

R2020-05 Update to the Actuarial Opinion and Memorandum Rule

Stakeholder Draft | June 1, 2019

Comments due to OIC at rulescoordinator@oic.wa.gov by June 19, 2020

WAC 284-07-310

Purpose.

The purpose of this regulation, WAC 284-07-310 through and including WAC 284-07-400, called the actuarial opinion and memorandum regulation, is to prescribe:

- (1) Guidelines and standards for statements of actuarial opinion submitted in accordance with the requirements of [chapter 48.74](#) RCW 48.74.025, [RCW 48.36A.250](#), 48.36A.260, and for supporting memoranda;
- (2) Rules applicable to the appointment of an appointed actuary; and
- (3) Guidelines and standards relating to "adequacy of reserves."

WAC 284-07-320

Authority.

This regulation is issued pursuant to the authority vested in the commissioner under RCW 48.01.030, 48.02.060, and chapters 48.36A and 48.74 RCW.

WAC 284-07-330

Scope.

(1) This regulation applies to all life insurance companies and fraternal benefit societies doing business in this state, to all life insurance companies and fraternal benefit societies which are authorized to reinsure life insurance, annuities, or disability insurance business in this state; and to all disability insurers that file annual statements on the life and accident and health blank. This regulation requires the appointed actuary to use his or her professional judgment in performing the required asset analysis and developing the actuarial opinion and supporting memoranda, consistent with relevant actuarial standards of practice. The commissioner may specify specific methods of actuarial analysis and actuarial assumptions when, in the commissioner's opinion, such specifications are necessary.

(2) This regulation applies to all annual statements filed with the commissioner on and after December 31, 2020~~07~~.

WAC 284-07-340

Definitions.

The following definitions apply throughout this regulation:

- (1) "Actuarial opinion" means the opinion of an appointed actuary regarding the adequacy of the reserves and related actuarial items based on an asset adequacy analysis set forth in WAC 284-07-380 and according to applicable actuarial standards of practice.
- (2) "Actuarial Standards Board" means the board established by the American Academy of Actuaries to develop and promulgate standards of actuarial practice.
- (3) "Annual statement" means that statement required by RCW 48.05.250 to be filed annually by the company with the commissioner.
- (4) "Appointed actuary" means any individual who is appointed or retained in accordance with the requirements set forth in WAC 284-07-350(3) to provide the actuarial opinion and supporting memorandum as required by RCW 48.74.025.
- (5) "Asset adequacy analysis" means an analysis that meets the standards and other requirements set forth in WAC 284-07-350(4).
- (6) "Company" means an insurance company, fraternal benefit society, or reinsurer subject to this regulation.
- (7) "Qualified actuary" means an individual who meets the requirements set forth in WAC 284-07-350(1).

WAC 284-07-350

General requirements.

The statement of opinion on the adequacy of the reserves and related actuarial items based on an asset adequacy analysis in accordance with WAC 284-07-380, and a memorandum in support thereof in accordance with WAC 284-07-390, are required each year. The statement of opinion on the adequacy of the reserves and related actuarial items must comply with the requirements of the Valuation Manual, as revised from time to time by the National Association of Insurance Commissioners, and as defined in RCW 48.74.015.

Statement of actuarial opinion:

(1) "Qualified actuary" means an individual who:

- (a) Is a member in good standing of the American Academy of Actuaries; and
- (b) 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 or equivalent standards acceptable to the commissioner; and
- (c) Is familiar with the valuation requirements applicable to life and health insurance companies; and
- (d) Has not been found by the commissioner (or if so found has subsequently been reinstated as a qualified actuary), following appropriate notice to have:
 - (i) Violated any provision of, or any obligation imposed by, Title 48 RCW or other law or any applicable regulation or order of the commissioner in the course of his or her dealings as a qualified actuary;
 - (ii) Been found guilty of fraudulent or dishonest practices;
 - (iii) Demonstrated his or her incompetence, lack of cooperation, or untrustworthiness to act as a qualified actuary;
 - (iv) Submitted to the commissioner during the past five years, an actuarial opinion or memorandum that the commissioner rejected because it did not meet the provisions of this regulation or standards set by the Actuarial Standards Board; or
 - (v) 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
- (e) Has not failed to notify the commissioner of any action taken by any commissioner of any other state similar to that under (d) of this subsection.

(f) The commissioner may accept equivalent qualifications in place of those in (a) and (b) of this subsection if the individual has otherwise demonstrated his or her actuarial competence to the satisfaction of the commissioner, and meets the qualifications in (c), (d), and (e) of this subsection.

(2) "Appointed actuary" means 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.

(a) The company shall give the commissioner ~~timely~~ written notice no more than five (5) business days of the following: 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.

(b) The company must state in its notice that the appointed actuary meets the requirements set forth in subsection (1) of this section.

(c) After the company furnishes the notice, no further notice is required with respect to this person, except the following, if applicable:

(i) The company must give the commissioner timely written notice if the actuary ceases to be appointed or retained as an appointed actuary; and

(ii) The company must give the commissioner timely written notice if the actuary fails to meet the requirements set forth in subsection (2) of this section.

(d) If any person appointed or retained as an appointed actuary replaces a previously appointed actuary, the notice must include that information and give the reasons for replacement. All responses from the previous appointed actuary to the company must be submitted to the commissioner no later than ten (10) business days after the previous appointed actuary response is received by the company.

(3) Standards for asset adequacy analysis: Unless the commissioner approves equivalents in advance, the asset adequacy analysis required by this regulation:

(a) Must conform to the standards of practice as promulgated from time to time by the Actuarial Standards Board and to any additional standards under this regulation, and must form the basis of the statement of actuarial opinion in accordance with this regulation; and

(b) Must be based on methods of analysis that are deemed appropriate for such purposes by the Actuarial Standards Board.

(4) Liabilities to be covered:

(a) As required by RCW 48.74.025, the statement of actuarial opinion applies to all in force business on the statement date regardless of when or where issued, including reserves of Exhibits 5, 6, and 7, and claim liabilities in Exhibit 8, Part 1 and equivalent items in the separate account statement or statements.

(b) 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 calculated in accordance with methods set forth in RCW 48.74.040, 48.74.070, 48.74.080, and 48.74.090, the company must establish the appropriate additional reserve.

(c) Additional reserves established under (b) of this subsection 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 these reserves will not be deemed an adoption of a lower standard of valuation.

WAC 284-07-380

Statement of actuarial opinion based on an asset adequacy analysis.

(1) ~~General description:~~ The statement of actuarial opinion must comply with VM-30 of the Valuation Manual, as revised time from time by the National Association of Insurance Commissioners, and as defined in RCW 48.74.015. ~~include the following:~~

- ~~(a) A paragraph identifying the appointed actuary and his or her qualifications (see subsection (2)(a) of this section);~~
- ~~(b) 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 subsection (2)(b) of this section) and identifying the reserves and related actuarial items covered by the opinion which have not been so analyzed;~~
- ~~(c) 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 (2)(c) of this section), supported by a statement of each expert relied on in the form prescribed by subsection (5) of this section; and~~
- ~~(d) An opinion paragraph expressing the appointed actuary's opinion concerning the adequacy of the supporting assets to mature the liabilities (see subsection (2)(f) of this section).~~
- ~~(e) One or more of the following paragraphs will be needed in individual company cases, as follows:
 - ~~(i) If the appointed actuary considers it necessary to state a qualification of his or her opinion;~~
 - ~~(ii) If the appointed actuary must disclose the method of aggregation for reserves of different products or lines of business for asset adequacy analysis;~~
 - ~~(iii) 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;~~
 - ~~(iv) 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~~
 - ~~(v) If the appointed actuary chooses to add a paragraph briefly describing the assumptions which form the basis for the actuarial opinion.~~~~

~~(2) Recommended language: The following paragraphs must be included in the statement of actuarial opinion in accordance with this section. Language is that which in typical circumstances shall 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 must clearly express his or her professional judgment. In any event, the opinion must include all pertinent aspects of the language provided in this section.~~

~~(a) The opening paragraph must generally state the appointed actuary's relationship to the company and his or her qualifications to sign the opinion.~~

~~(i) For a company actuary, the opening paragraph of the actuarial opinion must read substantially 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 that 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 disability insurance companies."~~

~~(ii) For a consulting actuary, the opening paragraph must contain a statement substantially similar to the following:~~

"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 disability insurance companies."

(b) The scope paragraph must include a statement substantially similar to 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, 20[]. Tabulated below are those reserves and related actuarial items which have been subjected to asset adequacy analysis:

Asset Adequacy Tested Amounts		Reserves and Liabilities			
Statement Item	Formula Reserves (1)	Additional Actuarial Reserves (a) (2)	Analysis Method (b) (3)	Other Amount (3)	Total Amount (1) + (2) + (3) (4)
Exhibit 5	-	-	-	-	-
A Life Insurance	-	-	-	-	-
B Annuities	-	-	-	-	-
C Supplementary Contracts With Life Contingencies	-	-	-	-	-
D Accidental Death Benefit	-	-	-	-	-
E Disability - Active	-	-	-	-	-
F Disability - Disabled	-	-	-	-	-
G Miscellaneous	-	-	-	-	-
- Total (Exhibit 5 Item 1, Page 3)	-	-	-	-	-
Exhibit 6	-	-	-	-	-
A Active Life Reserve	-	-	-	-	-
B Claim Reserve	-	-	-	-	-
- Total (Exhibit 6 Item 2, Page 3)	-	-	-	-	-
Exhibit 7	-	-	-	-	-
- Premiums and Other Deposit Funds (Column 6, Line 14)	-	-	-	-	-
- Guaranteed Interest Contracts (Column 2, Line 14)	-	-	-	-	-
- Annuities Certain (Column 3, Line 14)	-	-	-	-	-
- Supplemental Contracts (Column 4, Line 14)	-	-	-	-	-
- Dividend Accumulations or Refunds	-	-	-	-	-

	(Column 5, Line 14)					
	Total (Exhibit 7, Item 3, Page 3)	-	-	-	-	-
Exhibit 8 Part 1		-	-	-	-	-
1	Life (Page 3, Line 4.1)	-	-	-	-	-
2	Health (Page 3, Line 4.2)	-	-	-	-	-
	Total Exhibit 8, Part 1	-	-	-	-	-
	Separate Accounts (Page 3 of the Annual Statement of the Separate Accounts, Lines 1 and 2)	-	-	-	-	-
TOTAL RESERVES		-	-	-	-	-
IMR (General Account, Page 3, Line 9.4)		-				
IMR (Separate Accounts, Page 3, Line 3)		-				
AVR (Page 3, Line 24.1)	(e)					
Net Deferred and Uncollected Premium		-				

Notes to table of reserves and related actuarial items:

Page and line numbers refer to the 2005 blank. Corresponding entries from blanks from later years are to be substituted as appropriate.

(a) The additional actuarial reserves are the reserves established under WAC 284-07-350 (5)(b).

(b) The appointed actuary must state the method of analysis, determined in accordance with the standards for asset adequacy analysis referred to in WAC 284-07-350(4), by means of symbols which shall be defined in footnotes to the table.

(c) Allocated amount of Asset Valuation Reserve (AVR)."

(c) If the appointed actuary has relied on other experts to develop any portion of the analysis, the reliance paragraph must include a statement substantially similar to 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, or certain critical aspects of the analysis performed in conjunction with forming my opinion] as certified in the attached statement. I have reviewed the information relied upon for reasonableness."

A statement of reliance on other experts must be accompanied by a statement by each expert in the form prescribed by subsection (5) of this section.

(d) If the appointed actuary has examined the underlying asset and liability records, the reliance paragraph must also include substantially the following statement:

"My examination included a review of the actuarial assumptions, actuarial methods, the underlying basic asset and liability records, and other tests of the actuarial calculations I considered necessary. I also reconciled the underlying basic asset and liability records to [exhibits and schedules listed as applicable] of the company's current annual statement."

(e) If the appointed actuary has not examined the underlying records, but has relied upon listings or summaries of policies in force, or asset records, or both prepared by the company, the reliance paragraph must include a statement substantially similar to the following:

~~"In forming my opinion on [specify types of reserves] I relied upon data prepared by [name and title of company officer certifying in force records or other data] as certified in the attached statements. I evaluated that data for reasonableness and consistency. I also reconciled that data to [exhibits and schedules to be listed as applicable] of the company's current annual statement. In other respects my examination included review of the actuarial assumptions and actuarial methods used and tests of the actuarial calculations I considered necessary."~~

~~The paragraph must be accompanied by a signed statement by each person relied upon based on the form set forth in subsection (5) of this section.~~

~~(f) The opinion paragraph must include a statement substantially similar to the following:~~

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

- ~~(i) Are computed in accordance with presently accepted actuarial standards consistently applied and are fairly stated, in accordance with sound actuarial principles;~~
- ~~(ii) 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;~~
- ~~(iii) Meet the requirements of the insurance laws 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;~~
- ~~(iv) 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);~~
- ~~(v) 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 the assets, and the considerations anticipated to be received and retained under the 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.)~~

~~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.~~

~~_____
Signature of Appointed Actuary~~

~~_____
Address of Appointed Actuary~~

~~_____
Telephone Number of Appointed Actuary~~

-
Date"

(3) 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.

(4) Adverse opinions: If the appointed actuary is unable to form an opinion, then he or she must refuse to issue a statement of actuarial opinion. If the appointed actuary's opinion is adverse or qualified, then he or she must issue an adverse or qualified actuarial opinion explicitly stating the reason(s) for the adverse opinion. This statement must follow the scope paragraph and precede the opinion paragraph.

(5) 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 if the actuary relies on the certification of others on matters concerning the accuracy or completeness of any data underlying the actuarial opinion, or the appropriateness of any other information used by the appointed actuary in forming the actuarial opinion, the actuarial opinion must include the names of the persons the actuary is relying upon and a precise identification of the items subject to reliance. In addition, the persons on whom the appointed actuary relies must provide a certification that precisely identifies the items on which the person is providing information and a statement as to the accuracy, completeness or reasonableness of the items, as applicable. This certification must include the signature, title, company's legal name, address and telephone number of the person providing the certification, and the date on which it is signed. This certification must include the reporting date, the name of the appointed actuary, and must be attached to the opinion, in a form substantially similar to the following:

"I [name of officer], [title], of [name of company], hereby affirm that the listings and summaries of policies and contracts in force as of December 31, 20[], 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

-
Address of the Officer of the Company

-
Telephone Number of the Officer of the Company

-
Date"

WAC 284-07-390

Description of actuarial memorandum including an asset adequacy analysis and regulatory asset adequacy issues summary.

(1)(a) In accordance with RCW 48.74.025, the appointed actuary must prepare a memorandum to the company describing the analysis done in support of his or her opinion regarding the reserves. The memorandum must comply with VM-30 of the Valuation Manual, as revised from time to time by the National Association of Insurance Commissioners, and as defined in RCW 48.74.015. The memorandum must be made available for examination by the commissioner upon his or her request but ~~will be returned to the company after the examination and will not be considered a record of the commissioner or subject to automatic filing with the commissioner.~~

~~(b) 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 WAC 284-07-350(2), with respect to the areas covered in such memoranda, and must include a statement to that effect in their memoranda.~~

~~(c) If the commissioner requests a memorandum and an adequate memorandum is not provided within ten days after the request, 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 the supporting memorandum required for review. All reasonable and necessary expenses of the independent review must be paid by the company but all expenses related to the review will be directed and controlled by the commissioner.~~

~~(d)(i) The reviewing actuary must 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 must be retained by the commissioner. Information provided by the company to the reviewing actuary and included in the work papers will be considered material provided by the company to the commissioner and will be kept confidential to the same extent as prescribed by law with respect to other material provided by the company to the commissioner.~~

~~(ii) The reviewing actuary must not be an employee of a consulting firm involved with the preparation of any prior memorandum or opinion for the company for the current year or any one of the preceding three years.~~

~~(b)e) In accordance with RCW 48.74.025, the appointed actuary must prepare a regulatory asset adequacy issues summary according to the requirements set forth in VM-30 of the Valuation Manual, as revised from time to time by the National Association of Insurance Commissioners, and as defined in RCW 48.74.015. subsection (3) of this section. The regulatory asset adequacy issues summary must be submitted no later than April 1 ~~March 15~~ of the year following the year for which a statement of actuarial opinion based on asset adequacy is required. Except for a domestic life insurance company, the regulatory asset adequacy issues summary must be submitted only upon request of the commissioner. The regulatory asset adequacy issues summary has the standing of a memorandum in support of the actuarial opinion, and will be kept confidential to the extent and under the conditions provided for in RCW 48.74.025(4).~~

~~(2) When an actuarial opinion is provided, the memorandum must demonstrate that the analysis has been completed in accordance with the standards for asset adequacy set forth in WAC 284-07-350(4) and any additional standards required by the commissioner. The memorandum must include the following:~~

~~(a) For reserves:~~

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

~~(ii) Sources of liabilities in force;~~

- (iii) Reserve methods and bases;
- (iv) Investment reserves;
- (v) Reinsurance arrangements;
- (vi) Identification of any explicit or implied guarantees made by the general account in support of benefits provided through a separate account or under a separate account policy or contract and the methods used by the appointed actuary to provide for the guarantees in the asset adequacy analysis;
- (vii) Documentation of assumptions, including comparisons with experience, to test reserves for the following:
 - (A) Lapse rates, both base and excess;
 - (B) Interest crediting rate strategy;
 - (C) Mortality;
 - (D) Policyholder dividend strategy;
 - (E) Competitor or market interest rate;
 - (F) Annuitization rates;
 - (G) Commissions and expenses; and
 - (H) Morbidity.

The documentation of the assumptions must allow an actuary reviewing the actuarial memorandum to form a conclusion regarding the reasonableness of the assumptions.

(b) For assets:

- (i) Portfolio descriptions, including a risk profile disclosing the quality, distribution, and types of assets;
- (ii) Investment and disinvestment assumptions;
- (iii) Sources of asset data;
- (iv) Asset valuation bases;
- (v) Documentation of assumptions made for:
 - (A) Default costs;
 - (B) Bond call function;
 - (C) Mortgage prepayment function;
 - (D) Determining market value for assets sold due to disinvestment strategy; and
 - (E) Determining yield on assets acquired through the investment strategy.

The documentation of the assumptions must allow an actuary reviewing the actuarial memorandum to form a conclusion regarding the reasonableness of the assumptions.

(c) Analysis basis:

- (i) Methodology;
- (ii) Rationale for inclusion or exclusion of different blocks of business and how pertinent risks were analyzed;
- (iii) Rationale for degree of rigor in analyzing different blocks of business, including the level of "materiality" that was used in determining how rigorously to analyze different blocks of business;
- (iv) Criteria for determining asset adequacy, including the precise basis for determining if assets are adequate to cover reserves under "moderately adverse conditions" or other conditions, as specified in relevant actuarial standards of practice;
- (v) Consideration of the impact of federal income taxes; and
- (vi) The method of treating reinsurance in the asset adequacy analysis.

(d) Sensitivity testing: Impact of changes in assumptions used in asset adequacy analysis, based on sensitivity tests performed.

(e) Material changes: Summary of material changes in methods, procedures, or assumptions from prior year's asset adequacy analysis.

(f) Results:

~~(i) Schedules under each required scenario showing the cash flows by each of the major items of income, benefits, and expenses, statutory gains or losses, and statutory balance sheet, as modeled, for each year in the projection period; and~~

~~(ii) Summary of results.~~

~~(g) Conclusion(s).~~

~~(3) The regulatory asset adequacy issues summary must contain the name of the company for which the regulatory asset adequacy issues summary is being supplied and must be signed and dated by the appointed actuary providing the actuarial opinion. The regulatory asset adequacy issues summary must include all of the following:~~

~~(a) Descriptions of the scenarios tested, including whether those scenarios are stochastic or deterministic, and the sensitivity testing performed relative to those scenarios.~~

~~(i) If certain tests produce negative ending surplus in the aggregate, the actuary must describe those tests and state the amount of additional reserve as of the valuation date that, if held, would eliminate the negative aggregate surplus values.~~

~~(ii) The actuary must determine ending surplus values by either:~~

~~(A) Extending the projection period until the in force and associated assets and liabilities at the end of the projection period are immaterial; or~~

~~(B) Adjusting the surplus amount at the end of the projection period by an amount that appropriately estimates the value that can reasonably be expected to arise from the assets and liabilities remaining in force.~~

~~(b) An explanation of the extent to which the appointed actuary uses assumptions in the asset adequacy analysis that are materially different from the assumptions used in the previous asset adequacy analysis.~~

~~(c) A description of the amount of reserves and the identity of the product lines that had been subjected to asset adequacy analysis in the prior opinion but were not subject to analysis for the current opinion.~~

~~(d) Comments on any interim results that may be of significant concern to the appointed actuary.~~

~~(e) The methods used by the actuary to recognize the impact of reinsurance on the company's cash flows, including both assets and liabilities, under each of the scenarios tested.~~

~~(f) A paragraph explaining whether the actuary is satisfied that all options whether explicit or embedded, in any asset or liability (including but not limited to those affecting cash flows embedded in fixed income securities) and equity like features in any investments have been appropriately considered in the asset adequacy analysis.~~

~~(4) The memorandum must include a statement substantially similar to the following:~~

~~"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."~~

WAC 284-07-400

Additional considerations for analysis.

(1) Any additional consideration for analysis must be compiled in accordance with VM-30 of the Valuation Manual, as revised from time to time by the National Association of Insurance Commissioners, and as defined in RCW 48.74.015.

Aggregation: For the asset adequacy analysis for the statement of actuarial opinion provided in accordance with WAC 284-07-380, reserves and assets may be aggregated by either of the following methods:

(a) 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.

(b) 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:

(i) Are developed using consistent economic scenarios; or

(ii) 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.

(c) In the event of any aggregation, the actuary must disclose that in his or her opinion such reserves were aggregated on the basis of method (a), (b)(i), or (b)(ii) of this subsection, whichever is applicable, and describe the aggregation in the supporting memorandum.

(2) **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 (3) 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.

(3) **Use of assets supporting the interest maintenance reserve and the asset valuation reserve:**

(i) 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.

(ii) 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.

(iii) The method used for selecting particular assets or allocated portions of assets shall be disclosed in the memorandum.

(4) **Required interest scenarios:**

(a) For the purpose of performing the asset adequacy analysis required by this regulation, the qualified actuary shall follow standards adopted by the Actuarial Standards Board or equivalent standards

approved in advance by the commissioner. In the analysis, the appointed actuary shall consider the effect of at least the following interest rate scenarios:

- (i) Level with no deviation;
 - (ii) Uniformly increasing over ten years at a half percent per year and then level;
 - (iii) Uniformly increasing at one percent per year over five years and then uniformly decreasing at one percent per year to the original level at the end of ten years and then level;
 - (iv) An immediate increase of three percent and then level;
 - (v) Uniformly decreasing over ten years at a half percent per year and then level;
 - (vi) Uniformly decreasing at one percent per year over five years and then uniformly increasing at one percent per year to the original level at the end of ten years and then level; and
 - (vii) An immediate decrease of three percent and then level.
- (b) For all scenarios 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 percent of its initial level.
- (c) 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.
- (d) The method used to determine the beginning yield curve and associated interest rates shall be specifically defined. The beginning yield curve and associated interest rates shall be consistent for all interest rate scenarios.
- (25) 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.