

# **Statutory Valuation of Individual Life and Annuity Contracts**

Errata for Volume I

Last Updated: February 2021



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# 1. Introduction

The purpose of this document is to provide a list of the errata for Volume 1 of the *Statutory Valuation of Individual Life and Annuity Contracts*.

## 2. Chapter 5

### 2.1 Page 104

The last two sentence of the first paragraph on Page 104 of Section 5.3:

This includes individual life policies and individually underwritten certificates issued under a group life insurance contract. It excludes annuity contracts, credit life contracts, industrial life, and pre-need life insurance contracts.

should be changed to:

This only includes individual life policies. It excludes individually underwritten certificates issued under a group life insurance contract, annuity contracts, credit life contracts, industrial life, and pre-need life insurance contracts.

The first sentence of the last paragraph on Page 104 of Section 5.3:

There are three tests that permit the life insurance to just calculate the NPR for certain policies.

should be replaced with:

There are three tests that may simplify the valuation process.

## 3. Chapter 10

### 3.1 Page 197

The first sentence of the second paragraph on Page 197 of Section 10.1.1:

For plans of insurance with separate premium rates (or cost of insurance rates) for preferred and standard lives, the super preferred, preferred, and standard classifications, provided that at least 20% of the business to be valued using this table is in one or more of the preferred classes, may be elected.

should be replaced with:

For plans of insurance with separate premium rates (or cost of insurance rates) for super preferred, preferred and standard lives, the life insurance company must demonstrate that at least 20% of the business must be in one or more of the preferred classes before the life insurance company can use the preferred versions of the 2001 CSO Mortality Tables.

### 3.2 Page 205

The formula for  $i_{CY}$  on Page 205 of Section 10.3.1 is better expressed as follows:

$$i_{CY} = \begin{cases} 0.03 + w_1 \cdot (r_{CY}^1 - 0.03) + 0.50 \cdot w_2 \cdot (r_{CY}^2 - 0.09) & \text{for life} \\ 0.03 + w_1 \cdot (r_{CY} - 0.03) & \text{for SPIA} \end{cases}$$

where

$CY$  = calendar year

$i_{CY}$  = maximum valuation interest rate in calendar year  $CY$

$w_1, w_2$  = weighting factors

$r_{CY}$  = reference interest rate in calendar year  $CY$

$r_{CY}^1$  =  $\text{Min}(r_{CY}, 0.09)$ ;

$r_{CY}^2$  =  $\text{Max}(r_{CY}, 0.09)$ .

The valuation interest rate for other annuities is based on the life formula above if the annuity contract satisfies all of the following criteria:

- Has cash settlement options
- Valued on issue year basis
- Guarantee duration > 10 years

All other annuities not satisfying the above criteria should use the SPIA formula.

## 4. Chapter 11

### 4.1 Page 218

The Third sentence on page 218 of Section 11.1.4:

The policy used for illustration purposes will be a 10-pay, 1-year endowment issued on September 1, 2015.

should be replaced with:

The policy used for illustration purposes will be a 10-pay, **15-year endowment** issued on September 1, 2015.



## 5. Chapter 14

### 5.1 Page 329

The first sentence on Page 329 of Section 14.4.3:

To illustrate this concept, the values in the “CCV” worksheet and the “GMCV” worksheet were based on the contract values assumptions appearing in the worksheet “CVA”.

should be replaced with:

To illustrate this concept, the values in the “CCV” worksheet were based on the contract values assumptions appearing in the worksheet “CVA”.

## 5.2 Page 349

The illustration shown for the data entry fields in the Start worksheet should be completed as follows:

<b>Valuing Universal Life Policies with Secondary Guarantees</b>	
<b>Valuation of Life Insurance Model Regulation, Section 3: Applicability</b>	
Q1. Does the policy have secondary guarantees?	Yes
Q2. Is the secondary guarantee period 5 years or less?	No
Q3. Is the stipulated premium for the secondary guarantee period not less than the net level reserve premium for the secondary guarantee period using the minimum valuation standard?	Yes
Q4. Is the initial surrender charge 100% or higher than the stipulated premium for the secondary guarantee?	Yes
<b>Actuarial Guideline 38</b>	
Q5. Does the policy have a cumulative premium catch-up provision?	Yes
Q6. When was policy issued?	9/1/2015
Q7. Does the secondary guarantee use multiple sets of charges and credits?	No
Q8. Is the stipulated premium determined using the set of charges and credits that produces the lowest premium?	No
Q9. Does the total inforce face amount for this universal plan exceed 2% of the total inforce face amount for individual permanent insurance?	Yes
Q10. Does the total inforce face amount for this universal plan exceed \$1 billion?	Yes

Example 7 of Actuarial Guideline 38 applies.  
Example 8E of Actuarial Guideline 38 applies.

## 6. Chapter 16

### 6.1 Page 387

The formula at the top of Page 387:

$$ic_{t+1}^i = \text{Min} \left[ i^{Cap}, r_{t-np}^P \cdot \frac{Aindex_{t+1}}{Aindex_{t+1-np}} - i_{t+1-np}^{M \text{ arg in}} \right],$$

should be changed to:

$$ic_{t+1}^i = \text{Min} \left[ i^{Cap}, r_{t-np}^P \cdot \frac{Aindex_{t+1}}{Aindex_{t+1-np}} - 1 - i_{t+1-np}^{M \text{ arg in}} \right],$$

### 6.2 Page 390

At the top of Page 390, the sentence:

“For the type 2a and 2 methods, the appointed actuary needs to file certifications quarterly regarding the correctness of the reserves.”

should be changed to:

“For all three methods, the appointed actuary needs to file certifications quarterly regarding the correctness of the reserves.”

## 6.3 Page 398

On Page 398, the abbreviation:

"(CRVM under UAMV)"

that appears in the subtitle for 16.4.2 and in the first paragraph, should be changed to:

"(CRVM with UAMV)".

In the second paragraph of Section 16.42 on Page 398, the sentences

"Where the methods differ is how the valuation date calculation are done."

and

"Under the IGRM method, the implied rate guarantee is not recalculated as long as neither the interest rate guarantees nor the index based benefit is guarantees"

should be changed to

"Where the methods differ is how the valuation date calculations are done."

and

"Under the IGRM method, the implied rate guarantee is not recalculated as long as neither the interest rate guarantees nor the index based benefits are guarantees"