected that individual regulators, where applicable, will retain the right to withdraw approval of previously filed contract forms for new issuance if they do not conform to the regulation. Therefore, no language explicitly withdrawing approval of these forms was included.

**Drafting Note:** This regulation shall govern solely a group contract that utilizes a separate account and provides guaranteed minimum benefits.

**Drafting Note:** Contracts would remain “grandfathered” until such time as the applicable contract terms or provisions are substantially changed, such as by a contract amendment modifying interest rate or withdrawal provisions. Changes that would not require the filing of a form of contract in compliance with this regulation or a change in the basis of recording asset and liability values in the annual statement would include: address changes, continued deposits, and other non-substantive changes such as these.

#### **Section 4. Definitions**

As used in this regulation, the following terms have these meanings:

- A. “Account assets” means separate account assets plus any assets held in the general account or a supplemental account to meet the asset maintenance requirements.
- B. “Account contracts” means the contracts providing guaranteed minimum benefits or other benefits and funded by a separate account and, if applicable, funded in part by the general account or a supplemental account to meet the asset maintenance requirements.
- C. “Actuarial opinion” means the opinion of the valuation actuary required to be submitted to the commissioner pursuant to Section 10.
- D. “Actuarial memorandum” means the memorandum of the valuation actuary prepared pursuant to Section 10 that supports the actuarial opinion.
- E. “Affirmatively approved” means approval of an insurer’s plan of operations for a class of contracts containing the form of contract under review, after the plan of operations associated with the class of contracts has been reviewed by the insurer’s domiciliary insurance department, and the plan of operations has been found to be in compliance with the NAIC Model Regulation for Separate Accounts Funding Guaranteed Minimum Benefits Under Group Contracts by the domiciliary insurance department. Affirmatively approved does not mean approval as a result of the deemer provision.
- F. “Appointed actuary” means the qualified actuary appointed or retained either directly by or by the authority of the board of directors through an executive officer of the company to prepare the annual statement of actuarial opinion for the company as a whole pursuant to Section [insert reference to standard valuation law].
- G. “Asset maintenance requirements” means the requirement to maintain assets to fund contract benefits in accordance with Sections 7, 8 and 9.
- H. “Book value contract” means a fixed accumulation contract (GIC), purchased under a retirement plan or plan of deferred compensation, established or maintained by an employer, that does not participate in the investment experience of a separate account, with a fixed interest rate guarantee, including a guarantee based on an external index, and that is supported by a separate account, the plan of operations of which provides that the separate account’s assets are valued as if the assets were held in the insurance company’s general account.
- I. “Class of contracts” means the set of all contracts to which a given plan of operations pertains.

- J. “Contract” means a group life insurance policy, group annuity contract, or funding agreement that is within the scope of this regulation as set forth in Section 3.
- K. “Contract benefits” means the amounts obligated to be paid by the insurance company under an account contract.
- L. “Contract liabilities” means the liabilities of the insurance company under account contracts, including liabilities with respect to which guarantees as to amount are provided by the insurance company and liabilities with respect to which guarantees as to amount are not provided by the insurance company.
- M. “Date of filing,” with respect to a filing for approval of a form of contract under this regulation, means the date as defined by the applicable rules, regulations or statutes of the state of issue with regard to contract filings.

**Drafting Note:** Individual states may wish to insert a specific reference to the applicable rule, regulation or statute.

- N. (1) “Derivative instrument” means an agreement, option, instrument or a series or combination of them:
  - (a) To make or take delivery of, or assume or relinquish, a specified amount of one or more underlying interests, or to make a cash settlement in lieu thereof; or
  - (b) That has a price, performance, value or cash flow based primarily upon the actual or expected price, level, performance, value or cash flow of one or more underlying interests.
- (2) Derivative instruments include options, warrants used in a hedging transaction and not attached to another financial instrument, caps, floors, collars, swaps, forwards, futures and any other agreements, options or substantially similar instruments or any series or combination of them and any agreements, options or other instruments permitted under [insert reference to state law equivalent to Section 18 of the NAIC Investments of Insurers Model Act (Defined Limits Version)].
- O. “Duration” means, with respect to separate account or supplemental account assets or guaranteed contract liabilities, a measure of the price sensitivity of a stream of cash flows to interest rate movements, including, but not limited to, modified duration or option adjusted duration.
- P. “General account” means the assets of the insurance company other than separate account and supplemental account assets, and associated reserves.
- Q. “Guaranteed minimum benefits” means benefits payable under the terms of the contract that are based on either (i) the greater of Paragraph (1) or (2), or (ii) Paragraph (3) of this subsection where:
  - (1) Is that part of the market value of account assets that determines the contractholder’s benefits, i.e., to the extent the assets are beneficially “client” assets; provided, that if asset performance does not determine the contractholder’s benefit, this subparagraph equals zero;

- (2) Is a fixed minimum guarantee related to all or part of the considerations received under the contract; and
- (3) Is an amount based upon a publicly available interest rates series or an index of the aggregate market value of a group of publicly traded financial instruments, either of which is specified in the contract.

R. Hedging transaction means:

- (1) A derivative transaction, involving use of one or more derivative instruments, that is entered into and maintained to reduce:
  - (a) The risk of a change in the value, yield, price, cash flow or quantity of assets or liabilities that the insurer has acquired or incurred or anticipates acquiring or incurring; or
  - (b) The currency exchange risk or the degree of exposure as to assets or liabilities that an insurer has acquired or incurred or anticipates acquiring or incurring; or
- (2) Other derivative transactions specified as hedging transactions in rules adopted by the commissioner.

S. "Index contract" means a contract under which contract benefits shall be based upon a publicly available interest rate series or an index of the aggregate market value of a group of publicly traded financial instruments, either of which is specified in the contract, and that does not provide a guarantee of some or all of the consideration received plus earnings at a fixed rate specified in advance and that does not provide any secondary guarantees on elective benefits or maturity values.

T. "Market value separate account" means a separate account in which the separate account assets are valued at their market value.

U. "Plan of operations" means a written plan meeting the requirements of Section 5B.

V. "Prudent estimate" assumption means an assumption developed by applying a margin to the best estimate assumption for that risk.

W. "Qualified actuary" means an individual who is qualified to sign statements of actuarial opinion in accordance with the qualification standards set forth in [insert reference to section of the regulations related to actuarial opinions and memoranda].

XW. "Separate account" means an account established pursuant to [insert reference to provision of insurance law permitting the establishment of separate accounts].

YX. "Spot rate"

- (1) "Treasury-based spot rate" corresponding to a given time of benefit payment means the yield on a zero-coupon non-callable and non-prepayable United States government obligation maturing at that time, or the zero-coupon yield implied by the price of a representative sampling of coupon-bearing, non-callable and non-prepayable United States government obligations in accordance with a formula set forth in the plan of operation.

(2) “Index spot rate” corresponding to a given time of benefit payment means the zero-coupon yield implied by (x) the Barclays Short Term Corporate Index (for a given time of benefit payment under one year) or (y) the zero-coupon yield implied by the Barclays U.S. Corporate Investment Grade Bond Index (for a given time of benefit payment greater than or equal to one year).

(3) “Blended spot rate” corresponding to a given time of benefit payment means a blend of 50% of each of (i) the ~~the~~ Treasury-based spot rate, and (ii) the index spot rate. ~~To the extent that guaranteed contract liabilities are denominated in the currency of a foreign country rates, in one ~~two~~ of the two (2) highest rating categories by an independent nationally recognized United States rating agency acceptable to the commissioner and which are supported by investments denominated in the currency of the foreign country, the ~~the~~ Treasury-based spot rate component of the blended spot rate may be determined by reference to substantially similar obligations of the government of the foreign country. For liabilities other than those described above, the blended spot rate shall be determined on a basis mutually agreed upon by the insurer and the commissioner.~~

~~corresponding to a given time of benefit payment means the yield on a zero-coupon non-callable and non-prepayable United States government obligation maturing at that time, or the zero-coupon yield implied by the price of a representative sampling of coupon-bearing non-callable and non-prepayable United States government obligations in accordance with a formula set forth in the plan of operations filed pursuant to Section 5. To the extent that guaranteed contract liabilities are denominated in the currency of a foreign country rated in one of the two highest rating categories by an independent nationally recognized United States rating agency acceptable to the commissioner and are supported by investments denominated in the currency of the foreign country, the spot rate may be determined by reference to substantially similar obligations of the government of the foreign country. For liabilities other than those described above, the spot rate shall be determined on a basis mutually agreed upon by the insurance company and the commissioner.~~

ZY. “Supplemental account” means a separate account established pursuant to Sections 7, 8 or 9 to which assets may be contributed by the insurance company for the purpose of complying, in whole or in part, with the asset maintenance requirement and with respect to which neither the account contracts nor applicable law shall provide that the assets of the supplemental account are not chargeable with liabilities arising out of any other business of the insurance company.

AAZ. “United States government obligation” means a direct obligation issued, assumed, guaranteed or insured by the United States of America or by an agency or instrumentality of the United States.

BBA. “Valuation actuary” means the appointed actuary or, alternatively, a qualified actuary designated by the appointed actuary to render the actuarial opinion pursuant to Section 10. Written documentation of any such designation shall be on file at the company and available for review by the commissioner upon request.

## Section 5. Plan of Operations Requirements

A contract may not be delivered or issued for delivery in this state unless the issuing insurance company is licensed as a life insurance company in this state. In addition, a domestic insurer may not deliver or issue for delivery, either in this state or outside this state, a contract belonging to a specific class of contracts unless the insurer has satisfied the requirements of Subsections A and B of this section with respect to that class.

A. A domestic insurer will satisfy the requirements of this section with respect to a class

of contracts if the insurer has filed a plan of operations pertaining to the class of contracts, together with copies of forms of the contracts in the class, with the commissioner and the filing has been approved or has not been disapproved within the sixty-day period following the date of the filing, in which event the plan of operations shall be deemed approved.

- B. The plan of operations for a class of contracts shall describe the financial implications for the insurer of the issuance of contracts in the class, and shall include at least the following:

- (1) A description of the class of contracts to which the plan of operations pertains. This should include a description of the products, the markets to which the products will be sold, the benefits that are being offered (including whether those benefits will be paid on a market or book value basis);
- (2) A statement that the plan of operations will be administered in accordance with the requirements prescribed by the commissioner pursuant to this regulation, along with a statement that the insurer will comply with the plan of operations in its administration of the contract;
- (3) A statement of the investment policy for the separate account and any supplemental account, including requirements for diversification, maturity, type and quality of assets, and as applicable, target duration for matching guaranteed contract liabilities or the degree to which the investment policy is likely to match the performance of an interest rate series or index on which contract benefits are based;
- (4) A description of how the value of the separate account assets and any supplemental account is to be determined, including but not limited to, a statement of procedures and rules for valuing securities and other assets that are not publicly traded;
- (5) A description of how the guaranteed contract liabilities are to be valued, including, if applicable, with respect to guaranteed minimum benefits or other benefits, a description of the methodology for calculating spot rates and the rates proposed to be used to discount guaranteed contract liabilities if higher than the applicable spot rates, but the rate or rates used shall not exceed ~~105 percent of~~ the blended spot rate, except that if the expected time of payment of a contract benefit is more than thirty (30) years, it shall be discounted from the expected time of payment to year thirty (30) at a rate of no more than eighty percent (80%) of the thirty-year blended spot rate and from year thirty (30) to the date of valuation at a rate not greater than ~~105 percent of~~ the thirty-year blended spot rate, and shall conservatively reflect expected investment returns (taking into account foreign exchange risks);
- (6) A statement of how the separate account's operations are designed to provide for payment of contract benefits as they become due, including but not limited to:
  - (a) A description of the method for estimating the amount and timing of benefit payments;
  - (b) The arrangements necessary to provide liquidity to cover contingencies;
  - (c) The method to be used to comply with the asset maintenance requirement;
  - (d) The manner in which account assets will be allocated between the separate account, any supplemental account, and the general account;



- (e) If applicable, the deductions to be used in determining the market value of an asset when determining the asset maintenance requirement when the investment policy of the separate account and any supplemental accounts is not likely to match the performance of an interest rate series or index on which contract benefits are based; and
- (f) For index contracts, the deductions to be used for replicated (synthetic asset) transactions in determining the market value of the separate account.

(g) For market value separate accounts supporting contracts other than index contracts:

(i) A description of the criteria used by the insurer in approving for contract issuance a pooled fund representing multiple employer-sponsored plans;

(ii) A description of risk-mitigation techniques used by the insurer in connection with contracts issued to pooled funds representing multiple employer-sponsored plans;

Guidance Note: A pooled fund is an arrangement in which multiple, unaffiliated employer-sponsored plans invest in a shared trust. Pooled funds generally allow plan sponsors the right to exit the fund at book value subject to advance notification requirements. In describing the criteria used by the insurer in evaluating the potential issuance of a contract, discuss the insurer's advance notification requirements and how any actual advance notifications will be monitored and reflected in the risk management of the contract.

- (7) An unqualified opinion by a qualified actuary with expertise in such matters as to the adequacy of the consideration charged by the insurance company for the risks it has assumed with respect to the contracts in the class to which the plan of operations pertains;
- (8) If hedging transactions are to be utilized in managing separate account or any supplemental account assets, a description of the instruments and techniques and an explanation of how they are intended to reduce risk of loss;
- (9) If the amount of the asset maintenance requirement depends on the separate account, any supplemental account or a subportfolio of either being duration matched, a description of the method used to determine the durations of separate account and any supplemental account assets and guaranteed contract liabilities;
- (10) If a part of the asset maintenance requirement is to be met by maintaining a reserve liability in the general account, a description of:
  - (a) The circumstances under which increases and decreases in the general account portion of the reserve liability will be made;
  - (b) The circumstances under which transfers will be made between the separate account and the general account; and
  - (c) Any arrangements needed to provide sufficient liquidity in the general account to enable the insurance company to make transfers to the separate account when due.

- (11) A statement as to the extent to which the contracts in the class will provide or applicable law does provide that the separate account assets shall not be chargeable with liabilities arising out of any other business of the insurance company; and
  - (12) If any person other than the insurance company may authorize, approve or review the acquisition and disposition of investments for the separate account or any supplemental account, a statement of the safeguards adopted by the insurance company to assure that the actions to be taken by these persons are appropriate, including a description of the criteria used by the insurance company in selecting the person.
- C. Notwithstanding the descriptions in the plan of operations, the insurance company may change the rate used pursuant to Section 7F to discount guaranteed contract liabilities and other items applicable to the separate account or any supplemental accounts, such as if the investment portfolio is different from that anticipated by the plan of operations, provided that the rates used shall not exceed the ~~maximum multiples of the blended~~ spot rates as prescribed in Subsection B(5) of this section. Any such change shall be disclosed and justified in the actuarial opinion submitted pursuant to Section 10.
- D. A plan of operations filed pursuant to this section may provide that the separate account will fund guaranteed contract liabilities denominated in the currency of a foreign country with separate account and any supplemental account assets denominated in that currency, provided that at the time of issuance of the account contracts, the country is rated in one of the two (2) highest rating categories by an independent nationally recognized United States rating agency acceptable to the commissioner.
- E. The commissioner may require an insurance company to file additional information as part of the plan of operations if the commissioner determines that the plan of operations is not sufficient.

## Section 6. Required Contract Provisions and Filing Requirements

**Drafting Note:** Section 6 may be omitted in its entirety if the state does not require contracts to be filed for approval, and the state wishes to eliminate required contract provisions. Subsection B of this section may be omitted if a state does not require contracts to be filed for approval, but wishes to establish required contract provisions.

A contract may not be delivered or issued for delivery in this state unless the contract satisfies the requirements of Subsection A of this section and the issuing insurer has satisfied the requirements of Subsection B of this section with respect to the contract:

- A. The contract shall provide:
- (1) A description of any contractual safeguards to assure asset sufficiency, including termination events, discontinuance triggers or discontinuance options and corrective action procedures;
  - (2) A description of how any charges under the contract are computed, including, but not limited to, any risk or surrender charge; and
  - (3) For a book value contract, a description of how any market value adjustments under the contract are computed.

- B. An insurer will satisfy the filing and approval requirements of this section with respect to a contract if the insurer has filed the form of the contract with the commissioner and it is accompanied by the items specified in Paragraphs (1), (2), and (3) of this subsection, and the form of contract has been approved or has not been disapproved within the thirty-day period following the date of filing, in which event the form of contract shall be deemed approved. Notwithstanding the foregoing, the requirement for filing and approval of the form of contract may be waived at the discretion of the commissioner.
- (1) The form of the contract filed for approval shall be accompanied by a statement that the contract meets the conditions of Subsection A of this section.
  - (2) The form of contract filed for approval shall be accompanied by a statement:
    - (a) Specifying the range of variation of variable contract provisions, if any, that could have a material effect on the risk assumed by the insurer under the contract, including withdrawal methodology, crediting rate formula and termination events; and

**Drafting Note:** Contract forms covered by this model regulation frequently incorporate variable provisions. The statement required by Subparagraph (a) is intended to provide the information regulators need to evaluate the risks associated with such variability.

- (b) Listing events, if any, that give the insurer the right to terminate the contract immediately.
  - (3)
    - (a) If the plan of operations pertaining to the class of contracts to which the contract belongs has been affirmatively approved by the commissioner of the state in which the issuing insurer is domiciled, the form of a contract filed for approval shall be accompanied by a statement indicating the receipt of approval and that the approval was an affirmative approval; or
    - (b) If the plan of operations pertaining to the class of contracts to which the contract belongs has been deemed approved in the state in which the issuing insurer is domiciled, the form of contract filed for approval shall be accompanied by a statement indicating that the issuing insurer has met the requirements for deemed approval; or
    - (c) If the plan of operations pertaining to the class of contracts to which the contract belongs has not been approved, either affirmatively or by deemer, in the state in which the issuing insurer is domiciled, the form of contract filed for approval shall be accompanied by a statement of this fact, together with a plan of operations pertaining to the contract.

**Drafting Note:** The state of filing may request the plan of operations for informational purposes and may take it into account in deciding whether to approve the form. It is not anticipated that the state of filing would review and approve the plan of operations, but may use it in connection with the review of the form of contract.

**Drafting Note:** If the plan of operations has not been approved, either affirmatively or by deemer, in the state of domicile of the issuing insurer, the state of issue, in issuing contract approvals, may wish to establish requirements to be met by the issuing insurer (e.g., a notice requirement if the plan of operations subsequently changes, or a requirement that the contract be operated in compliance with the plan of operations) in order to maintain its approval.

**Section 7. Asset Maintenance Requirements for Market Value Separate Accounts Supporting Contracts other than Index Contracts**

- A. At all times an insurer shall hold sufficient assets as a reserve in the general account, the separate account or supplemental accounts, as appropriate, such that the:
- (1) Market value of the assets held in the separate account, plus
  - (2) The market value of any supplemental account, plus
  - (3) Any assets held in the general account as a reserve for guaranteed contract liabilities (valued in accordance with [insert reference to rules governing valuation of general account assets]), less
  - (4) The deductions provided for in Subsection B of this section,
- equals or exceeds the value of guaranteed contract liabilities determined in accordance with Subsection F of this section.
- B. In determining compliance with the asset maintenance requirement and the reserve for guaranteed contract liabilities in accordance Subsection A of this section, the insurance company shall deduct a percentage of the market value of the separate account or supplemental account asset or an amount attributable to a replicated (synthetic asset) transaction as follows:
- (1) For debt instruments, the percentage shall be the NAIC asset valuation reserve “reserve objective factor,” but the factor shall be increased fifty percent (50%) for the purpose of this calculation if the difference in durations of the assets and liabilities is more than one-half year;
  - (2) For assets that are not debt instruments, the percentage shall be the NAIC asset valuation reserve “maximum reserve factor”; and
  - (3) For replicated (synthetic asset) transactions, the market value of the separate account or supplemental account assets shall be decreased by an amount equal to the asset valuation reserve for the transaction as if the transaction were occurring in the general account, determined in accordance with [insert reference for determining asset valuation reserve]; but to the extent that the NAIC asset valuation reserve maximum reserve factor was not used in determining the amount of the deduction, the amount of the deduction shall be increased fifty percent (50%) for purposes of this calculation.
- C. To the extent that guaranteed contract liabilities are denominated in the currency of a foreign country and are supported by separate account or supplemental account assets denominated in the currency of the foreign country, the percentage deduction for these assets under Subsection B of this section shall be that for a substantially similar investment denominated in the currency of the United States.
- D. To the extent that guaranteed contract liabilities are denominated in the currency of the United States and are supported by separate account or supplemental account assets denominated in the currency of a foreign country, and to the extent that guaranteed contract liabilities are denominated in the currency of a foreign country

and are supported by separate account or supplemental account assets denominated in the currency of the United States, the deduction for debt instruments and replicated (synthetic assets) transactions under Subsection B of this section shall be increased by fifteen percent (15%) of its market value unless the currency exchange risk has been adequately hedged, in which case the percentage deduction under Subsection B of this section shall be increased by one-half percent (0.5%). No guaranteed contract liabilities denominated in the currency of a foreign country shall be supported by separate account or supplemental account assets denominated in the currency of another foreign country without the approval of the commissioner. For purposes of this subsection, the currency exchange rate on an asset is deemed to be adequately hedged if:

- (1) It is an obligation of a jurisdiction that is rated in one of two (2) highest rating categories by an independent nationally recognized United States rating agency acceptable to the commissioner or a political subdivision or other governmental unit of the jurisdiction, or is organized under the laws of the jurisdiction; and
- (2) At all times the principal amount and scheduled interest payments on the principal are hedged against the United States dollar pursuant to contracts or agreements that are:
  - (a) Issued by or traded on a securities exchange or board of trade regulated under the laws of the United States or Canada or a province of Canada;
  - (b) Entered into with a United States banking institution that has assets in excess of \$5 billion and that has obligations outstanding, or has a parent corporation that has obligations, that are rated in one of the two (2) highest rating categories by an independent, nationally recognized United States rating agency, or with a broker-dealer registered with the Securities and Exchange Commission that has net capital in excess of \$250 million;
  - (c) Entered into with any other banking institution that has assets in excess of \$5 billion and that has obligations outstanding, or has a parent corporation that has obligations outstanding, that are rated in one of the two (2) highest rating categories by an independent, nationally recognized United States rating agency and that is organized under the laws of a jurisdiction that is rated in one of the two (2) highest rating categories by an independent, nationally recognized United States rating agency; or
  - (d) Entered into with an entity permitted under [insert reference to section of investment law enumerating permitted counterparties for currency hedging transactions].

E. All or a portion of the amount needed to comply with the asset maintenance requirement may be allocated to one or more supplemental accounts. If the account contract or applicable law provides that the assets in the separate account shall not be chargeable with liabilities arising out of any other business of the insurance company, the insurance company shall maintain in a supplemental account or the general account the amount of any account assets in excess of the sum of (i) the amounts contributed (net of withdrawals) by the contractholder, and (ii) the earnings attributable to the amounts contributed (net of withdrawals) by the contractholder.

F. (1) For purposes of this section, the minimum value of guaranteed contract liabilities is defined to be the sum of the expected guaranteed contract benefits, each discounted at a rate corresponding to the expected time of payment of the contract benefit that is not greater than the ~~maximum multiple of the blended spot~~ rate supportable by the expected return from the separate account and any supplemental account assets provided that the rate used shall not exceed the ~~maximum multiples of the blended~~ spot rates as prescribed in Section 5B(5) or as described in the actuarial opinion. In calculating the minimum value of contract benefits, all guaranteed contract benefits potentially available to the contractholder shall be considered in the valuation process and analysis, and the reserve held shall be sufficient to fund the greatest present value of each independent guaranteed benefit stream, including guaranteed annuitization options available.

(2) To the extent that future cash flows are dependent upon the benefit responsiveness features of an employer-sponsored plan, a best estimate or an estimate based on the insurance company's experience shall be used in the projections of the future cash flows. In addition, the valuation actuary shall periodically review the actual experience under the contract to validate the assumptions used. In projecting cash flows for contingent benefits involving mortality, the mortality tables for these benefits prescribed or authorized in [insert appropriate section] of the insurance law shall be used.

(3) The minimum value of guaranteed contract benefits under a contract issued to a pooled fund representing multiple employer-sponsored plans shall be determined so as to reflect projected plan sponsor contract value withdrawals available to the member plans in the pooled fund.

Projections of such future cash flows shall take into account (i) known plan sponsor withdrawals, and (ii) a prudent estimate of future plan sponsor withdrawals. The prudent estimate shall be based on company experience and other relevant criteria.

Guidance Note: Other relevant criteria include, but are not limited to, the pooled fund's profile (e.g. number of employer-sponsored plans, and the minimum, maximum, and average size of such plans), the minimum notice that plan sponsors are required to give in order to effectuate a plan sponsor withdrawal, the percentage of the pooled fund that is investment-only and that is full service, and economic conditions.

A single valuation rate shall be determined equal to the lesser of:

- (i) The expected return from the separate account, or
- (ii) The blended spot rate based on the duration of the separate account.

This single valuation rate shall be used to model future market values of the separate account. Future credited interest rates shall be modeled according to the contractually defined crediting rate formula. Modeled future contract values shall reflect modeled future market values, modeled future credited interest rates, known future plan sponsor withdrawals, the prudent estimate of future plan sponsor withdrawals, future withdrawals consistent with Paragraph (2) of this subsection, and any remaining final payment at the modeled contract termination date.

All such modeled withdrawals and termination payments shall be discounted using the single valuation rate and the modeled times of those withdrawals and payments. The sum of these present values shall be deemed the minimum value of the guaranteed contract liabilities for a pooled fund contract.

**Section 8. Asset Maintenance Requirements for Market Value Separate Accounts Supporting Index Contracts**

- A. At all times an insurance company shall hold sufficient assets as a reserve in the general account, the separate account or supplemental accounts, as appropriate, such that the:
- (1) Market value of the assets held in the separate account, plus,
  - (2) The market value of any supplemental account, plus,
  - (3) Any assets held in the general account as a reserve for guaranteed contract liabilities (valued in accordance with [insert reference to rules governing valuation of general account assets]), less
  - (4) Any deduction provided for in Subsection B of this section, equals or exceeds the value of guaranteed contract liabilities determined in the manner set forth in the plan of operations.
- B. In determining compliance with the asset maintenance requirement and the reserves for guaranteed contract liabilities in accordance with Subsection A of this section, the insurance company shall deduct a percentage of the market value of a separate account or supplemental account asset as set forth in the plan of operations, and for replication (synthetic asset) transactions, the value of the separate account or supplemental account assets shall be decreased in the manner set forth in the plan of operations.
- C. All or a portion of the amount needed to comply with the asset maintenance requirement may be allocated to one or more supplemental accounts. If the account contract or applicable law provides that the assets in the separate account shall not be chargeable with liabilities arising out of any other business of the insurance company, the insurance company shall maintain in a supplemental account or the general account the amount of any account assets in excess of the sum of (i) the amounts contributed (net of withdrawals) by the contractholder, and (ii) the earnings attributable to the amounts contributed (net of withdrawals) by the contractholder.

**Section 9. Asset Maintenance Requirements for Separate Accounts Supporting Book Value Contracts**

- A. At all times an insurance company shall hold sufficient assets in the general account, the separate account or supplemental accounts, as appropriate, such that the value of the account assets, valued as if the assets were held in the insurance company's general account, equals or exceeds the reserve required for contracts supported by the separate account, determined as if the contracts were held in the general account.
- B. All or any portion of the amount needed to comply with the asset maintenance requirement may be allocated to one or more supplemental accounts. If the account contract or applicable law provides that the assets in the separate account shall not be chargeable with liabilities arising out of any other business of the insurance company, the insurance company shall maintain in a supplemental account or the general account the amount of any account assets in excess of the sum of (i) the amounts contributed (net of withdrawals) by the contractholder, and (ii) the earnings attributable to the amounts contributed (net of withdrawals) by the contractholder.

## Section 10. Actuarial Opinion and Memorandum

- A. An insurance company that maintains any separate accounts governed by this regulation shall submit an actuarial opinion rendered by the valuation actuary to the commissioner annually by March 1 showing the status of the accounts as of the preceding December 31. The actuarial opinion shall be supported by a confidential actuarial memorandum prepared by the valuation actuary rendering the opinion. The valuation actuary may be either the appointed actuary of the company or, alternatively, a qualified actuary designated by the appointed actuary to be the valuation actuary for the purpose of this regulation.
- B. The memorandum in support of the opinion, and any other material provided by the company to the commissioner in connection therewith, are deemed to be confidential to the same extent, and under the same conditions, as the actuarial memorandum required by [insert reference to state law equivalent to Section 3 of the NAIC Model Standard Valuation Law].
- C. The memorandum shall be made available for examination by the commissioner upon his or her request, but shall be returned to the company after such examination and shall not be considered a record of the insurance department or subject to automatic filing with the commissioner.

**Drafting Note:** Each state should review its laws regarding confidentiality of industry provided information and conform those provisions accordingly.

- D. Except in cases of fraud or willful misconduct, the valuation actuary shall not be liable for damages to any person (other than the insurance company and the commissioner) for any act, error, omission, decision, or conduct with respect to the actuary's opinion.
- E. The statement of actuarial opinion submitted in accordance with Section 10A shall cover the applicable points set forth in Section [insert reference to regulation governing content of actuarial opinion] and at a minimum consist of:
  - (1) A paragraph identifying the valuation actuary and his or her qualifications;
  - (2) A scope paragraph identifying the subjects on which the opinion is to be expressed and describing the scope of the valuation actuary's work;
  - (3) A reliance paragraph describing those areas, if any, where the valuation actuary has deferred to other experts in developing data, procedures or assumptions (e.g., anticipated cash flows from currently owned assets, including variation in cash flows according to economic scenarios [insert reference to regulation governing content of actuarial opinion with respect to reliance], supported by a statement of each expert in the form prescribed by [insert reference to regulation governing content of actuarial opinion with respect to reliance]); and
  - (4) An opinion paragraph expressing the valuation actuary's opinion that, after taking into account any risk charge payable from the separate account assets and the amount of any reserve liability of the general account and amounts held in any supplemental account with respect to the asset maintenance requirement, the account assets make adequate provision for the contract liabilities.



- (5) The opinion shall also state:
    - (a) That the level of risk charges, if any, payable to the general account was appropriate in view of such factors as the nature of the guaranteed contract liabilities and losses experienced in connection with account contracts, and other pricing factors;
    - (b) That after taking account of any reserve liability of the general account and amounts held in any supplemental account with respect to the asset maintenance requirement, the amount of the account assets satisfied the asset maintenance requirement;
    - (c) That the fixed-income asset portfolio conformed to, and justified, the rates used to discount contract liabilities for valuation pursuant to Section 7F, if applicable; and
    - (d) Whether any rates used pursuant to Section 7F to discount guaranteed contract liabilities and other items applicable to the separate account or any supplemental account were modified from the rate or rates described in the plan of operations filed pursuant to Section 5.
  - (6) One or more additional paragraphs may be needed in individual company cases as follows:
    - (a) If the valuation actuary considers it necessary to state a qualification of his or her opinion;
    - (b) If the valuation actuary must disclose an inconsistency in the method of analysis used at the prior opinion date with that used for this opinion; or
    - (c) If the valuation actuary chooses to add a paragraph briefly describing the assumptions which form the basis of the actuarial opinion.
- F. The opinion shall be accompanied by a certificate of an officer of the insurance company responsible for monitoring compliance with the asset maintenance requirements for the separate accounts, describing the extent to and manner in which during the preceding year:
- (1) Actual benefit payments conformed to the benefit payment estimated to be made as described in the plan of operations;
  - (2) The determination of the value of the separate account and any supplemental account conformed to the valuation procedures described in the plan of operations, including, but not limited to, a statement of the procedures and sources of information used during the year; and
  - (3) Any assets were transferred to or from the insurance company's general account, or any amounts were paid to the insurance company by any contractholder to support the insurance company's guarantee.

- G. The actuarial memorandum shall:
- (1) Substantially conform with those portions of Section [insert reference to section of the regulations related to actuarial memoranda] of these regulations that are applicable to asset adequacy testing and either:
    - (a) Demonstrate the adequacy of account assets based upon cash flow analysis; or
    - (b) Explain why cash flow analysis is not appropriate, describe the alternative methodology of asset adequacy testing used, and demonstrate the adequacy of account assets under such methodology.
  - (2) Clearly describe the assumptions the valuation actuary used in support of the actuarial opinion, including any assumptions made in projecting cash flows under each class of assets, and any dynamic portfolio hedging techniques utilized and the tests performed on the utilization of the techniques;
  - (3) Clearly describe how the valuation actuary reflected the risk of default on obligations and mortgage loans, including obligations and mortgage loans that are not investment grade;
  - (4) Clearly describe how the valuation actuary has reflected withdrawal risks, if applicable, including a discussion of the positioning of the contracts within the benefit withdrawal priority order pertaining to the contracts, the impact of any dynamic lapse assumption and the results of sensitivity testing the prudent estimate of future plan sponsor withdrawals pursuant to Section 7F(3);
  - (5) If the plan of operations provides for investments in separate account or supplemental account assets other than United States government obligations, demonstrate that the rates used to discount contract liabilities pursuant to Section 7F conservatively reflect expected investment returns (taking into account any foreign exchange risks);
  - (6) If the contracts provide that in certain circumstances they would cease to be funded by a separate account and, instead, would become contracts funded by the general account, clearly describe how any increased reserves would be provided for if and to the extent these circumstances occurred;
  - (7) State the amount of separate account assets that are not chargeable with liabilities arising out of any other business of the insurance company;
  - (8) State the amount of reserves and supporting assets as of December 31 and where the reserves and assets are shown in the annual statement;
  - (9) State the amount of any contingency reserve carried as part of surplus;
  - (10) For book value contracts, state the market value of supporting assets; and
  - (11) Where separate account assets are not chargeable with liabilities arising out of any other business of the insurance company, describe how the level of risk charges payable to the general account provider are appropriate compensation for the risk taken by the general account.

## **Section 11. Asset Valuation Reserve**

When the insurance company values separate account or supplemental account assets at market and complies with the asset maintenance requirements of Section 7 or 8, it need not maintain an asset valuation reserve with respect to these assets.

## **Section 12. Reserve Valuation**

- A. Reserves for contracts funded by a market value separate account supporting contracts other than index contracts shall be an amount equal to the following:
- (1) The total reserve required to be maintained on the valuation date under Section 7;
  - (2) Plus the excess, if any, of the market value of separate account assets (to the extent that the market value of the assets determines the contractholder's benefits, i.e., to the extent the assets are beneficially "client" assets) over the amount determined in accordance with Paragraph (1) of this subsection;
  - (3) Plus any additional amount determined by the valuation actuary as necessary to make adequate provision for all of the contract liabilities;
  - (4) Plus any additional amount determined as necessary by the commissioner due to the nature of the benefits.
- B. Reserves for index contracts funded by a market value separate account shall be an amount equal to the following:
- (1) The total reserve required to be maintained on the valuation date under Section 8;
  - (2) Plus the excess, if any, of the market value of separate account assets (to the extent that the market value of the assets determines the contractholder's benefits, i.e., to the extent the assets are beneficially "client" assets) over the amount determined in accordance with Paragraph (1) of this subsection;
  - (3) Plus any additional amounts determined by the valuation actuary as necessary to make adequate provision for all of the contract liabilities;
  - (4) Plus any additional amount determined as necessary by the commissioner due to the nature of the benefits.
- C. Reserves for book value contracts shall be determined as if the contracts were held in the general account.
- D. The amount of any reserves required by Subsections A(3) and (4) or Subsections B(3) and (4) of this section may be established by either:
- (1) Allocating sufficient assets to the separate account or a supplemental account to satisfy the requirement; or
  - (2) Setting up the additional reserves in the general account.

**Section 13. Severability**

If any provision of this regulation or its application to any person or circumstance is held invalid by a court of competent jurisdiction, that judgment shall not affect or impair the validity of the other provisions of this regulation.

---

*Legislative History (all references are to the Proceedings of the NAIC).*

*1998 Proc. 4<sup>th</sup> Quarter 15, 17, 243, 285-286, 288, 289-299 (adopted).*

*1999 Proc. 3<sup>rd</sup> Quarter 25, 26, 340, 343, 367-369 (amended).*