

HAWAII ADMINISTRATIVE RULES

TITLE 16

DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS

CHAPTER 169

ACTUARIAL OPINION AND MEMORANDUM

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§16-169-1 Purpose. The purpose of this chapter is to prescribe:

- (1) Guidelines and standards for statements of actuarial opinion which are to be submitted in accordance with section 431:5-307(j), HRS, and for memoranda in support thereof;
- (2) Guidelines and standards for statements of actuarial opinion which are to be submitted when a company is exempt from section 431:5-307(j)(2), HRS; and
- (3) Rules applicable to the appointment of an appointed actuary. [Eff 10/4/97] (Auth: HRS §§431:2-201, 431:5-307) (Imp: HRS §431:5-307)

§16-169-2 Scope. This chapter 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.

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This chapter shall be applicable to all annual statements filed with the commissioner after the effective date of this chapter. Except with respect to companies which are exempted pursuant to section 16-169-5, a statement of opinion on the adequacy of the reserves and related actuarial items based on an asset adequacy analysis in accordance with section 16-169-7, and a memorandum in support thereof in accordance with section 16-169-8, shall be required each year. Any company so exempted must file a statement of actuarial opinion pursuant to section 16-169-6.

Notwithstanding the foregoing, the commissioner may require any company otherwise exempt pursuant to this chapter to submit a statement of actuarial opinion and to prepare a memorandum in support thereof in accordance with sections 16-169-7 and 16-169-8 if, in the opinion of the commissioner, an asset adequacy analysis is necessary with respect to the company. [Eff 10/4/97] (Auth: HRS §§431:2-201, 431:5-307) (Imp: HRS §431:5-307)

§16-169-3 Definitions. As used in this chapter:

"Actuarial opinion" means:

- (1) With respect to sections 16-169-7, 16-169-8, or 16-169-9 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 16-169-7 and with presently accepted actuarial standards;
- (2) With respect to section 16-169-6, the opinion of an appointed actuary regarding the calculation of reserves and related items, in accordance with section 16-169-6 and with those presently accepted actuarial standards which specifically relate to this opinion.

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

"Annual statement" means that statement required by section 431:3-301, HRS, to be filed by the company with the commissioner annually.

"Appointed actuary" means any individual who is appointed or retained in accordance with the requirements set forth in section 16-169-4(c) to provide the actuarial opinion and supporting memorandum as required by section 431:5-307(j), HRS.

"Asset adequacy analysis" means an analysis that meets the standards and other requirements referred to in section 16-169-4(d). It may take many forms, including, but not limited to, cash flow testing, sensitivity testing, or applications of risk theory.

"Commissioner" means the insurance commissioner of this State as defined in 431:2-102, HRS.

"Company" means a life insurance company, fraternal benefit society, or reinsurer subject to the provisions of this chapter.

"NAIC" means the National Association of Insurance Commissioners.

"Non-investment grade bonds" are those designated as classes 3, 4, 5, or 6 by the NAIC Securities Valuation Office.

"Qualified actuary" means any individual who meets the requirements set forth in section 16-169-4(b). [Eff 10/4/97] (Auth: HRS §§431:2-201, 431:5-307) (Imp: HRS §431:5-307)

§16-169-4 General requirements. (a) Submission of statement of actuarial opinion.

- (1) There is to be included on or attached to page one of the annual statement for each year beginning with the year in which this chapter 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 16-169-7; provided that any company exempted pursuant to section 16-169-5 from submitting a statement of actuarial opinion in accordance with section 16-169-7 shall include on or attach to page one of the annual statement a statement of actuarial opinion rendered by an appointed actuary in accordance with section 16-169-6.
- (2) If in the previous year a company provided a statement of actuarial opinion in accordance with section 16-169-6, but in the current year fails to meet the exemption criteria of sections 16-169-5(c)(1), 16-169-5(c)(2), or 16-169-5(c)(5) to again provide an actuarial opinion in accordance with section 16-169-6, the statement of actuarial opinion in accordance with section 16-169-7 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 16-169-6 with appropriate qualification noting the intent to subsequently provide a statement of actuarial opinion in accordance with section 16-169-7.
- (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 regulatory agency of another state if the commissioner determines that the 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;
  - (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;
  - (3) Is familiar with the valuation requirements applicable to life and health insurance companies;
  - (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, chapter 431, HRS, or other law in the course of the actuary's dealings as a qualified actuary;
    - (B) Been found guilty of fraudulent or dishonest practices;
    - (C) Demonstrated incompetency, lack of cooperation, or untrustworthiness to act as a qualified actuary;
    - (D) Submitted to the commissioner during the past five years, pursuant to this chapter, an actuarial opinion or memorandum that the commissioner rejected because it did not meet the provisions of this chapter including standards set by the Actuarial Standards Board;
    - (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 commissioner of any other state similar to that under paragraph (4).
- (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 chapter 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 the person meets the requirements set forth in

subsection (b). 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 subsection (b). 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.

(d) Standards for asset adequacy analysis. The asset adequacy analysis required by this chapter:

- (1) Shall conform to the Standards of Practice as promulgated from time to time by the Actuarial Standards Board and to any additional standards under this chapter, which standards are to form the basis of the statement of actuarial opinion in accordance with section 16-169-7; 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 section 431:5-307(j), HRS, 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 in exhibits 8, 9, and 10, and claim liabilities in exhibit 11, part I, contained in Appendix A, entitled "Reserves and Related Actuarial Items" effective \_\_\_\_\_ located at the end and made a part of this chapter, 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 sections 431:5-307(d), (e), (h), and (i), HRS, the company shall establish such additional reserve.
  - (3) For years ending prior to December 31, 1997, the company may, in lieu of establishing the full amount of the additional reserve in the annual statement for that year, set up an additional reserve in an amount not less than the following:
    - (A) For the year ending, December 31, 1995, the additional reserve divided by three.
    - (B) For the year ending December 31, 1996, two times the additional reserve divided by three.
  - (4) Additional reserves established under paragraph (2) or (3) 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 would not be deemed an adoption of a lower standard of valuation. [Eff 10/4/97] (Auth: HRS §§431:2-201, 431:5-307) (Imp: HRS §§431:3-301, 431:5-307)

§16-169-5 Required opinions. (a) General. In accordance with section 431:5-307(j), HRS, every company doing business in this State shall annually submit the opinion of an appointed actuary as provided for by this chapter. 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 this chapter.

(b) Company categories. For purposes of this chapter, 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 chapter 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 16-169-7 for the year in which these criteria are met. The ratios in (A), (B), and (C) 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 ten per cent.

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

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

(D) The examiner team for the NAIC has not designated the company as a first priority company in any of the two

calendar years preceding the calendar year for which the actuarial opinion is applicable or a second priority company in each of the two 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 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 chapter 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 16-169-7 for the year in which the criteria are met. The ratios in (A), (B), and (C) 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 seven per cent.
  - (B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the total admitted assets is less than forty per cent.
  - (C) The ratio of the book value of the non-investment grade bonds to the sum of capital and surplus is less than fifty per cent.
  - (D) The examiner team for the NAIC has not designated the company as a first priority company in any of the two calendar years preceding the calendar year for which the actuarial opinion is applicable or a second priority company in each of the two 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 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), whichever is applicable, is exempted from submission of a statement of actuarial opinion in accordance with section 16-169-7 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 chapter becomes effective, is not exempted under paragraph (3) shall be required to submit a statement of actuarial opinion in accordance with section 16-169-7 for the year for which it is not exempt.
- (5) Any category C company that, after submitting an opinion in accordance with section 16-169-7, meets all of the following criteria shall not be required, unless required in accordance with paragraph (6), to submit a statement of actuarial opinion in accordance with section 16-169-7 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 16-169-7 for that year. The ratios in (A), (B), and (C) 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 five per cent.
  - (B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the total admitted assets is less than fifty per cent.
  - (C) The ratio of the book value of the non-investment grade bonds to the sum of the capital and surplus is less than fifty per cent.
  - (D) The examiner team for the NAIC has not designated the company as a first priority company in any of the two calendar years preceding the calendar year for which the actuarial opinion is applicable, or a second priority company in each of the two 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 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 16-169-7 for any year shall submit a statement of actuarial opinion in accordance with section 16-169-6 for that year unless as provided for by the second paragraph of section 16-169-2, the commissioner



requires a statement of actuarial opinion in accordance with section 16-169-7.

(d) Large companies. Every category D company shall submit a statement of actuarial opinion in accordance with section 16-169-7 for each year beginning with the year in which this chapter becomes effective. [Eff 10/4/97] (Auth: HRS §§431:2-201, 431:5-307) (Imp: HRS §431:5-307)

§16-169-6 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 the actuary's qualifications; a regulatory authority paragraph stating that the company is exempt pursuant to this chapter 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 this section; a scope paragraph identifying the subjects on which the opinion is being expressed and describing the scope of the appointed actuary's work; and an opinion paragraph expressing the appointed actuary's opinion as required by section 431:5-307(j), HRS.

(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 the actuary's 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.

(A) 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."

- (B) 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 section (insert regulatory 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 16-169-6, Hawaii Administrative Rules."

- (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 subsection (b)(10).

- (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:

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- (A) Are computed in accordance with those presently accepted actuarial standards which specifically relate to the opinion required under this section;
- (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 Compliance Guidelines as promulgated by the Actuarial Standards Board, which guidelines 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 should include the following:

"This opinion is provided in accordance with section 16-169-6, Hawaii Administrative Rules. 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 for section 16-169-6, Hawaii Administrative Rules, 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 (section 16-169-5(c), Hawaii Administrative Rules).
- (B) The ratio of the sum of the reserves and liabilities for annuities and deposits to the excess of the total admitted assets is (insert amount), which is less than the applicable

criteria based on the admitted assets of the company (section 16-169-5(c), Hawaii Administrative Rules).

- (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 fifty per cent.
- (D) To my knowledge, the NAIC examiner team has not designated the company as a first priority company in any of the two calendar years preceding the calendar year for which the actuarial opinion is applicable or a second priority company in each of the two 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 commissioner of the state of domicile.
- (E) To my knowledge there is not a specific request from any commissioner requiring an asset adequacy analysis opinion.

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Signature of Appointed Actuary

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Address of Appointed Actuary

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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 subsection (b)(6)(D) above 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.

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- (9) If the appointed actuary is unable to form an opinion, the actuary shall refuse to issue a statement of actuarial opinion. If the appointed actuary's opinion is adverse or qualified, the actuary shall issue an adverse or qualified actuarial opinion explicitly stating the reason 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.

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Signature of the Officer of the Company or Accounting Firm

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Address of the Officer of the Company or Accounting Firm

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

[Eff 10/4/97] (Auth: HRS §§431:2-201, 431:5-307) (Imp: HRS §431:5-307)

§16-169-7 Statement of actuarial opinion based on 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 the actuary's qualifications (see subsection (b)(1));
- (2) A scope paragraph identifying the subjects on which an opinion is being 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 subsection (b)(2)) 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 owned assets, including variation in cash flows according to economic scenarios (see subsection (b)(3)), supported by a statement of each such expert in the form prescribed by subsection (e); 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 subsection (b)(6)).
- (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 the 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), Interest Maintenance Reserve (IMR), or other mandatory or voluntary statement of 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.
  - (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 are to 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 the actuary's 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 the actuary's 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 in Appendix A, chapter 16-169, Hawaii Administrative Rules, as shown in the annual statement of the company, as prepared for filing with state regulatory officials, as of December 31, 19( ). Tabulated in Appendix A, chapter 16-169, Hawaii Administrative Rules, are those reserves and related actuarial items which have been subjected to asset adequacy analysis."



- (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 the experts of the form prescribed by subsection (e).

- (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 or asset records, or both, 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 must be accompanied by a statement by each person relied upon of the form prescribed by subsection (e).

- (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 regulation 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 changes 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 not follow all the assumptions used in the analysis.

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Signature of Appointed Actuary

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Address of Appointed Actuary

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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 the actuary shall refuse to issue a statement of actuarial opinion. If the appointed actuary's opinion is adverse or qualified, then the actuary shall issue an adverse or qualified actuarial opinion explicitly stating the reasons for the 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 or asset oriented information, or both, 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, 19( ), 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.

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Signature of the Officer of the Company or Accounting Firm

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Address of the Officer of the Company or Accounting Firm

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

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

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

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Telephone Number of the Officer of the Company,  
Accounting Firm or the Security Analyst"

[Eff 10/4/97] (Auth: HRS §§431:2-201, 431:5-307) (Imp: HRS §431:5-307)

§16-169-8 Description of actuarial memorandum including an asset adequacy analysis. (a) General.

- (1) In accordance with section 431:5-307(j), HRS, the appointed actuary shall prepare a memorandum to the company describing the analysis done in support of the actuary's opinion regarding the reserves under a section 16-169-7 opinion. The memorandum shall be made available for examination by the commissioner upon the commissioner's request but shall be returned to the company after such examination and shall not be considered a record of the insurance division 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 the actuary's own memorandum, memoranda prepared and signed by other actuaries who are qualified within the meaning of section 16-169-4(b), 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 chapter, 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 the 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 the reviewing actuary shall be retained by the commissioner; provided that any information provided by the company to the reviewing actuary and included in

§16-169-8

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 chapter 431, HRS. 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 chapter for any one of the current year or the preceding three years.

(b) Details of the memorandum section documenting asset adequacy analysis (section 16-169-7). When an actuarial opinion under section 16-169-7 is provided, the memorandum shall demonstrate that the analysis has been done in accordance with the standards for asset adequacy referred to in section 16-169-4(d) and any additional standards under this chapter. 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 inclusion or 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) Conclusions

(c) Conformity to standards of practice. The memorandum shall include a 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."

[Eff 10/4/97] (Auth: HRS §§431:2-201, 431:5-307) (Imp: HRS §431:5-307)

§16-169-9 Additional considerations for analysis. (a) Aggregation. For the asset adequacy analysis for the statement of actuarial opinion provided in accordance with section 16-169-7, 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 the 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 must disclose in the actuary's opinion that such reserves were aggregated on the basis of method (1), (2)(A), or (2)(B), whichever is applicable, and describe the 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). 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, must 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 must 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 portions of assets must be disclosed in the memorandum.

(d) Required interest scenarios. For the purpose of performing the asset adequacy analysis required by this chapter, the qualified actuary is expected to follow standards adopted by the Actuarial Standards Board and the appointed actuary shall consider in the analysis the effect of at least the following interest rate scenarios:

- (1) Level with no deviation;
- (2) Uniformly increasing over ten years at a half per cent per year and then level;
- (3) Uniformly increasing at one per cent per year over five years and then uniformly decreasing at one per cent per year to the original level at the end of ten years and then level;
- (4) An immediate increase of three per cent and then level;
- (5) Uniformly decreasing over ten years at a half per cent per year and then level;
- (6) Uniformly decreasing at one per cent per year over five years and then uniformly increasing at one per cent per year to the original level at the end of ten years and then level; and
- (7) An immediate decrease of three per cent and then level.

For these and other scenarios which may be used, projected interest rates for a five year treasury note need not be reduced beyond the point where the five year treasury note yield would be at fifty per cent 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 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. [Eff 10/4/97] (Auth: HRS §§431:2-201, 431:5-307) (Imp: HRS §431:5-307)

DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS

Chapter 16-169, Hawaii Administrative Rules, on the Summary page dated September 5, 1997, was adopted on September 5, 1997, following a public hearing held on September 2, 1997, after public notices were given in the Honolulu Star-Bulletin, Hawaii Tribune-Herald, West Hawaii Today, Maui News and The Garden Island on July 31, 1997.

These rules shall take effect ten days after filing with the Office of the Lieutenant Governor.

/s/ Reynaldo D. Graulty  
REYNALDO D. GRAULTY  
Insurance Commissioner

APPROVED AS TO FORM:      Date 9/11/97

/s/ Debrah Day Emerson  
Deputy Attorney General

APPROVED:      Date 9/11/97

/s/ Kathryn S. Matayoshi  
KATHRYN S. MATAYOSHI, Director  
Commerce and Consumer Affairs

APPROVED:      Date 9/23/97

/s/ Benjamin J. Cayetano  
BENJAMIN J. CAYETANO  
GOVERNOR  
STATE OF HAWAII

September 24, 1997  
Filed

DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS

Adoption of Chapter 16-169  
Hawaii Administrative Rules

September 5, 1997

SUMMARY

Chapter 16-169, Hawaii Administrative Rules, entitled "Actuarial Opinion and Memorandum" is adopted.

**Appendix A**  
**Reserves and Related Actuarial Items**

<b>Asset Adequacy Tested Amounts</b>		<b>Reserves and Liabilities</b>			
<b>Statement Item</b>	<b>Formula Reserves (1)</b>	<b>Additional Actuarial (a) Reserves (2)</b>	<b>Analysis Method (b)</b>	<b>Other Amount (3)</b>	<b>Total Amount (1)+(2)+(3) (4)</b>
<b>Exhibit 8</b>					
A Life Insurance					
B Annuities					
C Supplementary Contracts Involving Life Contingencies					
D Accidental Death Benefit					
E Disability - Active					
F Disability - Disabled					
G Miscellaneous					
<b>Total (Exhibit 8 Item 1, Page 3)</b>					
<b>Exhibit 9</b>					
A Active Life Reserve					
B Claim Reserve					
<b>Total (Exhibit 9 Item 2, Page 3)</b>					
<b>Exhibit 10</b>					
1 Premiums and Other Deposit Funds					
1.1 Policyholder Premiums (Page 3, Line 10.1)					
1.2 Guaranteed Interest Contracts (Page 3, Line 10.2)					
1.3 Other Contract Deposit Funds (Page 3, Line 10.3)					
2 Supplementary Contracts Not Involving Life Contingencies (Page 3, Line 3)					
3 Dividend and Coupon Accumulations (Page 3, Line 5)					
<b>Total Exhibit 10</b>					

<b>Exhibit 11 Part 1</b>					
1 Life (Page 3, Line 4.1)					
2 Health (Page 3, Line 4.2)					
<b>Total Exhibit 11, Part 1</b>					
Separate Accounts (Page 3, Line 27)					
<b>TOTAL RESERVES</b>					

IMR (Page ___ Line ___)	
AVR (Page ___ Line ___)	(c)

**Notes:**

- (a) The additional actuarial reserves are the reserves established under paragraphs (2) or (3) of section 16-169-4(e), Hawaii Administrative Rules.
- (b) The appointed actuary should indicate the method of analysis, determined in accordance with the standards for asset adequacy analysis referred to in section 16-169-4(d), Hawaii Administrative Rules, by means of symbols which should be defined in footnotes to the table.
- (c) Allocated amount.