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Connecticut Standard Valuation Law

Sec. 38a-78-1. Purpose

The purpose of sections 38a-78-1 to 38a-78-10, inclusive, of these regulations is to prescribe:

(a) guidelines and standards for statements of actuarial opinion which shall be submitted in accordance with subsection (b) of section 38a-78 of the Standard Valuation Law, and for memoranda in support thereof;

(b) guidelines and standards for statements of actuarial opinion which shall be submitted when a company is exempt from subdivision (2) of subsection (b) of section 38a-78 of the Standard Valuation Law; and

(c) rules applicable to the appointment of an appointed actuary.

(Effective September 28, 1993)

Sec. 38a-78-2. Authority

This regulation is promulgated pursuant to the authority vested in the insurance commissioner of the State of Connecticut under section 38a-78 (b) of the Connecticut General Statutes.

(Effective September 28, 1993)

Sec. 38a-78-3. Applicability and scope

Except as otherwise specifically provided, sections 38a-78-1 to 38a-78-10, inclusive, of these regulations shall apply to all life insurance companies and fraternal benefit societies doing business in this state and to all life insurance companies and fraternal benefit societies which are authorized to reinsure life insurance, annuities or accident and health insurance business in this state. Sections 38a-78-1 to 38a-78-10, inclusive, of these regulations shall be applicable to all annual statements filed with the commissioner after the effective date of this regulation. Except with respect to companies which are exempted pursuant to section 38a-78-6 of these regulations, a statement of opinion on the adequacy of the reserves and related actuarial items based on an asset adequacy analysis in accordance with section 38a-78-8 of these regulations, and a memorandum in support thereof in accordance with section 38a-78-9 of these regulations, shall be required each year. Any company so exempted must file a statement of actuarial opinion pursuant to section 38a-78-7 of these regulations.

Notwithstanding the foregoing, the commissioner may require any company otherwise exempt pursuant to this regulation to submit a statement of actuarial opinion and to prepare a memorandum in support thereof in accordance with sections 38a-78-8 and 38a-78-9 of these regulations if, in the opinion of the commissioner, an asset adequacy analysis is necessary with respect to the company.

(Effective September 28, 1993)

Sec. 38a-78-4. Definitions

As used in sections 38a-78-1 to 38a-78-10, inclusive of these regulations:

(a) "Actuarial Opinion" means:

(1) With respect to Sections 38a-78-8, 38a-78-9 or 38a-78-10 of these regulations, the opinion of an appointed Actuary regarding the adequacy of the reserves and related actuarial items based on an asset adequacy test in accordance with Section 38a-78-8 of these regulations and with presently accepted actuarial standards;

(2) With respect to section 38a-78-7 of these regulations, the opinion of an appointed actuary regarding the calculation of reserves and related items, in accordance with section 38a-78-7 of these regulations and with presently accepted actuarial standards which relate to this section 38a-78-7 opinion.

(b) "Actuarial Standards Board" is the board established by the American Academy of Actuaries to develop and promulgate standards of actuarial practice.

(c) "Annual Statement" means that statement required by Section 38a-53 of the Connecticut General Statutes to be filed by the company with the commissioner annually.

(d) "Appointed Actuary" means any individual who is appointed or retained in accordance with the requirements set forth in subsection (c) of section 38a-78-5 of these regulations to provide the actuarial opinion and supporting memorandum as required by subsection (b) of section 38a-78 of the Standard Valuation Law.

(e) "Asset Adequacy Analysis" means an analysis that meets the standards and other requirements referred to in subsection (d) of section 38a-78-5 of these regulations. It may take many forms, including, but not limited to, cash flow testing, sensitivity testing or applications of risk theory.

(f) "Commissioner" means the insurance commissioner of the State of Connecticut.

(g) "Company" means a life insurance company, fraternal benefit society or reinsurer subject to the provisions of these regulations.

(h) "Non-Investment Grade Bonds" are those designated as classes 3, 4, 5 or 6 by the NAIC Securities Valuation Office.

(i) "Qualified Actuary" means any individual who meets the requirements set forth in subsection (b) of section 38a-78-5 of these regulations.

(j) "Standard Valuation Law" means sections 38a-77 and 38a-78 of the Connecticut General Statutes.

(Effective September 28, 1993)

Sec. 38a-78-5. General requirements

(a) **Submission of Statement of Actuarial Opinion.** (1) There is to be included on or attached to page 1 of the annual statement for each year beginning with the year in which this regulation becomes effective the statement of an appointed actuary, entitled "Statement of Actuarial Opinion," setting forth an opinion relating to reserves and related actuarial items held in support of policies and contracts, in accordance with section 38a-78-8 of these regulations; provided, however, that any company exempted pursuant to section 38a-78-6 of these regulations from submitting a statement of actuarial opinion in accordance with section 38a-78-8 of these regulations shall include on or attach to page 1 of the annual statement a statement of actuarial opinion rendered by an appointed actuary in accordance with section 38a-78-7 of these regulations.

(2) If in the previous year a company provided a statement of actuarial opinion in accordance with section 38a-78-7 of these regulations, and in the current year fails the exemption criteria of subdivision (1) of subsection (c) of section 38a-78-6 of these regulations, subdivision (2) of subsection (c) of 38a-78-6 of these regulations or subdivision (5) of subsection (c) of 38a-78-6 of these regulations to again provide an actuarial opinion in accordance with section 38a-78-7 of these regulations, the statement of actuarial opinion in accordance with section 38a-78-8 of these regulations shall not be required until August 1 following the date of the annual statement. In this instance, the company shall provide a statement of actuarial opinion in accordance with section 38a-78-7 of these regulations with appropriate qualification noting the intent to subsequently provide a statement of actuarial opinion in accordance with section 38a-78-8 of these regulations.

(3) In the case of a statement of actuarial opinion required to be submitted by a foreign or alien company, the commissioner may accept the statement of actuarial

opinion filed by such company with the insurance supervisory regulator of another state if the commissioner determines that such opinion reasonably meets the requirements applicable to a company domiciled in this state.

(4) Upon written request by the company, the commissioner may grant an extension of the date for submission of the statement of actuarial opinion.

(b) **Qualified Actuary.** A "qualified actuary" is an individual who:

(1) is a member in good standing of the American Academy of Actuaries; and
(2) is qualified to sign statements of actuarial opinion for life and health insurance company annual statements in accordance with the American Academy of Actuaries qualification standards for actuaries signing such statements; and

(3) is familiar with the valuation requirements applicable to life and health insurance companies; and

(4) has not been found by the commissioner (or if so found has subsequently been reinstated as a qualified actuary), following appropriate notice and hearing to have:

(A) violated any provision of, or any obligation imposed by, the insurance law or other law in the course of his or her dealings as a qualified actuary; or

(B) been found guilty of fraudulent or dishonest practices; or

(C) demonstrated his or her incompetency, lack of cooperation, or untrustworthiness to act as a qualified actuary; or

(D) submitted to the commissioner during the past five years, pursuant to this regulation, an actuarial opinion or memorandum that the commissioner rejected because it did not meet the provisions of this regulation including standards set by the Actuarial Standards Board; or

(E) resigned or been removed as an actuary within the past five years as a result of acts or omissions indicated in any adverse report on examination or as a result of failure to adhere to generally acceptable actuarial standards; and

(5) has not failed to notify the commissioner of any action taken by any insurance commissioner of any other state similar to that under subdivision (4) of this subsection.

(c) **Appointed Actuary.** An "appointed actuary" is a qualified actuary who is appointed or retained to prepare the Statement of Actuarial Opinion required by this regulation, either directly by or by the authority of the board of directors through an executive officer of the company. The company shall give the commissioner timely written notice of the name, title (and, in the case of a consulting actuary, the name of the firm) and manner of appointment or retention of each person appointed or retained by the company as an appointed actuary and shall state in such notice that such person meets the requirements set forth in subdivision (b) of this section. Once notice is furnished, no further notice is required with respect to this person, provided that the company shall give the commissioner timely written notice in the event the actuary ceases to be appointed or retained as an appointed actuary or to meet the requirements set forth in subdivision (b) of this section. If any person appointed or retained as an appointed actuary replaces a previously appointed actuary, the notice shall so state and give the reasons for replacement. An actuary nominated to replace an appointed actuary should consult the previous appointed actuary to determine whether reason exists to decline the appointment. If reason exists to decline the appointment, the source of conflict should be resolved, or the appointment declined.

(d) **Standards for Asset Adequacy Analysis.** The asset adequacy analysis required by this regulation:

(1) shall conform to the standards of practice as promulgated from time to time by the Actuarial Standards Board and on any additional standards under this regulation, which standards are to form the basis of the statement of actuarial opinion in accordance with section 38a-78-7 of these regulations; and

(2) shall be based on methods of analysis as are deemed appropriate for such purposes by the Actuarial Standards Board.

(e) **Liabilities to be Covered.** (1) Under authority of subsection (b) of section 38a-78 of the Standard Valuation Law, the statement of actuarial opinion shall apply to all in force business on the statement date regardless of when or where issued, e.g., reserves of Exhibits 8, 9 and 10, and claim liabilities in Exhibit 11, Part 1 and equivalent items in the separate account statement or statements.

(2) If the appointed actuary determines as the result of asset adequacy analysis that a reserve should be held in addition to the aggregate reserve held by the company and calculated in accordance with methods set forth in subsections (g), (h), (j), (k) and (l) of section 38a-78 of the Standard Valuation Law, the company shall establish such additional reserve.

(3) Additional reserves established under subdivision (2) of subsection (e) of this section and deemed not necessary in subsequent years may be released. Any amounts released must be disclosed in the actuarial opinion for the applicable year. The release of such reserves shall not be deemed an adoption of a lower standard of valuation.

(Effective September 28, 1993)

Sec. 38a-78-6. Required opinions

(a) **General.** In accordance with subsection (b) of section 38a-78 of the Standard Valuation Law, every company doing business in this state shall annually submit the opinion of an appointed actuary as provided for by this regulation. The type of opinion submitted shall be determined by the provisions set forth in this section and shall be in accordance with the applicable provisions in sections 38a-78-1 to 38a-78-10 of these regulations.

(b) **Company Categories.** For purposes of this regulation, companies shall be classified as follows based on the admitted assets as of the end of the calendar year for which the actuarial opinion is applicable:

(1) Category A shall consist of those companies whose admitted assets do not exceed \$20 million;

(2) Category B shall consist of those companies whose admitted assets exceed \$20 million but do not exceed \$100 million;

(3) Category C shall consist of those companies whose admitted assets exceed \$100 million but do not exceed \$500 million; and

(4) Category D shall consist of those companies whose admitted assets exceed \$500 million.

(c) **Exemption Eligibility Tests.** (1) Any Category A company that, for any year beginning with the year in which this regulation becomes effective, meets all of the following criteria shall be eligible for exemption from submission of a statement of actuarial opinion in accordance with Section 38a-78-8 of these regulations for the year in which these criteria are met. The ratios in (A), (B) and (C) of this subsection shall be calculated based on amounts as of the end of the calendar year for which the actuarial opinion is applicable.

(A) The ratio of the sum of capital and surplus to the sum of cash and invested assets is at least equal to .10.

(B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the total admitted assets is less than .30.

(C) The ratio of the book value of the non-investment grade bonds to the sum of capital and surplus is less than .50.

(D) The Examiner Team for the National Association of Insurance Commissioners (NAIC) has not designated the company as a first priority company in any of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or a second priority company in each of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or the company has resolved the first or second priority status to the satisfaction of the insurance commissioner of the state of domicile and the commissioner has so notified the chair of the NAIC Life and Health Actuarial Task Force and the NAIC Staff and Support Office.

(2) Any Category B company that, for any year beginning with the year in which this regulation becomes effective, meets all of the following criteria shall be eligible for exemption from submission of a statement of actuarial opinion in accordance with section 38a-78-8 of these regulations for the year in which the criteria are met. The ratios in (A), (B) and (C) below shall be calculated based on amounts as of the end of the calendar year for which the actuarial opinion is applicable.

(A) The ratio of the sum of capital and surplus to the sum of cash and invested assets is at least equal to .07.

(B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the total admitted assets is less than .40.

(C) The ratio of the book value of the non-investment grade bonds to the sum of capital and surplus is less than .50.

(D) The Examiner Team for the National Association of Insurance Commissioners (NAIC) has not designated the company as a first priority company in any of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or a second priority company in each of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or the company has resolved the first or second priority status to the satisfaction of the insurance commissioner of the state of domicile and the commissioner has so notified the chair of the NAIC Life and Health Actuarial Task Force and the NAIC Staff and Support Office.

(3) Any Category A or Category B company that meets all of the criteria set forth in paragraph (1) or (2) of this subsection, whichever is applicable, is exempted from submission of a statement of actuarial opinion in accordance with section 38a-78-8 of these regulations unless the commissioner specifically indicates to the company that the exemption is not to be taken.

(4) Any Category A or Category B company that, for any year beginning with the year in which this regulation becomes effective, is not exempted under paragraph (3) of this subsection shall be required to submit a statement of actuarial opinion in accordance with section 38a-78-8 of these regulations for the year for which it is not exempt.

(5) Any Category C company that, after submitting an opinion in accordance with section 38a-78-8 of these regulations, meets all of the following criteria shall not be required, unless required in accordance with paragraph (6) of this subsection, to submit a statement of actuarial opinion in accordance with section 38a-78-8 of these regulations more frequently than every third year. Any Category C company which fails to meet all of the following criteria for any year shall submit a statement

of actuarial opinion in accordance with section 38a-78-8 of these regulations for that year. The ratios in (A), (B) and (C) of this subsection shall be calculated based on amounts as of the end of the calendar year for which the actuarial opinion is applicable.

(A) The ratio of the sum of capital and surplus to the sum of cash and invested assets is at least equal to .05.

(B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the total admitted assets is less than .50.

(C) The ratio of the book value of the non-investment grade bonds to the sum of the capital and surplus is less than .50.

(D) The Examiner Team for the National Association of Insurance Commissioners (NAIC) has not designated the company as a first priority company in any of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or a second priority company in each of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable, or the company has resolved the first or second priority status to the satisfaction of the insurance commissioner of the state of domicile and the commissioner has so notified the chair of the NAIC Life and Health Actuarial Task Force and the NAIC Staff and Support Office.

(6) Any company which is not required by this section to submit a statement of actuarial opinion in accordance with section 38a-78-8 of these regulations for any year shall submit a statement of actuarial opinion in accordance with section 38a-78-7 of these regulations for that year unless as provided for by the second paragraph of section 38a-78-3 of these regulations the commissioner requires a statement of actuarial opinion in accordance with section 38a-78-8 of these regulations.

(d) **Large Companies.** Every Category D company shall submit a statement of actuarial opinion in accordance with section 38a-78-8 of these regulations for each year beginning with the year in which this regulation becomes effective.

(Effective September 28, 1993)

Sec. 38a-78-7. Statement of actuarial opinion not including an asset adequacy analysis

(a) **General Description.** The statement of actuarial opinion required by this section shall consist of a paragraph identifying the appointed actuary and his or her qualifications; a regulatory authority paragraph stating that the company is exempt pursuant to this regulation from submitting a statement of actuarial opinion based on an asset adequacy analysis and that the opinion, which is not based on an asset adequacy analysis, is rendered in accordance with section 38a-78-7 of these regulations; a scope paragraph identifying the subjects on which the opinion is to be expressed and describing the scope of the appointed actuary's work; and an opinion paragraph expressing the appointed actuary's opinion as required by subsection (b) of section 38a-78 of the Standard Valuation Law.

(b) **Recommended Language.** The following language provided is that which in typical circumstances would be included in a statement of actuarial opinion in accordance with this section. The language may be modified as needed to meet the circumstances of a particular case, but the appointed actuary should use language which clearly expresses his or her professional judgment. However, in any event the opinion shall retain all pertinent aspects of the language provided in this Section.

(1) The opening paragraph should indicate the appointed actuary's relationship to the company. For a company actuary, the opening paragraph of the actuarial opinion should read as follows:

“I, [name of actuary], am [title] of [name of company] and a member of the American Academy of Actuaries. I was appointed by, or by the authority of, the Board of Directors of said insurer to render this opinion as stated in the letter to the commissioner dated [insert date]. I meet the Academy qualification standards for rendering the opinion and am familiar with the valuation requirements applicable to life and health companies.”

For a consulting actuary, the opening paragraph of the actuarial opinion should contain a sentence such as:

“I, [name and title of actuary], a member of the American Academy of Actuaries, am associated with the firm of [insert name of consulting firm]. I have been appointed by, or by the authority of, the Board of Directors of [name of company] to render this opinion as stated in the letter to the commissioner dated [insert date]. I meet the Academy qualification standards for rendering the opinion and am familiar with the valuation requirements applicable to life and health insurance companies.”

(2) The regulatory authority paragraph should include a statement such as the following: “Said company is exempt pursuant to regulation [insert designation] of the [name of state] Insurance Department from submitting a statement of actuarial opinion based on an asset adequacy analysis. This opinion, which is not based on an asset adequacy analysis, is rendered in accordance with Section [insert Section reference] of said regulation.”

(3) The scope paragraph should contain a sentence such as the following: “I have examined the actuarial assumptions and actuarial methods used in determining reserves and related actuarial items listed below, as shown in the annual statement of the company, as prepared for filing with state regulatory officials, as of December 31, [].”

The paragraph should list items and amounts with respect to which the appointed actuary is expressing an opinion. The list should include but not be necessarily limited to:

(A) Aggregate reserve and deposit funds for policies and contracts included in Exhibit 8;

(B) Aggregate reserve and deposit funds for policies and contracts included in Exhibit 9;

(C) Deposit funds, premiums, dividend and coupon accumulations and supplementary contracts not involving life contingencies included in Exhibit 10; and

(D) Policy and Contract Claims—Liability End of Current Year included in Exhibit 11, Part I.

(4) If the appointed actuary has examined the underlying records, the scope paragraph should also include the following:

“My examination included such review of the actuarial assumptions and actuarial methods and of the underlying basic records and such tests of the actuarial calculations as I considered necessary.”

(5) If the appointed actuary has not examined the underlying records, but has relied upon listings and summaries of policies in force prepared by the company or a third party, the scope paragraph should include a sentence such as one of the following:

“I have relied upon listings and summaries of policies and contracts and other liabilities in force prepared by [name and title of company officer certifying in force records] as certified in the attached statement. (See accompanying affidavit by a company officer.) In other respects my examination included review of the actuarial

assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary.”

or

“I have relied upon [name of accounting firm] for the substantial accuracy of the in force records inventory and information concerning other liabilities, as certified in the attached statement. In other respects my examination included review of the actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary.”

The statement of the person certifying shall follow the form indicated by subdivision (10) of this subsection.

(6) The opinion paragraph should include the following: “In my opinion the amounts carried in the balance sheet on account of the actuarial items identified above:

(A) are computed in accordance with presently accepted actuarial standards consistently applied and are fairly stated in accordance with sound actuarial principles;

(B) are based on actuarial assumptions which produce reserves at least as great as those called for in any contract provision as to reserve basis and method, and are in accordance with all other contract provisions;

(C) meet the requirements of the insurance law and regulations of the state of [state of domicile] and are at least as great as the minimum aggregate amounts required by the state in which this statement is filed;

(D) are computed on the basis of assumptions consistent with those used in computing the corresponding items in the annual statement of the preceding year-end with any exceptions as noted below; and

(E) include provision for all actuarial reserves and related statement items which ought to be established.

The actuarial methods, considerations and analyses used in forming my opinion conform to the appropriate Standards of Practice as promulgated by the Actuarial Standards Board, which standards form the basis of this statement of opinion.”

(7) The concluding paragraph should document the eligibility for the company to provide an opinion as provided by this section. It shall include the following:

“This opinion is provided in accordance with section 38a-78-7 of the Regulations of Connecticut State Agencies regarding the statement of actuarial opinion under the Standard Valuation Law. As such it does not include an opinion regarding the adequacy of reserves and related actuarial items when considered in light of the assets which support them.

Eligibility to provide an opinion as provided by section 38a-78-7 is confirmed as follows:

(A) The ratio of the sum of capital and surplus to the sum of cash and invested assets is [insert amount], which equals or exceeds the applicable criterion based on the admitted assets of the company (subsection (c) of section 38a-78-6).

(B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the excess of the total admitted assets [insert amount], which is less than the applicable criteria based on the admitted assets of the company (subsection (c) of section 38a-78-6).

(C) The ratio of the book value of the non-investment grade bonds to the sum of capital and surplus is [insert amount], which is less than the applicable criteria of .50.

(D) To my knowledge, the NAIC Examiner Team has not designated the company as a first priority company in any of the two (2) calendar years preceding the

calendar year for which the actuarial opinion is applicable, or a second priority company in each of the two (2) calendar years preceding the calendar year for which the actuarial opinion is applicable or the company has resolved the first or second priority status to the satisfaction of the insurance commissioner of the state of domicile.

(E) To my knowledge there is not a specific request from any insurance commissioner requiring an asset adequacy analysis opinion.

Signature of Appointed Actuary

Address of Appointed Actuary

Telephone Number of Appointed Actuary"

(8) If there has been any change in the actuarial assumptions from those previously employed, that change should be described in the annual statement or in a paragraph of the statement of actuarial opinion, and the reference in subdivision (6) (D) of this subsection to consistency should read as follows:

“ . . . with the exception of the change described on Page [] of the annual statement (or in the preceding paragraph).”

The adoption for new issues or new claims or other new liabilities of an actuarial assumption which differs from a corresponding assumption used for prior new issues or new claims or other new liabilities is not a change in actuarial assumptions within the meaning of this paragraph.

(9) If the appointed actuary is unable to form an opinion, he or she shall refuse to issue a statement of actuarial opinion. If the appointed actuary's opinion is adverse or qualified, he or she shall issue an adverse or qualified actuarial opinion explicitly stating the reason(s) for such opinion. This statement should follow the scope paragraph and precede the opinion paragraph.

(10) If the appointed actuary does not express an opinion as to the accuracy and completeness of the listings and summaries of policies in force, there should be attached to the opinion the statement of a company officer or accounting firm who prepared such underlying data similar to the following:

“I [name of officer], [title] of [name and address of company or accounting firm], hereby affirm that the listings and summaries of policies and contracts in force as of December 31, [] prepared for and submitted to [name of appointed actuary], were prepared under my direction and, to the best of my knowledge and belief, are substantially accurate and complete.

Signature of the Officer of the Company
or Accounting Firm

Address of the Officer of the Company
or Accounting Firm

Telephone Number of the Officer of the
Company or Accounting Firm''

(Effective September 28, 1993)

Sec. 38a-78-8. Statement of actuarial opinion based on an asset adequacy analysis

(a) **General Description.** The statement of actuarial opinion submitted in accordance with this section shall consist of:

(1) a paragraph identifying the appointed actuary and his or her qualifications (see subdivision (1) of subsection (b) of this section);

(2) a scope paragraph identifying the subjects on which an opinion is to be expressed and describing the scope of the appointed actuary's work, including a tabulation delineating the reserves and related actuarial items which have been analyzed for asset adequacy and the method of analysis, (see subdivision (2) of subsection (b) of this section) and identifying the reserves and related actuarial items covered by the opinion which have not been so analyzed;

(3) a reliance paragraph describing those areas, if any, where the appointed actuary has deferred to other experts in developing data, procedures or assumptions (e.g. anticipated cash flows from currently owed assets, including variation in cash flows according to economic scenarios (see subdivision (3) of subsection (b) of this section), supported by a statement of each such expert in the form prescribed by subsection (e) of this section; and

(4) an opinion paragraph expressing the appointed actuary's opinion with respect to the adequacy of the supporting assets to mature the liabilities (see subdivision (6) of subsection (b) of this section).

(5) one or more additional paragraphs will be needed in individual company cases as follows:

(A) if the appointed actuary considers it necessary to state a qualification of his or her opinion;

(B) if the appointed actuary must disclose the method of aggregation for reserves of different products or lines of business for asset adequacy analysis;

(C) if the appointed actuary must disclose reliance upon any portion of the assets supporting the Asset Valuation Reserve (AVR) or other mandatory or voluntary statement reserves for asset adequacy analysis;

(D) if the appointed actuary must disclose an inconsistency in the method of analysis or basis of asset allocation used at the prior opinion date with that used for this opinion;

(E) if the appointed actuary must disclose whether additional reserves of the prior opinion date are released as of this opinion date, and the extent of the release; or

(F) if the appointed actuary chooses to add a paragraph briefly describing the assumptions which form the basis for the actuarial opinion.

(b) **Recommended Language.** The following paragraphs shall be included in the statement of actuarial opinion in accordance with this section. Language is that which in typical circumstances should be included in a statement of actuarial opinion. The language may be modified as needed to meet the circumstances of a particular case, but the appointed actuary should use language which clearly expresses his or

her professional judgment. However, in any event the opinion shall retain all pertinent aspects of the language provided in this section.

(1) The opening paragraph should generally indicate the appointed actuary's relationship to the company and his or her qualifications to sign the opinion. For a company actuary, the opening paragraph of the actuarial opinion should read as follows:

"I, [name], am [title] of [insurance company name] and a member of the American Academy of Actuaries. I was appointed by, or by the authority of, the Board of Directors of said insurer to render this opinion as stated in the letter to the commissioner dated [insert date]. I meet the Academy qualification standards for rendering the opinion and am familiar with the valuation requirements applicable to life and health insurance companies."

For a consulting actuary, the opening paragraph should contain a sentence such as:

"I, [name], a member of the American Academy of Actuaries, am associated with the firm of [name of consulting firm]. I have been appointed by, or by the authority of, the Board of Directors of [name of company] to render this opinion as stated in the letter to the commissioner dated [insert date]. I meet the Academy qualification standards for rendering the opinion and am familiar with the valuation requirements applicable to life and health insurance companies."

(2) The scope paragraph should include a statement such as the following:

"I have examined the actuarial assumptions and actuarial methods used in determining reserves and related actuarial items listed below, as shown in the annual statement of the company, as prepared for filing with state regulatory officials, as of December 31, []. Tabulated below are those reserves and related actuarial items which have been subjected to asset adequacy analysis."

The paragraph should list items and amounts with respect to which the appointed actuary is expressing an opinion. The list should include but not necessarily be limited to the following statement items:

(see chart on following page)

ACTUARIAL RESERVES AND LIABILITIES

Annual Statement Reserves and Liabilities	<u>Adequacy Tested Amounts</u>		<u>Amounts</u>	<u>Amount</u>
	(1)	(2)	(3)	(4)
	Formula	Additional Analysis	Other	=(1)+(2)+(3)
	<u>Reserves</u>	<u>Reserves(a)</u>	<u>Method(b)Reserves</u>	<u>Total</u>
EXHIBIT 8				
A life				
B annuity				
C sci				
D ai				
E active				
F disabled				
G misc				
Total (Pg3, li 1)	—	—	—	—
EXHIBIT 9				
A active				
B claim				
Total (Pg3, li 2)	—	—	—	—
EXHIBIT 10				
1.1 prms	Pg 3, li 10.1			
1.2 gic	Pg 3, li 10.2			
1.3 othr dep	Pg 3, li 10.3			
2 scni	Pg 3, li 3			
3 accum	Pg 3, li 5			
Total (Exhibit 10)	—	—	—	—
EXHIBIT 11, Pt. 1				
1 life	Pg 3, li 4.1			
2 health	Pg 3, li 4.2			
Total (Exh 11 Pt 1)	—	—	—	—
SEPARATE ACCOUNTS				
w/guarantees	Pg 11, li 6 SA			
included on	Pg 3, li 27 GA			
TOTAL RESERVES AND LIABILITIES	—	—	—	—
ADDITIONAL RESERVE(c)				
IMR (Page ____ Line ____)	\$0	\$0		
AVR (Page ____ Line ____)	\$0	\$0		

- (a) The additional actuarial reserves are the reserves established under paragraph (2) of Section 38a-78-5 (c).
- (b) The method of analysis, determined in accordance with the standards for asset adequacy analysis referred to in Section 38a-78-5 (d), must be indicated by symbols defined in footnotes to the table.
- (c) Display gross dollar amount of IMR and AVR in column (1). Display the dollar amount of AVR and/or IMR allocated for use in the reserve adequacy demonstration in column (2).

(3) If the appointed actuary has relied on other experts to develop certain portions of the analysis, the reliance paragraph should include a statement such as the following:

“I have relied on [name], [title] for [e.g., anticipated cash flows from currently owned assets, including variations in cash flows according to economic scenarios] and, as certified in the attached statement, . . .”

or

“I have relied on personnel as cited in the supporting memorandum for certain critical aspects of the analysis in reference to the accompanying statement.”

Such a statement of reliance on other experts should be accompanied by a statement by each of such experts of the form prescribed by subsection (e) of this section.

(4) If the appointed actuary has examined the underlying asset and liability records, the reliance paragraph should also include the following:

“My examination included such review of the actuarial assumptions and actuarial methods and of the underlying basic asset and liability records and such tests of the actuarial calculations as I considered necessary.”

(5) If the appointed actuary has not examined the underlying records, but has relied upon listings and summaries of policies in force and/or asset records prepared by the company or a third party, the reliance paragraph should include a sentence such as:

“I have relied upon listings and summaries [of policies and contracts, of asset records] prepared by [name and title of company officer certifying in-force records] as certified in the attached statement. In other respects my examination included such review of the actuarial assumptions and actuarial methods and such tests of the actuarial calculations as I considered necessary.”

or

“I have relied upon [name of accounting firm] for the substantial accuracy of the in-force records inventory and information concerning other liabilities, as certified in the attached statement. In other respects my examination included review of the actuarial assumptions and actuarial methods and tests of the actuarial calculations as I considered necessary.”

Such a section shall be accompanied by a statement by each person relied upon of the form prescribed by subsection (e) of this section.

(6) The opinion paragraph should include the following:

“In my opinion the reserves and related actuarial values concerning the statement items identified above:

(A) are computed in accordance with presently accepted actuarial standards consistently applied and are fairly stated, in accordance with sound actuarial principles;

(B) are based on actuarial assumptions which produce reserves at least as great as those called for in any contract provision as to reserve basis and method, and are in accordance with all other contract provisions;

(C) meet the requirements of the insurance law and regulations of the state of [state of domicile] and are at least as great as the minimum aggregate amounts required by the state in which this statement is filed;

(D) are computed on the basis of assumptions consistent with those used in computing the corresponding items in the annual statement of the preceding year-end (with any exceptions noted below); and

(E) include provision for all actuarial reserves and related statement items which ought to be established.

The reserves and related items, when considered in light of the assets held by the company with respect to such reserves and related actuarial items including, but not limited to, the investment earnings on such assets, and the considerations anticipated to be received and retained under such policies and contracts, make adequate provision, according to presently accepted actuarial standards of practice, for the anticipated cash flows required by the contractual obligations and related expenses of the company.

The actuarial methods, considerations and analyses used in forming my opinion conform to the appropriate standards of practice as promulgated by the Actuarial Standards Board, which standards form the basis of this statement of opinion.

This opinion is updated annually as required by statute. To the best of my knowledge, there have been no material changes from the applicable date of the annual

statement to the date of the rendering of this opinion which should be considered in reviewing this opinion.

or

The following material change(s) which occurred between the date of the statement for which this opinion is applicable and the date of this opinion should be considered in reviewing this opinion: (Describe the change or changes.)

(Note: Choose one of the above two paragraphs, whichever is applicable.)

The impact of unanticipated events subsequent to the date of this opinion is beyond the scope of this opinion. The analysis of asset adequacy portion of this opinion should be viewed recognizing that the company's future experience may deviate from assumptions used in the analysis.

Signature of Appointed Actuary

Address of Appointed Actuary

Telephone Number of Appointed Actuary"

(c) **Assumptions for New Issues.** The adoption for new issues or new claims or other new liabilities of an actuarial assumption which differs from a corresponding assumption used for prior new issues or new claims or other new liabilities is not a change in actuarial assumptions within the meaning of this section.

(d) **Adverse Opinions.** If the appointed actuary is unable to form an opinion, then he or she shall refuse to issue a statement of actuarial opinion. If the appointed actuary's opinion is adverse or qualified, then he or she shall issue an adverse or qualified actuarial opinion explicitly stating the reason(s) for such opinion. This statement should follow the scope paragraph and precede the opinion paragraph.

(e) **Reliance on Data Furnished by Other Persons.** If the appointed actuary does not express an opinion as to the accuracy and completeness of the listings and summaries of policies in force and/or asset oriented information, there shall be attached to the opinion the statement of a company officer or accounting firm who prepared such underlying data similar to the following:

"I [name of officer], [title], of [name of company or accounting firm], hereby affirm that the listings and summaries of policies and contracts in force as of December 31, [], and other liabilities prepared for and submitted to [name of appointed actuary] were prepared under my direction and, to the best of my knowledge and belief, are substantially accurate and complete.

Signature of the Officer of the Company
or Accounting Firm

Address of the Officer of the Company
or Accounting Firm

Telephone Number of the Officer of the
Company or Accounting Firm”
and/or

“I, [name of officer], [title] of [name of company, accounting firm, or security analyst], hereby affirm that the listings, summaries and analyses relating to data prepared for and submitted to [name of appointed actuary] in support of the asset-oriented aspects of the opinion were prepared under my direction and, to the best of my knowledge and belief, are substantially accurate and complete.

Signature of the Officer of the Company,
Accounting Firm or the Security Analyst

Address of the Officer of the Company,
Accounting Firm or the Security Analyst

Telephone Number of the Officer of the Company,
Accounting Firm or the Security Analyst”
(Effective September 28, 1993)

Sec. 38a-78-9. Description of actuarial memorandum including an asset adequacy analysis

(a) **General.**

(1) In accordance with subsection (b) of section 38a-78 of the Standard Valuation Law, the appointed actuary shall prepare a memorandum to the company describing the analysis done in support of his or her opinion regarding the reserves under an opinion pursuant to section 38a-78-8 of these regulations. 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.

(2) In preparing the memorandum, the appointed actuary may rely on, and include as a part of his or her own memorandum, memoranda prepared and signed by other actuaries who are qualified within the meaning of subsection (b) of section 38a-78-5 of these regulations with respect to the areas covered in such memoranda, and so state in their memoranda.

(3) If the commissioner requests a memorandum and no such memorandum exists or if the commissioner finds that the analysis described in the memorandum fails to meet the standards of the Actuarial Standards Board or the standards and requirements of this regulation, the commissioner may designate a qualified actuary to review the opinion and prepare such supporting memorandum as is required for review. The reasonable and necessary expense of such independent review shall be paid by the company but shall be directed and controlled by the commissioner.

(4) The reviewing actuary shall have the same status as an examiner for purposes of obtaining data from the company and the work papers and documentation of such reviewing actuary shall be retained by the commissioner; provided, however, that any information provided by the company to such reviewing actuary and included

in the work papers shall be considered as material provided by the company to the commissioner and shall be kept confidential to the same extent as is prescribed by law with respect to other material provided by the company to the commissioner pursuant to the statute governing this regulation. The reviewing actuary shall not be an employee of a consulting firm involved with the preparation of any prior memorandum or opinion for the insurer pursuant to this regulation for any one of the current year or the preceding three years.

(b) **Details of the Memorandum Section Documenting Asset Adequacy Analysis.** When an actuarial opinion under section 38a-78-8 of these regulations is provided, the memorandum shall demonstrate that the analysis has been done in accordance with the standards for asset adequacy referred to in subsection (d) of section 38a-78-5 of these regulations and any additional standards under this regulation. It shall specify:

(1) for reserves:

(A) product descriptions, including market description, underwriting and other aspects of a risk profile and the specific risks the appointed actuary deems significant;

(B) source of liability in force;

(C) reserve method and basis;

(D) investment reserves; and

(E) reinsurance arrangements.

(2) for assets:

(A) portfolio descriptions, including a risk profile disclosing the quality, distribution and types of assets;

(B) investment and disinvestment assumptions;

(C) source of asset data; and

(D) asset valuation bases.

(3) analysis basis:

(A) methodology;

(B) rationale for the inclusion/exclusion of different blocks of business and how pertinent risks were analyzed;

(C) rationale for degree of rigor in analyzing different blocks of business;

(D) criteria for determining asset adequacy; and

(E) effect of federal income taxes, reinsurance and other relevant factors.

(4) summary of results.

(5) conclusion(s).

(c) **Conformity to Standards of Practice.**

The memorandum shall include the following statement:

“Actuarial methods, considerations and analyses used in the preparation of this memorandum conform to the appropriate Standards of Practice as promulgated by the Actuarial Standards Board, which standards form the basis for this memorandum.”

(Effective September 28, 1993)

Sec. 38a-78-10. Additional considerations for analysis

(a) **Aggregation.** For the asset adequacy analysis for the statement of actuarial opinion provided in accordance with section 38a-78-8 of these regulations, reserves and assets may be aggregated by either of the following methods:

(1) Aggregate the reserves and related actuarial items, and the supporting assets, for different products or lines of business, before analyzing the adequacy of the combined assets to mature the combined liabilities. The appointed actuary must be satisfied that the assets held in support of the reserves and related actuarial items so aggregated are managed in such a manner that the cash flows from such aggregated

assets are available to help mature the liabilities from the blocks of business that have been aggregated.

(2) Aggregate the results of asset adequacy analysis of one or more products or lines of business, the reserves for which prove through analysis to be redundant, with the results of one or more products or lines of business, the reserves for which prove through analysis to be deficient. The appointed actuary must be satisfied that the asset adequacy results for the various products or lines of business for which the results are so aggregated:

(A) are developed using consistent economic scenarios; or

(B) are subject to mutually independent risks, i.e., the likelihood of events impacting the adequacy of the assets supporting the redundant reserves is completely unrelated to the likelihood of events impacting the adequacy of the assets supporting the deficient reserves.

In the event of any aggregation, the actuary shall disclose in his or her opinion that such reserves were aggregated on the basis of method (1), (2) (A) or (2) (B) above, whichever is applicable, and describe such aggregation in the supporting memorandum.

(b) **Selection of Assets for Analysis.** The appointed actuary shall analyze only those assets held in support of the reserves which are the subject for specific analysis, hereafter called "specified reserves." A particular asset or portion thereof supporting a group of specified reserves cannot support any other group of specified reserves. An asset may be allocated over several groups of specified reserves. The annual statement value of the assets held in support of the reserves shall not exceed the annual statement value of the specified reserves, except as provided in subsection (c) of this section. If the method of asset allocation is not consistent from year to year, the extent of its inconsistency should be described in the supporting memorandum.

(c) **Use of Assets Supporting the Interest Maintenance Reserve and the Asset Valuation Reserve.** An appropriate allocation of assets in the amount of the Interest Maintenance Reserve (IMR), whether positive or negative, shall be used in any asset adequacy analysis. Analysis of risks regarding asset default may include an appropriate allocation of assets supporting the Asset Valuation Reserve (AVR); these AVR assets may not be applied for any other risks with respect to reserve adequacy. Analysis of these and other risks may include assets supporting other mandatory or voluntary reserves available to the extent not used for risk analysis and reserve support. The amount of the assets used for the AVR shall be disclosed in the Table of Reserves and Liabilities of the opinion and in the memorandum. The method used for selecting particular assets or allocated portion of assets shall be disclosed in the memorandum.

(d) **Required Interest Scenarios.** For the purpose of performing the asset adequacy analysis required by this regulation, the qualified actuary is expected to follow standards adopted by the Actuarial Standards Board; nevertheless, the appointed actuary must consider in the analysis the effect of at least the following interest rate scenarios:

(1) level with no deviation;

(2) uniformly increasing over ten (10) years at a half percent per year and then level;

(3) uniformly increasing at one percent (1%) per year over five (5) years and then uniformly decreasing at one percent (1%) per year to the original level at the end of (10) years and then level;

(4) an immediate increase of three percent (3%) and then level;

(5) uniformly decreasing over ten (10) years at a half percent per year and then level;

(6) uniformly decreasing at one percent (1%) per year over five (5) years and then uniformly increasing at one percent (1%) per year to the original level at the end of ten (10) years and then level; and

(7) an immediate decrease of three percent (3%) and then level.

For these and other scenarios which may be used, projected interest rates for a five (5) year Treasury Note need not be reduced beyond the point where such five (5) year Treasury Note yield would be at fifty (50%) of its initial level.

The beginning interest rates may be based on interest rates for new investments as of the valuation date similar to recent investments allocated to support the product being tested or be based on an outside index, such as Treasury yields, of assets of the appropriate length on a date close to the valuation date. Whatever method is used to determine the beginning yield curve and associated interest rates should be specifically defined. The beginning yield curve and associated interest rates should be consistent for all interest rate scenarios.

(e) **Documentation.** The appointed actuary shall retain on file, for at least seven (7) years, sufficient documentation so that it will be possible to determine the procedures followed, the analyses performed, the bases for assumptions and the results obtained.

(Effective September 28, 1993)

Minimum Reserve Standards for Individual and Group Health Insurance Contracts

Sec. 38a-78-11. Introduction

(a) **Scope.** Sections 38a-78-11 to 38a-78-16, inclusive, of these regulations shall apply to all individual and group health (accident and sickness) insurance coverages except credit insurance.

When an insurer determines that adequacy of its health insurance reserves requires reserves in excess of the minimum standards specified herein, such increased reserves shall be held and shall be considered the minimum reserves for that insurer.

With respect to any block of contracts, or with respect to an insurer's health business as a whole, a prospective gross premium valuation is the ultimate test of reserve adequacy as of a given valuation date. Such a gross premium valuation will take into account, for contracts in force, in a claims status, or in a continuation of benefits status on the valuation date, the present value as of the valuation date of: all expected benefits unpaid, all expected expenses unpaid, and all unearned or expected premiums, adjusted for future premium increases reasonably expected to be put into effect.

Such a gross premium valuation is to be performed whenever a significant doubt exists as to reserve adequacy with respect to any major block of contracts, or with respect to the insurer's health business as a whole. In the event inadequacy is found to exist, immediate loss recognition shall be made and the reserves restored to adequacy. Adequate reserves (inclusive of claim, premium and contract reserves, if any) shall be held with respect to all contracts, regardless of whether contract reserves are required for such contracts under these standards.

Whenever minimum reserves, as defined in these standards, exceed reserve requirements as determined by a prospective gross premium valuation, such minimum reserves remain the minimum requirement under these standards.

(b) **Categories of Reserves.** The following sections set forth minimum standards for three categories of health insurance reserves:

Sec. 38a-78-13. Claim reserves

Sec. 38a-78-14. Premium reserves

Sec. 38a-78-15. Contract reserves

Adequacy of an insurer's health insurance reserves is to be determined on the basis of all three categories combined. However, these standards emphasize the importance of determining appropriate reserves for each of the three categories separately.

(c) **Appendices.** These standards contain two appendices: one is an integral part of the standards, and one is a "supplementary" appendix which is not part of the standards as such, but is included for explanatory and illustrative purposes only.

Appendix A. Specific minimum standards with respect to morbidity, mortality and interest, which apply to claim reserves according to year of incurral and to contract reserves according to year of issue.

Appendix B. (Supplementary) Waiver of Premium Reserves.

(Effective September 28, 1993)

Sec. 38a-78-12. Definitions

As used in Sections 38a-78-11 to 38a-78-16, inclusive of these regulations:

(a) "Annual-Claim Cost" means the net annual cost per unit of benefit before the addition of expenses, including claim settlement expenses, and a margin for profit or contingencies. For example, the annual claim cost for a \$100 monthly disability benefit, for a maximum disability benefit period of one year, with an elimination period of one week, with respect to a male at age 35, in a certain occupation might be \$12, while the gross premium for this benefit might be \$18. The additional \$6 would cover expenses and profit or contingencies.

(b) "Claims Accrued" means that portion of claims incurred on or prior to the valuation date which result in liability of the insurer for the payment of benefits for medical services which have been rendered on or prior to the valuation date, and for the payment of benefits for days of hospitalization and days of disability which have occurred on or prior to the valuation date, which the insurer has not paid as of the valuation date, but for which it is liable, and will have to pay after the valuation date. This liability is sometimes referred to as a liability for "accrued" benefits. A claim reserve, which represents an estimate of this accrued claim liability, shall be established.

(c) "Claims Reported" means when an insurer has been informed that a claim has been incurred, if the date reported is on or prior to the valuation date, the claim is considered as a reported claim for annual statement purposes.

(d) "Claims Unaccrued" means that portion of claims incurred on or prior to the valuation date which result in liability of the insurer for the payment of benefits for medical services expected to be rendered after the valuation date, and for benefits expected to be payable for days of hospitalization and days of disability occurring after the valuation date. This liability is sometimes referred to as a liability for unaccrued benefits. A claim reserve, which represents an estimate of the unaccrued claim payments expected to be made (which may or may not be discounted with interest), shall be established.

(e) "Claims Unreported" means when an insurer has not been informed, on or before the valuation date, concerning a claim that has been incurred on or prior to the valuation date, the claim is considered as an unreported claim for annual statement purposes.

(f) "Date of Disablement" means the earliest date the insured is considered as being disabled under the definition of disability in the contract, based on a doctor's evaluation or other evidence. Normally this date will coincide with the start of any elimination period.

(g) "Elimination Period" means a specified number of days, weeks, or months starting at the beginning of each period of loss, during which no benefits are payable.

(h) "Guarantee Duration" of a health insurance contract is the maximum number of years the health insurance contract can remain in force on the basis guaranteed in the contract.

(i) "Gross Premium" means the amount of premium charged by the insurer. It includes the net premium (based on claim-cost) for the risk, together with any loading for expenses, profit or contingencies.

(j) "Group Insurance" includes blanket insurance and franchise insurance and any other forms of group insurance.

(k) "Level Premium" means a premium calculated to remain unchanged throughout either the lifetime of the policy, or for some shorter projected period of years. The premium need not be guaranteed; in which case, although it is calculated to remain level, it may be changed if any of the assumptions on which it was based are revised at a later time. Generally, the annual claim costs are expected to increase each year and the insurer, instead of charging premiums that correspondingly increase each year, charges a premium calculated to remain level for a period of years or for the lifetime of the contract. In this case the benefit portion of the premium is more than is needed to provide for the cost of benefits during the earlier years of the policy and less than the actual cost in the later years. The building of a prospective contract reserve is a natural result of level premiums.

(l) "Long-Term Care Insurance" means any insurance policy or rider advertised, marketed, offered or designed to provide coverage for not less than twelve (12) consecutive months for each covered person on an expense incurred, indemnity, prepaid or other basis; for one or more necessary or medically necessary diagnostic, preventive, therapeutic, rehabilitative, maintenance or personal care services, provided in a setting other than an acute care unit of a hospital. Such term also includes a policy or rider which provides for payment of benefits based upon cognitive impairment or the loss of functional capacity. Long-term care insurance may be issued by insurers, fraternal benefit societies, nonprofit health, hospital, and medical service corporations, prepaid health plans, health care centers, or any similar organization to the extent they are otherwise authorized to issue life or health insurance. Long-term care insurance shall not include any insurance policy which is offered primarily to provide basic Medicare supplement coverage, basic hospital expense coverage, basic medical-surgical expense coverage, hospital confinement indemnity coverage, major medical expense coverage, disability income or related asset-protection coverage, disability income or related asset-protection coverage, accident only coverage, specified disease or specified accident coverage, or limited benefit health coverage.

(m) "Modal Premium" means the premium paid on a contract based on a premium term which could be annual, semi-annual, quarterly, monthly, or weekly. Thus, if the annual premium is \$100 and if, instead, monthly premiums of \$9 are paid then the modal premium is \$9.

(n) "Negative Reserve" means the value of the terminal reserve when it is a negative value. Normally the terminal reserve is a positive value. However, if the values of the benefits are decreasing with advancing age or duration it could be a negative value, called a negative reserve.

(o) "Preliminary Term Reserve Method" means that the valuation net premium for each year falling within the preliminary term period is exactly sufficient to cover the expected incurred claims of that year so that the terminal reserves will be zero at the end of the year. As of the end of the preliminary term period, a new constant valuation net premium (or stream of changing valuation premiums) becomes applicable such that the present value of all such premiums is equal to the present value of all claims expected to be incurred following the end of the preliminary term period.

(p) "Present Value of Amounts Not Yet Due on Claims" means the reserve for "claims unaccrued" (see definition), which may be discounted at interest.

(q) "Reserve" includes all items of benefit liability, whether in the nature of incurred claim liability or in the nature of contract liability relating to future periods of coverage, and whether the liability is accrued or unaccrued. An insurer under its contracts promises benefits which result in:

(1) claims which have been incurred, that is, for which the insurer has become obligated to make payment, on or prior to the valuation date. On these claims, payments expected to be made after the valuation date for accrued and unaccrued benefits are liabilities of the insurer which should be provided for by establishing claim reserves; or

(2) claims which are expected to be incurred after the valuation date. Any present liability of the insurer for these future claims should be provided for by the establishment of contract reserves and unearned premium reserves.

(r) "Terminal Reserve" means the reserve at the end of a contract year, and is defined as the present value of benefits expected to be incurred after that contract year minus the present value of future valuation net premiums.

(s) "Unearned Premium Reserve" means that portion of the premium paid or due to the insurer which is applicable to the period of coverage extending beyond the valuation date. Thus, if an annual premium of \$120 was paid on November 1, \$20 would be earned as of December 31 and the remaining \$100 would be unearned. The unearned premium reserve could be on a gross basis as in this example, or on a valuation net premium basis.

(t) "Valuation Net Modal Premium" means the modal fraction of the valuation net annual premium that corresponds to the gross modal premium in effect on any contract to which contract reserves apply. Thus, if the mode of payment in effect is quarterly, the valuation net modal premium is the quarterly equivalent of the valuation net annual premium.

(Effective September 28, 1993)

Sec. 38a-78-13. Claim reserves

(a) General.

(1) Claim reserves are required for all incurred but unpaid claims on all health insurance policies.

(2) Appropriate claim expense reserves are required with respect to the estimated expense of settlement of all incurred but unpaid claims.

(3) All such reserves for prior valuation years are to be tested for adequacy and reasonableness along the lines of claim runoff schedules in accordance with the statutory financial statement including consideration of any residual unpaid liability.

(b) Minimum Standards for Claim Reserves.

(1) Disability Income.

(A) Interest. The maximum interest rate for claim reserves is specified in Appendix A.

(B) **Morbidity.** Minimum standards with respect to morbidity are those specified in Appendix A, except that, at the option of the insurer for the portion of claims payable within (i) three years for group disability income claims, or (ii) two years for all other disability claims, from the date of disablement, reserves may be based on the insurer's experience to the extent that such experience is credible, or, with the approval of the commissioner, upon other assumptions designed to place a sound value on the liabilities.

(C) **Duration of Disablement.** For contracts with an elimination period, the duration of disablement should be measured as dating from the time that benefits would have begun to accrue had there been no elimination period.

(2) **All Other Benefits.**

(A) **Interest.** The maximum interest rate for claim reserves is specified in Appendix A.

(B) **Morbidity or Other Contingency.** The reserve should be based on the insurer's experience, if such experience is considered credible, or upon other assumptions designed to place a sound value on the liabilities.

(c) **Claim Reserve Methods Generally.** Any generally accepted or reasonable actuarial method or combination of methods may be used to estimate all claim liabilities. The methods used for estimating liabilities generally may be aggregate methods, or various reserve items may be separately valued. Approximations based on groupings and averages may also be employed. Adequacy of the claim reserves, however, shall be determined in the aggregate.

(Effective September 28, 1993; amended December 2, 1998)

Sec. 38a-78-14. Premium reserves

(a) **General.**

(1) Unearned premium reserves are required for all contracts with respect to the period of coverage for which premiums, other than premiums paid in advance, have been paid beyond the date of valuation.

(2) If premiums due and unpaid are carried as an asset, such premiums must be treated as premiums in force, subject to unearned premium reserve determination. The value of unpaid commissions, premium taxes, and the cost of collection associated with due and unpaid premiums must be carried as an offsetting liability.

(3) The gross premiums paid in advance for a period of coverage commencing after the next premium due date which follows the date of valuation may be appropriately discounted to the valuation date and shall be held either as a separate liability or as an addition to the unearned premium reserve which would otherwise be required as a minimum.

(b) **Minimum Standards for Unearned Premium Reserves.**

(1) The minimum unearned premium reserve with respect to any contract is the pro rata unearned modal premium that applies to the premium period beyond the valuation date, with such premium determined on the basis of:

(A) The valuation net modal premium on the contract reserve basis applying to the contract; or

(B) The gross modal premium for the contract if no contract reserve applies.

(2) However, in no event may the sum of the unearned premium and contract reserves for all contracts of the insurer subject to contract reserve requirements be less than the gross modal unearned premium reserve on all such contracts, as of the date of valuation. Such reserve shall never be less than the expected claims for the period beyond the valuation date represented by such unearned premium reserve, to the extent not provided for elsewhere.

(c) **Premium Reserve Methods Generally.** The insurer may employ suitable approximations and estimates, including, but not limited to groupings, averages

and aggregate estimation, in computing premium reserves. Such approximations or estimates should be tested periodically to determine their continuing adequacy and reliability.

(Effective September 28, 1993)

Sec. 38a-78-15. Contract reserves

(a) General.

(1) Contract reserves are required, unless otherwise specified in subdivision (2) of subsection (a) of this section for:

(A) all individual and group contracts with which level premiums are used; or

(B) all individual and group contracts with respect to which, due to the gross premium pricing structure at issue, the value of the future benefits at any time exceeds the value of any appropriate future valuation net premiums at that time. The values specified in this subdivision shall be determined on the basis specified in subsection (b) of this section.

(2) Contracts not requiring a contract reserve are:

(A) Contracts which are not guaranteed renewable after one year from issue; or

(B) Contracts already in force on the effective date of these standards for which no contract reserve was required under the immediately preceding standards.

(3) The contract reserve is in addition to claim reserves and premium reserves.

(4) The methods and procedures for contract reserves should be consistent with those for claim reserves for any contract, or else appropriate adjustment must be made when necessary to assure provision for the aggregate liability. The definition of the date of incurral must be the same in both determinations.

(b) Minimum Standards for Contract Reserves.

(1) Basis.

(A) Morbidity or other Contingency. Minimum standards with respect to morbidity are those set forth in Appendix A. Valuation net premiums used under each contract must have a structure consistent with the gross premium structure at issue of the contract as this relates to advancing age of insured, contract duration and period for which gross premiums have been calculated.

Contracts for which tabular morbidity standards are not specified in Appendix A shall be valued using tables established for reserve purposes by a qualified actuary and acceptable to the Commissioner.

(B) Interest. The maximum interest rate is specified in Appendix A.

(C) Termination Rates. Termination rates used in the computation of reserves shall be on the basis of a mortality table as specified in Appendix A except as noted in the following paragraph.

Under contracts for which premium rates are not guaranteed, and where the effects of insurer underwriting are specifically used by policy duration in the valuation morbidity standard, or for return of premium or other deferred cash benefits, total termination rates may be used at ages and durations where these exceed specified mortality table rates, but not in excess of the lesser of:

(i) eighty percent of the total termination rate used in the calculation of the gross premiums; or

(ii) eight percent.

Where a morbidity standard specified in Appendix A is on an aggregate basis, such morbidity standard may be adjusted to reflect the effect of insurer underwriting by policy duration. The adjustments must be appropriate to the underwriting and be acceptable to the commissioner.

(D) Reserve Method.

(i) For insurance except long-term care, the minimum reserve is the reserve calculated on the two-year full preliminary term method; that is, under which the terminal reserve is zero at the first and also the second contract anniversary.

(ii) For long-term care insurance, the minimum reserve is the reserve calculated on the one-year full preliminary term method.

(iii) For return of premium or other deferred cash benefits, the minimum reserve is the reserve calculated as follows: On the one year preliminary term method if such benefits are provided at any time before the twentieth anniversary;

On the two year preliminary term method if such benefits are only provided on or after the twentieth anniversary.

The preliminary term method may be applied only in relation to the date of issue of a contract. Reserve adjustments introduced later, as a result of rate increases, revisions in assumptions (e.g., projected inflation rates) or for other reasons, are to be applied immediately as of the effective date of adoption of the adjusted basis.

(E) Negative Reserves. Negative reserves on any benefit may be offset against positive reserves for other benefits in the same contract, but the total contract reserve with respect to all benefits combined may not be less than zero.

(c) **Alternative Contract Reserve Valuation Methods and Assumptions Generally.** Provided the contract reserve on all contracts to which an alternative method or basis is applied is not less in the aggregate than the amount determined according to the applicable standards specified above, an insurer may use any reasonable assumptions as to interest rates, termination and/or mortality rates, and rates of morbidity or other contingency. Also, subject to the preceding condition, the insurer may employ methods other than the methods stated above in determining a sound value of its liabilities under such contracts, including, but not limited to the following: the net level premium method; the one-year full preliminary term method; prospective valuation on the basis of actual gross premiums with reasonable allowance for future expenses; the use of approximations such as those involving age groupings, groupings of several years of issue, average amounts of indemnity, grouping of similar contract forms; the computation of the reserve for one contract benefit as a percentage of, or by other relation to, the aggregate contract reserves exclusive of the benefit or benefits so valued; and the use of a composite annual claim cost for all or any combination of the benefits included in the contracts valued.

(d) **Tests For Adequacy and Reasonableness of Contract Reserves.** Annually, an appropriate review shall be made of the insurer's prospective contract liabilities on contracts valued by tabular reserves, to determine the continuing adequacy and reasonableness of the tabular reserves giving consideration to future gross premiums. The insurer shall make appropriate increments to such tabular reserves if such tests indicate that the basis of such reserves is no longer adequate; subject, however, to the minimum standards of subsection (b) of this section.

In the event a company has a contract or a group of related similar contracts, for which future gross premiums will be restricted by contract, insurance department regulations, or for other reasons, such that the future gross premiums reduced by expenses for administration, commissions, and taxes will be insufficient to cover future claims, the company shall establish contract reserves for such shortfall in the aggregate.

(Effective September 28, 1993)

Sec. 38a-78-16. Reinsurance

Increases or offsetting credits to reserves because of reinsurance assumed or reinsurance ceded, must be determined in a manner consistent with minimum reserve

standards and with all applicable provisions of the reinsurance contracts which affect the insurer's liabilities.

(Effective September 28, 1993)

Appendix A

Specific Standards for Morbidity, Interest and Mortality

I. Morbidity.

(a) Minimum morbidity standards for valuation of specified individual contract health insurance benefits are as follows (references to Commissioners' Table refers to the valuation table version as opposed to the basic table version as applicable):

(1) Disability Income Benefits Due to Accident or Sickness.

(A) Contract Reserves:

Contracts issued on or after January 1, 1965 and prior to January 1, 1986:

The 1964 Commissioners Disability Table (64 CDT)

Contracts issued on or after January 1, 1994:

The 1985 Commissioners Individual Disability Tables A (85CIDA); or

The 1985 Commissioners Individual Disability Tables B (85CIDB).

Contracts issued during 1986 through 1993:

Optional use of either the 1964 Table or the 1985 Tables.

Each insurer shall elect, with respect to all individual contracts issued in any one statement year, whether it will use Tables A or Tables B as in the minimum standard. The insurer may, however, elect to use other tables with respect to any subsequent statement year.

(B) Claim Reserves:

The minimum morbidity standard in effect for contract reserves on currently issued contracts, as of the date the claim is incurred.

(2) Hospital Benefits, Surgical Benefits and Maternity Benefits (Scheduled benefits or fixed time period benefits only).

(A) Contract Reserves:

Contracts issued on or after January 1, 1955, and before January 1, 1982:

The 1956 Intercompany Hospital-Surgical Tables.

Contracts issued on or after January 1, 1982:

The 1974 Medical Expense Tables, Table A, Transactions of the Society of Actuaries, Volume XXX, pg. 63. Refer to the paper (in the same volume, pg. 9) to which this table is appended, including its discussions, for methods of adjustment for benefits not directly valued in Table A: "Development of the 1974 Medical Expense Benefits," Houghton and Wolf.

(B) Claim Reserves:

No specific standard. See (5).

(3) Cancer Expense Benefits (Scheduled benefits or fixed time period benefits only).

(A) Contract Reserves:

Contracts issued on or after January 1, 1986:

The 1985 NAIC Cancer Claim Cost Tables.

(B) Claim Reserves:

No specific standard. See (5)

(4) Accidental Death Benefits.

(A) Contract Reserves:

Contracts issued on or after January 1, 1965:

The 1959 Accidental Death Benefits Table.

(B) Claim Reserves:
Actual amount incurred.

(5) Other Individual Contract Benefits.

(A) Contract Reserves:

For all other individual contract benefits, morbidity assumptions are to be determined as provided in the reserve standards.

(B) Claim Reserves:

For all benefits other than disability, claim reserves are to be determined as provided in the standards.

(b) Minimum morbidity standards for valuation of specified group contract health insurance benefits are as follows:

(1) Disability Income Benefits Due to Accident or Sickness.

(A) Contract Reserves:

Contracts issued prior to January 1, 1994: The same basis, if any, as that employed by the insurer as of January 1, 1994;

Contracts issued on or after January 1, 1994:

The 1987 Commissioners Group Disability Income Table (87CGDT).

(B) Claim Reserves:

For claims incurred on or after January 1, 1994:

The 1987 Commissioners Group Disability Income Table (87CGDT);

For claims incurred prior to January 1, 1994:

Use of the 87CGDT is optional.

(2) Other Group Contract Benefits.

(A) Contract Reserves:

For all other group contract benefits, morbidity assumptions are to be determined as provided in the reserve standards.

(B) Claim Reserves:

For all benefits other than disability, claim reserves are to be determined as provided in the standards.

II. Interest.

(a) For contract reserves the maximum interest rate is the maximum rate permitted by law in the valuation of annual premium ordinary life insurance for appropriate guarantee duration and issued on the same date as the health insurance contract.

(b) For claim reserves on policies for which contract reserve is required, the maximum interest rate is the maximum rate permitted by law in the valuation of annual premium ordinary life insurance for appropriate guarantee duration and issued on the same day as the claim incurral date.

(c) For claim reserves on policies for which no contract reserve is required, the maximum interest rate is the maximum rate permitted by law in the valuation of single premium immediate annuities issued on the same date as the claim incurred date, such rate reduced by one hundred basis points (1%).

III. Mortality.

(a) The mortality basis used shall be according to a table (but without use of selection factors) permitted by law for the valuation of ordinary life insurance issued on the same date as the health insurance contract.

(b) Subject to approval of the commissioner, other mortality tables adopted by the NAIC and promulgated by the Commissioner may be issued in the calculation of the minimum reserves if appropriate for the type of benefits.

(Amended June 22, 1995)

Appendix B

Reserves for Waiver of Premium (Supplementary explanatory material.)

Waiver of premium reserves involve several special considerations. First, the disability valuation tables promulgated by the NAIC are based on exposures that include contracts on premium waiver benefit status as in-force contracts. Hence, contract reserves based on these tables are NOT reserves on "active lives" but rather reserves on contracts "in force." This is true for the 1964 CDT and for both the 1985 CIDA and CIDB tables.

Accordingly, tabular reserves using any of these tables should value reserves on the following basis:

Claim reserves should include reserves for premiums expected to be waived, valuing as a minimum the valuation net premium being waived.

Premium reserves should include contracts on premium waiver benefit status as in-force contracts, valuing as a minimum the unearned modal valuation net premium being waived.

Contract reserves should include recognition of the waiver of premium benefit in addition to other contract benefits provided for, valuing as a minimum the valuation net premium to be waived.

If an insurer is, instead, valuing reserves on what is truly an active life table, or if a specific valuation table is not being used but the insurer's gross premiums are calculated on a basis that includes in the projected exposure only those contracts for which premiums are being paid, then it may not be necessary to provide specifically for waiver of premium reserves. Any insurer using such a true "active life" basis should carefully consider, however, whether or not additional liability should be recognized on account of premiums waived during periods of disability or during claim continuation.

(Effective September 28, 1993)

Mortality Tables: Minimum Reserve Liabilities

<u>Former Section</u>	<u>New Section</u>
38a-78-1 (re: Mortality Tables)	38a-78-17
38a-78-2 (")	38a-78-18
38a-78-3 (")	38a-78-19
38a-78-4 (")	38a-78-20
38a-78-5 (")	38a-78-21
38a-78-6 (")	38a-78-22
38a-78-7 (")	38a-78-23
38a-78-8 (")	38a-78-24
38a-78-9 (")	38a-78-25

(Effective October 21, 1994)

NAIC Model Regulation Permitting Smoker/Nonsmoker Mortality Tables for Use in Determining Minimum Reserve Liabilities

Sec. 38a-78-17. Purpose

The purpose of Sections 38a-78-18 to 38a-78-20, inclusive, is to permit the use of mortality tables that reflect differences in mortality between smokers and nonsmokers in determining minimum reserve liabilities for plans of insurance with separate premium rates for smokers and nonsmokers.

(Effective September 25, 1992)

Sec. 38a-78-18. Definitions

As used in Sections 38a-78-19 and 38a-78-20:

(a) "1980 CSO Table, with or without Ten-Year Select Mortality Factor" means that mortality table, consisting of separate rates of mortality for male and female lives, developed by the Society of Actuaries Committee to Recommend New Mortality Tables for Valuation of Standard Individual Ordinary Life Insurance, incorporated in the 1980 NAIC Amendments to the Model Standard Valuation Law and Standard Nonforfeiture Law for Life Insurance, and referred to in those models as the Commissioners 1980 Standard Ordinary Mortality Table, with or without Ten-Year Select Mortality Factors. The same select factors will be used for both smokers and nonsmokers tables.

(b) "1980 CET Table" means that mortality table consisting of separate rates of mortality for male and female lives, developed by the Society of Actuaries Committee to Recommend New Mortality Tables for Valuation of Standard Individual Ordinary Life Insurance, incorporated in the 1980 NAIC Amendments to the Model Standard Nonforfeiture Law for Life Insurance, and referred to in those models as the Commissioners 1980 Extended Term Insurance Table.

(c) "1958 CSO Table" means that mortality table developed by the Society of Actuaries Special Committee on New Mortality Tables, incorporated in the NAIC Model Standard Nonforfeiture Law for Life Insurance, and referred to in that model as the Commissioners 1958 Standard Ordinary Mortality Table.

(d) "1958 CET Table" means that mortality table developed by the Society of Actuaries Special Committee on New Mortality Tables, incorporated in the NAIC Model Standard Nonforfeiture Law for Life Insurance, and referred to in that model as the Commissioners 1958 Extended Term Insurance Table.

(e) The phrase "smoker and nonsmoker mortality tables" refers to the mortality tables with separate rates of mortality for smokers and nonsmokers derived from the tables defined in subsections (a) through (d) of this section which were developed by the Society of Actuaries Task Force on Smoker/Nonsmoker Mortality and recommended by the NAIC Technical Staff Actuarial Group.

(f) The phrase "composite mortality tables" refers to the mortality tables defined in Subsections (a) through (d) of this section as they were originally published with rates of mortality that do not distinguish between smokers and nonsmokers.

(Effective September 25, 1992)

Sec. 38a-78-19. Alternate tables

(a) For any policy of insurance delivered or issued for delivery in this state on or after the date of election pursuant to Section 38a-439 (e) (11) of the General Statutes for that policy form, but prior to January 1, 1989, a company may, subject to the conditions of Section 38a-78-20, substitute for use in determining minimum reserve liabilities: (1) the 1958 CSO Smoker and Nonsmoker Mortality Tables for the 1980 CSO Table, with or without Ten-Year Select Mortality Factors; and (2) the 1958 CET Smoker and Nonsmoker Mortality Tables for the 1980 CET Table. Provided that for any category of insurance issued on female lives with minimum reserve liabilities determined using the 1958 CSO or 1958 CET Smoker and Nonsmoker Mortality Tables, such minimum values may be calculated according to an age not more than six years younger than the actual age of the insured. Provided further that the substitution of the 1958 CSO or 1958 CET Smoker and Nonsmoker Mortality Tables is available only if made for each policy of insurance on a policy form delivered or issued for delivery on or after the operative date for that policy form and before a date not later than January 1, 1989.

(b) For any policy of insurance delivered or issued for delivery in this state on or after the date of election pursuant to Section 38a-439 (e) (11) of the General Statutes for that policy form, a company may, subject to the conditions stated in Section 38a-78-20, substitute for use in determining minimum reserve liabilities: (1) the 1980 CSO Smoker and Nonsmoker Mortality Tables, with or without Ten-Year Select Mortality Factors, for the 1980 CSO Table, with or without Ten-Year Select Mortality Factors; and (2) the 1980 CET Smoker and Nonsmoker Mortality Tables for the 1980 CET Table.

(Effective September 25, 1992)

Sec. 38a-78-20. Conditions

For each plan of insurance with separate rates for smoker and nonsmokers, an insurer may: (a) use composite mortality tables to determine minimum reserve liabilities; (b) use smoker and nonsmoker mortality tables to determine the valuation of net premiums and additional minimum reserves, if any, required by subsection (h) of section 38a-78 of the Connecticut General Statutes and use composite mortality tables to determine the basic minimum reserves; or (c) use smoker and nonsmoker mortality to determine minimum reserve liabilities.

(Effective September 25, 1992)

NAIC Model Regulation for Recognizing New Annuity Mortality Tables For Use In Determining Reserve Liabilities for Annuities

Sec. 38a-78-21. Purpose

The purpose of Sections 38a-78-22 to 38a-78-24, inclusive, is to recognize the following mortality tables for use in determining the minimum standard of valuation for annuity and pure endowment contracts: the 1983 Table "a"; the 1983 Group Annuity Mortality (1983 GAM) Table; the Annuity 2000 Mortality Table; and the 1994 Group Annuity Reserving (1994 GAR) Table.

(Effective September 25, 1992; amended December 2, 1998)

Sec. 38a-78-22. Definitions

As used in Sections 38a-78-23 and 38a-78-24:

(a) "1983 Table 'a'" means that mortality table developed by the Society of Actuaries Committee to Recommend a New Mortality Basis for Individual Annuity Valuation and adopted as a recognized mortality table for annuities in June 1982 by the National Association of Insurance Commissioners.

(b) "1983 GAM Table" means that mortality table developed by the Society of Actuaries Committee on Annuities and adopted as a recognized mortality table for annuities in December 1983 by the National Association of Insurance Commissioners.

(c) "1994 GAR Table" means that mortality table developed by the Society of Actuaries Group Annuity Valuation Table Task Force and adopted as a recognized mortality table for annuities in December 1996 by the National Association of Insurance Commissioners.

(d) "Annuity 2000 Mortality Table" means that mortality table developed by the Society of Actuaries Committee on Life Insurance Research and adopted as a recognized mortality table for annuities in December 1996 by the National Association of Insurance Commissioners.

(Effective September 25, 1992; amended December 2, 1998)

Sec. 38a-78-23. Individual annuity or pure endowment contracts

(a) Except as provided in subsections (b) and (c) of this section, the 1983 Table "a" is recognized and approved as an individual annuity mortality table for valuation and, at the option of the company, may be used for purposes of determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after October 1, 1981.

(b) Except as provided in subsection (c) of this section, either the 1983 Table "a" or the Annuity 2000 Mortality Table shall be used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after December 31, 1985.

(c) Except as provided in subsection (d) of this section, the Annuity 2000 Mortality Table shall be used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after January 1, 1999.

(d) The 1983 Table "a" without projection is to be used for determining the minimum standards of valuation for any individual annuity or pure endowment contract issued on or after January 1, 1999, solely when the contract is based on life contingencies and is issued to fund periodic benefits arising from:

(1) Settlements of various forms of claims pertaining to court settlements or out of court settlements from tort actions;

(2) Settlements involving similar actions such as worker's compensation claims; or

(3) Settlements of long term disability claims where a temporary or life annuity has been used in lieu of continuing disability payments.

(Effective September 25, 1992; amended December 2, 1998)

Sec. 38a-78-24. Group annuity or pure endowment contracts

(a) Except as provided in subsections (b) and (c) of this section, the 1983 GAM Table, the 1983 Table "a" and the 1994 GAR Table are recognized and approved as group annuity mortality tables for valuation and, at the option of the company, any of these tables may be used for purposes of valuation for any annuity or pure endowment purchased on or after October 1, 1981 under a group annuity or pure endowment contract.

(b) Except as provided in subsection (c) of this section, either the 1983 GAM Table or the 1994 GAR Table shall be used for determining the minimum standard of valuation for any annuity or pure endowment purchased on or after January 1, 1986 under a group annuity or pure endowment contract.

(c) (1) The 1994 GAR Table shall be used for determining the minimum standard of valuation for any annuity or pure endowment purchased on or after January 1, 1999 under a group annuity or pure endowment contract.

(2) In using the 1994 GAR Table, the mortality rate for a person age x in year $(1994 + n)$ is calculated as follows:

$$q_x^{1994+n} = q_x^{1994}(1 - AA_x)^n$$

Where q_x and AA_x s are specified in the 1994 GAR Table.

(Effective September 25, 1992; amended December 2, 1998)

Sec. 38a-78-25. Separability

If any provision of this Regulation or the application thereof to any person or circumstances is for any reason held to be invalid, the remainder of the regulation and the application of such provision to other persons or circumstances shall not be affected thereby.

(Effective September 25, 1992)

Sec. 38a-78-26. Purpose

The purpose of sections 38a-78-26 to 38a-78-30, inclusive, of the Regulations of Connecticut State Agencies is to recognize, permit and prescribe the use of the 2001 Commissioners Standard Ordinary (CSO) Mortality Table for use in determining minimum reserve liabilities in accordance with the Standard Valuation Law, subsection (d) of section 38a-78 of the Connecticut General Statutes.

(Adopted effective March 30, 2005)

Sec. 38a-78-27. Definitions

As used in sections 38a-78-26 to 38a-78-30, inclusive, of the Regulations of Connecticut State Agencies:

(a) "2001 CSO Mortality Table" means that mortality table, consisting of separate rates of mortality for male and female lives, developed by the American Academy of Actuaries CSO Task Force from the Valuation Basic Mortality Table developed by the Society of Actuaries Individual Life Insurance Valuation Mortality Task Force, proposed to the National Association of Insurance Commissioners' Life and Health Actuarial Task Force at its June 2002 meeting and adopted by the National Association of Insurance Commissioners in December 2002. The 2001 CSO Mortality Table is included in the Proceedings of the NAIC (2nd Quarter 2002). Unless the context indicates otherwise, the "2001 CSO Mortality Table" includes both the ultimate form of that table and the select and ultimate form of that table and includes both the smoker and nonsmoker mortality tables and the composite mortality tables. It also includes both the age-nearest-birthday and age-last-birthday bases of the mortality tables.

(b) "2001 CSO Mortality Table (F)" means that mortality table consisting of the rates of mortality for female lives from the 2001 CSO Mortality Table.

(c) "2001 CSO Mortality Table (M)" means that mortality table consisting of the rates of mortality for male lives from the 2001 CSO Mortality Table.

(d) "Composite mortality tables" means mortality tables with rates of mortality that do not distinguish between smokers and nonsmokers.

(e) "Smoker and nonsmoker mortality tables" means mortality tables with separate rates of mortality for smokers and nonsmokers.

(f) "Commissioner" means the Insurance Commissioner.

(Adopted effective March 30, 2005)

Sec. 38a-78-28. 2001 CSO mortality table

(a) At the election of the company for any one or more specified plans of insurance and subject to the conditions stated in Section 38a-78-29 of the Regulations of Connecticut State Agencies, the 2001 CSO Mortality Table may be used as the minimum standard for policies issued after April 1, 2005 and before the date specified in subsection (b) of this section to which subsection (d) of section 38a-78 of the Connecticut General Statutes and subsection (e)(8)(C)(vi) of section 38a-439 of the Connecticut General Statutes are applicable. If the company elects to use the 2001 CSO Mortality Table, it shall do so for both valuation and nonforfeiture purposes. With respect to domestic life insurers only, written notice of election to comply with the provisions of this subsection on or after a specified date shall be filed with the commissioner.

(b) Subject to the conditions stated in Section 38a-78-29 of the Regulations of Connecticut State Agencies, the 2001 CSO Mortality Table shall be used in determining minimum standards for policies issued on and after January 1, 2009 to which

subsection (d) of section 38a-78 of the Standard Valuation Law and subsection (e)(8)(C)(vi) of section 38a-439 of the Standard Nonforfeiture Law are applicable.
(Adopted effective March 30, 2005)

Sec. 38a-78-29. Conditions

(a) For each plan of insurance with separate rates for smokers and nonsmokers an insurer may use:

(1) Composite mortality tables to determine minimum reserve liabilities and minimum cash surrender values and amounts of paid-up nonforfeiture benefits;

(2) Smoker and nonsmoker mortality tables to determine the valuation net premiums and additional minimum reserves, if any, required by subsection (j) of section 38a-78 of the Connecticut General Statutes and use composite mortality tables to determine the basic minimum reserves, minimum cash surrender values and amounts of paid-up nonforfeiture benefits; or

(3) Smoker and nonsmoker mortality to determine minimum reserve liabilities and minimum cash surrender values and amounts of paid-up nonforfeiture benefits.

(b) For plans of insurance without separate rates for smokers and nonsmokers the composite mortality tables shall be used.

(c) For the purpose of determining minimum reserve liabilities and minimum cash surrender values and amounts of paid-up nonforfeiture benefits, the 2001 CSO Mortality Table may, at the option of the company for each plan of insurance, be used in its ultimate or select and ultimate form.

(d) When the 2001 CSO Mortality Table is the minimum reserve standard for any plan for a company, the actuarial opinion in the annual statement filed with the commissioner shall be based on an asset adequacy analysis as specified in section 38a-78-5 of the Regulations of Connecticut State Agencies.

(Adopted effective March 30, 2005)

Sec. 38a-78-30. Separability

If any provision of sections 38a-78-26 to 38a-78-29, inclusive, of the Regulations of Connecticut State Agencies or its application to any person or circumstance is for any reason held to be invalid, the remainder of said sections and the application of the provision to other persons or circumstances shall not be affected.

(Adopted effective March 30, 2005)

**Recognition of Preferred Mortality Tables
for Use in Determining Minimum
Reserve Liabilities**

Sec. 38a-78-31. Purpose

The purpose of sections 38a-78-31 to 38a-78-35, inclusive, of the Regulations of Connecticut State Agencies is to recognize, permit and prescribe the use of mortality tables that reflect differences in mortality between Preferred and Standard lives in determining minimum reserve liabilities in accordance with the Standard Valuation Law, subsection (d) of section 38a-78 of the Connecticut General Statutes.

(Adopted effective December 29, 2006)

Sec. 38a-78-32. Definitions

As used in sections 38a-78-31 to 38a-78-35, inclusive, of the Regulations of Connecticut State Agencies:

(1) "2001 CSO Mortality Table" means that mortality table, consisting of separate rates of mortality for male and female lives, developed by the American Academy

of Actuaries CSO Task Force from the Valuation Basic Mortality Table developed by the Society of Actuaries Individual Life Insurance Valuation Mortality Task Force, proposed to the NAIC's Life and Health Actuarial Task Force at its June 2002 meeting and adopted by the NAIC in December 2002. The 2001 CSO Mortality Table is included in the Proceedings of the NAIC (2nd Quarter 2002) and supplemented by the 2001 CSO Preferred Class Structure Mortality Table. Unless the context indicates otherwise, the "2001 CSO Mortality Table" includes both the ultimate form of that table and the select and ultimate form of that table and includes both the smoker and nonsmoker mortality tables and the composite mortality tables. It also includes both the age-nearest-birthday and age-last-birthday bases of the mortality tables. Mortality tables in the 2001 CSO Mortality Table include the following:

- (A) 2001 CSO Mortality Table (F);
 - (B) 2001 CSO Mortality Table (M);
 - (C) Composite mortality tables; and
 - (D) Smoker and nonsmoker mortality tables.
- (2) "2001 CSO Mortality Table (F)" means that mortality table consisting of the rates of mortality for female lives from the 2001 CSO Mortality Table.
- (3) "2001 CSO Mortality Table (M)" means that mortality table consisting of the rates of mortality for male lives from the 2001 CSO Mortality Table.
- (4) "Composite mortality tables" means mortality tables with rates of mortality that do not distinguish between smokers and nonsmokers.
- (5) "Smoker and nonsmoker mortality tables" means mortality tables with separate rates of mortality for smokers and nonsmokers.
- (6) "2001 CSO Preferred Class Structure Mortality Table" means mortality tables with separate rates of mortality for Super Preferred Nonsmokers, Preferred Nonsmokers, Residual Standard Nonsmokers, Preferred Smokers, and Residual Standard Smokers splits of the 2001 CSO Nonsmoker and Smoker mortality tables as adopted by the NAIC at the September 2006 national meeting and published in the Proceedings of the NAIC (3rd Quarter 2006). Unless the context indicates otherwise, the "2001 CSO Preferred Class Structure Mortality Table" includes both the ultimate form of that table and the select and ultimate form of that table. It includes both the smoker and nonsmoker mortality tables. It includes both the male and female mortality tables and the gender composite mortality tables. It also includes both the age-nearest-birthday and age-last-birthday bases of the mortality table.
- (7) "Commissioner" means the Insurance Commissioner.
- (8) "NAIC" means the National Association of Insurance Commissioners.
- (9) "Statistical agent" means an entity with proven systems for protecting the confidentiality of individual insured and insurer information, demonstrated resources for and history of ongoing electronic communications and data transfer ensuring data integrity with insurers, which are its members or subscribers, and a history of and means for aggregation of data and accurate promulgation of the experience modifications in a timely manner.

(Adopted effective December 29, 2006)

Sec. 38a-78-33. 2001 CSO preferred class mortality table

At the election of the company, for each calendar year of issue, for any one or more specified plans of insurance and subject to satisfying the conditions stated in section 38a-78-34 of the Regulations of Connecticut State Agencies, the 2001 CSO Preferred Class Structure Mortality Table may be substituted in place of the 2001 CSO Smoker or Nonsmoker Mortality Table as the minimum valuation standard

for policies issued on or after January 1, 2007. No such election shall be made until the company demonstrates at least twenty percent of the business to be valued on this table is in one or more of the preferred classes. With respect to domestic life insurers only, written notice of election to comply with the provisions of this subsection on or after a specified date shall be filed with the commissioner. A table from the 2001 CSO Preferred Class Structure Mortality Table used in place of the 2001 CSO Mortality Table, pursuant to the requirements of this rule, will be treated as part of the 2001 CSO Mortality Table only for purposes of reserve valuation pursuant to the requirements of the NAIC model regulation, "Recognition of the 2001 CSO Mortality Table For Use In Determining Minimum Reserve Liabilities And Nonforfeiture Benefits Model Regulation".

(Adopted effective December 29, 2006)

Sec. 38a-78-34. Conditions

(a) For each plan of insurance with separate rates for Preferred and Standard Nonsmokers lives, an insurer may use the Super Preferred Nonsmokers, Preferred Nonsmokers, and Residual Standard Nonsmokers mortality tables to substitute for the Nonsmokers mortality tables found in the 2001 CSO Mortality Table to determine minimum reserves. At the election and annually thereafter, except for business valued under the Residual Standard Nonsmokers Mortality Table, the appointed actuary shall certify that:

(1) The present value of death benefits over the next ten years after the valuation date, using the anticipated mortality experience without recognition of mortality improvement beyond the valuation date for each class, is less than the present value of death benefits using the valuation basic table corresponding to the valuation table being used for that class; and

(2) The present value of death benefits over the future life of the contracts, using anticipated mortality experience without recognition of mortality improvement beyond the valuation date for each class, is less than the present value of death benefits using the valuation basic table corresponding to the valuation table being used for that class.

(b) For each plan of insurance with separate rates for preferred and standard smokers lives, an insurer may use the Preferred Smokers and Residual Standard Smokers mortality tables to substitute for the Smoker mortality table found in the 2001 CSO Mortality Table to determine minimum reserves. At the time of election and annually thereafter, for business valued under the Preferred Smokers Mortality Table, the appointed actuary shall certify that:

(1) The present value of death benefits over the next ten years after the valuation date, using the anticipated mortality experience without recognition of mortality improvement beyond the valuation date for each class, is less than the present value of death benefits using the Preferred Smoker valuation basic table corresponding to the valuation table being used for that class; and

(2) The present value of death benefits over the future life of the contracts, using anticipated mortality experience without recognition of mortality improvements beyond the valuation date for each class, is less than the present value of death benefits using the Preferred Smoker valuation basic table.

(c) Unless exempted by the commissioner, every authorized insurer using the 2001 CSO Preferred Class Structure Mortality Table shall annually file with the commissioner, with the NAIC, or with a statistical agent designated by the NAIC, and that which is acceptable to the commissioner, statistical reports showing mortality and such other information as the commissioner may deem necessary or expedient

for the administration of the provisions of sections 38a-78-1 to 38a-78-34, inclusive. The form of the reports shall be established by the commissioner or the commissioner may require the use of a form established by the NAIC or by a statistical agent designated by the NAIC, and that which is acceptable to the commissioner.

(Adopted effective December 29, 2006)

Sec. 38a-78-35. Separability

If any provision of sections 38a-78-31 to 38a-78-34, inclusive, of the Regulations of Connecticut State Agencies or its application to any person or circumstance is for any reason held to be invalid, the remainder of said sections and the application of the provision to other persons or circumstances shall not be affected.

(Adopted effective December 29, 2006)

