

SERFF Tracking Number: PNMU-125632661 State: Arkansas  
Filing Company: Penn Mutual Life Insurance Company State Tracking Number: 39084  
Company Tracking Number: VU-08(S), ETC.  
TOI: L06I Individual Life - Variable Sub-TOI: L06I.002 Single Life - Flexible Premium  
Product Name: Flexible Premium Adjustable Indexed Variable Life Insurance Policy  
Project Name/Number: VU-08(S)(AR), etc. /VU-08(S)(AR), etc.

## Filing at a Glance

Company: Penn Mutual Life Insurance Company

Product Name: Flexible Premium Adjustable Indexed Variable Life Insurance Policy SERFF Tr Num: PNMU-125632661 State: ArkansasLH

TOI: L06I Individual Life - Variable SERFF Status: Closed State Tr Num: 39084

Sub-TOI: L06I.002 Single Life - Flexible Premium Co Tr Num: VU-08(S), ETC. State Status: Withdrawn

Filing Type: Form Co Status: Reviewer(s): Linda Bird  
Author: Rita Bellew Disposition Date: 05/28/2008  
Date Submitted: 05/22/2008 Disposition Status: Withdrawn

Implementation Date Requested: On Approval Implementation Date:

State Filing Description:

## General Information

Project Name: VU-08(S)(AR), etc.

Project Number: VU-08(S)(AR), etc.

Requested Filing Mode: Review & Approval

Explanation for Combination/Other:

Submission Type: New Submission

Overall Rate Impact:

Filing Status Changed: 05/28/2008

State Status Changed: 05/28/2008

Corresponding Filing Tracking Number: VU-08(S)(AR), etc.

Filing Description:

Please see cover letter and or NAIC Transmittal.

Status of Filing in Domicile: Pending

Date Approved in Domicile:

Domicile Status Comments:

Market Type: Individual

Group Market Size:

Group Market Type:

Deemer Date:

## Company and Contact

### Filing Contact Information

Rita Bellew, State Filing Coordinator

bellew.rita@pennmutual.com

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VIM C3G (215) 956-8290 [Phone]  
Philadelphia, PA 19172 (215) 956-8145[FAX]

**Filing Company Information**

Penn Mutual Life Insurance Company CoCode: 67644 State of Domicile: Pennsylvania  
VIM C3G Group Code: 850 Company Type: Life Insurance and Annuity  
Philadelphia, PA 19172 Group Name: Penn Mutual Life Ins. State ID Number:  
Co.  
(215) 956-8893 ext. [Phone] FEIN Number: 23-0952300  
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SERFF Tracking Number: PNMU-125632661 State: Arkansas  
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Project Name/Number: VU-08(S)(AR), etc. /VU-08(S)(AR), etc.

## Filing Fees

Fee Required? Yes  
Fee Amount: \$200.00  
Retaliatory? No  
Fee Explanation: Policy: \$50 each x 2 = \$100.00  
Rider: \$20 each x 5 = \$100.00  
Per Company: No

COMPANY	AMOUNT	DATE PROCESSED	TRANSACTION #
Penn Mutual Life Insurance Company	\$200.00	05/22/2008	20464237

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## Correspondence Summary

### Dispositions

Status	Created By	Created On	Date Submitted
Withdrawn	Linda Bird	05/28/2008	05/28/2008

### Filing Notes

Subject	Note Type	Created By	Created On	Date Submitted
WITHDRAW	Note To Reviewer	Rita Bellew	05/27/2008	05/27/2008

*SERFF Tracking Number:* PNMU-125632661      *State:* Arkansas  
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## **Disposition**

Disposition Date: 05/28/2008

Implementation Date:

Status: Withdrawn

Comment:

Rate data does NOT apply to filing.

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<b>Item Type</b>	<b>Item Name</b>	<b>Item Status</b>	<b>Public Access</b>
<b>Supporting Document</b>	Certification/Notice		No
<b>Supporting Document</b>	Application		No
<b>Supporting Document</b>	Life & Annuity - Actuarial Memo		No
<b>Supporting Document</b>	Flesch Test Certification		No
<b>Supporting Document</b>	Cover Letter		No
<b>Supporting Document</b>	NAIC Transmittal		No
<b>Supporting Document</b>	Statement of Variability		No
<b>Supporting Document</b>	Fee Form		No
<b>Form</b>	Flexible Premium Adjustable Indexed Variable Life Insurance Policy		No
<b>Form</b>	Flexible Premium Adjustable Indexed Variable Life Insurance Policy		No
<b>Form</b>	Rider – Extended No-Lapse Guarantee Agreement		No
<b>Form</b>	Rider – Extended No-Lapse Guarantee Agreement		No
<b>Form</b>	Supplemental Term Insurance Agreement		No
<b>Form</b>	Supplemental Term Insurance Agreement		No
<b>Form</b>	Rider – Cash Value Enhancement		No
<b>Form</b>	Supplemental Application		No

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**Note To Reviewer**

**Created By:**

Rita Bellew on 05/27/2008 09:30 AM

**Subject:**

WITHDRAW

**Comments:**

Dear Ms. Bird, :

The Penn Mutual Life Insurance Company wishes to WITHDRAW this filing.

None of these forms have been marketed or sold in any state.

Should you have any questions, please call Rita Bellew by phone at (215) 956-8290,  
e-mail at: [bellew.rita@pennmutual.com](mailto:bellew.rita@pennmutual.com), or fax at (215)956-8145.

Sincerely,

Nancy A. Yannuzzi

Nancy A. Yannuzzi  
Senior Manager of Policy Filing

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## Form Schedule

**Lead Form Number:** VU-08(S)(AR)

Review Status	Form Number	Form Type	Form Name	Action	Action Specific Data	Readability	Attachment
	VU-08(S)(AR)	Policy/Cont	Flexible Premium ract/Fratern al Variable Life Certificate Insurance Policy	Initial		50	VU-08(S)(AR).pdf
	VU-08(U)(AR)	Policy/Cont	Flexible Premium ract/Fratern al Variable Life Certificate Insurance Policy	Initial		50	VU-08(U)(AR).pdf
	ENLG-08(S)	Policy/Cont	Rider – Extended ract/Fratern al No-Lapse Guarantee Agreement Certificate: Amendmen t, Insert Page, Endorseme nt or Rider	Initial		52	Rider - ENLG-08(S).pdf
	ENLG-08(U)	Policy/Cont	Rider – Extended ract/Fratern al No-Lapse Guarantee Agreement Certificate: Amendmen t, Insert Page, Endorseme nt or Rider	Initial		52	Rider - ENLG-08(U).pdf
	SLTI-08(S)	Policy/Cont	Supplemental Term ract/Fratern al Insurance Agreement Certificate: Amendmen t, Insert	Initial		50	Rider - SLTI-08(S).pdf

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	Page, Endorseme nt or Rider			
SLTI-08(U)	Policy/Cont Supplemental Term Initial ract/Fratern Insurance Agreement al Certificate: Amendmen t, Insert Page, Endorseme nt or Rider	Initial	51	Rider - SLTI- 08(U).pdf
CVER-08	Policy/Cont Rider – Cash Value ract/Fratern Enhancement al Certificate: Amendmen t, Insert Page, Endorseme nt or Rider	Initial	51	Rider - CVER-08.pdf
PM0304- R2	Application/ Supplemental Enrollment Application Form	Initial	50	Supp App PM0304- R2.pdf



# The Penn Mutual Life Insurance Company

Founded 1847

Insured

William Penn

\$100,000

Specified Amount

Policy Number

0 000 000

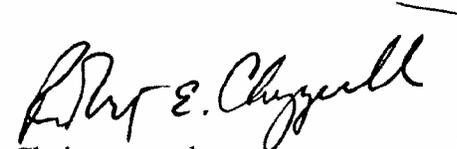
May 1, 2008

Policy Date

The Penn Mutual Life Insurance Company agrees, subject to the provisions of this policy, to pay the Death Benefit to the Beneficiary upon receipt of due proof of the death of the Insured while this policy is in force. Penn Mutual also agrees to provide all of the other benefits stated in this policy. This contract is made in consideration of the payment of premiums as provided in this policy. The provisions on this and the following pages are part of this policy.

Executed on the Date of Issue by The Penn Mutual Life Insurance Company.

  
Managing Corporate Counsel  
and Secretary

  
Chairman and  
Chief Executive Officer

**THE DEATH BENEFIT AND DURATION OF COVERAGE MAY INCREASE OR DECREASE DEPENDING ON THE INVESTMENT EXPERIENCE OF THE SEPARATE ACCOUNT. THE DEATH BENEFIT WILL NEVER BE LESS THAN THE SPECIFIED AMOUNT SHOWN ON PAGE 3. THE POLICY'S ACCUMULATION VALUE IN THE SEPARATE ACCOUNT MAY INCREASE OR DECREASE DEPENDING ON THE INVESTMENT EXPERIENCE OF THAT ACCOUNT. THE POLICY VALUE IS NOT GUARANTEED.**

**Free Look Period** - This policy may be cancelled by returning it within 10 days after it is received by the owner. It must be returned to Penn Mutual or to the agent through whom it was purchased. This policy will then be considered void as of its inception. The Policy Value, premium charge and the monthly deductions will be refunded.

**READ YOUR POLICY CAREFULLY.** This policy is a legal contract between the Owner and Penn Mutual.

## Flexible Premium Adjustable Indexed Variable Life Insurance Policy



- Death Benefit payable at death prior to Maturity Date
- Adjustable Death Benefit
- Maturity Benefit payable on Maturity Date
- Variable Policy Value
- Indexed Account Feature
- Flexible premiums payable until Maturity Date
- Participating
- Supplemental benefits, if any, listed on Page 3

The Penn Mutual Life Insurance Company, Philadelphia, Pennsylvania 19172

VU-08(S)(AR)

# Guide to Policy Sections

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| 1. Policy Specification            | 10. Policy Loans                          |
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| 3. Qualification as Life Insurance | 12. Policy Changes                        |
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Additional Policy Specifications, any supplemental agreements and a copy of any applications follow Section 17

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# 1. Policy Specifications

INSURED [ WILLIAM PENN ] [ \$100,000 ] SPECIFIED AMOUNT  
(INCLUDES POLICY VALUE)

POLICY NUMBER [ 0 000 000 ] [ APRIL 1, 2008 ] POLICY DATE

AGE [ 35 MALE ] [ STANDARD NONTOBACCO ] RATE CLASS

LIFE INSURANCE QUALIFICATION TEST IS [ GUIDELINE PREMIUM TEST ]

MATURITY DATE IS [ APRIL 1, 2094 ]

DATE OF ISSUE IS THE POLICY DATE

EACH SEGMENT DURATION IS ONE YEAR

EACH SEGMENT PERIOD IS FIVE YEARS

OWNER AND BENEFICIARY AS PROVIDED IN APPLICATION

SEPARATE ACCOUNT IS PENN MUTUAL VARIABLE LIFE ACCOUNT I

ELIGIBLE INVESTMENT FUNDS: FUNDS AS SPECIFIED IN THE ADDITIONAL POLICY SPECIFICATIONS

INITIAL ALLOCATION : [ PENN SERIES MONEY MARKET FUND - 100% ]

ALLOCATION DATE IS [ APRIL 11, 2008 ]

## Schedule of Benefits

Description	Amount
[ SUPPLEMENTAL TERM INSURANCE AGREEMENT ]	[ \$50,000 ] SPECIFIED AMOUNT
[ EXTENDED NO LAPSE AGREEMENT ]	----
[ CASH VALUE ENHANCEMENT RIDER ]	----

## Schedule of Premiums

THE INITIAL PREMIUM OF [ \$1,831.63 ] WAS PAID ON THE POLICY DATE FOR 12 MONTHS.  
SUBSEQUENT PREMIUMS ARE PAYABLE ANNUALLY AS FOLLOWS:

BEGINNING AS OF	PREMIUM
[ APRIL 1, 2009 ]	[ \$1,831.63 ]

THE NO LAPSE PREMIUM IS [ \$26.39 ]

THE NO LAPSE DATE IS [ APRIL 1, 2028 ]

THE EXTENDED MONTHLY NO-LAPSE PREMIUMS ARE SHOWN IN THE ADDITIONAL POLICY SPECIFICATIONS  
ON PAGE 26 CONT'D

THE EXTENDED NO LAPSE DATE IS [ APRIL 1, 2094 ]

NOTE: INSURANCE WILL TERMINATE IF THE PREMIUMS PAID AND THE INTEREST CREDITED ARE  
INSUFFICIENT TO COVER THE MONTHLY DEDUCTIONS, EXCEPT AS PROVIDED IN SECTION 4.

SECTION 7702A OF THE INTERNAL REVENUE CODE OF 1986 ESTABLISHES A CLASS OF LIFE INSURANCE  
CONTRACTS DESIGNATED AS "MODIFIED ENDOWMENT CONTRACTS." THE RULES RELATING TO WHETHER A  
POLICY WILL BE TREATED AS A MODIFIED ENDOWMENT CONTRACT ARE EXTREMELY COMPLEX. PLEASE  
CONSULT WITH A QUALIFIED TAX ADVISOR REGARDING YOUR OWN PERSONAL SITUATION.

# 1. Policy Specifications (continued)

## Schedule of Surrender Charges

Maximum Surrender Charge Premium [ \$970.00 ]

Initial Maximum Surrender Charge [ \$873.00 ]

### Table of Surrender Charge Factors

Policy Year	Surrender Factor	Policy Year	Surrender Factor
1	100%	6	45%
2	89	7	34
3	78	8	23
4	67	9	12
5	56	10 and later	0

## Schedule of Policy Loads and Expense Charges

Maximum percent of premium load [ 7.5 ]%  
(applied to each premium applied to the policy)

Maximum per policy monthly expense charge \$[ 9.00 ]

Maximum Mortality and Expense Risk Face Amount charge per \$1,000 of Specified Amount \$[ 0.19 ]  
(for the first 120 months following the policy date)

Maximum Mortality and Expense Risk Face Amount charge per \$1,000 of Specified Amount \$[ 0.17 ]  
for Supplemental Term Insurance Agreement (for the first 120 months following the policy date)

Maximum Mortality and Expense Risk Face Amount charge per \$1,000 of Specified Amount As shown on Page 26  
(for the first 120 months following an increase in Specified Amount)

Maximum Mortality and Expense Risk Face Amount charge per \$1,000 of Specified Amount As shown on Page 26  
for Supplemental Term Insurance Agreement (for the first 120 months following an increase in Specified Amount)

Cash Value Enhancement Agreement Maximum Expense Charge- per \$1,000 of Specified Amount \$ 0.20

Maximum Mortality and Expense Asset Risk Charge for Account Value -  
up to and including \$50,000 [ 0.60 ]%  
in excess of \$50,000 [ 0.30 ]%

# 1. Policy Specifications (continued)

## Schedule of Interest Rates

Guaranteed Interest Rate	2% Effective Annual Rate
Death Benefit Discount Factor	1.0016516
Policy Value Enhancement Date	[ April 1, 2018 ]
Guaranteed Policy Value Enhancement	0.10%
Supplemental Term Insurance Enhancement Date	[ April 1, 2018 ]
Supplemental Term Insurance Enhancement	0.25%
Traditional Loan Interest Rate	4% Effective Annual Rate
Indexed Loan Interest Rate	6% Effective Annual Rate
Loan Value Percentage	95%
Policy Loan Account Rates	3% Policy Years 1 -10 4% Policy Years 11 and after
Indexed Interest	
- Guaranteed Minimum Interest Rate	0%
- Guaranteed Cap Percentage	4%
- Guaranteed Participation Percentage	100%
- 5 Year Segment Interest Rate	2%
Extended No-Lapse Rate	5%
Extended No-Lapse Guarantee Agreement Allocation Percentage	20%
Cash Value Enhancement Agreement Termination Policy Year	Termination Credit Factors
1	92%
2	81%
3	70%
4	59%
5	48%
6	0%

## **2. Endorsements**

To be made only by the Company

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left blank.**

### 3. Qualification as Life Insurance

The life insurance qualification test for this policy will be the Guideline Premium Test unless otherwise elected in the application. The Life Insurance Qualification Test for this Policy is shown on Page 3. The test may not be changed at anytime after the policy is issued.

**Guideline Premium Test** - Under this test, the amount of premium that can be paid in a policy year may not exceed the Maximum Premium Limit. The Maximum Premium Limit for a policy year is the largest amount of premium which can be paid in that policy year such that the sum of the premiums paid under the policy will not at any time exceed the guideline premium limitation referred to in Section 7702 of the Internal Revenue Code of 1986, as amended, or as set forth in any applicable successor thereto. The Maximum Premium Limit for the following policy year will be shown on the Annual Report sent to the Owner.

In addition, a minimum margin must exist between the Death Benefit and the Policy Value. The margin is defined in Section 7702 and is based on the attained age of the Insured. The Basic Death Benefit of the policy will be adjusted accordingly with factors shown in the Table of Death Benefit Factors to satisfy the requirements of this portion of the test. See the Death Benefit Section for further details.

**Cash Value Accumulation Test** - Under this test, the Policy Value cannot at any time exceed the net single premium required to fund the future benefits under the policy. The net single premium is defined in Section 7702 of the Internal Revenue Code. The Basic Death Benefit of the policy will be adjusted accordingly with factors shown in the Table of Death Benefit Factors to satisfy the requirements of this test. See the Death Benefit Section for further details.

The Company reserves the right to restrict Policy transactions as necessary in order to qualify the policy as a life insurance contract under Section 7702. If it is subsequently determined that a policy does not satisfy Section 7702, the Company may take whatever steps are appropriate and necessary to attempt to cause such a policy to comply with Section 7702.

### 4. Premiums

**Payment of Premiums** - Premiums are payable while this policy is in force until the Maturity Date. The first premium is due on the Policy Date. Premiums after the first may be paid in any amount and at any interval subject to the following conditions:

- (a) No premium payment may be less than \$25.
- (b) The Company reserves the right to limit total premiums paid in any policy year to the planned payments for that policy year as shown on Page 3. The schedule of premiums shown on Page 3 is based on the premium amount and the interval of payment specified in the application.
- (c) The Company reserves the right to require submission of evidence of insurability satisfactory to the Company on subsequent premiums that would cause an immediate increase in the difference between the Death Benefit and the Policy Value.
- (d) If the Guideline Premium Test is in effect, total premiums paid in any policy year may not exceed the Maximum Premium Limit for that policy year.

Each premium after the first is payable at the Company's Home Office. A receipt signed by the President or the Secretary will be given on request.

**Premium Charge** - Each premium payment will be reduced by a percent of premium charge. The percent of premium charge will be set by the Company as described in the Determination of Nonguaranteed Factors provision in the Policy Value Section. In no event will the percent of premium charge assessed on each premium paid be greater than that shown on Page 3.

## 4. Premiums (continued)

**Net Premium** - Net premium is the amount of any premium payment reduced by the percent of premium charge.

**Allocation of Net Premiums** - The initial net premium and any additional premium paid before the policy is issued will be allocated based on the Initial Allocation specified on Page 3. On the Allocation Date listed on Page 3, the assets will be allocated to the subaccounts of the Separate Account, to the Indexed Fixed Account, or to the Traditional Fixed Account as directed by the Owner in the application for this policy. Subject to and in accordance with the provisions of this policy, subsequent net premiums will be allocated as directed by the Owner to the subaccounts of the Separate Account, the Indexed Fixed Account and the Traditional Fixed Account set forth in the Additional Policy Specifications. The Owner may change the allocation of future premium payments at any time. Contact the Company for information. Allocations must be in whole number percentages and must total 100% of premium. Premium allocated to the Indexed Fixed Account may be held in the Holding Fixed Account until the next Segment Date.

**Continuation of Insurance** - If the policyholder stops paying premiums or if insufficient premiums are made, the insurance provided under this policy, including benefits provided by any supplemental agreements attached to this policy, will continue, subject to the grace period provision, in accordance with the provisions of this policy and any such supplemental agreements for as long as the net cash surrender value in this policy is sufficient to keep it in force, or if the No-Lapse Premium requirement is satisfied as described below.

**No-Lapse Premium** - The No-Lapse Premium for this policy is the amount stated on Page 3. If, on a Monthly Anniversary prior to the No-Lapse Date shown on Page 3, the sum of all premiums paid on this policy, reduced by any partial surrenders, is greater than or equal to the No-Lapse Premium multiplied by the number of months since the Policy Date, this policy will not then lapse as a result of a Net Cash Surrender Value insufficient to pay the Monthly Deduction for the following month. This provision will not prevent the termination of this policy when indebtedness exceeds the Cash Surrender Value in accordance with the indebtedness provision of the Policy Loans Section of this policy.

A change in the Specified Amount, the addition or deletion of a supplemental agreement to this policy, or a change in the rate class of the Insured prior to the No-Lapse Date shown on Page 3 may result in a change in the No-Lapse Premium.

**Grace Period** - If, on a Monthly Anniversary prior to the No-Lapse Date shown on Page 3:

- (a) the Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following policy month and,
- (b) the sum of all premiums paid on this policy, reduced by any partial surrenders, is less than the No-Lapse Premium shown on Page 3 multiplied by the number of elapsed months since the Policy Date;

then a grace period of 61 days will be allowed for the payment of premium sufficient to keep this policy in force. If, on a Monthly Anniversary on or after the No-Lapse Date shown on Page 3, the Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following month, a grace period of 61 days will be allowed for the payment of premium sufficient to pay the Monthly Deduction.

Notice of the amount of premium required to be paid during the grace period to keep this policy in force will be sent at the beginning of the grace period to the last known address of the Owner and of any assignee on record. The grace period will end 61 days after the notice is sent. This policy will remain in force during the grace period.

## 5. Lapse and Reinstatement

**Lapse** - If a premium sufficient to keep this policy in force is not paid during the grace period, this policy will lapse at the end of the grace period. At lapse this policy will terminate without value and cease to be in force. Any deduction for the Cost of Insurance after termination will not be considered a reinstatement of the policy nor a waiver by the Company of the termination.

## 5. Lapse and Reinstatement (continued)

**Reinstatement** - This policy may be reinstated within five years after lapse. A reinstatement is subject to:

- (a) the submission of evidence of insurability satisfactory to the Company;
- (b) the payment or reinstatement of any indebtedness which existed at the end of the grace period; and
- (c) the payment of a premium sufficient to cover (i) the Monthly Deductions for the grace period, (ii) any unpaid No-Lapse Premiums to the date of reinstatement, and (iii) the Monthly Deductions or, if applicable, the No-Lapse Premiums for two policy months after reinstatement.

The effective date of a reinstatement will be the date of approval by the Company of the application for reinstatement. Such application will be attached to and made a part of the reinstated policy.

The policy value on the date of reinstatement is the sum of:

- (a) the policy value at the beginning of the grace period of lapse;
- (b) interest on (a) at the guaranteed interest rate until the date of reinstatement;
- (c) any dividend credited to the policy since the date of lapse;
- (d) interest on (c) at the guaranteed interest rate until the date of reinstatement; and
- (e) the payment made upon reinstatement reduced by the percent of premium charge less the sum of:
  - (a) the Monthly Deductions for the grace period;
  - (b) interest on (a) at the guaranteed interest rate until the date of reinstatement; and
  - (c) the Monthly Deduction for the policy month following the date of reinstatement.

The surrender charge set forth in the Surrender of Policy Section will be applicable to any surrender of this policy following reinstatement.

Any indebtedness which is reinstated will be subject to loan interest as set forth in the Policy Loans Section.

Following reinstatement, the provisions of No-Lapse Premium set forth in the Premiums Section will again be applicable until the No-Lapse Date shown on Page 3 if sufficient premium is paid so that, as of the effective date of reinstatement, the sum of all premiums paid, reduced by any partial surrenders, is greater than or equal to the No-Lapse Premium multiplied by the number of elapsed months since the Policy Date.

## 6. The Separate Account

**The Separate Account** - The Separate Account named on Page 3 was established by the Company for this and other variable life insurance policies. The Separate Account is divided into subaccounts for the investment of assets in shares of the funds specified in the Additional Policy Specifications. The Company owns the assets of the Separate Account. The assets of each subaccount of the Separate Account equal to the reserves and other contract liabilities with respect to the subaccount are not chargeable with liabilities arising out of any other business the Company may conduct.

Income and realized and unrealized gains and losses from the assets held in each subaccount are credited to or charged against the subaccount without regard to the income, gains or losses in other investment accounts of the Company. Shares of a fund held in a subaccount are valued at current net asset value on each business day. Shares of a fund held in a subaccount will be redeemed at current net asset value to make transfers, pay benefits and cover applicable charges and deductions. Any dividend or capital gain distribution from a fund will be reinvested in shares of that fund.

## 6. The Separate Account (continued)

**Substitution of Investment** - If investment in a subaccount should no longer be possible or, in the judgment of the Company, investment in a subaccount becomes inappropriate to the purposes of the Separate Account, be it for legal, regulatory, federal income tax reasons or for any other reason, or if in the judgment of the Company, investment in another subaccount is in the interest of owners of this class of policies, the Company may substitute another subaccount or insurance company separate account. Substitution may be made with respect to existing investments and the investment of future net premiums. The Company will obtain any necessary regulatory or other approvals prior to making such a change. The Company will endorse the policy as required to reflect any withdrawal or substitutions. While every effort will be made to avoid doing so, substitute funds may have higher fund expenses than the funds replaced.

**Operation of Separate Account** - The Operation of the Separate Account, including the substitution of investments, will be subject to the approval of the Insurance Department of the state of domicile of the Company. The approval process is on file with the Commissioner.

**Transfers** - Subject to and in accordance with the provisions of this policy, at any time after the Allocation Date listed on Page 3, amounts may be transferred among the subaccounts of the Separate Account, the Indexed Fixed Account, the Holding Fixed Account and the Traditional Fixed Account, provided that:

- (a) the minimum amount which may be transferred is \$250 or, if less, the full amount held in the subaccount or the Indexed Fixed Account or the Holding Fixed Account or the Traditional Fixed Account;
- (b) for partial transfers, the amount remaining in a subaccount or the Indexed Fixed Account or the Holding Fixed Account or the Traditional Fixed Account must be at least \$250; and
- (c) the first 12 transfers per policy year will be allowed free of charge; thereafter, a \$10 transfer charge may be deducted from the amount transferred.

The policy is not designed for individuals, advisors or professional market timing organizations that use programmed or frequent transfers among investment options to engage in market timing. The Company therefore reserves the right not to accept programmed or frequent transfer requests we believe in our sole discretion are being used for market timing when we believe that it is in the best interest of all of our policy owners.

## 7. The Fixed Account

**The Fixed Account** - The Fixed Account is comprised of four distinct accounts consisting of the Traditional Fixed Account, the Indexed Fixed Account, the Holding Fixed Account and the Dollar Cost Averaging Account. Amounts allocated or transferred to any of these accounts under this policy become part of the general account assets of the Company. Subject to applicable law and regulation, investment of general account assets is at the sole discretion of the Company.

**The Traditional Fixed Account** - Amounts allocated or transferred to the Traditional Fixed Account under this policy become a part of the general account assets of the Company. Subject to applicable law and regulation, investment of general account assets is at the sole discretion of the Company.

**Interest in the Traditional Fixed Account** - Amounts held in the Traditional Fixed Account will be credited with interest at rates determined by the Company as described in the Determination of Nonguaranteed Factors provision in the Policy Value Section. Different rates will normally apply to the Policy Loan Account. In no event will the rate of interest credited be less than the effective annual guaranteed interest rate listed on Page 3.

Amounts allocated or transferred to the Traditional Fixed Account will be credited with interest at an effective annual rate declared by the Company. The declared rate will apply from the date of allocation or transfer through the end of the twelve month period which begins on the first day of the calendar month in which the allocation or transfer is made. Thereafter, interest will be credited on such amount for successive twelve month periods at the declared effective annual rate then applicable to new allocations to the account made as of the beginning of each such period.

## 7. The Fixed Account (continued)

**Value of the Traditional Fixed Account** - On each Monthly Anniversary while this policy is in force, the value of the Traditional Fixed Account is the sum of:

- (a) the value of the Traditional Fixed Account on the previous Monthly Anniversary;
- (b) one month's interest on (a);
- (c) any premium allocated to the Traditional Fixed Account since the preceding Monthly Anniversary reduced by a pro-rata portion of the percent of premium charge;
- (d) any amount transferred into the Traditional Fixed Account from one or more subaccounts or the Holding Fixed Account or the Indexed Fixed Account since the preceding Monthly Anniversary;
- (e) interest on (c) from the date of receipt in the Home Office to the Monthly Anniversary;
- (f) interest on (d) from the date of transfer into the Traditional Fixed Account; and

less the sum of:

- (a) any partial surrender since the preceding Monthly Anniversary;
- (b) any amount transferred out of the Traditional Fixed Account into one or more subaccounts or the Indexed Fixed Account since the preceding Monthly Anniversary;
- (c) interest on (a) from the date of surrender to the Monthly Anniversary; and
- (d) interest on (b) from the date of transfer out of the Traditional Fixed Account.
- (e) the applicable monthly deduction for the following policy month;
- (f) any policy loan or unpaid policy loan interest taken from the Traditional Fixed Account; and
- (g) interest on (f) from the date of the loan or loan interest deduction.

On any date other than a Monthly Anniversary, the determination of the value of the Traditional Fixed Account will be consistent with the above.

**Transfers** - Subject to and in accordance with the provisions of this policy, including the Transfers provision of the Separate Account Section, the Holding Fixed Account Section, and the Indexed Account Section:

- (a) an amount held in the Traditional Fixed Account may be transferred to one or more subaccounts or the Indexed Fixed Account only during the period which is not more than thirty days immediately following the end of each policy year; and
- (b) the amount that may be transferred excludes any amount held in the Policy Loan Account.

**The Holding Fixed Account** - Any premium or amounts allocated or transferred to the Indexed Fixed Account is automatically deposited into the Holding Fixed Account by the Company, and then the Holding Fixed Account Value is transferred to the next Indexed Fixed Account segment on the next Segment Date as described in the Indexed Fixed Account provision. Amounts allocated or transferred to Holding Fixed Account under this policy become a part of the general account assets of the Company. Subject to applicable law and regulation, investment of general account assets is at the sole discretion of the Company.

**Interest in the Holding Fixed Account** - Amounts held in the Holding Fixed Account will be credited with interest at rates determined by the Company as described in the Determination of Nonguaranteed Factors provision in the Policy Value Section. In no event will the rate of interest credited be less than the effective annual guaranteed interest rate listed on Page 3.

Amounts held in the Holding Fixed Account will be credited with interest at an effective annual rate declared by the Company. The declared rate will apply from the date of transfer through the end of the one month period which begins on the first day of the calendar month in which the allocation or transfer is made.

## 7. The Fixed Account (continued)

**Value of the Holding Fixed Account** - On each Monthly Anniversary while this policy is in force, the value of the Holding Fixed Account is the sum of:

- (a) the value of the Holding Fixed Account on the previous Monthly Anniversary;
- (b) interest on (a);
- (c) any additional premium allocated to the Indexed Fixed Account and held in the Holding Fixed Account by the Company since the preceding Monthly Anniversary reduced by a pro-rata portion of the percent of premium charge;
- (d) any amount transferred into the Indexed Fixed Account from one or more subaccounts or the Traditional Fixed Account or the Dollar Cost Averaging Account since the preceding Monthly Anniversary;
- (e) interest on (c) from the date of receipt in the Home Office to the Monthly Anniversary;
- (f) interest on (d) from the date of transfer into the Holding Fixed Account; and

less the sum of:

- (a) any partial surrender from the Holding Fixed Account since the preceding Monthly Anniversary;
- (b) any amount transferred out of the Holding Fixed Account into the Traditional Fixed Account, subaccounts, or Indexed Fixed Account since the preceding Monthly Anniversary;
- (c) interest on (a) from the date of surrender to the Monthly Anniversary;
- (d) interest on (b) from the date of transfer out of the Holding Fixed Account;
- (e) any policy loan or unpaid policy loan interest taken from the Holding Fixed Account; and
- (f) interest on (e) from the date of the loan or loan interest deduction.

On any date other than a Monthly Anniversary, the determination of the value of the Holding Fixed Account will be consistent with the above.

**Transfers** - Subject to and in accordance with the provisions of this policy, including the Transfers provision of the Separate Account Section, the Traditional Fixed Account Section and the Indexed Fixed Account Section, an amount held in the Holding Fixed Account must be transferred to the Indexed Fixed Account on the next Segment Date.

**The Indexed Fixed Account** - Amounts transferred from the Holding Fixed Account to the Indexed Fixed Account under this policy become a part of the general account assets of the Company. Subject to applicable law and regulation, investment of general account assets is at the sole discretion of the Company.

**Segment Date** - The Segment Date, which is shown on Page 3, is the date a Segment is created. Segment Dates can only be created on monthly policy anniversary dates.

**Segment Maturity Date** - The Segment Maturity Date, which is shown on Page 3, occurs five years from the Segment Date or on the Maturity Date if earlier.

**Segment Duration** - The Segment Duration is the time period from the Segment Date to the Segment Maturity Date.

**Segment Duration Cumulative Guarantee** - An additional Index Interest Credit, if applicable, will be applied to the policy to reflect the minimum guaranteed annual interest rate as shown on Page 3 over the Segment Duration.

**Index Interest Credit Periods** - Index Interest Credit Periods are the time periods over which the performance of the applicable Index is measured in order to determine the amount of interest credited to amounts held in the Indexed Fixed Account. Each Index Interest Credit Period will be measured from the end of the previous Index Interest Credit Period to the date prior to the anniversary of the previous Index Interest Credit Period. Details about the applicable Index are shown on Page 3.

## 7. The Fixed Account (continued)

**Index Interest Credit Period Date** - The date at which the Index Interest Credit Period, which is shown on Page 3, ends and the Index Interest Credit is calculated and credited. Once credited, the starting index value is reset for the next subsequent Index Interest Credit Period.

**Index Interest Credits** - Amounts held in the Indexed Fixed Account earn Index Interest Credits on the Index Interest Credit Period Date based on Index Performance. Index Performance is the growth in the applicable Index during the Index Interest Credit Period, shown on Page 3, multiplied by the Participation Percentage, shown on Page 3, with a floor at the Guaranteed Minimum Interest Rate, shown on Page 3, and a ceiling at the Cap Percentage, also shown on Page 3, for each segment.

In order to administer the application of the Index Interest Credits, the Company will calculate a hypothetical account value each month based on a stipulated interest rate determined by the Company. At the Index Interest Credit Period Date, the actual Index Interest Credit will be calculated and credited for the past Index Interest Credit Period based on the difference between the earnings using the hypothetical stipulated interest rate and the actual Index Performance, subject to the Minimum Index Interest Rate and Cap Percentage.

At the Index Interest Credit Period Date, the Index Interest Credit equals the total amount of hypothetical stipulated interest calculated over the last Index Interest Credit Period, multiplied by the ratio of the Index Performance over the stipulated interest rate.

At the Segment Maturity Date, any additional Index Interest Credit resulting from the application of the Segment Duration Cumulative Guarantee will be added to the Segment Value.

**Value of the Indexed Fixed Account** - On each Monthly Anniversary while this policy is in force, the value of the Indexed Fixed Account is the sum of the Segment Values.

**Segment Value** - On the Segment Date the Segment Value is the sum of:

- (a) any remaining Segment Value from the previous segment that has just matured;
- (b) any transfer from the Holding Fixed Account or the subaccounts or Traditional Fixed Account; and
- (c) any applicable Policy Value Enhancement;

less the applicable Monthly Deduction for the following policy month.

On each Monthly Anniversary while this policy is in force, the Segment Value equals the sum of:

- (a) the Segment Value on the preceding Monthly Anniversary;
- (b) any Index Interest Credits applied at the end of an Index Interest Credit Period; and
- (c) any applicable Policy Value Enhancement;

less the sum of:

- (a) any partial surrender from the Segment Value since the preceding Monthly Anniversary;
- (b) any transfer from the Segment Value on the Segment Maturity date;
- (c) the applicable Monthly Deduction for the following policy month; and
- (d) any Traditional policy loan or unpaid loan interest taken from the Segment.

On any date other than a Monthly Anniversary, the determination of the value of the Indexed Fixed Account will be consistent with the above.

**Participation Percentage** - The Participation Percentage is the percentage of the Index Performance that will be used to calculate the Index Interest Credit, if any. The guaranteed Participation Percentage is shown on Page 3. A new Participation Percentage will apply to each new Index Interest Credit Period and will not change for that Index Interest Credit Period.

## 7. The Fixed Account (continued)

**Minimum Index Interest Rate** - The Minimum Index Interest Rate will be used to calculate the Index Interest Credit, if any. The guaranteed Minimum Index Interest Rate is shown on Page 3.

**Cap Percentage** - The Cap Percentage is the maximum percentage of the Index Performance that will be used to calculate the Index Interest Credit, if any. The Guaranteed Cap Percentage is shown on Page 3. A new Cap Percentage will apply to each new Index Interest Credit Period and will not change for that Index Interest Credit Period.

**Change, Addition or Discontinuance of an Index** - If the Index substantially changes the manner in which it is calculated the Company may adjust the formula used by the Company when determining the Index Interest Credit, if any, to be consistent with the original calculation methodology. If the publication of the Index is discontinued, or if the Company in its sole discretion determines that the index should no longer be used, a similar index may be substituted. The Company may from time to time add additional indexes or methods of crediting index interest credits. The Owner will be notified of any change of Index or crediting method.

**Transfers** - Subject to and in accordance with the provisions of this policy, including the Transfers provision of the Separate Account Section and the Traditional Fixed Account Section and the Holding Fixed Account Section:

- (a) an amount held in the Indexed Fixed Account may be transferred to one or more subaccounts or the Traditional Fixed Account only on the Index Interest Credit Period Date; and
- (b) the amount that may be transferred excludes any amount held in the Policy Loan Account.

**Dollar Cost Averaging Account** - Amounts may be allocated to only one of the Dollar Cost Averaging Accounts shown in the Additional Contract Specifications. During the dollar cost averaging period, an additional Dollar Cost Averaging Account cannot be selected. If the Dollar Cost Averaging Account is terminated at the request of the Owner, the remaining balance will be transferred to the subaccounts of the Separate Account or the Indexed Fixed Account using the allocation percentages currently in force at that time, unless otherwise directed by the Owner.

Amounts held in a Dollar Cost Averaging Account will be credited with interest at effective annual rates declared by the Company. The declared interest rate will apply from the date of the allocation to the account through the end of the dollar cost averaging period. The dollar cost averaging period begins on the first day of the calendar month following the allocation. At the expiration of the dollar cost averaging period, the Company will declare a rate not less than the guaranteed interest rate for a new dollar cost averaging period.

## 8. Policy Value

**Policy Value** - On the Policy Date the Policy Value is the initial premium paid less the sum of (a) the percent of premium charge, and (b) the Monthly Deduction for the first policy month. On each Monthly Anniversary while this policy is in force, the Policy Value is the sum of (a) the current market value of each subaccount, (b) the value of the Traditional Fixed Account, (c) the value of the Holding Fixed Account, (d) the value of the Indexed Fixed Account and (e) the value of the Dollar Cost Averaging Account, after deduction of the Monthly Deduction for the next policy month and (f) the value of the Policy Loan Account.

On any date other than the Policy Date or a Monthly Anniversary, the Policy Value will be the sum of (a) the current market value of each subaccount, (b) the value of the Traditional Fixed Account, (c) the value of the Holding Fixed Account, (d) the value of the Indexed Fixed Account, (e) the value of the Dollar Cost Averaging Account, and (f) the value of the Policy Loan Account. The value will include pro-rata crediting of interest. Since Index Interest Credits are determined at the Segment Maturity Date, no Index Interest Credits will be added as a result of a surrender or death occurring prior to the end of a Segment Duration.

## 8. Policy Value (continued)

**Monthly Deduction** - The Monthly Deduction is the sum of:

- (a) the Cost of Insurance for the policy month;
- (b) the monthly expense charge(s);
- (c) the Mortality and Expense Risk Face Amount charge;
- (d) the Mortality and Expense Risk Asset charge (not applicable for the Fixed Account) applied to the value in the subaccounts as of the dates on which Monthly Deductions are deducted; and
- (e) the Cost of Insurance and any other applicable monthly charge for the policy month for any benefits provided by a supplemental agreement made a part of this policy.

Monthly Deductions will be deducted on the Policy Date and on each Monthly Anniversary from the subaccounts and the Traditional Fixed Account and the Indexed Fixed Account and the Holding Fixed Account as directed by the Owner. If the values in the directed subaccounts or the Traditional Fixed Account and the Indexed Fixed Account and the Holding Fixed Account are insufficient to cover the Monthly Deductions, or if no allocation is directed, Monthly Deductions will be deducted on the Policy Date and each Monthly Anniversary from the subaccounts and the Traditional Fixed Account and the Indexed Fixed Account and the Holding Fixed Account on a pro rata basis in proportion to the current market value of each subaccount and the value of the Traditional Fixed Account and the Indexed Fixed Account and the Holding Fixed Account.

The Mortality and Expense Risk Asset charge will be deducted on the Policy Date and each Monthly Anniversary from the subaccounts on a pro rata basis in proportion to the current market value of each subaccount. This charge will not be deducted from the Fixed Accounts. No Monthly Deductions will be deducted from the Policy Loan Account.

**Net Amount at Risk** - The Net Amount at Risk is equal to the Basic Death Benefit at the beginning of the policy month, divided by the Death Benefit Discount Factor shown on Page 3, minus the Policy Value at the beginning of the policy month before the Monthly Deduction.

If the Specified Amount does not include Policy Value, the Policy Value will be allocated to the initial Specified Amount segment in order to determine the Net Amount at Risk.

If there have been any increases in the Specified Amount, the Policy Value will be allocated to the initial Specified Amount segment for determining the Net Amount at Risk. If the Policy Value exceeds the initial Specified Amount, the excess will be allocated to the increases in Specified Amount in the order of the increases. Any increases in the Basic Death Benefit in order to maintain the required minimum margin between the Basic Death Benefit and the Policy Value will be allocated to the most recent increase in Specified Amount.

**Cost of Insurance** - The Cost of Insurance is determined on a monthly basis. It is determined separately for the initial segment as well as for each additional segment created as the result of an increase in the Specified Amount. The Cost of Insurance for a policy month is calculated as the sum of (a) multiplied by (b) for each segment where:

- (a) is the applicable Cost of Insurance Rate divided by 1,000; and
- (b) is the Net Amount at Risk for that segment.

**Cost of Insurance Rate** - The Base Cost of Insurance Rate is based on the attained age, sex, rate class and policy duration of the Insured. The Cost of Insurance Rate will be determined by the Company as described in the Determination of Nonguaranteed Factors provision. However, the rates will not exceed those shown in the Additional Policy Specifications. Such maximum rates are based on the 2001 Commissioners Standard Ordinary Composite Mortality Tables, Age Nearest Birthday.

**Expense Charges** - The actual expense charges will be determined by the Company as described in the Determination of Nonguaranteed Factors provision. However, these actual expense charges will not exceed the maximum expense charges stated on Page 3.

## 8. Policy Value (continued)

**Mortality and Expense Risk Face Amount Charge** - The actual Mortality and Expense Risk Face Amount Charge will be determined by the Company as described in the Determination of Nonguaranteed Factors provision. However, this actual Mortality and Expense Risk Face Amount Charge will not exceed the maximum stated on Page 3.

**Mortality and Expense Risk Asset Charge** - The actual Mortality and Expense Risk Asset Charge will be determined by the Company as described in the Determination of Nonguaranteed Factors provision. However, these actual Mortality and Expense Risk Asset Charge will not exceed the maximum stated on Page 3. Mortality and Expense Risk Asset Charges do not apply to amounts in the Traditional Fixed Account, Index Fixed Account or the Holding Fixed Account.

**Determination of Nonguaranteed Factors** - Cost of Insurance Rates, Percent of Premium Charges, Expense Charges, Mortality and Expense Risk Face Amount, Mortality and Expense Risk Asset Charge, Cap Percentages, Participation Rates and Interest Rates will be determined by the Company based on expectations as to future mortality, investment, expense and persistency experience.

The Company will not adjust such rates or charges as a means of recovering prior losses nor as a means of distributing prior profits.

**Variable Accumulation Values** - At any valuation time, the current market value of a subaccount is determined by multiplying that subaccount's accumulation unit value times the number of subaccount units held under this Policy.

The number of accumulation units is determined by dividing the amount allocated to the subaccount by the subaccount's accumulation unit value for the Valuation Date when the allocation is made.

The number of subaccount accumulation units will increase when:

- (a) net premiums are allocated to that subaccount;
- (b) amounts are transferred to that subaccount; and
- (c) policy loans are repaid and credited to that subaccount.

The number of subaccount accumulation units will decrease when:

- (a) a portion of the monthly deduction is deducted from that subaccount;
- (b) a policy loan is taken from that subaccount;
- (c) policy loan interest is not paid when due and is taken from that subaccount;
- (d) an amount is transferred, including any transfer charges, from that subaccount; and
- (e) a partial surrender, including the partial surrender charge, is taken from that subaccount

**Policy Value Enhancement** - After the policy reaches the Policy Value Enhancement Date as shown on Page 3, a monthly Policy Value Enhancement will be paid on subsequent monthly anniversaries. The Policy Value Enhancement is guaranteed at the rate shown on Page 3 and is based on the value of the subaccounts of the Separate Accounts. Any enhancements will be applied pro-rata only to the values of subaccounts of the Separate Accounts.

**Valuation Period** - As used in this policy, Valuation Period is the interval from one valuation time to the next valuation time. Valuation time is the time as of which each underlying investment company determines the net asset value of its shares.

**Value of Each Accumulation Unit** - For each subaccount of the Separate Account, the value was arbitrarily set at \$10 when the subaccount was established. The value may increase or decrease from one valuation period to the next. For any valuation period the value is:

The value of an Accumulation Unit for the prior valuation period multiplied by the net investment factor for that subaccount for the current valuation period.

## 8. Policy Value (continued)

**Net Investment Factor** - As used in this policy, Net Investment Factor is an index used to measure the investment performance of a subaccount from one valuation period to the next. For any subaccount, the net investment factor for a valuation period is found by dividing (a) by (b):

Where (a) is

The net asset value per share of the mutual fund held in the subaccount, as of the end of the valuation period; plus

The per-share amount of any dividend or capital gain distributions by the mutual fund if the "ex-dividend" date occurs in the valuation period.

Where (b) is

The net asset value per share of the mutual fund held in the subaccount as of the end of the last prior valuation period.

**Traditional Fixed Account Value Reductions** - Applicable Monthly Deductions (with the exception of the M&E), transfers and partial surrenders will reduce the portion of the Traditional Fixed Account Value which results from the most recent allocation to the Traditional Fixed Account. A Traditional policy loan will be secured by the portion of the Policy Value assigned to the Policy Loan Account.

**Indexed Fixed Account Value Reductions** - Applicable Monthly Deductions, transfers and partial surrenders will reduce the portion of the Indexed Fixed Account Value on a pro rata basis. A Traditional policy loan will be secured by the portion of the Policy Value assigned to the Policy Loan Account.

**Holding Account Value Reductions** - Applicable transfers and partial surrenders will reduce the portion of the Holding Fixed Account Value on a pro rata basis. A Traditional policy loan will be secured by the portion of the Policy Value assigned to the Policy Loan Account.

**Computation of Values** - All policy values and benefits are equal to or greater than those required by the law of the jurisdiction in which this policy is delivered. A detailed statement of the method of computing reserves and Policy Values has been filed with the insurance supervisory official of that jurisdiction if required.

## 9. Death and Maturity Benefits

**Basic Death Benefit** - The Basic Death Benefit prior to the Maturity Date will be as follows:

- (a) If the Specified Amount includes the Policy Value, as shown on Page 3, the Basic Death Benefit will be equal to the greater of:
  - (1) the Specified Amount; or
  - (2) the Policy Value multiplied by an attained age factor shown in Table of Death Benefit Factors.
- (b) If the Specified Amount does not include the Policy Value, as shown on Page 3, the Basic Death Benefit will be equal to the greater of:
  - (1) the Specified Amount plus the Policy Value; or
  - (2) the Policy Value multiplied by an attained age factor shown in Table of Death Benefit Factors.

## 9. Death and Maturity Benefits (continued)

**Amount of Death Benefit** - The Death Benefit payable at the death of the Insured while this policy is in force will be equal to the sum of:

- (a) the Basic Death Benefit on the date of death;
- (b) any dividend payable at death; and
- (c) any benefit provided by a supplemental agreement attached to the policy and payable because of the death of the Insured.

less the sum of:

- (a) any indebtedness on this policy at the time of the death of the Insured; and
- (b) if the death of the Insured occurs during a grace period, the lesser of (i) past due Monthly Deductions or (ii) an amount to meet the No-Lapse Guarantee.

**Suicide Exclusion** - If the Insured dies by suicide, while sane or insane, within two years from the Date of Issue, the Death Benefit will be limited to the premiums paid less any indebtedness and any partial surrenders.

If the Insured dies by suicide, while sane or insane, within two years from the effective date of any increase in the Specified Amount, the Death Benefit with respect to that increase in the Specified Amount will be limited to the Monthly Deductions made for that increase.

**Payment of Death Benefit** - The Death Benefit will be paid to the Beneficiary in one sum or, if elected, under an income payment option. If part or all of the Death Benefit is paid in one sum, the Company will pay interest on this sum from the date of death to the date of payment. The interest rate will be determined each year by the Company, but will not be less than the minimum guaranteed interest rate as shown on Page 3 per year compounded annually, or such higher rate as may be required by law.

**Amount of Maturity Benefit** - The Maturity Benefit payable if the Insured is living on the Maturity Date and if this policy is then in force will be equal to the Net Policy Value on that date.

**Payment of Maturity Benefit** - The Maturity Benefit will be paid to the Owner in one sum or, if elected, under an Income Payment Option.

## 10. Policy Loans

**Policy Loans** - The Owner may obtain a loan while this policy is in force during the life of the Insured. The loan, plus any existing indebtedness, may not be greater than the Loan Value of this policy on the date of the loan. The minimum loan is \$250. There are two loan options available, the Traditional Loan and an Indexed Loan, which is only available after the first policy year.

**Loan Options** - At the time of the first loan, the Owner must choose one of two loan options and the choice is irrevocable until the entire loan balance is repaid. For the first loan option, called the Traditional Loan Option, policy loans can be taken from any of the subaccounts, the Traditional Fixed Account, Indexed Fixed Account or the Holding Fixed Account on a pro rata basis unless otherwise specified by the Owner. When a loan is made, an amount equal to the amount of the loan will be withdrawn from the appropriate accounts and the amount will be placed in the Policy Loan Account. The Policy Loan Account will be credited with interest. The rate of interest will not be less than the minimum guaranteed interest rate listed on Page 3 and will be determined each year by the Company.

For the second loan option, called the Indexed Loan Option, loans are only permitted from the Indexed Fixed Account segments. Any of the subaccount Value, Traditional Fixed Account Value or Holding Fixed Account Value cannot be loaned under the Indexed Loan option, until sufficient subaccount value, Traditional Fixed Account Value, or Holding Fixed Account Value is transferred into an Indexed Fixed Account segment on the next Segment Date. The loan is not

## 10. Policy Loans (continued)

transferred to the Policy Loan Account but will remain in the Index Fixed Account segments and continue to be credited interest in the same manner as the un-loaned portion of the Indexed Fixed Account segments.

**Loan Value** - For the Traditional Loan Option and the Indexed Loan Option, the Loan Value of this policy on any date is equal to the Loan Value Percentage, as shown on Page 3, multiplied by the Cash Surrender Value

**Loan Interest** - Traditional and Indexed Loans will bear interest at the loan interest rates listed on Page 3. Loan interest is due and payable at the end of each policy year. If the interest is not paid when due, it will be added to the loan. It will then bear interest at the rate of interest on loans.

**Indebtedness** - Indebtedness means outstanding loans on this policy plus any loan interest due or accrued. Indebtedness may be repaid in full or in part at any time while this policy is in force during the life of the Insured.

**Excess Indebtedness** - This policy is the only security for indebtedness on it. If, at any time, the indebtedness is greater than the Cash Surrender Value, a notice of pending termination will be mailed to the last known address of the Owner and of any assignee on record. If the excess indebtedness is not paid to the Company, this policy will terminate 61 days after the notice is mailed.

**Policy Loan Account** - When a loan is made under the Traditional Loan Option, an amount equal to the amount of the loan will be withdrawn from the assets held under this policy in subaccounts of the Separate Account and in the Indexed Fixed Account and in the Traditional Fixed Account and the amount will be placed in the Policy Loan Account included within the Fixed Account. Subject to and in accordance with the provisions of this policy, withdrawals will be made from the subaccounts and the Traditional Fixed Account and the Indexed Fixed Account on a pro-rata basis in proportion to the current market value of each subaccount and the value of the Traditional Fixed Account and the value of the Indexed Fixed Account unless otherwise directed by the Owner. The Policy Loan Account will be credited with interest. The rate of interest will be determined each year by the Company but will not be less than the Policy Loan Account Rate listed on Page 3. Any repayment of indebtedness will be withdrawn from the Policy Loan Account and reallocated to the subaccounts and the Indexed Fixed Account and the Traditional Fixed Account as directed by the Owner. Except for such repayment of indebtedness, no transfers or partial surrenders may be made from the Policy Loan Account.

## 11. Surrender of Policy

**Surrender** - The Owner may surrender this policy for its Net Cash Surrender Value by filing a written request with the Company. The Net Cash Surrender Value may be taken in one sum or it may be left with the Company under an income payment option. This policy will terminate and cease to be in force if it is surrendered for one sum.

**Net Cash Surrender Value** - The Net Cash Surrender Value is the Net Policy Value decreased by any surrender charge.

**Net Policy Value** - The Net Policy Value is the Policy Value decreased by any indebtedness on this policy.

**Cash Surrender Value** - The Cash Surrender Value is the Policy Value decreased by any surrender charge.

**Surrender Charge** - The surrender charge for the initial Specified Amount is determined by multiplying (a) times (b), where:

- (a) is the appropriate surrender factor from the Table of Surrender Factors determined from the Policy Date; and
- (b) is 90% of the lesser of:
  - (i) the total premium paid in the first policy year;
  - (ii) the maximum surrender charge premium as shown on Page 3; and
  - (iii) \$45.00 per thousand of initial Specified Amount

## 11. Surrender of Policy (continued)

The surrender charge for each increase in the Specified Amount is based on the amount of the increase and on the attained age of the Insured at the time of the increase. The surrender charge is determined by multiplying (a) times (b), where:

- (a) is the appropriate surrender factor from the Table of Surrender Factors determined from the effective date of the increase; and
- (b) is 90% of the lesser of:
  - (i) the total premium paid in the first policy year;
  - (ii) the maximum surrender charge premium as determined from the effective date of the increase; and
  - (iii) \$45.00 per thousand of the increase amount

**Partial Surrender** - The Owner may make a partial surrender of this policy for any portion of the Net Cash Surrender Value which exceeds \$250 by filing a written request with the Company. However, no partial surrender may be made for less than \$250 and no more than twelve partial surrenders may be made under this policy in any policy year. A charge of 2% of the amount surrendered, but not more than \$25 will be made for each partial surrender. The charge will be deducted from the available Net Cash Surrender Value and will be considered part of the partial surrender.

Any partial surrender will reduce the Policy Value by the amount of the partial surrender. If the Specified Amount includes the Policy Value, the Specified Amount will be reduced by the amount of the partial surrender that exceeds the difference between the Death Benefit and the Specified Amount. In those instances, the Specified Amount will be reduced in the following order:

- (a) The most recent increase in the Specified Amount, if any, will be decreased first.
- (b) The next most recent increases in the Specified Amount, if any, will then be successively decreased.
- (c) The initial Specified Amount will then be decreased.

Partial surrenders will be deducted from the subaccounts, the Indexed Fixed Account, the Holding Fixed Account, and the Traditional Fixed Account as directed by the Owner, provided that the minimum amount remaining in each account as a result of the allocation is \$250. If no allocation is directed, the partial surrender will be deducted from the accounts on a pro-rata basis in proportion to the current net asset value of each subaccount, the value of the Indexed Fixed Account, the value of the Holding Fixed Account, and the value of the Traditional Fixed Account.

**Systematic Partial Surrender Program** - The Systematic Partial Surrender Program is a program of periodic distribution of a portion of the Policy Value designated by the Company. The Company reserves the right to discontinue such a program at any time. The program includes periodic distribution to the Owner of a portion of the Policy Value through policy loans and partial surrenders while the Insured is alive and the policy is in force. Contact the Company for details of how this program works. A processing fee of 2% of the amount surrendered, but not more than \$25, will be made for each year the Systematic Partial Surrender Program is active.

The surrender charge will not be reduced as a result of a partial surrender.

## 12. Policy Changes

**Right to Make Change** - At any time while this policy is in force after the first policy year, the Owner may request changes as set forth in this section. No change will be permitted that would result in the Death Benefit under this policy not being excludable from gross income due to not satisfying the requirements of Section 7702 of the Internal Revenue Code of 1986, as amended, or as set forth in any applicable successor provision thereto. In addition, each change is subject to the conditions stated. This policy will be amended as the result of any such change.

## 12. Policy Changes (continued)

**Increase in Specified Amount** - An increase in Specified Amount must be applied for on a written application and is subject to the Company's underwriting guidelines in effect at the time of the increase. Evidence of insurability satisfactory to the Company must be submitted. The amount of the requested increase must be at least \$10,000.

**Decrease in Specified Amount** - Any decrease in the Specified Amount must not violate the requirements of section 7702 of the Internal Revenue Code of 1986 and be at least \$10,000. The Specified Amount may not be decreased to less than \$50,000. No decrease may be made in the first year following the effective date of an increase in the Specified Amount.

Any decrease in the Specified Amount will become effective on the Monthly Anniversary that coincides with or next follows the receipt by the Company of the request. The decrease in the Specified Amount will be in the following order:

- (a) The most recent increase in the Specified Amount, if any, will be decreased first.
- (b) The next most recent increases in the Specified Amount, if any, will then be successively decreased.
- (c) The initial Specified Amount will then be decreased.

The surrender charge will not change as a result of a decrease in the Specified Amount. No surrender charge will be deducted from the Policy Value upon a decrease in the Specified Amount.

**Change in Specified Amount Option** - If the Specified Amount does not include the Policy Value, a request may be made to change this policy so that the Specified Amount includes the Policy Value. The Specified Amount after the change will be equal to the Specified Amount before the change plus the Policy Value on the date of the change. The effective date of the change will be the Monthly Anniversary that coincides with or next follows the date of receipt by the Company of the request to make the change.

If the Specified Amount includes the Policy Value, a request may be made to change this policy so that the Specified Amount does not include the Policy Value. The Specified Amount after the change will be equal to the Specified Amount before the change less the Policy Value on the date of the change. Evidence of insurability satisfactory to the Company may be required. Such evidence will be attached to and made a part of the policy. The effective date of the change will be the Monthly Anniversary that coincides with or next follows the date of receipt by the Company of the request to make the change.

The Specified Amount after the change must be at least \$50,000. No more than one change in the Specified Amount Option may be made in any policy year.

## 13. Transfer to Traditional Fixed Account

At any time within the first 24 policy months while this policy is in force during the life of the Insured, the Owner may transfer all amounts held in subaccounts of the Separate Account to the Traditional Fixed Account without restriction, minimum or charge. Following such transfer, no future premiums may be allocated to subaccounts of the Separate Account and no transfers may be made to the subaccounts.

## 14. Owner and Beneficiary

**Owner** - The Owner of this policy is as stated in the application unless changed by a subsequent owner designation or assignment. While this policy is in force before the death of the Insured, the Owner may exercise all of the rights in it without the consent of any other person.

## 14. Owner and Beneficiary (continued)

**Beneficiary** - The Beneficiary of this policy is as stated in the application unless changed by a subsequent beneficiary designation on a form provided by the Company. If no other provision is made, the interest of a Beneficiary who dies before the death of the Insured will pass to the Owner.

**Change of Owner or Beneficiary** - The Owner may transfer ownership or change the Beneficiary by filing a written designation at the Home Office on a form provided by the Company. The designation will take effect as of the date it is signed by the Owner, subject to any action taken by the Company prior to the time that the designation is received at the Home Office. Unless otherwise stated in a designation, the following rules will apply to terms of kinship:

- (a) A legally adopted child of any person will be considered the child of the adopting parent.
- (b) The brothers and sisters of a person will include those who have only one parent in common with the person, but will not include stepbrothers or stepsisters.
- (c) Any reference to children will not include stepchildren and any reference to parents will not include stepparents.

**Assignment** - The Owner may assign this policy while it is in force during the life of the Insured. The rights of the Owner and of any Beneficiary will be subject to the rights of an assignee under the terms of an assignment. No assignment will bind the Company until the original or a copy signed by the Owner, on a form provided by the Company, has been filed at the Home Office. The Company is not responsible for the effect or the validity of any assignment.

## 15. General Provisions

**The Contract** - This policy and the application for it constitute the entire contract. A copy of the application is attached to this policy. Only the President, a Vice President, the Secretary, the Chief Actuary, Actuary or an Associate Actuary may, on behalf of the Company, modify this policy or waive any of its conditions. No agent is authorized to modify this contract or to make any promise as to the future payment of dividends or interest.

At any time the Company may make such changes in this policy as are necessary (i) to assure compliance at all times with the definition of life insurance prescribed by federal income tax law, or (ii) to make the policy conform with any law or regulation issued by any government agency to which it is subject. Any such change may, however, be accepted or rejected by the Owner.

**Incontestability** - All statements made in the application for this policy are representations and not warranties. No statement will void this policy or be used to contest a claim under it unless the statement is contained in a written application, a copy of which is attached to and made a part of this policy.

This policy will be incontestable after it has been in force during the life of the Insured for two years from the Date of Issue. Any increase in the Specified Amount will be incontestable with respect to statements made in the evidence of insurability for that increase after the increase has been in force during the life of the Insured for two years from its effective date.

This policy will be incontestable with respect to statements made in an application for reinstatement after it has been in force during the life of the Insured for two years from the effective date of the reinstatement.

**Duration of Coverage** - The duration of coverage under this policy will depend on the amount, timing and frequency of premium payments; changes in the Specified Amount or benefits; the interest rates credited or investment return; the cost of insurance rates charged; and the amount and timing of any partial surrenders or policy loans.

**Participation** - This policy will participate in divisible surplus while it is in force except as stated in the Income Payment Options Section. The share of such surplus, if any, to be apportioned to this policy as a dividend will be determined each year by the Company. Any dividend will be allocated to subaccounts of the Separate Account and the Indexed Fixed Account and the Traditional Fixed Account in accordance with the current premium allocation, unless the Owner requests another allocation or elects to have it paid in cash. No divisible surplus is expected to be apportioned to this policy in the foreseeable future.

## 15. General Provisions (continued)

**Policy Date** - The Policy Date shown on Page 3 is the date from which policy years, months and anniversaries are determined.

**Monthly Anniversary** - The Monthly Anniversary is the day in each calendar month which is the same day of the month as the Policy Date.

**Age** - The age shown on Page 3 is the insurance age of the Insured. This is the age of the Insured on the birthday nearest the Policy Date. Attained age means the insurance age of the Insured increased by the number of whole years and months after the Policy Date.

**Misstatement of Age or Sex** - If the age or the sex of the Insured has been misstated, the Death Benefit under this policy will be the amount which would have been provided by the most recent Cost of Insurance charge at the correct age and sex. No adjustment in the Policy Value will be made.

**Policy Payments** - All payments by the Company under this policy are payable at the Home Office. The Company may require the return of this policy upon surrender for the Net Cash Surrender Value or payment of the Death Benefit.

**Deferral of Transactions** - The Company may defer payment from the subaccounts of a partial surrender or of the Net Cash Surrender Value, may defer making a loan, may defer payment of any portion of the Death Benefit in excess of the Specified Amount and may defer transfer from assets held in subaccounts of the Separate Account under any of the following conditions:

- (a) The New York Stock Exchange is closed (other than customary weekend and holiday closings).
- (b) Trading on the New York Stock Exchange is restricted.
- (c) An emergency exists such that it is not reasonably practical to dispose of securities held in the Separate Account or to determine the value of its assets.

Conditions in (b) and (c) will be decided by, or in accordance with rules of, the Securities and Exchange Commission.

The Company may defer payment from the Traditional Fixed Account, Indexed Fixed Account and the Holding Fixed Account of a partial surrender, of the Net Cash Surrender Value, or of a policy loan for up to six months from the date the Company receives a written request. However, a partial surrender or policy loan to pay a premium due on a policy of the Company will not be deferred. If the payment is deferred for 30 days or more, it will bear interest at a rate of the guaranteed interest rate per year compounded annually while it is deferred, or such higher rate as may be required by law.

**Annual Report** - Each year a report will be sent to the Owner which shows the current policy values, premiums paid and deductions made since the last report, any outstanding policy loans, and any other information required by the Insurance Department of the jurisdiction in which this policy is delivered.

**Projection of Benefits and Values** - Upon request, the Company will provide a projection of illustrative future Death Benefits and Policy Values. The request for a projection must be made in writing by the Owner. The Company may charge a fee for this service.

**Deferral of Maturity** - Upon the written request of the Owner, this policy will continue in force beyond the Maturity Date. The Death Benefit will be the Net Policy Value on the Maturity Date together with interest at the current rate set by the Company, which will be not less than the minimum interest rate compounded annually, until the death of the Insured.

## 16. Income Payment Options

**Election of Income Payment Option** - An income payment option may be elected in place of a one sum payment of any amount payable upon the death of the Insured or upon surrender.

## 16. Income Payment Options (continued)

The Owner may elect an income payment option or change a previous election while this policy is in force before the death of the Insured. If no election is in effect at the time of the death of the Insured, the Beneficiary may elect an income payment option before any payment of the Death Benefit has been made and within one year of the date of death.

The amount applied under an income payment option must be at least \$5,000. No election may provide for income payments of less than \$50 each.

**Option 1 - Interest Income** - The Company will hold the amount applied at interest. Interest will be paid monthly, quarterly, semiannually or annually.

**Option 2 - Income for a Fixed Period** - The Company will pay the amount applied, with interest, in equal monthly payments for a fixed period. The fixed period may not be greater than 30 years.

**Option 3 - Income of a Specified Amount** - The Company will make payments of a specified amount until the total amount applied, with interest, has been paid. The payments may be made monthly, quarterly, semiannually or annually. The final payment may be less than the specified amount. The total of the payments to be made each year must be at least \$75 for each \$1,000 applied.

**Option 4 - Life Income** - The Company will pay equal monthly payments during the life of the option annuitant.

**Option 5 - Life Income with Guaranteed Period** - The Company will pay equal monthly payments for a stated guaranteed period and thereafter during the life of the option annuitant. The guaranteed period may be 5 years, 10 years or 20 years.

**Option 6 - Life Income with Refund Period** - The Company will pay equal monthly payments during the life of the option annuitant. If necessary, the payments will continue after the death of the option annuitant until the total of all payments made, including a smaller final payment, if required, equals the total amount applied.

**Option 7 - Joint and Survivor Life Income** - The Company will pay equal monthly payments during the joint life of two option annuitants and thereafter during the life of the survivor.

**Income Amount - Participation** - The income under Options 1 and 2 will be based on interest at a rate of 1.5% per year compounded annually. The unpaid balance of the amount applied under Option 3 will be credited with interest at a rate of 1.5% per year compounded annually.

Options 1, 2 and 3 will participate in divisible surplus by the payment or crediting of additional interest in such amount, if any, as determined each year by the Company. Additional interest will increase the income payments under Options 1 and 2. Additional interest will lengthen the period during which payments are made under Option 3.

The monthly income under Options 4, 5, 6 and 7 will equal 103% of the monthly income under a comparable single premium nonparticipating annuity issued by the Company at the time that the income payments are to begin. In no event will the monthly income under these life income options be less than the income stated in the Income Payment Option Tables. Options 4, 5, 6 and 7 will not participate in divisible surplus.

**Income Period** - The income period under an option will begin on the date of death or surrender. Income payments under Options 1 and 3 will be made at the end of the payment interval. Income payments under Options 2, 4, 5, 6 and 7 will be made at the beginning of the payment interval.

**Option Annuitant** - Option annuitant means a natural person on whose life the income payments under Options 4, 5, 6 and 7 are based.

The Company may require proof of the age and of the continued life of an option annuitant. If the age or the sex of an option annuitant has been misstated, an appropriate adjustment will be made in the income payments.

## 16. Income Payment Options (continued)

**Withdrawal Privilege** - Unless the election states otherwise, the payee under an income payment option may:

- (a) before any income payment has been made, withdraw the amount applied under the option; or
- (b) withdraw the present value of the income payments to become due during any fixed, guaranteed or refund period; or
- (c) withdraw the balance held under Option 1 or 3 plus any accrued interest.

There will be no right to withdraw the present value of the income payments falling due after the guaranteed or refund period under Options 5 and 6. There will be no right to withdraw the present value of any income payments under Options 4 and 7.

The Company may defer the payment of the amount withdrawn for up to six months from the date of a withdrawal request.

**Present Value** - The present value of the income payments under Option 2 will be based on interest at a rate of 1.5% per year compounded annually. The present value of the remaining income payments during a guaranteed or refund period under a life income option will be based on interest at a rate set by the Company at the time income payments are to begin.

**Death of Payee** - Upon the death of the payee under an income payment option, the Company will pay the following to the payee's executors or administrators unless stated otherwise in an election consented to by the Company:

- (a) the balance of the amount held under Option 1 or 3 plus any accrued interest; or
- (b) the present value of the income payments to become due during the fixed period under Option 2; or
- (c) if the option annuitant under Option 5 or 6 has died, the present value of the income payments, if any, to become due during the guaranteed or refund period; or
- (d) if any option annuitant under Option 4, 5, 6 or 7 is living, any income payments as they become due during the option annuitant's life plus, upon the death of the option annuitant under Option 5 or 6, the present value of the income payments, if any, to become due during the guaranteed or refund period.

**Assignment - Creditors** - The amount applied under an income payment option and the payments under the option may not be assigned and, to the extent permitted by law, will not be available to anyone who has a claim against the payee.

## 17. Income Payment Option Tables

The following tables show the amount of the first monthly income payment for each \$1,000 of value applied under an annuity option. "Age" as used in the tables for Options 2,3, and 4 means an adjusted age determined in the following manner from the actual age of the Annuitant on the birthday nearest the date of the first payment:

Date of First Payment	Adjusted Age
Before calendar year 2010	Actual Age
2010-2019	Actual age decreased by 1
2020-2029	Actual age decreased by 2
2030 and later	Actual age decreased by 3

**Option 1 - Interest Income**

**Option 2 - Income for Fixed Period of Years**

Payment Interval	Amount	Option 1 - Interest Income			Option 2 - Income for Fixed Period of Years		
		Years	Monthly Income	Years	Monthly Income	Years	Monthly Income
Annually	\$15.00	1	\$83.90	11	\$8.21	21	\$4.62
		2	42.26	12	7.58	22	4.44
		3	28.39	13	7.05	23	4.28
Semiannually	7.47	4	21.45	14	6.59	24	4.13
		5	17.28	15	6.20	25	3.99
Quarterly	3.73	6	14.51	16	5.85	26	3.86
		7	12.53	17	5.55	27	3.75
Monthly	1.24	8	11.04	18	5.27	28	3.64
		9	9.89	19	5.03	29	3.54
		10	8.96	20	4.81	30	3.44

# 17. Income Payment Option Table (continued)

## Options 4, 5 and 6 - Monthly Life Income

The amount of income will be based on the age of the option annuitant on the birthday nearest the date of the first payment.

Age of Option Annuitant	Option 4		Option 5				Option 6				Age of Option Annuitant	Option 4		Option 5				Option 6				
	Life Income		20 Year Guaranteed Period		10 Year Guaranteed Period		5 Year Guaranteed Period		with Refund Period			Life Income		20 Year Guaranteed Period		10 Year Guaranteed Period		5 Year Guaranteed Period		with Refund Period		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
15	\$1.99	\$1.92	\$1.96	\$1.89	\$1.97	\$1.90	\$1.98	\$1.91	\$1.95	\$1.88	65	4.85	4.37	4.14	3.96	4.69	4.28	4.81	4.35	4.06	3.92	
16	2.01	1.94	1.98	1.91	1.99	1.92	2.00	1.93	1.97	1.90	66	5.02	4.51	4.21	4.04	4.83	4.41	4.98	4.49	4.20	4.01	
17	2.03	1.95	2.00	1.92	2.01	1.93	2.02	1.94	1.99	1.91	67	5.20	4.66	4.27	4.11	4.98	4.55	5.15	4.64	4.35	4.04	
18	2.05	1.97	2.02	1.94	2.03	1.95	2.04	1.96	2.01	1.93	68	5.39	4.83	4.33	4.18	5.13	4.69	5.33	4.80	4.52	4.24	
19	2.07	1.99	2.04	1.96	2.05	1.97	2.06	1.98	2.03	1.95	69	5.60	5.00	4.39	4.26	5.29	4.84	5.53	4.97	4.59	4.25	
20	2.09	2.01	2.06	1.98	2.07	1.99	2.08	2.00	2.05	1.97	70	5.82	5.19	4.44	4.32	5.45	5.00	5.73	5.15	4.67	4.49	
21	2.11	2.02	2.08	1.99	2.09	2.00	2.10	2.01	2.07	1.98	71	6.05	5.39	4.49	4.39	5.62	5.17	5.95	5.34	4.75	4.58	
22	2.13	2.04	2.10	2.01	2.11	2.02	2.12	2.03	2.09	2.00	72	6.30	5.61	4.54	4.45	5.79	5.34	6.17	5.55	5.05	4.77	
23	2.15	2.06	2.12	2.03	2.13	2.04	2.14	2.05	2.11	2.02	73	6.57	5.85	4.58	4.50	5.96	5.52	6.42	5.78	5.13	4.85	
24	2.17	2.08	2.14	2.05	2.15	2.06	2.16	2.07	2.13	2.04	74	6.85	6.11	4.62	4.55	6.14	5.71	6.67	6.02	5.34	5.06	
25	2.20	2.10	2.17	2.07	2.18	2.08	2.19	2.09	2.16	2.06	75	7.15	6.39	4.65	4.60	6.32	5.91	6.94	6.28	5.45	5.15	
26	2.22	2.13	2.19	2.10	2.20	2.11	2.21	2.12	2.18	2.09	76	7.47	6.69	4.68	4.64	6.51	6.11	7.22	6.55	5.63	5.28	
27	2.25	2.15	2.22	2.12	2.23	2.13	2.24	2.14	2.21	2.11	77	7.82	7.01	4.71	4.67	6.69	6.31	7.52	6.84	5.81	5.48	
28	2.27	2.17	2.24	2.14	2.25	2.15	2.26	2.16	2.22	2.13	78	8.19	7.36	4.73	4.70	6.87	6.52	7.83	7.16	5.94	5.76	
29	2.30	2.19	2.27	2.16	2.28	2.17	2.29	2.18	2.26	2.15	79	8.59	7.74	4.75	4.72	7.05	6.73	8.15	7.49	6.22	5.86	
30	2.33	2.22	2.30	2.19	2.31	2.20	2.32	2.21	2.27	2.18	80	9.01	8.16	4.76	4.75	7.22	6.93	8.49	7.84	6.25	6.05	
31	2.36	2.24	2.33	2.21	2.34	2.22	2.35	2.23	2.29	2.20	81	9.47	8.60	4.78	4.76	7.39	7.13	8.84	8.21	6.69	6.16	
32	2.39	2.27	2.36	2.24	2.37	2.25	2.38	2.26	2.35	2.22	82	9.95	9.09	4.79	4.78	7.56	7.33	9.21	8.60	6.77	6.67	
33	2.42	2.30	2.39	2.27	2.40	2.28	2.41	2.29	2.38	2.26	83	10.47	9.61	4.79	4.79	7.71	7.52	9.58	9.01	7.13	6.77	
34	2.46	2.33	2.43	2.30	2.44	2.31	2.45	2.32	2.40	2.27	84	11.02	10.18	4.80	4.80	7.86	7.69	9.97	9.44	7.32	7.10	
35	2.49	2.36	2.46	2.33	2.47	2.34	2.48	2.35	2.44	2.32	85	11.61	10.79	4.81	4.80	8.00	7.86	10.36	9.87	7.45	7.33	
36	2.53	2.39	2.50	2.36	2.51	2.37	2.52	2.38	2.45	2.35	86	12.24	11.45	4.81	4.81	8.13	8.01	10.76	10.32	7.80	7.53	
37	2.56	2.42	2.53	2.39	2.54	2.40	2.55	2.41	2.49	2.36	87	12.91	12.16	4.81	4.81	8.24	8.15	11.17	10.77	7.91	7.98	
38	2.60	2.46	2.57	2.43	2.58	2.44	2.59	2.45	2.50	2.42	88	13.61	12.91	4.81	4.81	8.35	8.27	11.57	11.22	8.47	8.08	
39	2.65	2.49	2.62	2.46	2.63	2.47	2.64	2.48	2.57	2.45	89	14.37	13.71	4.81	4.81	8.45	8.38	11.97	11.66	8.65	8.40	
40	2.69	2.53	2.66	2.50	2.67	2.51	2.68	2.52	2.60	2.48	90	15.17	14.55	4.81	4.81	8.54	8.48	12.37	12.09	8.77	8.69	
41	2.73	2.57	2.70	2.54	2.71	2.55	2.72	2.56	2.65	2.52	91	16.01	15.43	4.81	4.81	8.61	8.56	12.77	12.51	9.60	9.02	
42	2.78	2.61	2.74	2.58	2.76	2.59	2.77	2.60	2.66	2.54	92	16.91	16.34	4.81	4.81	8.68	8.64	13.15	12.92	9.75	9.42	
43	2.83	2.65	2.79	2.62	2.81	2.63	2.82	2.64	2.72	2.55	93	17.86	17.29	4.81	4.81	8.74	8.71	13.53	13.31	9.82	9.73	
44	2.88	2.69	2.83	2.66	2.86	2.67	2.87	2.68	2.76	2.61	94	18.87	18.29	4.81	4.81	8.80	8.76	13.91	13.69	10.90	10.21	
45	2.94	2.74	2.88	2.71	2.92	2.72	2.93	2.73	2.79	2.62	95	19.96	19.32	4.81	4.81	8.84	8.81	14.28	14.05	11.21	10.50	
46	2.99	2.79	2.93	2.76	2.97	2.77	2.98	2.78	2.80	2.68	96	21.13	20.42	4.81	4.81	8.88	8.85	14.64	14.41	11.65	10.92	
47	3.05	2.84	2.98	2.80	3.03	2.82	3.04	2.83	2.88	2.70	97	22.41	21.60	4.81	4.81	8.90	8.89	14.99	14.76	12.14	11.37	
48	3.11	2.89	3.03	2.85	3.09	2.87	3.10	2.88	2.90	2.76	98	23.84	22.89	4.81	4.81	8.93	8.91	15.34	15.11	12.55	11.76	
49	3.18	3.09	3.09	2.92	3.16	2.92	3.17	2.93	2.97	2.79	99	25.44	24.35	4.81	4.81	8.94	8.93	15.67	15.45	13.12	12.29	
50	3.24	3.00	3.14	2.95	3.22	2.98	3.23	2.99	3.05	2.85	100	27.27	26.01	4.81	4.81	8.95	8.95	15.99	15.79	13.75	12.88	
51	3.31	3.06	3.20	3.00	3.29	3.04	3.30	3.05	3.06	2.94	101	29.36	27.93	4.81	4.81	8.96	8.96	16.27	16.10	14.43	13.51	
52	3.39	3.13	3.26	3.06	3.36	3.11	3.38	3.12	3.16	2.95	102	31.77	30.15	4.81	4.81	8.96	8.96	16.53	16.38	15.01	14.06	
53	3.47	3.19	3.32	3.12	3.44	3.17	3.46	3.18	3.17	2.99	103	34.57	32.76	4.81	4.81	8.96	8.96	16.75	16.64	15.85	14.85	
54	3.55	3.26	3.39	3.18	3.51	3.24	3.54	3.25	3.28	3.05	104	37.82	35.81	4.81	4.81	8.96	8.96	16.93	16.84	16.79	15.72	
55	3.63	3.34	3.45	3.24	3.60	\$3.32	3.62	3.33	3.29	3.10	105	41.60	39.41	4.81	4.81	8.96	8.96	17.06	17.01	16.92	15.89	
56	3.73	3.41	3.52	3.30	3.68	3.39	3.72	3.40	3.35	3.17	106	46.03	43.66	4.81	4.81	8.96	8.96	17.16	17.13	17.02	16.01	
57	3.82	3.50	3.58	3.37	3.77	3.47	3.81	3.49	3.41	3.29	107	51.23	48.69	4.81	4.81	8.96	8.96	17.22	17.21	17.08	16.09	
58	3.92	3.58	3.65	3.44	3.87	3.56	3.91	3.57	3.49	3.30	108	57.34	54.67	4.81	4.81	8.96	8.96	17.26	17.25	17.12	16.13	
59	4.03	3.68	3.72	3.51	3.97	3.64	4.02	3.67	3.55	3.43	109	64.58	61.81	4.81	4.81	8.96	8.96	17.28	17.27	17.14	16.15	
60	4.15	3.78	3.79	3.58	4.07	3.74	4.13	3.77	3.64	3.45	110	73.20	70.40	4.81	4.81	8.96	8.96	17.28	17.28	17.16	16.16	
61	4.27	3.88	3.86	3.65	4.19	3.83	4.25	3.87	3.71	3.51												
62	4.40	3.99	3.93	3.73	4.30	3.94	4.38	3.98	3.81	3.62												
63	4.54	4.11	4.00	3.81	4.42	4.05	4.52	4.09	3.88	3.67												
64	4.69	4.23	4.07	3.88	4.55	4.16	4.66	4.22	3.96	3.80												

# 17. Income Payment Option Table (continued)

## Option 7—Joint and Survivor Monthly Life Income

The amount of income will be based on the ages of the option annuitants on their respective birthdays nearest the date of the first payment. The table shows income for certain ages for one male and one female option annuitant. The amount is shown under the age of the male and opposite the age of the female. Amounts of income for other combinations of ages or for option annuitants of the same sex will be furnished upon request.

Age of Female Option Annuitant	Age of Male Option Annuitant												
	50	55	60	65	70	75	80	85	90	95	100	105	110
50	\$2.72	\$2.80	\$2.87	\$2.92	\$2.95	\$2.97	\$2.98	\$2.99	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00
55	2.85	2.98	3.09	3.18	3.24	3.28	3.30	3.32	3.33	3.33	3.33	3.34	3.34
60	2.96	3.15	3.32	3.47	3.58	3.66	3.71	3.74	3.75	3.76	3.77	3.77	3.77
65	3.05	3.29	3.54	3.77	3.97	4.12	4.22	4.28	4.32	4.35	4.35	4.36	4.37
70	3.12	3.41	3.73	4.07	4.39	4.66	4.86	5.00	5.08	5.13	5.16	5.18	5.19
75	3.17	3.50	3.89	4.33	4.80	5.25	5.64	5.92	6.12	6.24	6.31	6.36	6.38
80	3.20	3.56	4.00	4.53	5.16	5.83	6.48	7.04	7.46	7.75	7.95	8.07	8.14
85	3.22	3.59	4.06	4.67	5.43	6.31	7.28	8.24	9.06	9.70	10.19	10.54	10.72
90	3.23	3.61	4.10	4.75	5.60	6.65	7.92	9.31	10.68	11.89	12.95	13.82	14.34
95	3.24	3.62	4.12	4.80	5.69	6.86	8.35	10.12	12.03	13.93	15.80	17.56	18.77
100	3.24	3.63	4.14	4.82	5.75	7.00	8.64	10.73	13.20	15.88	18.87	22.12	24.70
105	3.24	3.63	4.14	4.84	5.79	7.09	8.86	11.22	14.23	17.86	22.51	28.80	35.26
110	3.24	3.63	4.15	4.85	5.81	7.13	8.97	11.50	14.89	19.30	25.93	36.41	52.85

# Additional Policy Specifications

## Subaccounts

### Penn Series Funds, Inc.

**Alliance Bernstein**  
SMID Cap Value

**Eaton Vance Management**  
Large Core Value

**Goldman Sachs**  
Small Cap Value

**Heitman**  
REIT

**Independence Capital Management (ICMI)**  
Money Market  
Limited Maturity Bond  
Quality Bond  
Balanced  
Aggressive Allocation  
Moderately Aggressive Allocation  
Moderate Allocation  
Moderately Conservative Allocation  
Conservative Allocation

**Lord, Abnett & Co.**  
Mid Core Value

**Neuberger Berman Management**  
Mid Cap Value

**Oppenheimer Capital**  
Small Cap Growth

**Oppenheimer Funds**  
Large Cap Value Fund

**State Street**  
Index 500  
Small Cap Index  
Developed International Index

**T. Rowe Price Assoc.**  
Flexibly Managed  
Large Growth Stock  
High Yield Bond

**Turner Investment**  
Large Cap Growth  
Mid Cap Growth

**Van Kampen Investments**  
Emerging Markets Equity

**Vontobel Asset Management**  
International Equity

**Wells Capital Management**  
Large Core Growth  
SMID Cap Growth

## Eligible Fixed Interest Option

Penn Mutual General Account

## Additional Policy Specifications

Maximum Mortality and Expense Risk Face Amount Charges per \$1,000 of Specified Amount

ISSUE AGE	BASE COVERAGE CHARGE
35	0.190
36	0.200
37	0.210
38	0.220
39	0.230
40	0.240
41	0.250
42	0.260
43	0.270
44	0.280
45	0.290
46	0.297
47	0.304
48	0.311
49	0.318
50	0.325
51	0.332
52	0.339
53	0.346
54	0.353
55	0.360
56	0.371
57	0.382
58	0.393
59	0.404
60	0.415
61	0.426
62	0.437
63	0.448
64	0.459
65	0.470
66	0.473
67	0.476
68	0.479
69	0.482
70	0.485
71	0.488
72	0.491
73	0.494
74	0.497
75	0.500

POLICY NUMBER 0 000 000  
 FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
 WILLIAM PENN  
 AGE 35 MALE            NONTOBACCO

## Additional Policy Specifications (continued)

Maximum Mortality and Expense Risk Face Amount Charges per \$1,000 of Specified Amount

ISSUE AGE	BASE COVERAGE CHARGE
76	0.500
77	0.500
78	0.500
79	0.500
80	0.500
81	0.500
82	0.500
83	0.500
84	0.500
85	0.500

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 MALE                      NONTOBACCO

## Additional Policy Specifications (continued)

Maximum Mortality and Expense Risk Face Amount Charges per \$1,000 of Specified Amount for the Supplemental Term Insurance Agreement

ISSUE AGE	Supplemental Term Insurance Agreement
35	0.170
36	0.179
37	0.188
38	0.197
39	0.206
40	0.215
41	0.224
42	0.233
43	0.242
44	0.251
45	0.260
46	0.266
47	0.272
48	0.278
49	0.284
50	0.290
51	0.296
52	0.302
53	0.308
54	0.314
55	0.320
56	0.330
57	0.340
58	0.350
59	0.360
60	0.370
61	0.380
62	0.390
63	0.400
64	0.410
65	0.420
66	0.422
67	0.424
68	0.426
69	0.428
70	0.430
71	0.432
72	0.434
73	0.436
74	0.438
75	0.440

POLICY NUMBER 0 000 000  
 FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
 WILLIAM PENN  
 AGE 35 MALE                      NONTOBACCO

## Additional Policy Specifications (continued)

Maximum Mortality and Expense Risk Face Amount Charges per \$1,000 of Specified Amount for the Supplemental Term Insurance Agreement

ISSUE AGE	Supplemental Term Insurance Agreement
76	0.440
77	0.440
78	0.440
79	0.440
80	0.440
81	0.440
82	0.440
83	0.440
84	0.440
85	0.440

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 MALE                      NONTOBACCO

**Additional Policy Specifications (continued)**

TABLE OF GUARANTEED MAXIMUM MONTHLY COST OF INSURANCE RATES PER \$1,000

ATTAINED AGE	BASE POLICY AND SLTI-08
-----------------	----------------------------

35	0.1008
36	0.1067
37	0.1117
38	0.1200
39	0.1283
40	0.1375
41	0.1492
42	0.1634
43	0.1792
44	0.1992
45	0.2209
46	0.2417
47	0.2642
48	0.2776
49	0.2934
50	0.3134
51	0.3384
52	0.3726
53	0.4110
54	0.4585
55	0.5144
56	0.5737
57	0.6371
58	0.6896
59	0.7497
60	0.8223
61	0.9125
62	1.0219
63	1.1438
64	1.2716
65	1.4061
66	1.5415
67	1.6770
68	1.8242
69	1.9739
70	2.1521
71	2.3513
72	2.6168
73	2.8933
74	3.1834
75	3.5047
76	3.8548

POLICY NUMBER 0 000 000
FLEXIBLE PREMIUM LIFE INSURANCE POLICY
WILLIAM PENN
AGE 35 MALE
NONTOBACCO

## Additional Policy Specifications (continued)

TABLE OF GUARANTEED MAXIMUM MONTHLY COST OF INSURANCE RATES PER \$1,000

ATTAINED  
AGE

BASE POLICY AND  
SLTI-08

77	4.2614
78	4.7357
79	5.2828
80	5.8794
81	6.5586
82	7.2641
83	8.0230
84	8.8637
85	9.8095
86	10.8592
87	12.0049
88	13.2337
89	14.5315
90	15.8868
91	17.1595
92	18.4881
93	19.8913
94	21.3757
95	22.9455
96	24.3837
97	25.9199
98	27.5627
99	29.3228
100	31.2104
101	32.7093
102	34.3098
103	36.0189
104	37.8432
105	39.7902
106	41.8674
107	44.0856
108	46.4529
109	48.9795
110	51.6758
111	54.5548
112	57.6265
113	60.9085
114	64.4129

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 MALE

NONTOBACCO

## Additional Policy Specifications (continued)

TABLE OF GUARANTEED MAXIMUM MONTHLY COST OF INSURANCE RATES PER \$1,000

ATTAINED AGE	BASE POLICY AND SLTI-08
-----------------	----------------------------

115	68.1573
116	72.1571
117	76.4330
118	81.0061
119	83.3333
120	83.3333

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 MALE      NONTOBACCO

# Additional Policy Specifications (continued)

## Table of Death Benefit Factors

Attained

Age	Factor
0-40	2.50
41	2.43
42	2.36
43	2.29
44	2.22
45	2.15
46	2.09
47	2.03
48	1.97
49	1.91
50	1.85
51	1.78
52	1.71
53	1.64
54	1.57
55	1.50
56	1.46
57	1.42
58	1.38
59	1.34
60	1.30
61	1.28
62	1.26
63	1.24
64	1.22
65	1.20
66	1.19
67	1.18
68	1.17
69	1.16
70	1.15
71	1.13
72	1.11
73	1.09
74	1.07
75-90	1.05
91	1.04
92	1.03
93	1.02
94	1.01
95	1.01
96-121	1.001

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 MALE NONTOBACCO

# Additional Policy Specifications (continued)

Cont'd)

## TABLE OF MAXIMUM MONTHLY NO-LAPSE PREMIUMS PER \$1,000 OF SPECIFIED AMOUNT

ATTAINED AGE	Monthly No-Lapse Premiums Per \$1,000
35	0.3167
36	0.3167
37	0.3167
38	0.3167
39	0.3167
40	0.3167
41	0.3167
42	0.3167
43	0.3167
44	0.3167
45	0.3167
46	0.3167
47	0.3167
48	0.3167
49	0.3167
50	0.3167
51	0.3167
52	0.3167
53	0.3167
54	0.3167
55	0.3167

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 MALE                      NONTOBACCO

# Additional Policy Specifications (continued)

TABLE OF MAXIMUM MONTHLY EXTENDED NO-LAPSE PREMIUMS PER \$1,000

ATTAINED AGE Monthly per \$1,000 Premiums for Extended No-Lapse Agreement

35	0.3167
36	0.3167
37	0.3167
38	0.3167
39	0.3167
40	0.3167
41	0.3167
42	0.3167
43	0.3167
44	0.3167
45	0.3167
46	0.3167
47	0.3167
48	0.3167
49	0.3167
50	0.3167
51	0.3167
52	0.3167
53	0.3167
54	0.3167
55	0.3167
56	0.3167
57	0.3167
58	0.3167
59	0.3167
60	0.3167
61	0.3167
62	0.3167
63	0.3167
64	0.3167
65	0.3393
66	0.3682
67	0.3965
68	0.4269
69	0.4573
70	0.4985

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 MALE NONTOBACCO

## Additional Policy Specifications (continued)

TABLE OF MAXIMUM MONTHLY EXTENDED NO-LAPSE PREMIUMS PER \$1,000

ATTAINED Monthly per \$1,000 Premiums  
AGE for Extended No-Lapse Agreement

71	0.5445
72	0.6059
73	0.6697
74	0.7366
75	0.8107
76	0.8914
77	0.9850
78	1.0941
79	1.2199
80	1.3568
81	1.5126
82	1.6741
83	1.8476
84	2.0395
85	2.255
86	2.4937
87	2.7537
88	3.0319
89	3.325
90	3.6302
91	3.9162
92	4.2139
93	4.5275
94	4.8582
95	5.2070
96	5.5256
97	5.8650
98	6.2267
99	6.6130
100	7.0258
101	7.3526
102	7.7004
103	8.0707
104	8.4645
105	8.8833
106	9.3285
107	9.6724
108	9.6724
109	9.6724
110	9.6724

POLICY NUMBER 0000 000  
 FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
 WILLIAM PENN  
 AGE 35 MALE NONTOBACCO

## Additional Policy Specifications (continued)

### TABLE OF MAXIMUM MONTHLY EXTENDED NO-LAPSE PREMIUMS PER \$1,000

ATTAINED AGE	Monthly per \$1,000 Premiums for Extended No-Lapse Agreement
111	9.6724
112	9.6724
113	9.6724
114	9.6724
115	9.6724
116	9.6724
117	9.6724
118	9.6724
119	9.6724
120	9.6724

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 MALE                      NONTOBACCO

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To obtain any of the benefits under this policy, write to Penn Mutual at its Home Office, its Service Office or to its nearest agent.

Please notify Penn Mutual promptly of any change in address.

**Annual Election** - Penn Mutual is a mutual life insurance company. It has no stockholders. The Owner of this policy is a member of Penn Mutual while this policy is in force during the life of the Insured and before surrender of this policy. Members have the right to vote in person or by proxy at the annual election of Trustees held at the Home Office, on the first Tuesday of March. If more information is desired, it may be obtained from the Secretary.

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Policyholder Service Office of Company  
Address

The Penn Mutual Life Insurance Company  
Mail Code C2L  
Philadelphia, PA 19172  
Telephone # 1-800-523-0650

Name of Agent \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone # \_\_\_\_\_

If we at The Penn Mutual Life Insurance Company fail to provide you with reasonable and adequate service, you should feel free to contact:

Arkansas Insurance Department  
Consumer Services Division  
400 University Tower Building  
Little Rock, AR 72204  
1-800-852-5494

## Flexible Premium Adjustable Indexed Variable Life Insurance Policy



Death Benefit payable at death prior to Maturity Date  
Adjustable Death Benefit  
Maturity Benefit payable on Maturity Date  
Variable Policy Value  
Indexed Account Feature  
Flexible premiums payable until Maturity Date  
Participating  
Supplemental benefits, if any, listed on Page 3

The Penn Mutual Life Insurance Company, Philadelphia, Pennsylvania 19172  
VU-08(S)(AR)

# The Penn Mutual Life Insurance Company

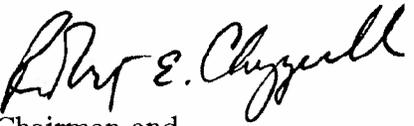
Founded 1847

Insured William Penn \$100,000 Specified Amount  
Policy Number 0 000 000 May 1, 2008 Policy Date

The Penn Mutual Life Insurance Company agrees, subject to the provisions of this policy, to pay the Death Benefit to the Beneficiary upon receipt of due proof of the death of the Insured while this policy is in force. Penn Mutual also agrees to provide all of the other benefits stated in this policy. This contract is made in consideration of the payment of premiums as provided in this policy. The provisions on this and the following pages are part of this policy.

Executed on the Date of Issue by The Penn Mutual Life Insurance Company.

  
Managing Corporate Counsel  
and Secretary

  
Chairman and  
Chief Executive Officer

**THE DEATH BENEFIT AND DURATION OF COVERAGE MAY INCREASE OR DECREASE DEPENDING ON THE INVESTMENT EXPERIENCE OF THE SEPARATE ACCOUNT. THE DEATH BENEFIT WILL NEVER BE LESS THAN THE SPECIFIED AMOUNT SHOWN ON PAGE 3. THE POLICY'S ACCUMULATION VALUE IN THE SEPARATE ACCOUNT MAY INCREASE OR DECREASE DEPENDING ON THE INVESTMENT EXPERIENCE OF THAT ACCOUNT. THE POLICY VALUE IS NOT GUARANTEED.**

**Free Look Period** - This policy may be cancelled by returning it within 10 days after it is received by the owner. It must be returned to Penn Mutual or to the agent through whom it was purchased. This policy will then be considered void as of its inception. The Policy Value, premium charge and the monthly deductions will be refunded.

**READ YOUR POLICY CAREFULLY.** This policy is a legal contract between the Owner and Penn Mutual.

## Flexible Premium Adjustable Indexed Variable Life Insurance Policy



- Death Benefit payable at death prior to Maturity Date
- Adjustable Death Benefit
- Maturity Benefit payable on Maturity Date
- Variable Policy Value
- Indexed Account Feature
- Flexible premiums payable until Maturity Date
- Participating
- Supplemental benefits, if any, listed on Page 3

The Penn Mutual Life Insurance Company, Philadelphia, Pennsylvania 19172  
VU-08(U)(AR)

# Guide to Policy Sections

- |                                    |   |
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# 1. Policy Specifications

INSURED [ WILLIAM PENN ] [ \$100,000 ] SPECIFIED AMOUNT  
(INCLUDES POLICY VALUE)  
POLICY NUMBER [ 0 000 000 ] [ APRIL 1, 2008 ] POLICY DATE  
AGE [ 35 ] [ STANDARD NONTOBACCO ] RATE CLASS

LIFE INSURANCE QUALIFICATION TEST IS [ GUIDELINE PREMIUM TEST ]

MATURITY DATE IS [ APRIL 1, 2094 ]  
DATE OF ISSUE IS THE POLICY DATE

EACH SEGMENT DURATION IS ONE YEAR

EACH SEGMENT PERIOD IS FIVE YEARS

OWNER AND BENEFICIARY AS PROVIDED IN APPLICATION

SEPARATE ACCOUNT IS PENN MUTUAL VARIABLE LIFE ACCOUNT I  
ELIGIBLE INVESTMENT FUNDS: FUNDS AS SPECIFIED IN THE ADDITIONAL POLICY SPECIFICATIONS

INITIAL ALLOCATION : [ PENN SERIES MONEY MARKET FUND - 100% ]  
ALLOCATION DATE IS [ APRIL 11, 2008 ]

## Schedule of Benefits

Description	Amount
[ SUPPLEMENTAL TERM INSURANCE AGREEMENT ]	[ \$50,000 ] SPECIFIED AMOUNT
[ EXTENDED NO LAPSE AGREEMENT ]	----
[ CASH VALUE ENHANCEMENT RIDER ]	----

## Schedule of Premiums

THE INITIAL PREMIUM OF [ \$1,792.77 ] WAS PAID ON THE POLICY DATE FOR 12 MONTHS.  
SUBSEQUENT PREMIUMS ARE PAYABLE ANNUALLY AS FOLLOWS:

BEGINNING AS OF	PREMIUM
[ APRIL 1, 2009 ]	[ \$1,792.77 ]

THE MONTHLY NO LAPSE PREMIUM IS [ \$25.42 ]  
THE NO LAPSE DATE IS [ APRIL 1, 2028 ]

THE EXTENDED MONTHLY NO-LAPSE PREMIUMS ARE SHOWN IN THE ADDITIONAL POLICY SPECIFICATIONS  
ON PAGE 26 CONT'D  
THE EXTENDED NO LAPSE DATE IS [ APRIL 1, 2094 ]

NOTE: INSURANCE WILL TERMINATE IF THE PREMIUMS PAID AND THE INTEREST CREDITED ARE  
INSUFFICIENT TO COVER THE MONTHLY DEDUCTIONS, EXCEPT AS PROVIDED IN SECTION 4.

SECTION 7702A OF THE INTERNAL REVENUE CODE OF 1986 ESTABLISHES A CLASS OF LIFE INSURANCE  
CONTRACTS DESIGNATED AS "MODIFIED ENDOWMENT CONTRACTS." THE RULES RELATING TO WHETHER A  
POLICY WILL BE TREATED AS A MODIFIED ENDOWMENT CONTRACT ARE EXTREMELY COMPLEX. PLEASE  
CONSULT WITH A QUALIFIED TAX ADVISOR REGARDING YOUR OWN PERSONAL SITUATION.

# 1. Policy Specifications (continued)

## Schedule of Surrender Charges

Maximum Surrender Charge Premium [ \$943.00 ]

Initial Maximum Surrender Charge [ \$848.70 ]

### Table of Surrender Charge Factors

Policy Year	Surrender Factor	Policy Year	Surrender Factor
1	100%	6	45%
2	89	7	34
3	78	8	23
4	67	9	12
5	56	10 and later	0

## Schedule of Policy Loads and Expense Charges

Maximum percent of premium load [ 7.5 ]%  
(applied to each premium applied to the policy)

Maximum per policy monthly expense charge \$[ 9.00 ]

Maximum Mortality and Expense Risk Face Amount charge per \$1,000 of Specified Amount \$[ 0.19 ]  
(for the first 120 months following the policy date)

Maximum Mortality and Expense Risk Face Amount charge per \$1,000 of Specified Amount \$[ 0.17 ]  
for Supplemental Term Insurance Agreement (for the first 120 months following the policy date)

Maximum Mortality and Expense Risk Face Amount charge per \$1,000 of Specified Amount As shown on Page 26  
(for the first 120 months following an increase in Specified Amount)

Maximum Mortality and Expense Risk Face Amount charge per \$1,000 of Specified Amount As shown on Page 26  
for Supplemental Term Insurance Agreement (for the first 120 months following an increase in Specified Amount)

Cash Value Enhancement Agreement Maximum Expense Charge- per \$1,000 of Specified Amount \$ .20

Maximum Mortality and Expense Asset Risk Charge for Account Value -  
up to and including \$50,000 [ 0.60 ]%  
in excess of \$50,000 [ 0.30 ]%

# 1. Policy Specifications (continued)

## Schedule of Interest Rates

Guaranteed Interest Rate	2% Effective Annual Rate
Death Benefit Discount Factor	1.0016516
Policy Value Enhancement Date	<b>[ April 1, 2018 ]</b>
Guaranteed Policy Value Enhancement	0.10%
Supplemental Term Insurance Enhancement Date	<b>[ April 1, 2018 ]</b>
Supplemental Term Insurance Enhancement	0.25%
Traditional Loan Interest Rate	4% Effective Annual Rate
Indexed Loan Interest Rate	6% Effective Annual Rate
Loan Value Percentage	95%
Policy Loan Account Rates	3% Policy Years 1 -10 4% Policy Years 11 and after
Indexed Interest	
- Guaranteed Minimum Interest Rate	0%
- Guaranteed Cap Percentage	4%
- Guaranteed Participation Percentage	100%
- 5 Year Segment Interest Rate	2%
Extended No-Lapse Rate	5%
Extended No-Lapse Guarantee Agreement Allocation Percentage	20%
Cash Value Enhancement Agreement Termination Policy Year	Termination Credit Factors
1	92%
2	81%
3	70%
4	59%
5	48%
6	0%

## **2. Endorsements**

To be made only by the Company

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left blank.**

### 3. Qualification as Life Insurance

The life insurance qualification test for this policy will be the Guideline Premium Test unless otherwise elected in the application. The Life Insurance Qualification Test for this Policy is shown on Page 3. The test may not be changed at anytime after the policy is issued.

**Guideline Premium Test** - Under this test, the amount of premium that can be paid in a policy year may not exceed the Maximum Premium Limit. The Maximum Premium Limit for a policy year is the largest amount of premium which can be paid in that policy year such that the sum of the premiums paid under the policy will not at any time exceed the guideline premium limitation referred to in Section 7702 of the Internal Revenue Code of 1986, as amended, or as set forth in any applicable successor thereto. The Maximum Premium Limit for the following policy year will be shown on the Annual Report sent to the Owner.

In addition, a minimum margin must exist between the Death Benefit and the Policy Value. The margin is defined in Section 7702 and is based on the attained age of the Insured. The Basic Death Benefit of the policy will be adjusted accordingly with factors shown in the Table of Death Benefit Factors to satisfy the requirements of this portion of the test. See the Death Benefit Section for further details.

**Cash Value Accumulation Test** - Under this test, the Policy Value cannot at any time exceed the net single premium required to fund the future benefits under the policy. The net single premium is defined in Section 7702 of the Internal Revenue Code. The Basic Death Benefit of the policy will be adjusted accordingly with factors shown in the Table of Death Benefit Factors to satisfy the requirements of this test. See the Death Benefit Section for further details.

The Company reserves the right to restrict Policy transactions as necessary in order to qualify the policy as a life insurance contract under Section 7702. If it is subsequently determined that a policy does not satisfy Section 7702, the Company may take whatever steps are appropriate and necessary to attempt to cause such a policy to comply with Section 7702.

### 4. Premiums

**Payment of Premiums** - Premiums are payable while this policy is in force until the Maturity Date. The first premium is due on the Policy Date. Premiums after the first may be paid in any amount and at any interval subject to the following conditions:

- (a) No premium payment may be less than \$25.
- (b) The Company reserves the right to limit total premiums paid in any policy year to the planned payments for that policy year as shown on Page 3. The schedule of premiums shown on Page 3 is based on the premium amount and the interval of payment specified in the application.
- (c) The Company reserves the right to require submission of evidence of insurability satisfactory to the Company on subsequent premiums that would cause an immediate increase in the difference between the Death Benefit and the Policy Value.
- (d) If the Guideline Premium Test is in effect, total premiums paid in any policy year may not exceed the Maximum Premium Limit for that policy year.

Each premium after the first is payable at the Company's Home Office. A receipt signed by the President or the Secretary will be given on request.

**Premium Charge** - Each premium payment will be reduced by a percent of premium charge. The percent of premium charge will be set by the Company as described in the Determination of Nonguaranteed Factors provision in the Policy Value Section. In no event will the percent of premium charge assessed on each premium paid be greater than that shown on Page 3.

## 4. Premiums (continued)

**Net Premium** - Net premium is the amount of any premium payment reduced by the percent of premium charge.

**Allocation of Net Premiums** - The initial net premium and any additional premium paid before the policy is issued will be allocated based on the Initial Allocation specified on Page 3. On the Allocation Date listed on Page 3, the assets will be allocated to the subaccounts of the Separate Account, to the Indexed Fixed Account, or to the Traditional Fixed Account as directed by the Owner in the application for this policy. Subject to and in accordance with the provisions of this policy, subsequent net premiums will be allocated as directed by the Owner to the subaccounts of the Separate Account, the Indexed Fixed Account and the Traditional Fixed Account set forth in the Additional Policy Specifications. The Owner may change the allocation of future premium payments at any time. Contact the Company for information. Allocations must be in whole number percentages and must total 100% of premium. Premium allocated to the Indexed Fixed Account may be held in the Holding Fixed Account until the next Segment Date.

**Continuation of Insurance** - If the policyholder stops paying premiums or if insufficient premiums are made, the insurance provided under this policy, including benefits provided by any supplemental agreements attached to this policy, will continue, subject to the grace period provision, in accordance with the provisions of this policy and any such supplemental agreements for as long as the net cash surrender value in this policy is sufficient to keep it in force, or if the No-Lapse Premium requirement is satisfied as described below.

**No-Lapse Premium** - The No-Lapse Premium for this policy is the amount stated on Page 3. If, on a Monthly Anniversary prior to the No-Lapse Date shown on Page 3, the sum of all premiums paid on this policy, reduced by any partial surrenders, is greater than or equal to the No-Lapse Premium multiplied by the number of months since the Policy Date, this policy will not then lapse as a result of a Net Cash Surrender Value insufficient to pay the Monthly Deduction for the following month. This provision will not prevent the termination of this policy when indebtedness exceeds the Cash Surrender Value in accordance with the indebtedness provision of the Policy Loans Section of this policy.

A change in the Specified Amount, the addition or deletion of a supplemental agreement to this policy, or a change in the rate class of the Insured prior to the No-Lapse Date shown on Page 3 may result in a change in the No-Lapse Premium.

**Grace Period** - If, on a Monthly Anniversary prior to the No-Lapse Date shown on Page 3:

- (a) the Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following policy month and,
- (b) the sum of all premiums paid on this policy, reduced by any partial surrenders, is less than the No-Lapse Premium shown on Page 3 multiplied by the number of elapsed months since the Policy Date;

then a grace period of 61 days will be allowed for the payment of premium sufficient to keep this policy in force. If, on a Monthly Anniversary on or after the No-Lapse Date shown on Page 3, the Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following month, a grace period of 61 days will be allowed for the payment of premium sufficient to pay the Monthly Deduction.

Notice of the amount of premium required to be paid during the grace period to keep this policy in force will be sent at the beginning of the grace period to the last known address of the Owner and of any assignee on record. The grace period will end 61 days after the notice is sent. This policy will remain in force during the grace period.

## 5. Lapse and Reinstatement

**Lapse** - If a premium sufficient to keep this policy in force is not paid during the grace period, this policy will lapse at the end of the grace period. At lapse this policy will terminate without value and cease to be in force. Any deduction for the Cost of Insurance after termination will not be considered a reinstatement of the policy nor a waiver by the Company of the termination.

## 5. Lapse and Reinstatement (continued)

**Reinstatement** - This policy may be reinstated within five years after lapse. A reinstatement is subject to:

- (a) the submission of evidence of insurability satisfactory to the Company;
- (b) the payment or reinstatement of any indebtedness which existed at the end of the grace period; and
- (c) the payment of a premium sufficient to cover (i) the Monthly Deductions for the grace period, (ii) any unpaid No-Lapse Premiums to the date of reinstatement, and (iii) the Monthly Deductions or, if applicable, the No-Lapse Premiums for two policy months after reinstatement.

The effective date of a reinstatement will be the date of approval by the Company of the application for reinstatement. Such application will be attached to and made a part of the reinstated policy.

The policy value on the date of reinstatement is the sum of:

- (a) the policy value at the beginning of the grace period of lapse;
- (b) interest on (a) at the guaranteed interest rate until the date of reinstatement;
- (c) any dividend credited to the policy since the date of lapse;
- (d) interest on (c) at the guaranteed interest rate until the date of reinstatement; and
- (e) the payment made upon reinstatement reduced by the percent of premium charge less the sum of:

- (a) the Monthly Deductions for the grace period;
- (b) interest on (a) at the guaranteed interest rate until the date of reinstatement; and
- (c) the Monthly Deduction for the policy month following the date of reinstatement.

The surrender charge set forth in the Surrender of Policy Section will be applicable to any surrender of this policy following reinstatement.

Any indebtedness which is reinstated will be subject to loan interest as set forth in the Policy Loans Section.

Following reinstatement, the provisions of No-Lapse Premium set forth in the Premiums Section will again be applicable until the No-Lapse Date shown on Page 3 if sufficient premium is paid so that, as of the effective date of reinstatement, the sum of all premiums paid, reduced by any partial surrenders, is greater than or equal to the No-Lapse Premium multiplied by the number of elapsed months since the Policy Date.

## 6. The Separate Account

**The Separate Account** - The Separate Account named on Page 3 was established by the Company for this and other variable life insurance policies. The Separate Account is divided into subaccounts for the investment of assets in shares of the funds specified in the Additional Policy Specifications. The Company owns the assets of the Separate Account. The assets of each subaccount of the Separate Account equal to the reserves and other contract liabilities with respect to the subaccount are not chargeable with liabilities arising out of any other business the Company may conduct.

Income and realized and unrealized gains and losses from the assets held in each subaccount are credited to or charged against the subaccount without regard to the income, gains or losses in other investment accounts of the Company. Shares of a fund held in a subaccount are valued at current net asset value on each business day. Shares of a fund held in a subaccount will be redeemed at current net asset value to make transfers, pay benefits and cover applicable charges and deductions. Any dividend or capital gain distribution from a fund will be reinvested in shares of that fund.

## 6. The Separate Account (continued)

**Substitution of Investment** - If investment in a subaccount should no longer be possible or, in the judgment of the Company, investment in a subaccount becomes inappropriate to the purposes of the Separate Account, be it for legal, regulatory, federal income tax reasons or for any other reason, or if in the judgment of the Company, investment in another subaccount is in the interest of owners of this class of policies, the Company may substitute another subaccount or insurance company separate account. Substitution may be made with respect to existing investments and the investment of future net premiums. The Company will obtain any necessary regulatory or other approvals prior to making such a change. The Company will endorse the policy as required to reflect any withdrawal or substitutions. While every effort will be made to avoid doing so, substitute funds may have higher fund expenses than the funds replaced.

**Operation of Separate Account** - The Operation of the Separate Account, including the substitution of investments, will be subject to the approval of the Insurance Department of the state of domicile of the Company. The approval process is on file with the Commissioner.

**Transfers** - Subject to and in accordance with the provisions of this policy, at any time after the Allocation Date listed on Page 3, amounts may be transferred among the subaccounts of the Separate Account, the Indexed Fixed Account, the Holding Fixed Account and the Traditional Fixed Account, provided that:

- (a) the minimum amount which may be transferred is \$250 or, if less, the full amount held in the subaccount or the Indexed Fixed Account or the Holding Fixed Account or the Traditional Fixed Account;
- (b) for partial transfers, the amount remaining in a subaccount or the Indexed Fixed Account or the Holding Fixed Account or the Traditional Fixed Account must be at least \$250; and
- (c) the first 12 transfers per policy year will be allowed free of charge; thereafter, a \$10 transfer charge may be deducted from the amount transferred.

The policy is not designed for individuals, advisors or professional market timing organizations that use programmed or frequent transfers among investment options to engage in market timing. The Company therefore reserves the right not to accept programmed or frequent transfer requests we believe in our sole discretion are being used for market timing when we believe that it is in the best interest of all of our policy owners.

## 7. The Fixed Account

**The Fixed Account** - The Fixed Account is comprised of four distinct accounts consisting of the Traditional Fixed Account, the Indexed Fixed Account, the Holding Fixed Account and the Dollar Cost Averaging Account. Amounts allocated or transferred to any of these accounts under this policy become part of the general account assets of the Company. Subject to applicable law and regulation, investment of general account assets is at the sole discretion of the Company.

**The Traditional Fixed Account** - Amounts allocated or transferred to the Traditional Fixed Account under this policy become a part of the general account assets of the Company. Subject to applicable law and regulation, investment of general account assets is at the sole discretion of the Company.

**Interest in the Traditional Fixed Account** - Amounts held in the Traditional Fixed Account will be credited with interest at rates determined by the Company as described in the Determination of Nonguaranteed Factors provision in the Policy Value Section. Different rates will normally apply to the Policy Loan Account. In no event will the rate of interest credited be less than the effective annual guaranteed interest rate listed on Page 3.

Amounts allocated or transferred to the Traditional Fixed Account will be credited with interest at an effective annual rate declared by the Company. The declared rate will apply from the date of allocation or transfer through the end of the twelve month period which begins on the first day of the calendar month in which the allocation or transfer is made. Thereafter, interest will be credited on such amount for successive twelve month periods at the declared effective annual rate then applicable to new allocations to the account made as of the beginning of each such period.

## 7. The Fixed Account (continued)

**Value of the Traditional Fixed Account** - On each Monthly Anniversary while this policy is in force, the value of the Traditional Fixed Account is the sum of:

- (a) the value of the Traditional Fixed Account on the previous Monthly Anniversary;
- (b) one month's interest on (a);
- (c) any premium allocated to the Traditional Fixed Account since the preceding Monthly Anniversary reduced by a pro-rata portion of the percent of premium charge;
- (d) any amount transferred into the Traditional Fixed Account from one or more subaccounts or the Holding Fixed Account or the Indexed Fixed Account since the preceding Monthly Anniversary;
- (e) interest on (c) from the date of receipt in the Home Office to the Monthly Anniversary;
- (f) interest on (d) from the date of transfer into the Traditional Fixed Account; and

less the sum of:

- (a) any partial surrender since the preceding Monthly Anniversary;
- (b) any amount transferred out of the Traditional Fixed Account into one or more subaccounts or the Indexed Fixed Account since the preceding Monthly Anniversary;
- (c) interest on (a) from the date of surrender to the Monthly Anniversary; and
- (d) interest on (b) from the date of transfer out of the Traditional Fixed Account.
- (e) the applicable monthly deduction for the following policy month;
- (f) any policy loan or unpaid policy loan interest taken from the Traditional Fixed Account; and
- (g) interest on (f) from the date of the loan or loan interest deduction.

On any date other than a Monthly Anniversary, the determination of the value of the Traditional Fixed Account will be consistent with the above.

**Transfers** - Subject to and in accordance with the provisions of this policy, including the Transfers provision of the Separate Account Section, the Holding Fixed Account Section, and the Indexed Account Section:

- (a) an amount held in the Traditional Fixed Account may be transferred to one or more subaccounts or the Indexed Fixed Account only during the period which is not more than thirty days immediately following the end of each policy year; and
- (b) the amount that may be transferred excludes any amount held in the Policy Loan Account.

**The Holding Fixed Account** - Any premium or amounts allocated or transferred to the Indexed Fixed Account is automatically deposited into the Holding Fixed Account by the Company, and then the Holding Fixed Account Value is transferred to the next Indexed Fixed Account segment on the next Segment Date as described in the Indexed Fixed Account provision. Amounts allocated or transferred to Holding Fixed Account under this policy become a part of the general account assets of the Company. Subject to applicable law and regulation, investment of general account assets is at the sole discretion of the Company.

**Interest in the Holding Fixed Account** - Amounts held in the Holding Fixed Account will be credited with interest at rates determined by the Company as described in the Determination of Nonguaranteed Factors provision in the Policy Value Section. In no event will the rate of interest credited be less than the effective annual guaranteed interest rate listed on Page 3.

Amounts held in the Holding Fixed Account will be credited with interest at an effective annual rate declared by the Company. The declared rate will apply from the date of transfer through the end of the one month period which begins on the first day of the calendar month in which the allocation or transfer is made.

## 7. The Fixed Account (continued)

**Value of the Holding Fixed Account** - On each Monthly Anniversary while this policy is in force, the value of the Holding Fixed Account is the sum of:

- (a) the value of the Holding Fixed Account on the previous Monthly Anniversary;
- (b) interest on (a);
- (c) any additional premium allocated to the Indexed Fixed Account and held in the Holding Fixed Account by the Company since the preceding Monthly Anniversary reduced by a pro-rata portion of the percent of premium charge;
- (d) any amount transferred into the Indexed Fixed Account from one or more subaccounts or the Traditional Fixed Account or the Dollar Cost Averaging Account since the preceding Monthly Anniversary;
- (e) interest on (c) from the date of receipt in the Home Office to the Monthly Anniversary;
- (f) interest on (d) from the date of transfer into the Holding Fixed Account; and

less the sum of:

- (a) any partial surrender from the Holding Fixed Account since the preceding Monthly Anniversary;
- (b) any amount transferred out of the Holding Fixed Account into the Traditional Fixed Account, subaccounts, or Indexed Fixed Account since the preceding Monthly Anniversary;
- (c) interest on (a) from the date of surrender to the Monthly Anniversary;
- (d) interest on (b) from the date of transfer out of the Holding Fixed Account;
- (e) any policy loan or unpaid policy loan interest taken from the Holding Fixed Account; and
- (f) interest on (e) from the date of the loan or loan interest deduction.

On any date other than a Monthly Anniversary, the determination of the value of the Holding Fixed Account will be consistent with the above.

**Transfers** - Subject to and in accordance with the provisions of this policy, including the Transfers provision of the Separate Account Section, the Traditional Fixed Account Section and the Indexed Fixed Account Section, an amount held in the Holding Fixed Account must be transferred to the Indexed Fixed Account on the next Segment Date.

**The Indexed Fixed Account** - Amounts transferred from the Holding Fixed Account to the Indexed Fixed Account under this policy become a part of the general account assets of the Company. Subject to applicable law and regulation, investment of general account assets is at the sole discretion of the Company.

**Segment Date** - The Segment Date, which is shown on Page 3, is the date a Segment is created. Segment Dates can only be created on monthly policy anniversary dates.

**Segment Maturity Date** - The Segment Maturity Date, which is shown on Page 3, occurs five years from the Segment Date or on the Maturity Date if earlier.

**Segment Duration** - The Segment Duration is the time period from the Segment Date to the Segment Maturity Date.

**Segment Duration Cumulative Guarantee** - An additional Index Interest Credit, if applicable, will be applied to the policy to reflect the minimum guaranteed annual interest rate as shown on Page 3 over the Segment Duration.

**Index Interest Credit Periods** - Index Interest Credit Periods are the time periods over which the performance of the applicable Index is measured in order to determine the amount of interest credited to amounts held in the Indexed Fixed Account. Each Index Interest Credit Period will be measured from the end of the previous Index Interest Credit Period to the date prior to the anniversary of the previous Index Interest Credit Period. Details about the applicable Index are shown on Page 3.

## 7. The Fixed Account (continued)

**Index Interest Credit Period Date** - The date, which is shown on Page 3, at which the Index Interest Credit Period ends and the Index Interest Credit is calculated and credited. Once credited, the starting index value is reset for the next subsequent Index Interest Credit Period.

**Index Interest Credits** - Amounts held in the Indexed Fixed Account earn Index Interest Credits on the Index Interest Credit Period Date, shown on Page 3, based on Index Performance. Index Performance is the growth in the applicable Index during the Index Interest Credit Period multiplied by the Participation Percentage, shown on Page 3, with a floor at the Guaranteed Minimum Interest Rate, shown on Page 3, and a ceiling at the Cap Percentage, also shown on Page 3, for each segment.

In order to administer the application of the Index Interest Credits, the Company will calculate each month a hypothetical account value based on a stipulated interest rate determined by the Company. At the Index Interest Credit Period Date, the actual Index Interest Credit will be calculated and credited for the past Index Interest Credit Period based on the difference between the earnings using the hypothetical stipulated interest rate and the actual Index Performance, subject to the Minimum Index Interest Rate and Cap Percentage.

At the Index Interest Credit Period Date, the Index Interest Credit equals the total amount of hypothetical stipulated interest calculated over the last Index Interest Credit Period, multiplied by the ratio of the Index Performance over the stipulated interest rate.

At the Segment Maturity Date, any additional Index Interest Credit resulting from the application of the Segment Duration Cumulative Guarantee will be added to the Segment Value.

**Value of the Indexed Fixed Account** - On each Monthly Anniversary while this policy is in force, the value of the Indexed Fixed Account is the sum of the Segment Values.

**Segment Value** - On the Segment Date the Segment Value is the sum of:

- (a) any remaining Segment Value from the previous segment that has just matured;
- (b) any transfer from the Holding Fixed Account or the subaccounts or Traditional Fixed Account; and
- (c) any applicable Policy Value Enhancement;

less the applicable Monthly Deduction for the following policy month.

On each Monthly Anniversary while this policy is in force, the Segment Value equals the sum of:

- (a) the Segment Value on the preceding Monthly Anniversary;
- (b) any Index Interest Credits applied at the end of an Index Interest Credit Period; and
- any applicable Policy Value Enhancement;

less the sum of:

- (a) any partial surrender from the Segment Value since the preceding Monthly Anniversary;
- (b) any transfer from the Segment Value on the Segment Maturity date;
- (c) the applicable Monthly Deduction for the following policy month; and
- (d) any Traditional policy loan or unpaid loan interest taken from the Segment.

On any date other than a Monthly Anniversary, the determination of the value of the Indexed Fixed Account will be consistent with the above.

**Participation Percentage** - The Participation Percentage is the percentage of the Index Performance that will be used to calculate the Index Interest Credit, if any. The guaranteed Participation Percentage is shown on Page 3. A new Participation Percentage will apply to each new Index Interest Credit Period and will not change for that Index Interest Credit Period.

## 7. The Fixed Account (continued)

**Minimum Index Interest Rate** - The Minimum Index Interest Rate will be used to calculate the Index Interest Credit, if any. The guaranteed Minimum Index Interest Rate is shown on Page 3.

**Cap Percentage** - The Cap Percentage is the maximum percentage of the Index Performance that will be used to calculate the Index Interest Credit, if any. The Guaranteed Cap Percentage is shown on Page 3. A new Cap Percentage will apply to each new Index Interest Credit Period and will not change for that Index Interest Credit Period.

**Change, Addition or Discontinuance of an Index** - If the Index substantially changes the manner in which it is calculated the Company may adjust the formula used by the Company when determining the Index Interest Credit, if any, to be consistent with the original calculation methodology. If the publication of the Index is discontinued, or if the Company in its sole discretion determines that the index should no longer be used, a similar index may be substituted. The Company may from time to time add additional indexes or methods of crediting index interest credits. The Owner will be notified of any change of Index or crediting method.

**Transfers** - Subject to and in accordance with the provisions of this policy, including the Transfers provision of the Separate Account Section and the Traditional Fixed Account Section and the Holding Fixed Account Section:

- (a) an amount held in the Indexed Fixed Account may be transferred to one or more subaccounts or the Traditional Fixed Account only on the Index Interest Credit Period Date; and
- (b) the amount that may be transferred excludes any amount held in the Policy Loan Account.

**Dollar Cost Averaging Account** - Amounts may be allocated to only one of the Dollar Cost Averaging Accounts shown in the Additional Contract Specifications. During the dollar cost averaging period, an additional Dollar Cost Averaging Account cannot be selected. If the Dollar Cost Averaging Account is terminated at the request of the Owner, the remaining balance will be transferred to the subaccounts of the Separate Account or the Indexed Fixed Account using the allocation percentages currently in force at that time, unless otherwise directed by the Owner.

Amounts held in a Dollar Cost Averaging Account will be credited with interest at effective annual rates declared by the Company. The declared interest rate will apply from the date of the allocation to the account through the end of the dollar cost averaging period. The dollar cost averaging period begins on the first day of the calendar month following the allocation. At the expiration of the dollar cost averaging period, the Company will declare a rate not less than the guaranteed interest rate for a new dollar cost averaging period.

## 8. Policy Value

**Policy Value** - On the Policy Date the Policy Value is the initial premium paid less the sum of (a) the percent of premium charge, and (b) the Monthly Deduction for the first policy month. On each Monthly Anniversary while this policy is in force, the Policy Value is the sum of (a) the current market value of each subaccount, (b) the value of the Traditional Fixed Account, (c) the value of the Holding Fixed Account, (d) the value of the Indexed Fixed Account and (e) the value of the Dollar Cost Averaging Account, after deduction of the Monthly Deduction for the next policy month and (f) the value of the Policy Loan Account.

On any date other than the Policy Date or a Monthly Anniversary, the Policy Value will be the sum of (a) the current market value of each subaccount, (b) the value of the Traditional Fixed Account, (c) the value of the Holding Fixed Account, (d) the value of the Indexed Fixed Account, (e) the value of the Dollar Cost Averaging Account, and (f) the value of the Policy Loan Account. The value will include pro-rata crediting of interest. Since Index Interest Credits are determined at the Segment Maturity Date, no Index Interest Credits will be added as a result of a surrender or death occurring prior to the end of a Segment Duration.

## 8. Policy Value (continued)

**Monthly Deduction** - The Monthly Deduction is the sum of:

- (a) the Cost of Insurance for the policy month;
- (b) the monthly expense charge(s);
- (c) the Mortality and Expense Risk Face Amount charge;
- (d) the Mortality and Expense Risk Asset charge (not applicable for the Fixed Account) applied to the value in the subaccounts as of the dates on which Monthly Deductions are deducted; and
- (e) the Cost of Insurance and any other applicable monthly charge for the policy month for any benefits provided by a supplemental agreement made a part of this policy.

Monthly Deductions will be deducted on the Policy Date and on each Monthly Anniversary from the subaccounts and the Traditional Fixed Account and the Indexed Fixed Account and the Holding Fixed Account as directed by the Owner. If the values in the directed subaccounts or the Traditional Fixed Account and the Indexed Fixed Account and the Holding Fixed Account are insufficient to cover the Monthly Deductions, or if no allocation is directed, Monthly Deductions will be deducted on the Policy Date and each Monthly Anniversary from the subaccounts and the Traditional Fixed Account and the Indexed Fixed Account and the Holding Fixed Account on a pro rata basis in proportion to the current market value of each subaccount and the value of the Traditional Fixed Account and the Indexed Fixed Account and the Holding Fixed Account.

The Mortality and Expense Risk Asset charge will be deducted on the Policy Date and each Monthly Anniversary from the subaccounts on a pro rata basis in proportion to the current market value of each subaccount. This charge will not be deducted from the Fixed Accounts. No Monthly Deductions will be deducted from the Policy Loan Account.

**Net Amount at Risk** - The Net Amount at Risk is equal to the Basic Death Benefit at the beginning of the policy month, divided by the Death Benefit Discount Factor shown on Page 3, minus the Policy Value at the beginning of the policy month before the Monthly Deduction.

If the Specified Amount does not include Policy Value, the Policy Value will be allocated to the initial Specified Amount segment in order to determine the Net Amount at Risk.

If there have been any increases in the Specified Amount, the Policy Value will be allocated to the initial Specified Amount segment for determining the Net Amount at Risk. If the Policy Value exceeds the initial Specified Amount, the excess will be allocated to the increases in Specified Amount in the order of the increases. Any increases in the Basic Death Benefit in order to maintain the required minimum margin between the Basic Death Benefit and the Policy Value will be allocated to the most recent increase in Specified Amount.

**Cost of Insurance** - The Cost of Insurance is determined on a monthly basis. It is determined separately for the initial segment as well as for each additional segment created as the result of an increase in the Specified Amount. The Cost of Insurance for a policy month is calculated as the sum of (a) multiplied by (b) for each segment where:

- (a) is the applicable Cost of Insurance Rate divided by 1,000; and
- (b) is the Net Amount at Risk for that segment.

**Cost of Insurance Rate** - The Base Cost of Insurance Rate is based on the attained age, sex, rate class and policy duration of the Insured. The Cost of Insurance Rate will be determined by the Company as described in the Determination of Nonguaranteed Factors provision. However, the rates will not exceed those shown in the Additional Policy Specifications. Such maximum rates are based on the 2001 Commissioners Standard Ordinary (80) Composite Mortality Tables, Age Nearest Birthday.

**Expense Charges** - The actual expense charges will be determined by the Company as described in the Determination of Nonguaranteed Factors provision. However, these actual expense charges will not exceed the maximum expense charges stated on Page 3.

## 8. Policy Value (continued)

**Mortality and Expense Risk Face Amount Charge** - The actual Mortality and Expense Risk Face Amount Charge will be determined by the Company as described in the Determination of Nonguaranteed Factors provision. However, this actual Mortality and Expense Risk Face Amount Charge will not exceed the maximum stated on Page 3.

**Mortality and Expense Risk Asset Charge** - The actual Mortality and Expense Risk Asset Charge will be determined by the Company as described in the Determination of Nonguaranteed Factors provision. However, these actual Mortality and Expense Risk Asset Charge will not exceed the maximum stated on Page 3. Mortality and Expense Risk Asset Charges do not apply to amounts in the Traditional Fixed Account, Index Fixed Account or the Holding Fixed Account.

**Determination of Nonguaranteed Factors** - Cost of Insurance Rates, Percent of Premium Charges, Expense Charges, Mortality and Expense Risk Face Amount, Mortality and Expense Risk Asset Charge, Cap Percentages, Participation Rates and Interest Rates will be determined by the Company based on expectations as to future mortality, investment, expense and persistency experience.

The Company will not adjust such rates or charges as a means of recovering prior losses nor as a means of distributing prior profits.

**Variable Accumulation Values** - At any valuation time, the current market value of a subaccount is determined by multiplying that subaccount's accumulation unit value times the number of subaccount units held under this Policy.

The number of accumulation units is determined by dividing the amount allocated to the subaccount by the subaccount's accumulation unit value for the Valuation Date when the allocation is made.

The number of subaccount accumulation units will increase when:

- (a) net premiums are allocated to that subaccount;
- (b) amounts are transferred to that subaccount; and
- (c) policy loans are repaid and credited to that subaccount.

The number of subaccount accumulation units will decrease when:

- (a) a portion of the monthly deduction is deducted from that subaccount;
- (b) a policy loan is taken from that subaccount;
- (c) policy loan interest is not paid when due and is taken from that subaccount;
- (d) an amount is transferred, including any transfer charges, from that subaccount; and
- (e) a partial surrender, including the partial surrender charge, is taken from that subaccount

**Policy Value Enhancement** - After the policy reaches the Policy Value Enhancement Date as shown on Page 3, a monthly Policy Value Enhancement will be paid on subsequent monthly anniversaries. The Policy Value Enhancement is guaranteed at the rate shown on Page 3 and is based on the value of the subaccounts of the Separate Accounts. Any enhancements will be applied pro-rata only to the values of subaccounts of the Separate Accounts.

**Valuation Period** - As used in this policy, Valuation Period is the interval from one valuation time to the next valuation time. Valuation time is the time as of which each underlying investment company determines the net asset value of its shares.

**Value of Each Accumulation Unit** - For each subaccount of the Separate Account, the value was arbitrarily set at \$10 when the subaccount was established. The value may increase or decrease from one valuation period to the next. For any valuation period the value is:

The value of an Accumulation Unit for the prior valuation period multiplied by the net investment factor for that subaccount for the current valuation period.

## 8. Policy Value (continued)

**Net Investment Factor** - As used in this policy, Net Investment Factor is an index used to measure the investment performance of a subaccount from one valuation period to the next. For any subaccount, the net investment factor for a valuation period is found by dividing (a) by (b):

Where (a) is

The net asset value per share of the mutual fund held in the subaccount, as of the end of the valuation period; plus

The per-share amount of any dividend or capital gain distributions by the mutual fund if the "ex-dividend" date occurs in the valuation period.

Where (b) is

The net asset value per share of the mutual fund held in the subaccount as of the end of the last prior valuation period.

**Traditional Fixed Account Value Reductions** - Applicable Monthly Deductions (with the exception of the M&E), transfers and partial surrenders will reduce the portion of the Traditional Fixed Account Value which results from the most recent allocation to the Traditional Fixed Account. A Traditional policy loan will be secured by the portion of the Policy Value assigned to the Policy Loan Account.

**Indexed Fixed Account Value Reductions** - Applicable Monthly Deductions, transfers and partial surrenders will reduce the portion of the Indexed Fixed Account Value on a pro rata basis. A Traditional policy loan will be secured by the portion of the Policy Value assigned to the Policy Loan Account.

**Holding Account Value Reductions** - Applicable transfers and partial surrenders will reduce the portion of the Holding Fixed Account Value on a pro rata basis. A Traditional policy loan will be secured by the portion of the Policy Value assigned to the Policy Loan Account.

**Computation of Values** - All policy values and benefits are equal to or greater than those required by the law of the jurisdiction in which this policy is delivered. A detailed statement of the method of computing reserves and Policy Values has been filed with the insurance supervisory official of that jurisdiction if required.

## 9. Death and Maturity Benefits

**Basic Death Benefit** - The Basic Death Benefit prior to the Maturity Date will be as follows:

- (a) If the Specified Amount includes the Policy Value, as shown on Page 3, the Basic Death Benefit will be equal to the greater of:
  - (1) the Specified Amount; or
  - (2) the Policy Value multiplied by an attained age factor shown in Table of Death Benefit Factors.
- (b) If the Specified Amount does not include the Policy Value, as shown on Page 3, the Basic Death Benefit will be equal to the greater of:
  - (1) the Specified Amount plus the Policy Value; or
  - (2) the Policy Value multiplied by an attained age factor shown in Table of Death Benefit Factors.

## 9. Death and Maturity Benefits (continued)

**Amount of Death Benefit** - The Death Benefit payable at the death of the Insured while this policy is in force will be equal to the sum of:

- (a) the Basic Death Benefit on the date of death;
- (b) any dividend payable at death; and
- (a) any benefit provided by a supplemental agreement attached to the policy and payable because of the death of the Insured.

less the sum of:

- (a) any indebtedness on this policy at the time of the death of the Insured; and
- (b) if the death of the Insured occurs during a grace period, the lesser of (i) past due Monthly Deductions or (ii) an amount to meet the No-Lapse Guarantee.

**Suicide Exclusion** - If the Insured dies by suicide, while sane or insane, within two years from the Date of Issue, the Death Benefit will be limited to the premiums paid less any indebtedness and any partial surrenders.

If the Insured dies by suicide, while sane or insane, within two years from the effective date of any increase in the Specified Amount, the Death Benefit with respect to that increase in the Specified Amount will be limited to the Monthly Deductions made for that increase.

**Payment of Death Benefit** - The Death Benefit will be paid to the Beneficiary in one sum or, if elected, under an income payment option. If part or all of the Death Benefit is paid in one sum, the Company will pay interest on this sum from the date of death to the date of payment. The interest rate will be determined each year by the Company, but will not be less than the minimum guaranteed interest rate as shown on Page 3 per year compounded annually, or such higher rate as may be required by law.

**Amount of Maturity Benefit** - The Maturity Benefit payable if the Insured is living on the Maturity Date and if this policy is then in force will be equal to the Net Policy Value on that date.

**Payment of Maturity Benefit** - The Maturity Benefit will be paid to the Owner in one sum or, if elected, under an Income Payment Option.

## 10. Policy Loans

**Policy Loans** - The Owner may obtain a loan while this policy is in force during the life of the Insured. The loan, plus any existing indebtedness, may not be greater than the Loan Value of this policy on the date of the loan. The minimum loan is \$250. There are two loan options available, the Traditional Loan and an Indexed Loan, which is only available after the first policy year.

**Loan Options** - At the time of the first loan, the Owner must choose one of two loan options and the choice is irrevocable until the entire loan balance is repaid. For the first loan option, called the Traditional Loan Option, policy loans can be taken from any of the subaccounts, the Traditional Fixed Account, Indexed Fixed Account or the Holding Fixed Account on a pro rata basis unless otherwise specified by the Owner. When a loan is made, an amount equal to the amount of the loan will be withdrawn from the appropriate accounts and the amount will be placed in the Policy Loan Account. The Policy Loan Account will be credited with interest. The rate of interest will not be less than the minimum guaranteed interest rate listed on Page 3 and will be determined each year by the Company.

For the second loan option, called the Indexed Loan Option, loans are only permitted from the Indexed Fixed Account segments. Any of the subaccount Value, Traditional Fixed Account Value or Holding Fixed Account Value cannot be loaned under the Indexed Loan option, until sufficient subaccount value, Traditional Fixed Account Value, or Holding Fixed Account Value is transferred into an Indexed Fixed Account segment on the next Segment Date. The loan is not

## 10. Policy Loans (continued)

transferred to the Policy Loan Account but will remain in the Index Fixed Account segments and continue to be credited interest in the same manner as the un-loaned portion of the Indexed Fixed Account segments.

**Loan Value** - For the Traditional Loan Option and the Indexed Loan Option, the Loan Value of this policy on any date is equal to the Loan Value Percentage, as shown on Page 3, multiplied by the Cash Surrender Value

**Loan Interest** - Traditional and Indexed Loans will bear interest at the loan interest rates listed on Page 3. Loan interest is due and payable at the end of each policy year. If the interest is not paid when due, it will be added to the loan. It will then bear interest at the rate of interest on loans.

**Indebtedness** - Indebtedness means outstanding loans on this policy plus any loan interest due or accrued. Indebtedness may be repaid in full or in part at any time while this policy is in force during the life of the Insured.

**Excess Indebtedness** - This policy is the only security for indebtedness on it. If, at any time, the indebtedness is greater than the Cash Surrender Value, a notice of pending termination will be mailed to the last known address of the Owner and of any assignee on record. If the excess indebtedness is not paid to the Company, this policy will terminate 61 days after the notice is mailed.

**Policy Loan Account** - When a loan is made under the Traditional Loan Option, an amount equal to the amount of the loan will be withdrawn from the assets held under this policy in subaccounts of the Separate Account and in the Indexed Fixed Account and in the Traditional Fixed Account and the amount will be placed in the Policy Loan Account included within the Fixed Account. Subject to and in accordance with the provisions of this policy, withdrawals will be made from the subaccounts and the Traditional Fixed Account and the Indexed Fixed Account on a pro-rata basis in proportion to the current market value of each subaccount and the value of the Traditional Fixed Account and the value of the Indexed Fixed Account unless otherwise directed by the Owner. The Policy Loan Account will be credited with interest. The rate of interest will be determined each year by the Company but will not be less than the Policy Loan Account Rate listed on Page 3. Any repayment of indebtedness will be withdrawn from the Policy Loan Account and reallocated to the subaccounts and the Indexed Fixed Account and the Traditional Fixed Account as directed by the Owner. Except for such repayment of indebtedness, no transfers or partial surrenders may be made from the Policy Loan Account.

## 11. Surrender of Policy

**Surrender** - The Owner may surrender this policy for its Net Cash Surrender Value by filing a written request with the Company. The Net Cash Surrender Value may be taken in one sum or it may be left with the Company under an income payment option. This policy will terminate and cease to be in force if it is surrendered for one sum.

**Net Cash Surrender Value** - The Net Cash Surrender Value is the Net Policy Value decreased by any surrender charge.

**Net Policy Value** - The Net Policy Value is the Policy Value decreased by any indebtedness on this policy.

**Cash Surrender Value** - The Cash Surrender Value is the Policy Value decreased by any surrender charge.

**Surrender Charge**-The surrender charge for the initial Specified Amount is determined by multiplying (a) times (b), where:

- (a) is the appropriate surrender factor from the Table of Surrender Factors determined from the Policy Date; and
- (b) is 90% of the lesser of:
  - (i) the total premium paid in the first policy year;
  - (ii) the maximum surrender charge premium as shown on Page 3; and
  - (iii) \$45.00 per thousand of initial Specified Amount

## 11. Surrender of Policy (continued)

The surrender charge for each increase in the Specified Amount is based on the amount of the increase and on the attained age of the Insured at the time of the increase. The surrender charge is determined by multiplying (a) times (b), where:

- (a) is the appropriate surrender factor from the Table of Surrender Factors determined from the effective date of the increase; and
- (b) is 90% of the lesser of:
  - (i) the total premium paid in the first policy year;
  - (ii) the maximum surrender charge premium as determined from the effective date of the increase; and
  - (iii) \$45.00 per thousand of the increase amount

**Partial Surrender** - The Owner may make a partial surrender of this policy for any portion of the Net Cash Surrender Value which exceeds \$250 by filing a written request with the Company. However, no partial surrender may be made for less than \$250 and no more than twelve partial surrenders may be made under this policy in any policy year. A charge of 2% of the amount surrendered, but not more than \$25 will be made for each partial surrender. The charge will be deducted from the available Net Cash Surrender Value and will be considered part of the partial surrender.

Any partial surrender will reduce the Policy Value by the amount of the partial surrender. If the Specified Amount includes the Policy Value, the Specified Amount will be reduced by the amount of the partial surrender that exceeds the difference between the Death Benefit and the Specified Amount. In those instances, the Specified Amount will be reduced in the following order:

- (a) The most recent increase in the Specified Amount, if any, will be decreased first.
- (b) The next most recent increases in the Specified Amount, if any, will then be successively decreased.
- (c) The initial Specified Amount will then be decreased.

Partial surrenders will be deducted from the subaccounts, the Indexed Fixed Account, the Holding Fixed Account, and the Traditional Fixed Account as directed by the Owner, provided that the minimum amount remaining in each account as a result of the allocation is \$250. If no allocation is directed, the partial surrender will be deducted from the accounts on a pro-rata basis in proportion to the current net asset value of each subaccount, the value of the Indexed Fixed Account, the value of the Holding Fixed Account, and the value of the Traditional Fixed Account.

**Systematic Partial Surrender Program** - The Systematic Partial Surrender Program is a program of periodic distribution of a portion of the Policy Value designated by the Company. The Company reserves the right to discontinue such a program at any time. The program includes periodic distribution to the Owner of a portion of the Policy Value through policy loans and partial surrenders while the Insured is alive and the policy is in force. Contact the Company for details of how this program works. A processing fee of 2% of the amount surrendered, but not more than \$25, will be made for each year the Systematic Partial Surrender Program is active.

The surrender charge will not be reduced as a result of a partial surrender.

## 12. Policy Changes

**Right to Make Change** - At any time while this policy is in force after the first policy year, the Owner may request changes as set forth in this section. No change will be permitted that would result in the Death Benefit under this policy not being excludable from gross income due to not satisfying the requirements of Section 7702 of the Internal Revenue Code of 1986, as amended, or as set forth in any applicable successor provision thereto. In addition, each change is subject to the conditions stated. This policy will be amended as the result of any such change.

## 12. Policy Changes (continued)

**Increase in Specified Amount** - An increase in Specified Amount must be applied for on a written application and is subject to the Company's underwriting guidelines in effect at the time of the increase. Evidence of insurability satisfactory to the Company must be submitted. The amount of the requested increase must be at least \$10,000.

**Decrease in Specified Amount** - Any decrease in the Specified Amount must not violate the requirements of section 7702 of the Internal Revenue Code of 1986 and be at least \$10,000. The Specified Amount may not be decreased to less than \$50,000. No decrease may be made in the first year following the effective date of an increase in the Specified Amount.

Any decrease in the Specified Amount will become effective on the Monthly Anniversary that coincides with or next follows the receipt by the Company of the request. The decrease in the Specified Amount will be in the following order:

- (a) The most recent increase in the Specified Amount, if any, will be decreased first.
- (b) The next most recent increases in the Specified Amount, if any, will then be successively decreased.
- (c) The initial Specified Amount will then be decreased.

The surrender charge will not change as a result of a decrease in the Specified Amount. No surrender charge will be deducted from the Policy Value upon a decrease in the Specified Amount.

**Change in Specified Amount Option** - If the Specified Amount does not include the Policy Value, a request may be made to change this policy so that the Specified Amount includes the Policy Value. The Specified Amount after the change will be equal to the Specified Amount before the change plus the Policy Value on the date of the change. The effective date of the change will be the Monthly Anniversary that coincides with or next follows the date of receipt by the Company of the request to make the change.

If the Specified Amount includes the Policy Value, a request may be made to change this policy so that the Specified Amount does not include the Policy Value. The Specified Amount after the change will be equal to the Specified Amount before the change less the Policy Value on the date of the change. Evidence of insurability satisfactory to the Company may be required. Such evidence will be attached to and made a part of the policy. The effective date of the change will be the Monthly Anniversary that coincides with or next follows the date of receipt by the Company of the request to make the change.

The Specified Amount after the change must be at least \$50,000. No more than one change in the Specified Amount Option may be made in any policy year.

## 13. Transfer to Traditional Fixed Account

At any time within the first 24 policy months while this policy is in force during the life of the Insured, the Owner may transfer all amounts held in subaccounts of the Separate Account to the Traditional Fixed Account without restriction, minimum or charge. Following such transfer, no future premiums may be allocated to subaccounts of the Separate Account and no transfers may be made to the subaccounts.

## 14. Owner and Beneficiary

**Owner** - The Owner of this policy is as stated in the application unless changed by a subsequent owner designation or assignment. While this policy is in force before the death of the Insured, the Owner may exercise all of the rights in it without the consent of any other person.

## 14. Owner and Beneficiary (continued)

**Beneficiary** - The Beneficiary of this policy is as stated in the application unless changed by a subsequent beneficiary designation on a form provided by the Company. If no other provision is made, the interest of a Beneficiary who dies before the death of the Insured will pass to the Owner.

**Change of Owner or Beneficiary** - The Owner may transfer ownership or change the Beneficiary by filing a written designation at the Home Office on a form provided by the Company. The designation will take effect as of the date it is signed by the Owner, subject to any action taken by the Company prior to the time that the designation is received at the Home Office. Unless otherwise stated in a designation, the following rules will apply to terms of kinship:

- (a) A legally adopted child of any person will be considered the child of the adopting parent.
- (b) The brothers and sisters of a person will include those who have only one parent in common with the person, but will not include stepbrothers or stepsisters.
- (c) Any reference to children will not include stepchildren and any reference to parents will not include stepparents.

**Assignment** - The Owner may assign this policy while it is in force during the life of the Insured. The rights of the Owner and of any Beneficiary will be subject to the rights of an assignee under the terms of an assignment. No assignment will bind the Company until the original or a copy signed by the Owner, on a form provided by the Company, has been filed at the Home Office. The Company is not responsible for the effect or the validity of any assignment.

## 15. General Provisions

**The Contract** - This policy and the application for it constitute the entire contract. A copy of the application is attached to this policy. Only the President, a Vice President, the Secretary, the Chief Actuary, Actuary or an Associate Actuary may, on behalf of the Company, modify this policy or waive any of its conditions. No agent is authorized to modify this contract or to make any promise as to the future payment of dividends or interest.

At any time the Company may make such changes in this policy as are necessary (i) to assure compliance at all times with the definition of life insurance prescribed by federal income tax law, or (ii) to make the policy conform with any law or regulation issued by any government agency to which it is subject. Any such change may, however, be accepted or rejected by the Owner.

**Incontestability** - All statements made in the application for this policy are representations and not warranties. No statement will void this policy or be used to contest a claim under it unless the statement is contained in a written application, a copy of which is attached to and made a part of this policy.

This policy will be incontestable after it has been in force during the life of the Insured for two years from the Date of Issue. Any increase in the Specified Amount will be incontestable with respect to statements made in the evidence of insurability for that increase after the increase has been in force during the life of the Insured for two years from its effective date.

This policy will be incontestable with respect to statements made in an application for reinstatement after it has been in force during the life of the Insured for two years from the effective date of the reinstatement.

**Duration of Coverage** - The duration of coverage under this policy will depend on the amount, timing and frequency of premium payments; changes in the Specified Amount or benefits; the interest rates credited or investment return; the cost of insurance rates charged; and the amount and timing of any partial surrenders or policy loans.

**Participation** - This policy will participate in divisible surplus while it is in force except as stated in the Income Payment Options Section. The share of such surplus, if any, to be apportioned to this policy as a dividend will be determined each year by the Company. Any dividend will be allocated to subaccounts of the Separate Account and the Indexed Fixed Account and the Traditional Fixed Account in accordance with the current premium allocation, unless the Owner requests another allocation or elects to have it paid in cash. No divisible surplus is expected to be apportioned to this policy in the foreseeable future.

## 15. General Provisions (continued)

**Policy Date** - The Policy Date shown on Page 3 is the date from which policy years, months and anniversaries are determined.

**Monthly Anniversary** - The Monthly Anniversary is the day in each calendar month which is the same day of the month as the Policy Date.

**Age** - The age shown on Page 3 is the insurance age of the Insured. This is the age of the Insured on the birthday nearest the Policy Date. Attained age means the insurance age of the Insured increased by the number of whole years and months after the Policy Date.

**Misstatement of Age** - If the age of the Insured has been misstated, the Death Benefit under this policy will be the amount which would have been provided by the most recent Cost of Insurance charge at the correct age. No adjustment in the Policy Value will be made. Any date shown on Page 3 that is based on an incorrect age may be changed to be consistent with the correct age.

**Policy Payments** - All payments by the Company under this policy are payable at the Home Office. The Company may require the return of this policy upon surrender for the Net Cash Surrender Value or payment of the Death Benefit.

**Deferment of Transactions** - The Company may defer payment from the subaccounts of a partial surrender or of the Net Cash Surrender Value, may defer making a loan, may defer payment of any portion of the Death Benefit in excess of the Specified Amount and may defer transfer from assets held in subaccounts of the Separate Account under any of the following conditions:

- (a) The New York Stock Exchange is closed (other than customary weekend and holiday closings).
- (b) Trading on the New York Stock Exchange is restricted.
- (c) An emergency exists such that it is not reasonably practical to dispose of securities held in the Separate Account or to determine the value of its assets.

Conditions in (b) and (c) will be decided by, or in accordance with rules of, the Securities and Exchange Commission.

The Company may defer payment from the Traditional Fixed Account, Indexed Fixed Account and the Holding Fixed Account of a partial surrender, of the Net Cash Surrender Value, or of a policy loan for up to six months from the date the Company receives a written request. However, a partial surrender or policy loan to pay a premium due on a policy of the Company will not be deferred. If the payment is deferred for 30 days or more, it will bear interest at a rate of the guaranteed interest rate per year compounded annually while it is deferred, or such higher rate as may be required by law.

**Annual Report** - Each year a report will be sent to the Owner which shows the current policy values, premiums paid and deductions made since the last report, any outstanding policy loans, and any other information required by the Insurance Department of the jurisdiction in which this policy is delivered.

**Projection of Benefits and Values** - Upon request, the Company will provide a projection of illustrative future Death Benefits and Policy Values. The request for a projection must be made in writing by the Owner. The Company may charge a fee for this service.

**Deferral of Maturity** - Upon the written request of the Owner, this policy will continue in force beyond the Maturity Date. The Death Benefit will be the Net Policy Value on the Maturity Date together with interest at the current rate set by the Company, which will be not less than the minimum interest rate compounded annually, until the death of the Insured.

## 16. Income Payment Options

**Election of Income Payment Option** - An income payment option may be elected in place of a one sum payment of any amount payable upon the death of the Insured or upon surrender.

## 16. Income Payment Options (continued)

The Owner may elect an income payment option or change a previous election while this policy is in force before the death of the Insured. If no election is in effect at the time of the death of the Insured, the Beneficiary may elect an income payment option before any payment of the Death Benefit has been made and within one year of the date of death.

The amount applied under an income payment option must be at least \$5,000. No election may provide for income payments of less than \$50 each.

**Option 1 - Interest Income** - The Company will hold the amount applied at interest. Interest will be paid monthly, quarterly, semiannually or annually.

**Option 2 - Income for a Fixed Period** - The Company will pay the amount applied, with interest, in equal monthly payments for a fixed period. The fixed period may not be greater than 30 years.

**Option 3 - Income of a Specified Amount** - The Company will make payments of a specified amount until the total amount applied, with interest, has been paid. The payments may be made monthly, quarterly, semiannually or annually. The final payment may be less than the specified amount. The total of the payments to be made each year must be at least \$75 for each \$1,000 applied.

**Option 4 - Life Income** - The Company will pay equal monthly payments during the life of the option annuitant.

**Option 5 - Life Income with Guaranteed Period** - The Company will pay equal monthly payments for a stated guaranteed period and thereafter during the life of the option annuitant. The guaranteed period may be 5 years, 10 years or 20 years.

**Option 6 - Life Income with Refund Period** - The Company will pay equal monthly payments during the life of the option annuitant. If necessary, the payments will continue after the death of the option annuitant until the total of all payments made, including a smaller final payment, if required, equals the total amount applied.

**Option 7 - Joint and Survivor Life Income** - The Company will pay equal monthly payments during the joint life of two option annuitants and thereafter during the life of the survivor.

**Income Amount - Participation** - The income under Options 1 and 2 will be based on interest at a rate of 1.5% per year compounded annually. The unpaid balance of the amount applied under Option 3 will be credited with interest at a rate of 1.5% per year compounded annually.

Options 1, 2 and 3 will participate in divisible surplus by the payment or crediting of additional interest in such amount, if any, as determined each year by the Company. Additional interest will increase the income payments under Options 1 and 2. Additional interest will lengthen the period during which payments are made under Option 3.

The monthly income under Options 4, 5, 6 and 7 will equal 103% of the monthly income under a comparable single premium nonparticipating annuity issued by the Company at the time that the income payments are to begin. In no event will the monthly income under these life income options be less than the income stated in the Income Payment Option Tables. Options 4, 5, 6 and 7 will not participate in divisible surplus.

**Income Period** - The income period under an option will begin on the date of death or surrender. Income payments under Options 1 and 3 will be made at the end of the payment interval. Income payments under Options 2, 4, 5, 6 and 7 will be made at the beginning of the payment interval.

**Option Annuitant** - Option annuitant means a natural person on whose life the income payments under Options 4, 5, 6 and 7 are based.

The Company may require proof of the age and of the continued life of an option annuitant. If the age of an option annuitant has been misstated, an appropriate adjustment will be made in the income payments.

## 16. Income Payment Options (continued)

**Withdrawal Privilege** - Unless the election states otherwise, the payee under an income payment option may:

- (a) before any income payment has been made, withdraw the amount applied under the option; or
- (b) withdraw the present value of the income payments to become due during any fixed, guaranteed or refund period; or
- (c) withdraw the balance held under Option 1 or 3 plus any accrued interest.

There will be no right to withdraw the present value of the income payments falling due after the guaranteed or refund period under Options 5 and 6. There will be no right to withdraw the present value of any income payments under Options 4 and 7.

The Company may defer the payment of the amount withdrawn for up to six months from the date of a withdrawal request.

**Present Value** - The present value of the income payments under Option 2 will be based on interest at a rate of 1.5% per year compounded annually. The present value of the remaining income payments during a guaranteed or refund period under a life income option will be based on interest at a rate set by the Company at the time income payments are to begin.

**Death of Payee** - Upon the death of the payee under an income payment option, the Company will pay the following to the payee's executors or administrators unless stated otherwise in an election consented to by the Company:

- (a) the balance of the amount held under Option 1 or 3 plus any accrued interest; or
- (b) the present value of the income payments to become due during the fixed period under Option 2; or
- (c) if the option annuitant under Option 5 or 6 has died, the present value of the income payments, if any, to become due during the guaranteed or refund period; or
- (d) if any option annuitant under Option 4, 5, 6 or 7 is living, any income payments as they become due during the option annuitant's life plus, upon the death of the option annuitant under Option 5 or 6, the present value of the income payments, if any, to become due during the guaranteed or refund period.

**Assignment - Creditors** - The amount applied under an income payment option and the payments under the option may not be assigned and, to the extent permitted by law, will not be available to anyone who has a claim against the payee.

## 17. Income Payment Option Table

The following tables show the amount of the first monthly income payment for each \$1,000 of value applied under an annuity option. "Age" as used in the tables for Options 2,3, and 4 means an adjusted age determined in the following manner from the actual age of the Annuitant on the birthday nearest the date of the first payment:

Date of First Payment		Adjusted Age					
Before calendar year 2010		Actual Age					
2010-2019		Actual age decreased by 1					
2020-2029		Actual age decreased by 2					
2030 and later		Actual age decreased by 3					
Option 1 - Interest Income			Option 2 - Income for Fixed Period of Years				
Payment Interval	Amount	Years	Monthly Income	Years	Monthly Income	Years	Monthly Income
Annually	\$15.00	1	\$83.90	11	\$8.21	21	\$4.62
		2	42.26	12	7.58	22	4.44
		3	28.39	13	7.05	23	4.28
Semiannually	7.47	4	21.45	14	6.59	24	4.13
		5	17.28	15	6.20	25	3.99
Quarterly	3.73	6	14.51	16	5.85	26	3.86
		7	12.53	17	5.55	27	3.75
Monthly	1.24	8	11.04	18	5.27	28	3.64
		9	9.89	19	5.03	29	3.54
		10	8.96	20	4.81	30	3.44

# 17. Income Payment Option Table (continued)

## Options 4, 5 and 6 - Monthly Life Income

The amount of income will be based on the age of the option annuitant on the birthday nearest the date of the first payment

Option 4						Option 5						Option 6					
Age of Option Annuitant	Life Income	20 Year Guaranteed Period	10 Year Guaranteed Period	5 Year Guaranteed Period	with Refund Period	Age of Option Annuitant	Life Income	20 Year Guaranteed Period	10 Year Guaranteed Period	5 Year Guaranteed Period	with Refund Period	Age of Option Annuitant	Life Income	20 Year Guaranteed Period	10 Year Guaranteed Period	5 Year Guaranteed Period	with Refund Period
15	\$1.96	\$1.93	\$1.94	\$1.95	\$1.92	65	4.61	4.05	4.49	4.58	3.98	65	4.61	4.05	4.49	4.58	3.98
16	1.98	1.95	1.96	1.97	1.94	66	4.76	4.12	4.62	4.73	4.05	66	4.76	4.12	4.62	4.73	4.05
17	1.99	1.96	1.97	1.98	1.95	67	4.93	4.19	4.76	4.89	4.27	67	4.93	4.19	4.76	4.89	4.27
18	2.01	1.98	1.99	2.00	1.97	68	5.11	4.26	4.91	5.06	4.34	68	5.11	4.26	4.91	5.06	4.34
19	2.03	2.00	2.01	2.02	1.99	69	5.30	4.33	5.07	5.24	4.43	69	5.30	4.33	5.07	5.24	4.43
20	2.05	2.02	2.03	2.04	2.01	70	5.50	4.39	5.23	5.44	4.49	70	5.50	4.39	5.23	5.44	4.49
21	2.07	2.04	2.05	2.06	2.03	71	5.72	4.44	5.39	5.64	4.67	71	5.72	4.44	5.39	5.64	4.67
22	2.09	2.06	2.07	2.08	2.05	72	5.95	4.50	5.57	5.86	4.75	72	5.95	4.50	5.57	5.86	4.75
23	2.11	2.08	2.09	2.10	2.07	73	6.20	4.54	5.75	6.09	4.91	73	6.20	4.54	5.75	6.09	4.91
24	2.13	2.10	2.11	2.12	2.09	74	6.47	4.59	5.93	6.34	5.03	74	6.47	4.59	5.93	6.34	5.03
25	2.15	2.12	2.13	2.14	2.11	75	6.76	4.63	6.12	6.60	5.38	75	6.76	4.63	6.12	6.60	5.38
26	2.17	2.14	2.15	2.16	2.13	76	7.08	4.66	6.31	6.88	5.46	76	7.08	4.66	6.31	6.88	5.46
27	2.20	2.17	2.18	2.19	2.16	77	7.41	4.69	6.50	7.18	5.62	77	7.41	4.69	6.50	7.18	5.62
28	2.22	2.19	2.20	2.21	2.18	78	7.77	4.72	6.70	7.49	5.71	78	7.77	4.72	6.70	7.49	5.71
29	2.25	2.22	2.23	2.24	2.21	79	8.16	4.74	6.89	7.82	6.07	79	8.16	4.74	6.89	7.82	6.07
30	2.28	2.25	2.26	2.27	2.22	80	8.58	4.75	7.08	8.17	6.25	80	8.58	4.75	7.08	8.17	6.25
31	2.30	2.27	2.28	2.29	2.26	81	9.03	4.77	7.27	8.53	6.43	81	9.03	4.77	7.27	8.53	6.43
32	2.33	2.30	2.31	2.32	2.29	82	9.51	4.78	7.45	8.91	6.72	82	9.51	4.78	7.45	8.91	6.72
33	2.36	2.33	2.34	2.35	2.31	83	10.04	4.79	7.62	9.30	6.80	83	10.04	4.79	7.62	9.30	6.80
34	2.39	2.36	2.37	2.38	2.32	84	10.60	4.80	7.78	9.70	7.28	84	10.60	4.80	7.78	9.70	7.28
35	2.43	2.40	2.41	2.42	2.35	85	11.20	4.80	7.93	10.12	7.37	85	11.20	4.80	7.93	10.12	7.37
36	2.46	2.43	2.44	2.45	2.42	86	11.84	4.81	8.07	10.54	7.83	86	11.84	4.81	8.07	10.54	7.83
37	2.49	2.46	2.47	2.48	2.44	87	12.53	4.81	8.20	10.97	7.86	87	12.53	4.81	8.20	10.97	7.86
38	2.53	2.50	2.51	2.52	2.46	88	13.26	4.81	8.31	11.40	8.18	88	13.26	4.81	8.31	11.40	8.18
39	2.57	2.54	2.55	2.56	2.47	89	14.04	4.81	8.42	11.82	8.50	89	14.04	4.81	8.42	11.82	8.50
40	2.61	2.58	2.59	2.60	2.53	90	14.86	4.81	8.51	12.23	8.73	90	14.86	4.81	8.51	12.23	8.73
41	2.65	2.62	2.63	2.64	2.54	91	15.72	4.81	8.59	12.64	9.31	91	15.72	4.81	8.59	12.64	9.31
42	2.70	2.67	2.68	2.69	2.59	92	16.62	4.81	8.66	13.04	9.86	92	16.62	4.81	8.66	13.04	9.86
43	2.74	2.71	2.72	2.73	2.62	93	17.58	4.81	8.73	13.42	9.96	93	17.58	4.81	8.73	13.42	9.96
44	2.79	2.75	2.77	2.78	2.66	94	18.58	4.81	8.78	13.80	10.55	94	18.58	4.81	8.78	13.80	10.55
45	2.84	2.80	2.82	2.83	2.69	95	19.64	4.81	8.83	14.17	10.85	95	19.64	4.81	8.83	14.17	10.85
46	2.89	2.84	2.87	2.88	2.73	96	20.78	4.81	8.87	14.53	11.28	96	20.78	4.81	8.87	14.53	11.28
47	2.94	2.89	2.92	2.93	2.83	97	22.01	4.81	8.90	14.88	11.75	97	22.01	4.81	8.90	14.88	11.75
48	3.00	2.94	2.98	2.99	2.87	98	23.37	4.81	8.92	15.23	12.15	98	23.37	4.81	8.92	15.23	12.15
49	3.06	3.00	3.04	3.05	2.92	99	24.89	4.81	8.94	15.57	12.70	99	24.89	4.81	8.94	15.57	12.70
50	3.12	3.05	3.10	3.11	2.97	100	26.64	4.81	8.95	15.89	13.31	100	26.64	4.81	8.95	15.89	13.31
51	3.19	3.11	3.17	3.18	3.02	101	28.64	4.81	8.96	16.19	13.98	101	28.64	4.81	8.96	16.19	13.98
52	3.26	3.16	3.24	3.25	3.02	102	30.96	4.81	8.96	16.46	14.53	102	30.96	4.81	8.96	16.46	14.53
53	3.33	3.22	3.31	3.32	3.13	103	33.66	4.81	8.96	16.70	15.34	103	33.66	4.81	8.96	16.70	15.34
54	3.41	3.28	3.38	3.40	3.19	104	36.81	4.81	8.96	16.89	16.25	104	36.81	4.81	8.96	16.89	16.25
55	3.49	3.35	3.46	3.48	3.25	105	40.50	4.81	8.96	17.04	16.40	105	40.50	4.81	8.96	17.04	16.40
56	3.57	3.41	3.54	3.56	3.31	106	44.83	4.81	8.96	17.14	16.50	106	44.83	4.81	8.96	17.14	16.50
57	3.66	3.48	3.62	3.65	3.35	107	49.94	4.81	8.96	17.21	16.57	107	49.94	4.81	8.96	17.21	16.57
58	3.75	3.55	3.71	3.75	3.38	108	55.99	4.81	8.96	17.26	16.62	108	55.99	4.81	8.96	17.26	16.62
59	3.86	3.62	3.81	3.84	3.52	109	63.19	4.81	8.96	17.28	16.64	109	63.19	4.81	8.96	17.28	16.64
60	3.96	3.69	3.91	3.95	3.60	110	71.79	4.81	8.96	17.28	16.66	110	71.79	4.81	8.96	17.28	16.66
61	4.08	3.76	4.01	4.06	3.68												
62	4.20	3.83	4.12	4.18	3.76												
63	4.32	3.91	4.24	4.30	3.83												
64	4.46	3.98	4.36	4.44	3.86												

## 17. Income Payment Option Table (continued)

### Option 7—Joint and Survivor Monthly Life Income

The amount of income will be based on the ages of the option annuitants on their respective birthdays nearest the date of the first payment. The table shows income for certain ages for one male and one female option annuitant. The amount is shown under the age of the male and opposite the age of the female. Amounts of income for other combinations of ages or for option annuitants of the same sex will be furnished upon request.

Age of Second Option Annuitant	Age of First Option Annuitant												
	50	55	60	65	70	75	80	85	90	95	100	105	110
50	\$2.72	\$2.83	\$2.92	\$2.99	\$3.04	\$3.07	\$3.10	\$3.11	\$3.11	\$3.00	\$3.00	\$3.00	\$3.00
55	2.83	2.99	3.13	3.25	3.33	3.39	3.43	3.46	3.47	3.33	3.33	3.34	3.34
60	2.92	3.13	3.33	3.52	3.67	3.78	3.86	3.90	3.93	3.76	3.77	3.77	3.77
65	2.99	3.25	3.52	3.79	4.04	4.24	4.39	4.48	4.54	4.34	4.35	4.36	4.37
70	3.04	3.33	3.67	4.04	4.41	4.75	5.02	5.22	5.34	5.13	5.16	5.18	5.19
75	3.07	3.39	3.78	4.24	4.75	5.27	5.75	6.13	6.39	6.24	6.31	6.36	6.38
80	3.10	3.43	3.86	4.39	5.02	5.75	6.50	7.17	7.70	7.75	7.95	8.07	8.14
85	3.11	3.46	3.90	4.48	5.22	6.13	7.17	8.25	9.19	9.70	10.19	10.54	10.72
90	3.11	3.47	3.93	4.54	5.34	6.39	7.70	9.19	10.68	11.89	12.95	13.82	14.34
95	3.24	3.62	4.12	4.80	5.69	6.86	8.35	10.12	12.03	13.93	15.80	17.56	18.77
100	3.24	3.63	4.14	4.82	5.75	7.00	8.64	10.73	13.20	15.88	18.87	22.12	24.70
105	3.24	3.63	4.14	4.84	5.79	7.09	8.86	11.22	14.23	17.86	22.51	28.80	35.26
110	3.24	3.63	4.15	4.85	5.81	7.13	8.97	11.50	14.89	19.30	25.63	36.41	52.85

# Additional Policy Specifications

## Subaccounts

### Penn Series Funds, Inc.

<b>Alliance Bernstein</b> SMID Cap Value	<b>Oppenheimer Capital</b> Small Cap Growth
<b>Eaton Vance Management</b> Large Core Value	<b>Oppenheimer Funds</b> Large Cap Value Fund
<b>Goldman Sachs</b> Small Cap Value	<b>State Street</b> Index 500 Small Cap Index Developed International Index
<b>Heitman</b> REIT	<b>T. Rowe Price Assoc.</b> Flexibly Managed Large Growth Stock High Yield Bond
<b>Independence Capital Management (ICMI)</b> Money Market Limited Maturity Bond Quality Bond Balanced Aggressive Allocation Moderately Aggressive Allocation Moderate Allocation Moderately Conservative Allocation Conservative Allocation	<b>Turner Investment</b> Large Cap Growth Mid Cap Growth
<b>Lord, Abbett &amp; Co.</b> Mid Core Value	<b>Van Kampen Investments</b> Emerging Markets Equity
<b>Neuberger Berman Management</b> Mid Cap Value	<b>Vontobel Asset Management</b> International Equity
	<b>Wells Capital Management</b> Large Core Growth SMID Cap Growth

## Eligible Fixed Interest Option

Penn Mutual General Account

## Additional Policy Specifications

Maximum Mortality and Expense Risk Face Amount Charges per \$1,000 of Specified Amount

ISSUE AGE	BASE COVERAGE CHARGE
35	0.190
36	0.199
37	0.208
38	0.218
39	0.227
40	0.236
41	0.245
42	0.254
43	0.264
44	0.273
45	0.282
46	0.289
47	0.296
48	0.303
49	0.310
50	0.317
51	0.324
52	0.331
53	0.338
54	0.345
55	0.352
56	0.362
57	0.373
58	0.383
59	0.394
60	0.404
61	0.414
62	0.425
63	0.435
64	0.446
65	0.456
66	0.459
67	0.462
68	0.465
69	0.468
70	0.471
71	0.474
72	0.477
73	0.480
74	0.483
75	0.486

POLICY NUMBER 0 000 000  
 FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
 WILLIAM PENN  
 AGE 35                      NONTOBACCO

## Additional Policy Specifications (continued)

Maximum Mortality and Expense Risk Face Amount Charges per \$1,000 of Specified Amount

ISSUE AGE	BASE COVERAGE CHARGE
76	0.486
77	0.486
78	0.486
79	0.486
80	0.486
81	0.486
82	0.486
83	0.486
84	0.486
85	0.486

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35                      NONTOBACCO

## Additional Policy Specifications (continued)

Maximum Mortality and Expense Risk Face Amount Charges per \$1,000 of Specified Amount for the Supplemental Term Insurance Agreement

ISSUE AGE	Supplemental Term Insurance Agreement
35	0.170
36	0.178
37	0.186
38	0.195
39	0.203
40	0.211
41	0.219
42	0.227
43	0.236
44	0.244
45	0.252
46	0.258
47	0.264
48	0.271
49	0.277
50	0.283
51	0.289
52	0.295
53	0.302
54	0.308
55	0.314
56	0.323
57	0.333
58	0.342
59	0.352
60	0.361
61	0.370
62	0.380
63	0.389
64	0.399
65	0.408
66	0.410
67	0.412
68	0.415
69	0.417
70	0.419
71	0.421
72	0.423
73	0.426
74	0.428
75	0.430

POLICY NUMBER 0 000 000  
 FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
 WILLIAM PENN  
 AGE 35                      NONTOBACCO

# Additional Policy Specifications

Maximum Mortality and Expense Risk Face Amount Charges per \$1,000 of Specified Amount for the Supplemental Term Insurance Agreement

ISSUE AGE	Supplemental Term Insurance Agreement
76	0.430
77	0.430
78	0.430
79	0.430
80	0.430
81	0.430
82	0.430
83	0.430
84	0.430
85	0.430

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35                      NONTOBACCO

## Additional Policy Specifications

TABLE OF GUARANTEED MAXIMUM MONTHLY COST OF INSURANCE RATES PER \$1,000

ATTAINED AGE	BASE POLICY AND SLTI-08
35	0.09668
36	0.10251
37	0.10751
38	0.11585
39	0.12335
40	0.13168
41	0.14252
42	0.15502
43	0.17003
44	0.18837
45	0.20754
46	0.22755
47	0.24923
48	0.26340
49	0.28091
50	0.30176
51	0.32761
52	0.36096
53	0.39849
54	0.44436
55	0.49608
56	0.55281
57	0.61288
58	0.66461
59	0.72302
60	0.79146
61	0.87410
62	0.97345
63	1.08284
64	1.19894
65	1.32091
66	1.44458
67	1.56996
68	1.70624
69	1.84674
70	2.01237
71	2.19815
72	2.43843
73	2.68972
74	2.95538
75	3.24802
76	3.56600

POLICY NUMBER 0 000 000  
 FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
 WILLIAM PENN  
 AGE 35                      NONTOBACCO

# Additional Policy Specifications

TABLE OF GUARANTEED MAXIMUM MONTHLY COST OF INSURANCE RATES PER \$1,000

ATTAINED AGE	BASE POLICY AND SLTI-08
77	3.93207
78	4.35387
79	4.83577
80	5.35856
81	5.96875
82	6.60754
83	7.28181
84	8.02472
85	8.85268
86	9.73044
87	10.7408
88	11.8078
89	12.9249
90	14.0325
91	14.9099
92	15.9281
93	17.1138
94	18.4717
95	20.0595
96	21.5531
97	23.1627
98	24.0017
99	25.2309
100	26.8293
101	28.3499
102	30.0774
103	32.0379
104	34.2563
105	36.7251
106	39.3435
107	42.1036
108	44.9566
109	47.9782
110	51.1250
111	54.2398
112	57.3423
113	60.2927
114	64.2100

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35                      NONTOBACCO

## Additional Policy Specifications (continued)

TABLE OF GUARANTEED MAXIMUM MONTHLY COST OF INSURANCE RATES PER \$1,000

ATTAINED AGE	BASE POLICY AND SLTI-08
115	67.9891
116	71.9579
117	76.3104
118	80.4912
119	83.3333
120	83.3333

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35                      NONTOBACCO

# Additional Policy Specifications

## Table of Death Benefit Factors

Attained Age	Factor
0-40	2.50
41	2.43
42	2.36
43	2.29
44	2.22
45	2.15
46	2.09
47	2.03
48	1.97
49	1.91
50	1.85
51	1.78
52	1.71
53	1.64
54	1.57
55	1.50
56	1.46
57	1.42
58	1.38
59	1.34
60	1.30
61	1.28
62	1.26
63	1.24
64	1.22
65	1.20
66	1.19
67	1.18
68	1.17
69	1.16
70	1.15
71	1.13
72	1.11
73	1.09
74	1.07
75-90	1.05
91	1.04
92	1.03
93	1.02
94	1.01
95	1.01
96-121	1.001

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35                      NONTOBACCO

## Additional Policy Specifications(continued)

TABLE OF MAXIMUM MONTHLY NO-LAPSE PREMIUMS PER \$1,000 OF SPECIFIED AMOUNT

ATTAINED Monthly No-Lapse  
AGE Premiums Per \$1,000

35	0.3050
36	0.3050
37	0.3050
38	0.3050
39	0.3050
40	0.3050
41	0.3050
42	0.3050
43	0.3050
44	0.3050
45	0.3050
46	0.3050
47	0.3050
48	0.3050
49	0.3050
50	0.3050
51	0.3050
52	0.3050
53	0.3050
54	0.3050
55	0.3050

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35                      NONTOBACCO

# Additional Policy Specifications(continued)

TABLE OF MAXIMUM MONTHLY EXTENDED NO-LAPSE PREMIUMS PER \$1,000

ATTAINED Monthly per \$1,000 Premiums  
AGE for Extended No-Lapse Agreement

35	0.3050
36	0.3050
37	0.3050
38	0.3050
39	0.3050
40	0.3050
41	0.3050
42	0.3050
43	0.3050
44	0.3050
45	0.3050
46	0.3050
47	0.3050
48	0.3050
49	0.3050
50	0.3050
51	0.3050
52	0.3050
53	0.3050
54	0.3050
55	0.3050
56	0.3050
57	0.3050
58	0.3050
59	0.3050
60	0.3050
61	0.3050
62	0.3050
63	0.3050
64	0.3050
65	0.3231
66	0.3463
67	0.3721
68	0.4005
69	0.4291
70	0.4677

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 NONTOBACCO

**Additional Policy Specifications (continued)**

TABLE OF MAXIMUM MONTHLY EXTENDED NO-LAPSE PREMIUMS PER \$1,000

ATTAINED AGE	Monthly per \$1,000 Premiums for Extended No-Lapse Agreement
71	0.5110
72	0.5671
73	0.6259
74	0.6880
75	0.7565
76	0.8313
77	0.9173
78	1.0168
79	1.1309
80	1.2552
81	1.4001
82	1.5519
83	1.7134
84	1.8919
85	2.0921
86	2.3083
87	2.5543
88	2.8166
89	3.0934
90	3.3759
91	3.6237
92	3.9007
93	4.2087
94	4.5455
95	4.9149
96	5.2549
97	5.6146
98	5.9183
99	6.2779
100	6.6875
101	7.0344
102	7.4069
103	7.8070
104	8.2364
105	8.6952
106	9.1780
107	9.5830
108	9.6724
109	9.6724
110	9.6724

POLICY NUMBER 0 000 000  
 FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
 WILLIAM PENN  
 AGE 35                      NONTOBACCO

## Additional Policy Specifications (continued)

TABLE OF MAXIMUM MONTHLY EXTENDED NO-LAPSE PREMIUMS PER \$1,000

ATTAINED AGE Monthly per \$1,000 Premiums  
for Extended No-Lapse Agreement

111	9.6724
112	9.6724
113	9.6724
114	9.6724
115	9.6724
116	9.6724
117	9.6724
118	9.6724
119	9.6724
120	9.6724

POLICY NUMBER 0 000 000  
FLEXIBLE PREMIUM LIFE INSURANCE POLICY  
WILLIAM PENN  
AGE 35 NONTOBACCO

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To obtain any of the benefits under this policy, write to Penn Mutual at its Home Office, its Service Office or to its nearest agent.

Please notify Penn Mutual promptly of any change in address.

**Annual Election** - Penn Mutual is a mutual life insurance company. It has no stockholders. The Owner of this policy is a member of Penn Mutual while this policy is in force during the life of the Insured and before surrender of this policy. Members have the right to vote in person or by proxy at the annual election of Trustees held at the Home Office, on the first Tuesday of March. If more information is desired, it may be obtained from the Secretary.

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Policyholder Service Office of Company  
Address

The Penn Mutual Life Insurance Company  
Mail Code C2L  
Philadelphia, PA 19172  
Telephone # 1-800-523-0650

Name of Agent \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone # \_\_\_\_\_

If we at The Penn Mutual Life Insurance Company fail to provide you with reasonable and adequate service, you should feel free to contact:

Arkansas Insurance Department  
Consumer Services Division  
400 University Tower Building  
Little Rock, AR 72204  
1-800-852-5494

## Flexible Premium Adjustable Indexed Variable Life Insurance Policy



- Death Benefit payable at death prior to Maturity Date
- Adjustable Death Benefit
- Maturity Benefit payable on Maturity Date
- Variable Policy Value
- Indexed Account Feature
- Flexible premiums payable until Maturity Date
- Participating
- Supplemental benefits, if any, listed on Page 3

The Penn Mutual Life Insurance Company, Philadelphia, Pennsylvania 19172  
VU-08(U)(AR)

# Rider - Extended No-Lapse Guarantee Agreement

The Penn Mutual Life Insurance Company agrees, subject to the provisions of this agreement, to provide the Benefit described below.

This supplemental agreement is a part of the policy to which it is attached. It is subject to all of the provisions of the policy unless stated otherwise in this agreement.

**Benefit** -- The Company agrees that this policy will not lapse as a result of a Net Cash Surrender Value insufficient to cover the Monthly Deductions for the following month if, on a monthly anniversary prior to the Extended No-Lapse Date shown on Page 3, the following conditions are satisfied:

- (a) The Insured is alive;
- (b) This agreement is in force;
- (c) Policy indebtedness is zero;
- (d) The Extended No-Lapse Requirement is satisfied.

**Extended No-Lapse Premium** -- The Extended No-Lapse Premium is based on the issue age, sex, the underwriting class of the Insured, and the presence of certain other policy riders.

**Extended No-Lapse Requirement** -- The Extended No-Lapse Requirement is satisfied if, on a monthly anniversary prior to the Extended No-Lapse Date shown on Page 3, (a) is greater than (b) where;

- (a) is the premiums paid on this policy, reduced by any partial surrenders, accumulated at the Extended No-Lapse Rate shown on Page 3; and
- (b) is the Extended No-Lapse Premiums shown on Page 3, accumulated at the Extended No-Lapse Rate.

**Changes in Extended No-Lapse Premium** -- The amount of the Extended No-Lapse Premium may change if

- (a) The Specified Amount is changed;
- (b) A rider is added or deleted; or
- (c) The underwriting class is changed.

As a result of such change, additional premiums may be required on the date of change in order to meet the new Extended No-Lapse Premium Requirement.

**Allocation Requirement** - A minimum Allocation Percentage of the policy value less the Policy Loan Account is required to be in the Indexed Fixed Account. If, on a monthly anniversary the Indexed Fixed Account value is less than this Allocation Percentage, a pro rata allocation from the sub accounts to the Indexed Fixed Account will be made to satisfy this requirement. The Allocation Percentage is shown on Page 3.

**Cost of Insurance** -- The Cost of Insurance for this agreement for each policy month is calculated as (a) multiplied by (b) where:

- (a) is the Cost of Insurance Rate divided by 1,000; and
- (b) is the Sum of the applicable Specified Amounts for the Basic Coverage, any Supplemental Term Insurance Agreement and any Additional Insured Term Insurance Agreements.

**Cost of Insurance Rate** -- The Cost of Insurance Rate for this agreement is based on policy year and the issue age, sex and rate class of the Insured. Cost of Insurance Rates will be determined by the Company based on expectations as to future mortality, investment, expense, and persistency experience. In addition, Cost of Insurance Rates will be determined by the Company based on changes in statutory reserve regulations. However, these rates will not exceed those shown for the agreement in the Additional Policy Specifications. Cost of Insurance Rates will not be adjusted by the Company as a means of recovering prior losses nor as a means of distributing past profits.

ENLG-08(S)

## Rider - Extended No-Lapse Guarantee Agreement (continued)

**Grace Period for the Extended No-Lapse Guarantee Agreement--** If, on a monthly anniversary prior to the No-Lapse Date and prior to the Extended No-Lapse Date shown on Page 3:

- (1) The Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following policy month;
- (2) The sum of all premiums paid on this policy, reduced by any indebtedness and by any partial surrenders, is less than the No-Lapse Premium shown on Page 3 multiplied by the number of elapsed months since the Policy Date; and
- (3) The Extended No-Lapse Requirement described above is not met,

then a grace period of 61 days will be allowed for the payment of a premium sufficient to keep this policy in force.

If, on a monthly anniversary on or after the No-Lapse Date and prior to the Extended No-Lapse Date shown on Page 3.

- (a) The Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following policy month; and
- (b) The Extended No-Lapse Requirement is not met,

then a grace period of 61 days will be allowed for the payment of a premium sufficient to keep this policy in force.

If, on a monthly anniversary on or after the Extended No-Lapse Date shown on Page 3, the Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following policy month, a grace period of 61 days will be allowed for the payment of a premium sufficient to keep this policy in force.

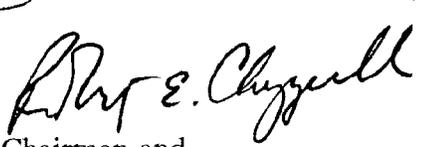
**Reinstatement --** If this agreement terminates, it may not be reinstated.

**Termination --** This agreement will terminate upon:

- (a) lapse of this policy;
- (b) surrender of this policy;
- (c) the date of death of the Insured;
- (d) the maturity date of this policy; or
- (e) the Monthly Anniversary which coincides with or next follows (i) receipt by the Company of a written request to terminate this agreement, and (ii) return of this Policy for appropriate endorsement.

**Effective Date --** The effective date of this agreement is the same as the Date of Issue of this policy.

The Penn Mutual Life Insurance Company



Chairman and  
Chief Executive Officer

# Rider - Extended No-Lapse Guarantee Agreement

The Penn Mutual Life Insurance Company agrees, subject to the provisions of this agreement, to provide the Benefit described below.

This supplemental agreement is a part of the policy to which it is attached. It is subject to all of the provisions of the policy unless stated otherwise in this agreement.

**Benefit** -- The Company agrees that this policy will not lapse as a result of a Net Cash Surrender Value insufficient to cover the Monthly Deductions for the following month if, on a monthly anniversary prior to the Extended No-Lapse Date shown on Page 3, the following conditions are satisfied:

- (a) The Insured is alive;
- (b) This agreement is in force;
- (c) Policy indebtedness is zero;
- (d) The Extended No-Lapse Requirement is satisfied.

**Extended No-Lapse Premium** -- The Extended No-Lapse Premium is based on the issue age and the underwriting class of the Insured, and the presence of certain other policy riders.

**Extended No-Lapse Requirement** -- The Extended No-Lapse Requirement is satisfied if, on a monthly anniversary prior to the Extended No-Lapse Date shown on Page 3, (a) is greater than (b) where;

- (a) is the premiums paid on this policy, reduced by any partial surrenders, accumulated at the Extended No-Lapse Rate shown on Page 3; and
- (b) is the Extended No-Lapse Premiums shown on Page 3, accumulated at the Extended No-Lapse Rate.

**Changes in Extended No-Lapse Premium** -- The amount of the Extended No-Lapse Premium may change if

- (a) The Specified Amount is changed;
- (b) A rider is added or deleted; or
- (c) The underwriting class is changed.

As a result of such change, additional premiums may be required on the date of change in order to meet the new Extended No-Lapse Premium Requirement.

**Allocation Requirement** - A minimum Allocation Percentage of the policy value less the Policy Loan Account is required to be in the Indexed Fixed Account. If, on a monthly anniversary the Indexed Fixed Account value is less than this Allocation Percentage, a pro rata allocation from the sub accounts to the Indexed Fixed Account will be made to satisfy this requirement. The Allocation Percentage is shown on Page 3.

**Cost of Insurance** -- The Cost of Insurance for this agreement for each policy month is calculated as (a) multiplied by (b) where:

- (a) is the Cost of Insurance Rate divided by 1,000; and
- (b) is the Sum of the applicable Specified Amounts for the Basic Coverage, any Supplemental Term Insurance Agreement and any Additional Insured Term Insurance Agreements.

**Cost of Insurance Rate** -- The Cost of Insurance Rate for this agreement is based on policy year and the issue age, and the rate class of the Insured. Cost of Insurance Rates will be determined by the Company based on expectations as to future mortality, investment, expense, and persistency experience. In addition, Cost of Insurance Rates will be determined by the Company based on changes in statutory reserve regulations. However, these rates will not exceed those shown for the agreement in the Additional Policy Specifications. Cost of Insurance Rates will not be adjusted by the Company as a means of recovering prior losses nor as a means of distributing past profits.

ENLG-08(U)

## Rider - Extended No-Lapse Guarantee Agreement (continued)

**Grace Period for the Extended No-Lapse Guarantee Agreement--** If, on a monthly anniversary prior to the No-Lapse Date and prior to the Extended No-Lapse Date shown on Page 3:

- (1) The Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following policy month;
- (2) The sum of all premiums paid on this policy, reduced by any indebtedness and by any partial surrenders, is less than the No-Lapse Premium shown on Page 3 multiplied by the number of elapsed months since the Policy Date; and
- (3) The Extended No-Lapse Requirement described above is not met,

then a grace period of 61 days will be allowed for the payment of a premium sufficient to keep this policy in force.

If, on a monthly anniversary on or after the No-Lapse Date and prior to the Extended No-Lapse Date shown on Page 3.

- (a) The Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following policy month; and
- (b) The Extended No-Lapse Requirement is not met,

then a grace period of 61 days will be allowed for the payment of a premium sufficient to keep this policy in force.

If, on a monthly anniversary on or after the Extended No-Lapse Date shown on Page 3, the Net Cash Surrender Value is insufficient to cover the Monthly Deduction for the following policy month, a grace period of 61 days will be allowed for the payment of a premium sufficient to keep this policy in force.

**Reinstatement --** If this agreement terminates, it may not be reinstated.

**Termination --** This agreement will terminate upon:

- (a) lapse of this policy;
- (b) surrender of this policy;
- (c) the date of death of the Insured;
- (d) the maturity date of this policy; or
- (e) the Monthly Anniversary which coincides with or next follows (i) receipt by the Company of a written request to terminate this agreement, and (ii) return of this Policy for appropriate endorsement.

**Effective Date --** The effective date of this agreement is the same as the Date of Issue of this policy.

The Penn Mutual Life Insurance Company



Chairman and  
Chief Executive Officer

# Rider - Supplemental Term Insurance Agreement

The Penn Mutual Life Insurance Company agrees, subject to the provisions of the Policy and this agreement, to provide this Term Insurance Benefit. The Company also agrees to provide all of the other benefits which are stated in this agreement.

This agreement is a part of the Policy to which it is attached. It is subject to all of the provisions of the Policy unless stated otherwise in this agreement.

**Term Insurance Benefit.** The amount of the Term Insurance Benefit provided under the Policy as added by this agreement is shown in the Policy Specifications.

**Basic Death Benefit.** The Basic Death Benefit of the Policy to which this rider is attached is modified to include the Term Insurance Benefit under this rider. The Basic Death Benefit prior to the Maturity Date will be as follows:

- (a) If the Specified Amount includes the Policy Value, as shown on Page 3, the Basic Death Benefit will be equal to the greater of:
  - (1) the Specified Amount of the Policy plus the Term Insurance Benefit; or
  - (2) the Policy Value multiplied by an attained age factor shown in the Table of Death Benefit Factors.
- (b) If the Specified Amount does not include the Policy Value, as shown on Page 3, the Basic Death Benefit will be equal to the greater of:
  - (1) the Specified Amount of the Policy plus the Term Insurance Benefit plus the Policy Value; or
  - (2) the Policy Value multiplied by an attained age factor shown in the Table of Death Benefit Factors.

**Suicide Exclusion.** If the Insured dies by suicide while sane or insane within two years from the effective date of this agreement, the Term Insurance Benefit will be limited to the Monthly Deductions associated with such benefit.

If the Insured dies by suicide, while sane or insane, within two years from the effective date of any increase in the Term Insurance Benefit, the Term Insurance Benefit with respect to that increase will be limited to the Monthly Deductions for that increase.

**Change in Amount of Coverage.** The Term Insurance Benefit may be changed subject to the following conditions:

- (a) Any change in coverage must be at least \$10,000;
- (b) Any request for an increase must be applied for on a written application provided by the Company. Evidence of insurability satisfactory to the Company must be provided;
- (c) Any decrease in the Term Insurance Benefit will successively decrease, in reverse order, the most recent increases, if any.

**Mortality and Expense Risk Face Amount Charge.** While this agreement is in force, the Mortality and Expense Risk Face Amount Charge under the Policy will include the Mortality and Expense Risk Face Amount Charge for this agreement. The Mortality and Expense Risk Face Amount Charges for this agreement are the sum of:

- (a) the Mortality and Expense Risk Face Amount charge for the original Term Insurance Benefit; and
- (b) the Mortality and Expense Risk Face Amount charge for any increases in the Term Insurance Benefit.

The Mortality and Expense Risk Face Amount Charges for this agreement will be determined by the company based on expectations as to future mortality, investment, expense and persistency experience. The Company will not adjust such charges as a means of recovering prior losses nor as a means of distributing prior profits. The rates will not exceed the maximum expense charges as shown on Page 3.

SLTI-08(S)

## Rider - Supplemental Term Insurance Agreement (continued)

**Cost of Insurance.** The Cost of Insurance for the Policy to which this rider is attached is modified to account for the Term Insurance Benefit under this agreement. The Cost of Insurance is determined separately for the initial Specified Amount and Term Insurance Benefit segments as well as for each additional segment created as the result of an increase in either Specified Amount or Term Insurance Benefit amount. The total Cost of Insurance for a policy month is calculated as the sum of (a) plus (b) where:

- (a) is the Cost of Insurance for the Specified Amount under this Policy; and
- (b) is the Cost of Insurance for the Term Insurance Benefit under this agreement.

The Cost of Insurance for a policy month for the Specified Amount under this Policy is equal to (c) multiplied by (d) where:

- (c) is the applicable Cost of Insurance Rate for the Policy divided by 1,000; and
- (d) is the Net Amount at Risk attributed to the Specified Amount.

The Cost of Insurance for a policy month for the Term Insurance Benefit under this agreement is equal to (e) multiplied by (f) where:

- (e) is the applicable Cost of Insurance Rate for the Term Insurance Benefit divided by 1,000; and
- (f) is the Net Amount at Risk attributed to the Term Insurance Benefit.

The Net Amount at Risk attributed to the Specified Amount is calculated as (g) minus (h) where:

- (g) is the Specified Amount divided by the Death Benefit Discount Factor; and
- (h) is the Policy Value allocated to the Specified Amount at the beginning of the policy month before the Monthly Deduction is due.

The Net Amount at Risk attributed to the Term Insurance Benefit is calculated as (i) minus (j) where:

- (i) is the Term Insurance Benefit divided by the Death Benefit Discount Factor; and
- (j) is the Policy Value allocated to the Term Insurance Benefit at the beginning of the policy month before the Monthly Deduction is due.

For purposes of determining the allocation of Net Amount at Risk between the Specified Amount and the Term Insurance Benefit, the Policy Value will be allocated as follows: first to the initial Term Insurance Benefit segment, then to any segments resulting from increases in the Term Insurance Benefit in the order of the increases, then to the initial Specified Amount segment, and then to any segments resulting from increases in the Specified Amount in the order of the increases.

Any increases in the Basic Death Benefit in order to maintain the required minimum margin between the Basic Death Benefit and the Policy Value will be allocated to the most recent increase in Specified Amount.

**Cost of Insurance Rate.** The Cost of Insurance Rate for the initial Term Insurance Benefit segment is based on the Insured's issue age, sex, risk classification, and policy duration. The Cost of Insurance Rate for any segment resulting from an increase in the Term Insurance Benefit will be based on the Insured's age on the effective date of the increase, sex, risk classification on that date, and the duration, in years, since that date. Current monthly Cost of Insurance Rates will be determined by the Company based on expectations as to future mortality, investment, expense, and persistency experience. However, these rates will not exceed those shown for this agreement in the Additional Policy Specifications.

**Surrender Charge.** The Surrender Charge for the Policy to which this rider is attached is modified to account for the Term Insurance Benefit under this agreement. The maximum surrender charge premium as shown on Page 3 will incorporate the Term Insurance Benefit in addition to the initial Specified Amount of the Policy. The \$45.00 per thousand factor will be applied to the sum of the initial Specified Amount of the Policy plus the initial Term Insurance Benefit.

For an increase in the Term Insurance Benefit with a comparable increase to the Specified Amount of the Policy, the Surrender Charge for the increase in the Policy is modified to account for the increase in the Term Insurance Benefit under this agreement. The maximum surrender charge premium as determined from the effective date of the increase will incorporate the Term Insurance Benefit in addition to the initial Specified Amount of the Policy. The \$45.00 per thousand factor will be applied to the amount of the increase in the Specified Amount of the Policy plus the increase in the Term Insurance Benefit.

# Rider - Supplemental Term Insurance Agreement (continued)

The surrender charge for each increase in the Term Insurance Benefit with no comparable increase in Specified Amount in the Policy is based on the amount of the increase and on the attained age of the Insured at the time of the increase. The surrender charge for each increase in the Term Insurance Benefit is determined by multiplying (a) times (b), where:

- (a) is the appropriate surrender factor from the Table of Surrender Factors determined from the effective date of the increase; and
- (b) is 90% of the lesser of:
  - (i) the total premium paid in the first policy year;
  - (ii) the maximum surrender charge premium as determined from the effective date of the increase; and
  - (iii) \$45.00 per thousand of the increase amount

**Supplemental Term Insurance Policy Value Enhancement** – After the policy reaches the Supplemental Term Insurance Policy Value Enhancement Date as shown on Page 3, a monthly Supplemental Term Insurance Policy Value Enhancement will be paid on subsequent monthly anniversaries. The Supplemental Term Insurance Policy Value Enhancement is guaranteed at the rate shown on Page 3 multiplied by (a) divided by (b), where;

- (a) is the Term Insurance Benefit, and
- (b) is the sum of the Term Insurance Benefit and the Specified Amount of the policy

The Supplemental Term Insurance Policy Value Enhancement is based on Net Policy Value. Any enhancements will be applied pro-rata to the policy value in the subaccounts of the Separate Account, the Traditional Fixed Account, and the Indexed Fixed Account.

**Computation of Values.** All values and benefits in this agreement are equal to or greater than those required by the law of the jurisdiction in which this Policy is delivered.

**Incontestability.** This agreement will be incontestable after it has been in force during the life of the Insured for two years from the effective date.

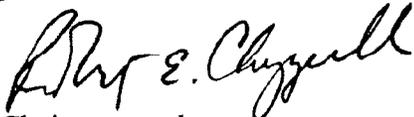
After this agreement has been in force during the Insured's life for two years from the effective date of any increase in the amount of insurance, we will not contest the statements in the application for the increase.

**Termination of Agreement.** This agreement will terminate upon:

- (a) the Termination Date for this agreement shown in the Additional Policy Specifications;
- (b) the date of death of the Insured;
- (c) lapse of this Policy; or
- (d) surrender of this Policy; or
- (e) the Monthly Anniversary which coincides with or next follows (i) receipt by the Company of a written request to terminate this agreement, and (ii) return of this Policy for appropriate endorsement.

**Effective Date.** The effective date of this agreement is the same as the Date of Issue of this Policy unless another effective date is shown below.

The Penn Mutual Life Insurance Company



Chairman and  
Chief Executive Officer

# Rider - Supplemental Term Insurance Agreement

The Penn Mutual Life Insurance Company agrees, subject to the provisions of the Policy and this agreement, to provide this Term Insurance Benefit. The Company also agrees to provide all of the other benefits which are stated in this agreement.

This agreement is a part of the Policy to which it is attached. It is subject to all of the provisions of the Policy unless stated otherwise in this agreement.

**Term Insurance Benefit.** The amount of the Term Insurance Benefit provided under the Policy as added by this agreement is shown in the Policy Specifications.

**Basic Death Benefit.** The Basic Death Benefit of the Policy to which this rider is attached is modified to include the Term Insurance Benefit under this rider. The Basic Death Benefit prior to the Maturity Date will be as follows:

(a) If the Specified Amount includes the Policy Value, as shown on Page 3, the Basic Death Benefit will be equal to the greater of:

- (1) the Specified Amount of the Policy plus the Term Insurance Benefit; or
- (2) the Policy Value multiplied by an attained age factor shown in the Table of Death Benefit Factors.

(b) If the Specified Amount does not include the Policy Value, as shown on Page 3, the Basic Death Benefit will be equal to the greater of:

- (1) the Specified Amount of the Policy plus the Term Insurance Benefit plus the Policy Value; or
- (2) the Policy Value multiplied by an attained age factor shown in the Table of Death Benefit Factors.

**Suicide Exclusion.** If the Insured dies by suicide while sane or insane within two years from the effective date of this agreement, the Term Insurance Benefit will be limited to the Monthly Deductions associated with such benefit.

If the Insured dies by suicide, while sane or insane, within two years from the effective date of any increase in the Term Insurance Benefit, the Term Insurance Benefit with respect to that increase will be limited to the Monthly Deductions for that increase.

**Change in Amount of Coverage.** The Term Insurance Benefit may be changed subject to the following conditions:

- (a) Any change in coverage must be at least \$10,000;
- (b) Any request for an increase must be applied for on a written application provided by the Company. Evidence of insurability satisfactory to the Company must be provided;
- (c) Any decrease in the Term Insurance Benefit will successively decrease, in reverse order, the most recent increases, if any.

**Mortality and Expense Risk Face Amount Charge.** While this agreement is in force, the Mortality and Expense Risk Face Amount Charge under the Policy will include the Mortality and Expense Risk Face Amount Charge for this agreement. The Mortality and Expense Risk Face Amount Charges for this agreement are the sum of:

- (a) the Mortality and Expense Risk Face Amount charge for the original Term Insurance Benefit; and
- (b) the Mortality and Expense Risk Face Amount charge for any increases in the Term Insurance Benefit.

The Mortality and Expense Risk Face Amount Charges for this agreement will be determined by the company based on expectations as to future mortality, investment, expense and persistency experience. The Company will not adjust such charges as a means of recovering prior losses nor as a means of distributing prior profits. The rates will not exceed the maximum expense charges as shown on Page 3.

SLTI-08(U)

# Rider - Supplemental Term Insurance Agreement (continued)

**Cost of Insurance.** The Cost of Insurance for the Policy to which this rider is attached is modified to account for the Term Insurance Benefit under this agreement. The Cost of Insurance is determined separately for the initial Specified Amount and Term Insurance Benefit segments as well as for each additional segment created as the result of an increase in either Specified Amount or Term Insurance Benefit amount. The total Cost of Insurance for a policy month is calculated as the sum of (a) plus (b) where:

- (a) is the Cost of Insurance for the Specified Amount under this Policy; and
- (b) is the Cost of Insurance for the Term Insurance Benefit under this agreement.

The Cost of Insurance for a policy month for the Specified Amount under this Policy is equal to (c) multiplied by (d) where:

- (c) is the applicable Cost of Insurance Rate for the Policy divided by 1,000; and
- (d) is the Net Amount at Risk attributed to the Specified Amount.

The Cost of Insurance for a policy month for the Term Insurance Benefit under this agreement is equal to (e) multiplied by (f) where:

- (e) is the applicable Cost of Insurance Rate for the Term Insurance Benefit divided by 1,000; and
- (f) is the Net Amount at Risk attributed to the Term Insurance Benefit.

The Net Amount at Risk attributed to the Specified Amount is calculated as (g) minus (h) where:

- (g) is the Specified Amount divided by the Death Benefit Discount Factor; and
- (h) is the Policy Value allocated to the Specified Amount at the beginning of the policy month before the Monthly Deduction is due.

The Net Amount at Risk attributed to the Term Insurance Benefit is calculated as (i) minus (j) where:

- (i) is the Term Insurance Benefit divided by the Death Benefit Discount Factor; and
- (j) is the Policy Value allocated to the Term Insurance Benefit at the beginning of the policy month before the Monthly Deduction is due.

For purposes of determining the allocation of Net Amount at Risk between the Specified Amount and the Term Insurance Benefit, the Policy Value will be allocated as follows: first to the initial Term Insurance Benefit segment, then to any segments resulting from increases in the Term Insurance Benefit in the order of the increases, then to the initial Specified Amount segment, and then to any segments resulting from increases in the Specified Amount in the order of the increases.

Any increases in the Basic Death Benefit in order to maintain the required minimum margin between the Basic Death Benefit and the Policy Value will be allocated to the most recent increase in Specified Amount.

**Cost of Insurance Rate.** The Cost of Insurance Rate for the initial Term Insurance Benefit segment is based on the Insured's issue age, risk classification, and policy duration. The Cost of Insurance Rate for any segment resulting from an increase in the Term Insurance Benefit will be based on the Insured's age on the effective date of the increase, risk classification on that date, and the duration, in years, since that date. Current monthly Cost of Insurance Rates will be determined by the Company based on expectations as to future mortality, investment, expense, and persistency experience. However, these rates will not exceed those shown for this agreement in the Additional Policy Specifications.

**Surrender Charge.** The Surrender Charge for the Policy to which this rider is attached is modified to account for the Term Insurance Benefit under this agreement. The maximum surrender charge premium as shown on Page 3 will incorporate the Term Insurance Benefit in addition to the initial Specified Amount of the Policy. The \$45.00 per thousand factor will be applied to the sum of the initial Specified Amount of the Policy plus the initial Term Insurance Benefit.

For an increase in the Term Insurance Benefit with a comparable increase to the Specified Amount of the Policy, the Surrender Charge for the increase in the Policy is modified to account for the increase in the Term Insurance Benefit under this agreement. The maximum surrender charge premium as determined from the effective date of the increase will incorporate the Term Insurance Benefit in addition to the initial Specified Amount of the Policy. The \$45.00 per thousand factor will be applied to the amount of the increase in the Specified Amount of the Policy plus the increase in the Term Insurance Benefit.

# Rider - Supplemental Term Insurance Agreement (continued)

The surrender charge for each increase in the Term Insurance Benefit with no comparable increase in Specified Amount in the Policy is based on the amount of the increase and on the attained age of the Insured at the time of the increase. The surrender charge for each increase in the Term Insurance Benefit is determined by multiplying (a) times (b), where:

- (a) is the appropriate surrender factor from the Table of Surrender Factors determined from the effective date of the increase; and
- (b) is 90% of the lesser of:
  - (i) the total premium paid in the first policy year;
  - (ii) the maximum surrender charge premium as determined from the effective date of the increase; and
  - (iii) \$45.00 per thousand of the increase amount

**Supplemental Term Insurance Policy Value Enhancement** – After the policy reaches the Supplemental Term Insurance Policy Value Enhancement Date as shown on Page 3, a monthly Supplemental Term Insurance Policy Value Enhancement will be paid on subsequent monthly anniversaries. The Supplemental Term Insurance Policy Value Enhancement is guaranteed at the rate shown on Page 3 multiplied by (a) divided by (b), where;

- (a) is the Term Insurance Benefit, and
- (b) is the sum of the Term Insurance Benefit and the Specified Amount of the policy

The Supplemental Term Insurance Policy Value Enhancement is based on Net Policy Value. Any enhancements will be applied pro-rata to the policy value in the subaccounts of the Separate Account, the Traditional Fixed Account, and the Indexed Fixed Account.

**Computation of Values.** All values and benefits in this agreement are equal to or greater than those required by the law of the jurisdiction in which this Policy is delivered.

**Incontestability.** This agreement will be incontestable after it has been in force during the life of the Insured for two years from the effective date.

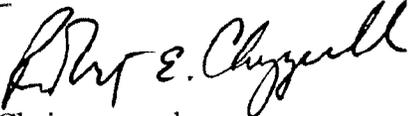
After this agreement has been in force during the Insured's life for two years from the effective date of any increase in the amount of insurance, we will not contest the statements in the application for the increase.

**Termination of Agreement.** This agreement will terminate upon:

- (a) the Termination Date for this agreement shown in the Additional Policy Specifications;
- (b) the date of death of the Insured;
- (c) lapse of this Policy; or
- (d) surrender of this Policy; or
- (e) the Monthly Anniversary which coincides with or next follows (i) receipt by the Company of a written request to terminate this agreement, and (ii) return of this Policy for appropriate endorsement.

**Effective Date.** The effective date of this agreement is the same as the Date of Issue of this Policy unless another effective date is shown below.

The Penn Mutual Life Insurance Company

  
Chairman and  
Chief Executive Officer

Page 3 of 3

SLTI-08(U)

# Rider – Cash Value Enhancement Agreement

The Penn Mutual Life Insurance Company agrees, subject to the provisions of the Policy and this agreement, to provide this Cash Value Enhancement Benefit. The Company also agrees to provide all of the other benefits which are stated in this agreement.

This agreement is a part of the Policy to which it is attached. It is subject to all of the provisions of the Policy unless stated otherwise in this agreement.

**Cash Value Enhancement Benefit.** The amount of the Cash Value Enhancement Benefit provided under the Rider as added by this agreement is a Termination Credit, unless the policy terminates under a Non-Qualifying Termination as described below.

**Termination Credit.** The Surrender Benefit of the Policy to which this rider is attached is modified to include a Termination Credit. The Termination Credit will be equal to (a) plus (b) as follows:

(a) An amount determined by multiplying (1) times (2), where:

- (1) is the appropriate surrender factor from the Table of Surrender Factors determined from the Policy Date; and
- (2) is 90% of the lesser of:
  - (i) the total premium paid in the first policy year;
  - (ii) the maximum surrender charge premium as shown on Page 3; and
  - (iii) \$45.00 per thousand of the initial Specified Amount for the Policy, plus any Term Insurance Benefit from a Supplemental Term Insurance Rider, to which this agreement is attached.

(b) An amount determined by multiplying (1) times the sum of (2), where:

- (1) is the appropriate factor from the Table of Termination Credit Factors shown on Page 3; and
- (2) the total of all Cost of Insurance Charges, Expense Charges, and Mortality and Expense Risk Face Amount Charges based on the initial Specified Amount for the Policy, plus any Term Insurance Benefit from a Supplemental Term Insurance Rider, to which this agreement is attached.

**Non-Qualifying Termination.** A Non-Qualifying Termination is defined as follows:

- (a) The policy is being surrendered in connection with the purchase of a replacement insurance policy including, but not limited to, a replacement intended to qualify as an exchange under Code section 1035 or
- (b) The Owner at the time of Policy surrender is different from the Owner on the application and the Owner at the time of Policy surrender is a life insurance company.

If the Policy terminates due to a Non-Qualifying Termination, the Termination Credit will not apply.

**Monthly Deduction.** While this agreement is in-force, the Monthly Deduction for the Policy will include the Monthly Deduction for this agreement. The Monthly Deduction for this agreement is the Expense Charge for the Cash Value Enhancement Benefit. Monthly Deductions will be deducted on the Policy Date and on each Monthly Anniversary from the subaccounts and the options of the Fixed Account as directed by the Owner.

**Expense Charge.** The Expense Charge for this agreement is a monthly charge per \$1,000 of the initial Specified Amount for the Policy to which this agreement is attached. The Expense Charge will be determined by the Company based on expectations as to future mortality, investment, expense and persistency experience.

The Company will not adjust such rates or charges as a means of recovering prior losses nor as a means of distributing prior profits. However, the actual Expense Charge will not exceed the maximum Expense Charge stated on Page 3.

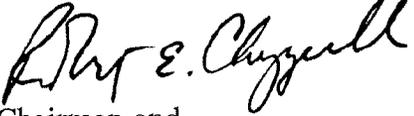
## Rider – Cash Value Enhancement Agreement(continued)

**Termination of Agreement.** This agreement will terminate upon:

- (a) the date of death of the Insured;
- (b) lapse of this Policy;
- (c) surrender of this Policy;
- (d) the maturity date of this Policy; or
- (d) the Monthly Anniversary which coincides with or next follows (i) receipt by the Company of a written request to terminate this agreement, and (ii) return of this Policy for appropriate endorsement.

**Effective Date.** The effective date of this agreement is the same as the Date of Issue of this Policy unless another effective date is shown below.

The Penn Mutual Life Insurance Company



Chairman and  
Chief Executive Officer



**A. Owner Name(s) (Must Agree with Application)** \_\_\_\_\_

**B. Premium Allocation:**

Please specify the allocation of the net initial and subsequent premiums in Column A on the chart below. Do not use increments of less than 1%. If electing the [VU08 ENLG Rider] at least 20% of premium must be allocated to the Indexed Fixed Account.

**C. Dollar Cost Averaging (DCA) – One box MUST be selected. Annual premium must be at least \$600**

- I elect DCA using the Money Market Fund. Please transfer \$ \_\_\_\_\_ ( \$50.00 minimum) monthly from the Money Market Fund into the funds selected in Column B on the chart below
- I elect DCA using the 12-Month DCA Account. Please transfer funds in 12 monthly installments into the funds selected in Column C on the chart below. ( not available for VMAX II and VUL 3)
- I decline the DCA option

**D. Automatic Asset Rebalancing (AAR) – One box MUST be selected. The Money Market Fund is not available for AAR if the DCA option was elected. Minimum policy value of \$1000 is required to activate AAR.**

- I elect to have the total of the assets in all funds automatically rebalanced on the last business day of each calendar quarter into the funds selected in Column D on the chart below
- I decline the AAR option

**E. Monthly Deduction Allocation**

You may specify the investment options from which certain monthly charges will be deducted in Column E on the chart below. If any particular investment option has insufficient funds to cover your specified percentage deduction, the charge will be deducted pro-rata from each of your investment options. Mortality and expense risk asset charges cannot be specified and will be deducted pro-rata from each of your investment options. Note: Mortality and expense risk asset charges are not deducted from any of the Fixed Account options.

COL A INITIAL & SUB. PMTS.	INVESTMENT OPTIONS	INVESTMENT MANAGERS	COL B DCA	COL C DCA from 12 month (not available for VMAX II and VUL 3)	COL D AAR	COL E Mo. Deduction Allocation (not available for VMAX II and VUL 3)
%	SMID Cap Value Fund	AllianceBernstein	\$	%	%	%
%	Large Core Value Fund	Eaton Vance Management	\$	%	%	%
%	Small Cap Value Fund	Goldman Sachs Asset Management	\$	%	%	%
%	REIT Fund	Heitman Real Estate Securities	\$	%	%	%
%	Money Market Fund	Independence Capital Management, Inc.	N/A	%	%	%
%	Limited Maturity Bond Fund	Independence Capital Management, Inc.	\$	%	%	%
%	Quality Bond Fund	Independence Capital Management, Inc.	\$	%	%	%
%	Balanced Fund	Independence Capital Management, Inc.	\$	%	%	%
%	Aggressive Allocation Fund	Independence Capital Management, Inc.	\$	%	%	%
%	Moderately Aggressive Allocation Fund	Independence Capital Management, Inc.	\$	%	%	%
%	Moderate Allocation Fund	Independence Capital Management, Inc.	\$	%	%	%
%	Moderately Conservative Allocation Fund	Independence Capital Management, Inc.	\$	%	%	%
%	Conservative Allocation Fund	Independence Capital Management, Inc.	\$	%	%	%
%	Mid Core Value Fund	Lord, Abnett & Co.	\$	%	%	%
%	Mid Cap Value Fund	Neuberger Berman Management	\$	%	%	%
%	Small Cap Growth	Oppenheimer Capital	\$	%	%	%
%	Large Cap Value Fund	Oppenheimer Funds	\$	%	%	%
%	Index 500	State Street Global Advisors	\$	%	%	%
%	Small Cap Index Fund	State Street Global Advisors	\$	%	%	%
%	Developed International Index Fund	State Street Global Advisors	\$	%	%	%
%	Flexibly Managed Fund	T. Rowe Price Associates	\$	%	%	%
%	Large Growth Stock Fund	T. Rowe Price Associates	\$	%	%	%
%	High Yield Bond Fund	T. Rowe Price Associates	\$	%	%	%
%	Large Cap Growth	Turner Investment Partners	\$	%	%	%
%	Mid Cap Growth Fund	Turner Investment Partners	\$	%	%	%
%	Emerging Markets Equity Fund	Van Kampen Investments	\$	%	%	%
%	International Equity Fund	Vontobel Asset Management	\$	%	%	%
%	Large Core Growth Fund	Wells Capital Management	\$	%	%	%
%	SMID Cap Growth Fund	Wells Capital Management	\$	%	%	%
%	Traditional Fixed Account	The Penn Mutual Life Insurance Company	\$	%	N/A	%
%	12-Month DCA Account	The Penn Mutual Life Insurance Company	N/A	N/A	N/A	N/A
%	Indexed Fixed Account (Available ONLY for VU08)	The Penn Mutual Life Insurance Company	\$	%	N/A	%
100%	TOTALS		\$	100%	100%	100%

**F. DCA, AAR, and Indexed Fixed Account Disclosures**

Any residual funds in the Money Market (less than the minimum) will automatically transfer to the allocation on record.

Any residual funds in the 12-month DCA Account will automatically transfer to the allocation on record at the end of each 12-month period.

The first DCA transfer will take place on the 15th of the month after the Free Look period ends.

DCA transfers will continue monthly:

- anytime the balance in the Money Market fund is above the minimum

DCA transfers will not take place:

- if the policy enters a grace period

DCA transfers will continue until:

- the company receives a written or telephone request from the owner to terminate DCA or
- five years from the start date of the first DCA transfer from the Money Market fund or the following date selected \_\_\_\_\_

AAR will continue quarterly until:

- The company receives a written or telephone request from the owner to terminate AAR.

If electing the ENLG Rider, on each segment anniversary date, assets in all funds will automatically be rebalanced to maintain the required minimum of 20% in the Indexed Fixed Account.

DCA to the Indexed Fixed Account will be held in the Holding Fixed Account until the next segment anniversary date.

**G. Disclosure**

(a) Did the owner receive the prospectus?

Yes  No

(b) Does the owner understand that:

• THE DEATH BENEFIT MAY INCREASE OR DECREASE DEPENDING ON INVESTMENT EXPERIENCE?

Yes  No

• THE CASH VALUE MAY INCREASE OR DECREASE DEPENDING ON THE INVESTMENT EXPERIENCE?

Yes  No

• THE POLICY WILL LAPSE IF THE CASH SURRENDER VALUE BECOMES INSUFFICIENT TO COVER POLICY CHARGES AND THE TERMS OF THE NO-LAPSE PROVISION OF THIS POLICY (IF APPLICABLE) HAVE NOT BEEN MET.

Yes  No

(c) Does the owner believe that this policy will meet insurance needs and financial objectives?

Yes  No

**H. Signatures**

I, the owner, represent that the statements and answers in this supplemental application are complete and true to the best of my knowledge.

\_\_\_\_\_  
Signature of Owner

\_\_\_\_\_  
Date

at \_\_\_\_\_

City

State

\_\_\_\_\_  
Signature of Registered Representative

*SERFF Tracking Number:* PNMU-125632661      *State:* Arkansas  
*Filing Company:* Penn Mutual Life Insurance Company      *State Tracking Number:* 39084  
*Company Tracking Number:* VU-08(S), ETC.  
*TOI:* L06I Individual Life - Variable      *Sub-TOI:* L06I.002 Single Life - Flexible Premium  
*Product Name:* Flexible Premium Adjustable Indexed Variable Life Insurance Policy  
*Project Name/Number:* VU-08(S)(AR), etc. /VU-08(S)(AR), etc.

## **Rate Information**

Rate data does NOT apply to filing.

SERFF Tracking Number: PNMU-125632661 State: Arkansas  
 Filing Company: Penn Mutual Life Insurance Company State Tracking Number: 39084  
 Company Tracking Number: VU-08(S), ETC.  
 TOI: L061 Individual Life - Variable Sub-TOI: L061.002 Single Life - Flexible Premium  
 Product Name: Flexible Premium Adjustable Indexed Variable Life Insurance Policy  
 Project Name/Number: VU-08(S)(AR), etc. /VU-08(S)(AR), etc.

## Supporting Document Schedules

**Review Status:** 05/02/2008

**Satisfied -Name:** Certification/Notice

**Comments:**

**Attachment:**  
 certofCompliance (AR).pdf

**Review Status:** 05/02/2008

**Satisfied -Name:** Application

**Comments:**

**Attachment:**  
 John Doe Application.pdf

**Review Status:** 05/02/2008

**Satisfied -Name:** Life & Annuity - Acturial Memo

**Comments:**

**Attachments:**  
 Act Memo for VU-08 (S).pdf  
 Act Memo for VU-08 (U).pdf  
 Act Memo for ENLG-08 (S).pdf  
 Act Memo for ENLG-08(U).pdf  
 Act Memo for SLTI-08 (S).pdf  
 Act Memo for SLTI-08 (U).pdf  
 Act Memo for CVER-08 (sex distinct).pdf  
 Act Memo for CVER-08 (Unisex).pdf

**Review Status:** 05/20/2008

**Satisfied -Name:** Flesch Test Certification

**Comments:**

**Attachment:**  
 Flesch Certification (AR).pdf

**Review Status:** 05/20/2008

**Satisfied -Name:** Cover Letter

*SERFF Tracking Number:* PNMU-125632661                      *State:* Arkansas  
*Filing Company:* Penn Mutual Life Insurance Company                      *State Tracking Number:* 39084  
*Company Tracking Number:* VU-08(S), ETC.  
*TOI:* L06I Individual Life - Variable                      *Sub-TOI:* L06I.002 Single Life - Flexible Premium  
*Product Name:* Flexible Premium Adjustable Indexed Variable Life Insurance Policy  
*Project Name/Number:* VU-08(S)(AR), etc. /VU-08(S)(AR), etc.

**Comments:**

**Attachment:**

Cover Letter (AR).pdf

SERFF Tracking Number: PNMU-125632661 State: Arkansas  
Filing Company: Penn Mutual Life Insurance Company State Tracking Number: 39084  
Company Tracking Number: VU-08(S), ETC.  
TOI: L061 Individual Life - Variable Sub-TOI: L061.002 Single Life - Flexible Premium  
Product Name: Flexible Premium Adjustable Indexed Variable Life Insurance Policy  
Project Name/Number: VU-08(S)(AR), etc. /VU-08(S)(AR), etc.

**Review Status:**

**Satisfied -Name:** NAIC Transmittal 05/20/2008

**Comments:**

**Attachment:**

NAIC Transmittal (AR).pdf

**Review Status:**

**Satisfied -Name:** Statement of Variability 05/20/2008

**Comments:**

**Attachments:**

Stmnt of Variability - policies.pdf

Stmnt of Variability - riders.pdf

Stmnt of Variability - supp application.pdf

**Review Status:**

**Satisfied -Name:** Fee Form 05/20/2008

**Comments:**

**Attachment:**

Fee form (AR).pdf

CERTIFICATE OF COMPLIANCE

Arkansas Insurance Department Rule and  
Regulation 34 - "Universal Life Insurance"

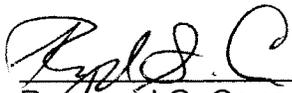
Form Number (s) to which this certification applies:

Form No. VU-08(S)(AR), VU-08(U)(AR), ENLG-08(S), ENLG-08(U), SLTI-08(S), SLTI-08(U), CVER-08,  
PM0304-R2.

I certify that I have reviewed the form(s) listed above, submitted with this Certificate, and to the best of my knowledge and ability, find that said form(s) complies with Section 6 and 7 (Valuation and Nonforfeiture) of Regulation No. 34.

I further certify that when calculating the Reserves under the minimum reserves method in Regulation No. 34, in no case will the Reserves be less than the Actual Cash Surrender Values provided for under the policy contract.

THE PENN MUTUAL LIFE INSURANCE COMPANY



Raymond G. Caucci, FSA, MAAA  
Vice President and Life Product Actuary

May 1, 2008

**CHECK BOX OF APPLICABLE COMPANY**

- The Penn Mutual Life Insurance Company  
Philadelphia, PA 19172
- The Penn Insurance and Annuity Company  
Philadelphia, PA 19172

**Application for Life Insurance  
PART 1**

<p><b>A. PROPOSED INSURED 1</b></p> <p><i>Complete for</i></p> <p><input type="checkbox"/> Survivorship <input type="checkbox"/> Additional Insured Rider</p> <p><i>For Children's Rider, complete form PM5023</i></p> <p><i>If info for PI 1 is same as PI 2 indicate same.</i></p>	1. Name of First Insured (First, Middle, Last) <u>William Joseph Penn</u>		2. Sex <input checked="" type="checkbox"/> Male <input type="checkbox"/> Female		3. Date of Birth Month Day Year <u>01 01 1971</u>			
	4. Social Security No. <u>123-45-6789</u>		5. Birth Place <u>Philadelphia</u>		6. Citizen of (Country) <u>USA</u>		7. For Non-US citizen Visa # and Type (attach copy)	
	8. Residence: Street <u>123 Broad Street</u> City <u>Philadelphia</u> State <u>PA</u> Zip <u>19456</u>							
	9. Years at this Address <u>10</u>		10. Marital Status <input checked="" type="checkbox"/> M <input type="checkbox"/> D <input type="checkbox"/> S <input type="checkbox"/> W		11. Home Phone No. <u>(215) 956-0000</u>		12. Drivers License State and No. <u>PA 111-22-3333</u>	
	13. Occupation (include duties) <u>Sales Clerk</u>							
	14. Employer <u>ABC Packaging Co.</u>				15. How Long <u>8 yrs.</u>		16. Area Code and Business Phone No. <u>(215) 659-1111</u>	
	17. Street <u>100 Cotton Street</u> City <u>Philadelphia</u> State <u>PA</u> Zip <u>19457</u>							
	1. Name of Second Insured (First, Middle, Last)		2. Sex		3. Date of Birth			
	4. Social Security No.		5. Birth Place		6. Citizen of (Country)		7. For Non-US citizen Visa # and Type (attach copy)	
	8. Residence: Street _____ City _____ State _____ Zip _____							
	9. Years at this Address		10. Marital Status		11. Home Phone No.		12. Drivers License State and No.	
	13. Relationship to First Insured				14. Occupation (include duties)			
	15. Employer				16. How Long		17. Area Code and Business Phone No.	
	18. Street _____ City _____ State _____ Zip _____							
	<b>C. PLAN OF INSURANCE</b>		1. Plan Name <u>Variable/Indexed Universal Life</u>		2. Term Rider Name			
	DEATH BENEFIT		3. Face Amt. (Base Only) \$ <u>100,000.00</u>		4. Face Amt. (Term Portion) \$ _____		5. Total Initial Coverage \$ _____	
	DEATH BENEFIT OPTION (UL and VUL only)		6. Check One		<input checked="" type="checkbox"/> Level Death Benefit		<input type="checkbox"/> Increasing Death Benefit	
PREMIUM TEST (UL and VUL only)		7. Check One		<input checked="" type="checkbox"/> Guideline Premium		<input type="checkbox"/> Cash Value		
<b>D. ADDITIONAL BENEFITS AND RIDERS</b>								
1. Universal Life Plans				2. Traditional / Term Plans				
<input type="checkbox"/> Disability Waiver of Monthly Deductions <input type="checkbox"/> Disability Completion Benefit and Disability Waiver of Monthly Deductions <input type="checkbox"/> Accidental Death Benefit \$ _____ <input type="checkbox"/> Guaranteed Increase Option \$ _____ <input type="checkbox"/> Guaranteed Continuation of Policy <input checked="" type="checkbox"/> Extended No Lapse Guarantee <input type="checkbox"/> Option to Extend Maturity Rider <input checked="" type="checkbox"/> Other <u>CVEL-08 SLTI-08</u>				<input type="checkbox"/> Guaranteed Premium Benefit <input type="checkbox"/> Option to Purchase Add'l Ins. \$ _____ <input type="checkbox"/> Accidental Death Benefit \$ _____ <input type="checkbox"/> Term Waiver of Premium (choose below) <input type="checkbox"/> Option A <input type="checkbox"/> Option B <input type="checkbox"/> Whole Life Waiver of Premium <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____ Automatic Premium Loan <input type="checkbox"/> Yes <input type="checkbox"/> No				

<b>E. DIVIDEND OPTIONS</b>	<p style="text-align: center;">Universal Life</p> <input checked="" type="checkbox"/> Cash <input type="checkbox"/> Credited to Cash Value	<p style="text-align: center;">Traditional Plans</p> <input type="checkbox"/> Cash <input type="checkbox"/> Accumulate at Interest <input type="checkbox"/> Paid-up Additions <input type="checkbox"/> Other _____ <input type="checkbox"/> Premium Reduction (Not available with Penn Check or Salary Allotment)
<b>F. PREMIUM</b>	<p>1. Was Money collected with the Application?  <input checked="" type="checkbox"/> Yes    <input type="checkbox"/> No    Amount \$ _____    Number of Months (UL only) _____          (if "Yes" submit Temporary Insurance Agreement)</p> <p>2. Billing Method  <input checked="" type="checkbox"/> Regular  <input type="checkbox"/> Penn Check    add to existing account no. _____  <input type="checkbox"/> Salary Allotment    add to existing account no. _____</p> <p>Billing Mode    <input type="checkbox"/> Single    <input checked="" type="checkbox"/> Annual    <input type="checkbox"/> Semi-annual    <input type="checkbox"/> Quarterly    <input type="checkbox"/> Monthly (Penn Check and Salary Allotment only)</p> <p>Billing Premium <u>\$1831.63</u></p> <p>Initial Additional Premium Deposit _____    <input type="checkbox"/> 1035X    <input type="checkbox"/> Other</p> <p>3. ADPUA    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No    If Yes,    Lump Sum _____    Scheduled Amt. _____</p> <p>4. Will any part of the premium be paid from funds that are borrowed or otherwise financed?    <input type="checkbox"/> Yes    <input checked="" type="checkbox"/> No          If "Yes" details _____          _____          _____</p>	
<b>G. PENN CHECK ACCOUNT INFORMATION</b>	<p>1. Bank Name _____                      2. Bank Routing and Account No. _____</p> <p>3. Account Type  <input type="checkbox"/> Checking    <input type="checkbox"/> Savings    <input type="checkbox"/> Pershing    <input type="checkbox"/> Other</p> <p>4. Draw Date:  <input type="checkbox"/> 1st    <input type="checkbox"/> 8th    <input type="checkbox"/> 15th    <input type="checkbox"/> 22nd</p> <p>5. Bank Address (Street, City, County, State, Zip) _____</p> <p>6. Name (First, Middle, Last) of First Depositor _____                      7. Name (First, Middle, Last) of Second Depositor _____</p>	
<b>H. OWNER</b>	<p>1-9: Complete <b>only</b> if Owner is other than Proposed Insured 1. If Trust, give name of Trust, Trustee and date of Trust</p> <p>10-12: Complete requested information.</p> <p><b>Note:</b> If Owner is a Trust or Insured's business <b>omit</b> questions 4, 9, 10, 11, 12.</p> <p>1. Name(s) (First, Middle, Last) of Owner(s) or Complete Name of Entity _____                      2. Relationship to Proposed Insured _____</p> <p>3. Address (Street, City, County, State, Zip) _____</p> <p>4. Date of Birth _____                      5. Soc. Sec. # / Tax ID _____                      6. Telephone # _____                      7. Name of Trustee _____</p> <p>8. Date of Trust _____                      9. Occupation _____</p> <p>10. Household Net Income _____                      11. Tax Bracket _____                      12. Liquid Net Worth (Exclude Primary Residence) _____ %</p>	

**I. SUITABILITY**

*This section must be completed for the Owner and is to be completed for all business as stated below.*

**For HTK**

**Producers:**

*Complete this section for all Traditional Life Plans. For Variable Life Plans, complete the HTK Account Agreement in lieu of this section.*

**For Non-HTK**

**Producers:**

*This section must be completed for both Traditional Plans as well as Variable Life Plans.*

**1. Prior Investment Experience (check one only)**

- None - No investment experience. Previous holdings were generally limited to bank savings accounts and CD's
- Average - Invests in securities on an infrequent basis. Has 1-2 years experience investing in securities. Has a general knowledge of the risks and rewards of investing in securities.
- Above Average - Invests in securities on a frequent basis. Has a number of years experience investing in securities. Has a general knowledge of the risks and rewards of investing in securities.
- Active - Invests in securities on a frequent basis. Has a number of years experience investing in securities. Has extensive knowledge of the risks and rewards of investing in securities.

**2. Primary Source of Funds (for this transaction, check one only)**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Current Income          | <input type="checkbox"/> Rollover from pension/retirement fund             |
| <input type="checkbox"/> Gift/Inheritance                   | <input type="checkbox"/> Proceeds from sale of stocks or bonds             |
| <input type="checkbox"/> Proceeds from sale of mutual funds | <input type="checkbox"/> Policy Values from existing life/annuity contract |
| <input type="checkbox"/> Savings                            | <input type="checkbox"/> Surrender of life insurance/annuity contract      |
| <input type="checkbox"/> Other _____                        | <input type="checkbox"/> Personal Loan                                     |

**3. Financial Needs/Benefits (check all that apply)**

- |   |  |
|---|--|
| <input type="checkbox"/> Death Benefit/Enhanced Death Benefit | <input type="checkbox"/> Savings, Accumulation                     |
| <input type="checkbox"/> Asset Rebalancing                    | <input checked="" type="checkbox"/> Diversification of Investments |
| <input type="checkbox"/> Retirement Funding                   | <input type="checkbox"/> Education/College Funding                 |
| <input type="checkbox"/> Estate Planning                      | <input type="checkbox"/> Business Purposes                         |
| <input type="checkbox"/> Tax Deferral/Tax Advantage           | <input type="checkbox"/> Annuitization Options                     |
| <input type="checkbox"/> Debt Protection                      | <input type="checkbox"/> Current Income                            |
| <input type="checkbox"/> Charitable Giving                    | <input type="checkbox"/> Other _____                               |

**4. Risk Profile (Variable Life only, check one only)**

- Conservative-Accepts a low return potential. Maintain a low degree of risk
- Moderate-Accepts fair degree of risk including lack of liquidity, in order to pursue the potential for a modest return
- Aggressive-Accepts high degree of risk, including a limited loss of principal, in order to pursue the potential for a higher return
- Very Aggressive-Accepts maximum degree of risk, including total loss of principal, in order to pursue the maximum possible return

**5. Primary Investment Objective (Variable Life only, check one only)**

- Safety of Principal –Preservation of investment Principal
- Income-Regular, current income stream. May need investment principal within next five years.
- Growth and Income-Moderate growth. Current Income Stream. May need investment principal within next five years
- Growth-Grow assets moderately or slightly above rate of inflation. Will not need investment principal for at least ten years
- Aggressive Growth-Desire to grow assets substantially. Will not need investment principal for at least ten years. Reinvestment of income
- Speculation-Grow assets substantially In short time frame. Higher than average possibility of total loss of principal. Will not need investment principal for at least ten years

<b>J. PAYOR</b> <i>Complete only if Payor is other than the Proposed Insured or Owner or if a different address is requested. If Payor is a trust or Insured's business, omit questions 5, 6 and 7.</i>	1. Name(s) (First, Middle, Last) of Payor(s)		2. Relationship to Proposed Insured	
	3. Address: (Street, City, State, Zip)			
	4. Mailing Address (if different from above): (Street, City, State, Zip)			
	5. Occupation		6. Annual earned income from occupation	
	7. Other Income & Source		8. Soc. Sec # or Tax ID # - -	
<b>K. PRIMARY BENEFICIARY</b> <i>Note: If no beneficiary survives the insured, proceeds revert to the Estate of the Insured.</i>	1. Name of Primary Beneficiary(ies). (If Trust, give Name, Date of Trust and Name of Trustee) Sarah Elizabeth Penn			
	2. Relationship to Proposed Insured Spouse		3. Soc. Sec # or Tax ID # 987-65-4321	
<b>L. CONTINGENT BENEFICIARY</b>	1. Name of Contingent Beneficiary		3. Soc. Sec # or Tax ID # - -	
	2. Relationship to Proposed Insured		3. Soc. Sec # or Tax ID # - -	
<b>M. RIDER BENEFICIARY</b> <i>If no beneficiary is named or survives insured, proceeds revert to the owner.</i>	1. Name of Rider Beneficiary		3. Soc. Sec # or Tax ID # - -	
	2. Relationship to Proposed Insured		3. Soc. Sec # or Tax ID # - -	
<b>N. LIFE INSURANCE IN FORCE OR PENDING</b>	1. Have you ever applied for life, health or disability insurance and been declined, postponed or charged an increased premium?		Proposed Insured 1	Proposed Insured 2
			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
	2. Do you have any applications pending with any other life insurance company now?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
	3. Have you been involved in any discussion about the possible sale or assignment of this policy to a Life Settlement, Viatical or other secondary market provider?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
	4. Have you in the past 2 years sold a policy to a Life Settlement, Viatical or other secondary market provider?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
If answered "Yes" to above questions, please give details for each Proposed Insured. Proposed Insured 1 _____ Proposed Insured 2 _____				

**N. LIFE INSURANCE IN FORCE OR PENDING (continued)**

5. List all Insurance In Force on any Proposed Insured. **If none, check this box.**

Insured's Name & Company	Face Amount	Policy Number	Issue Year	Is this Policy being Replaced or Changed?	Check if 1035 Exchange
				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No	
				<input type="checkbox"/> Yes <input type="checkbox"/> No	

**O. REPLACEMENT AND 1035 EXCHANGE INFORMATION**

1. a) Are you considering stopping premium payments, surrendering, replacing, forfeiting, assigning to the insurer or reducing your benefits under an existing policy or contract?  YES  NO
- b) Are you considering using or borrowing funds from your existing policies or contracts to pay premiums due on the new or applied for policy?  YES  NO

If answered "Yes" to either question, please complete and sign all required replacement forms.

2. If 1035 Exchange, will loan be carried over?  YES  NO If Yes, amount \$ \_\_\_\_\_

Details \_\_\_\_\_

**P. TOBACCO AND/OR NICOTINE USE**

1. Has any person proposed for coverage **ever** used tobacco or nicotine products in any form?  Yes  No
2. If "Yes": **PI1** Type \_\_\_\_\_ Frequency \_\_\_\_\_ Date Last Used \_\_\_\_\_ **PI2** Type \_\_\_\_\_ Frequency \_\_\_\_\_ Date Last Used \_\_\_\_\_

**Q. PERSONAL INFORMATION**

Complete for all Proposed Insureds

Provide details to any yes answers in the "Details" section

1. Annual earned income from occupation (After deduction of business expenses)
2. Other income (State source in "Details")
3. Net Worth
4. Has any Proposed Insured declared bankruptcy? (If "Yes" has it been discharged and date of discharge)

PI1	PI2
\$ 50,000	\$
\$ 75,000	\$
\$ 500,000	\$

Declared Bankruptcy YES  NO  Discharged YES  NO  Date of Discharge \_\_\_\_\_

Details \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Q. PERSONAL INFORMATION (Continued)**

Complete for all Proposed Insureds.

Provide details to any yes answers in "Details" Section

	PI 1		PI 2	
	YES	NO	YES	NO
5. Does any Proposed Insured intend to reside or travel outside the United States within the next 24 months? (If "Yes" complete foreign travel questionnaire)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Is any Proposed Insured a member, or intending to become a member, of any armed forces or military reserve?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Within the past three years, has any Proposed Insured:				
(a) Flown or taken instruction as a pilot or crew member or intend to do so? (If "Yes", complete Aviation Supplement)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Engaged in any kind of racing, scuba or sky diving, hang gliding, rock climbing, or other hazardous avocation or intend to do so? (If "Yes", complete appropriate questionnaire)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Been convicted of a moving violation or had their driver's license suspended or revoked?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Has any Proposed Insured ever:				
(a) Used amphetamines, barbiturates, hallucinogens, marijuana, cocaine, narcotics, or other controlled substances, except as prescribed by a physician?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Been counseled or treated for use of alcohol or drugs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Within the past ten years, has any Proposed Insured been convicted of a felony?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is there any family history of cancer, diabetes, heart disease, Huntington Chorea, neuromuscular disorder before the age of 60?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Details \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**R. PERSONAL PHYSICIAN**

**Name and address of Personal Physician(s): GIVE DATE AND REASON LAST CONSULTED.**  
 (If no personal physician, list physician last consulted, date and reason last consulted)

1. Proposed Insured 1: Physician Name <i>Michael Jones</i>		2. Phone No. <i>(215) 111-2222</i>	3. Date Last Seen <i>06/15/2005</i>
4. Address: (Street, City, State, Zip) <i>99 Bird Lane Willow Grove, PA 19000</i>			
5. Reason Last Seen: <i>Physical - Routine</i>			
6. Proposed Insured 2: Physician Name		7. Phone No. ( )	8. Date Last Seen
9. Address: (Street, City, State, Zip)			
10. Reason Last Seen:			

**S. MEDICAL HISTORY**

Complete for all Proposed Insureds.

Provide details to any yes answers in "Details" Section

	Proposed Insured 1		Proposed Insured 2	
1. Height (in shoes)	5	ft. 11 in.		ft. in.
2. Weight (clothed)	180	lbs.		lbs.
3. Weight change in last year?	Yes _____	No <u>X</u>	Yes _____	No _____
If "Yes":	No. of lbs.	Reason:	No. of lbs.	Reason:
4. Birth weight if under 6 mo. old		lbs.		lbs.

	PI1		PI2	
	YES	NO	YES	NO
5. Are you presently taking medication either prescribed or over the counter? If yes, provide full details including name, dosage, and prescribing physician. (if applicable)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Within the past five years, has any Proposed Insured:				
(a) Consulted a physician for any reason, had an electrocardiogram or other diagnostic tests?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Been in a clinic, hospital or medical facility for observation or treatment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Been advised to have any diagnostic test, hospitalization or surgery which was not done?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Has any Proposed Insured ever been treated for, or been diagnosed with:				
(a) Chest pain, high blood pressure, stroke, heart murmur, or other circulatory disorder?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Cancer, cyst, growth, tumor?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Anxiety, depression, dizziness, convulsions, epilepsy or any mental or nervous disorder?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Diabetes, thyroid or other glandular disease?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Colitis, or any liver or gastrointestinal disorder?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Breast, prostate or reproductive disorder?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Kidney, bladder or other genitourinary disorder?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Asthma, emphysema, chronic obstructive pulmonary disease (C.O.P.D.) or other respiratory disorder?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) An immune deficiency disorder, Acquired Immune Deficiency Syndrome (AIDS), Aids Related Complex (ARC), or tested positive for the HIV virus?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**T. DETAILS FOR MEDICAL HISTORY QUESTIONS**

Question No. and Letter	Person	Date	Details (include full names and address of physicians, hospitals, etc.)
6a	William	6/15/05	Routine Physical Dr. Michael Jones 99 Bird Lane, Willow Grove 19000 PA

<b>U. FAMILY HISTORY</b>  <i>* Complete amount of Insurance only if Primary Insured is under age 17.</i>	1. Proposed Insured 1	Age if Living	State of Health	Amount of Insurance *	Age at Death	Cause of Death
	Father					
	Mother					
	Brothers and Sisters					
	No. Living _____					
	No. Dead _____					
	1. Proposed Insured 2	Age if Living	State of Health	Amount of Insurance *	Age at Death	Cause of Death
	Father					
	Mother					
	Brothers and Sisters					
No. Living _____						
No. Dead _____						
<b>CERTIFICATION OF OWNER'S TAXPAYER ID #</b>	Under penalty of perjury, I the owner certify that: <ol style="list-style-type: none"> <li>The number shown in this application as my social security number or taxpayer identification number is correct; and</li> <li>I am not subject to backup withholding because I have not been notified by the IRS that I am subject to backup withholding as a failure to report all interest or dividends, or the IRS has notified me that I am no longer subject to backup withholding, or I am exempt from backup withholding.</li> <li>I am a U.S. person (including a U.S. resident alien)</li> </ol> <input type="checkbox"/> Check this box if you are subject to backup withholding under section 3406(a)(1)(c) of the Internal Revenue Code.					
<b>SPECIAL INSTRUCTIONS</b>						
<b>NON-CONFORMING ILLUSTRATION ACKNOWLEDGEMENT (NON-VARIABLE ONLY)</b>	I acknowledge that the life insurance policy illustration shown to me differs from the policy application I have completed. I understand that if a policy is issued, an illustration conforming to the policy, as issued, will be provided to me for my signature no later than at the time the policy is delivered. <input type="checkbox"/> check if applicable					
<b>AUTHORIZATION FOR FUND TRANSFER (VARIABLE ONLY)</b>	The agent/registered representative may request transfers of account values pursuant to my instruction unless I check this box. <input type="checkbox"/> check if applicable					
<b>PENN CHECK AUTHORIZATION</b>	<p>By completing Section G of this application, I authorize monthly payments from my checking account, or from my Pershing Resource Checking or Pro Cash Plus account to the Penn Mutual Life Insurance Company, its subsidiaries, affiliates, third party administrators and reinsurers (herein Company) for premiums on this policy, beginning with the next periodic payment that comes due under the contract, until such time as a payment cannot be made due to insufficient funds or the Company gives the other parties at least 30 days' advance written notice of the termination of such payment plan. I am able to cancel the payment plan at any time by either calling the Company at 1-800-523-0650 or in writing. Monthly payments will be drawn from my account on or about the date specified in this application.</p> <p>I further agree that if any such check be dishonored, whether with or without cause and whether intentionally or inadvertently, the Company shall be under no liability whatsoever even though such dishonor results in the forfeiture of insurance.</p>					

**REPRESENTATIONS**

I(we), the Proposed Insured(s), or Applicant(s) if Proposed Insured(s) is(are) age 17 or less, represent that the statements and answers in this part I of the application are written as made by me(us) and are complete and true to the best of my (our) knowledge and belief. I(we) the Proposed Insured(s), or the Applicant(s) if other than the Proposed Insured(s) agree that they will be a part of the contract of insurance if issued; that I(we) will be bound by such statements and answers, and that the Company, believing them to be true, will rely and act upon them. I(we) also understand and agree that:

1. **Subject to the provisions of the temporary insurance agreement attached to this application, no insurance will be in force until the first premium is paid in full and the policy is delivered while the health, habits, occupation and other facts relating to the Proposed Insured(s) and to the Payor, if a Payor Benefit is issued, are the same as described in this Part I of the application, any Part II required by the Company and any amendments or supplements to them.**
2. Notice to or knowledge of an agent or a medical examiner is not notice to or knowledge of the Company, and no agent or medical examiner is authorized to accept risks, to pass upon acceptability for insurance or to modify any contract of insurance.
3. Acceptance of any policy issued based on this application will be a ratification of any amendments or corrections noted by the Company in the space headed "Home Office Amendments and Corrections", except that if required by state statute or regulation, any change in amount, age, plan of insurance, additional benefits or classification must be agreed to in writing.

**FRAUD WARNING**

*Applies to all states except those specifically listed.*

Any person who knowingly and with intent to defraud any insurance company or other person files an application for insurance or a statement of claim containing any materially false information or conceals for the purpose of misleading information concerning any fact material thereto commits a fraudulent insurance act which is a crime and subjects such person to criminal and civil penalties.

Colorado: It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, and denial of insurance and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policyholder or claimant for the purpose of defrauding or attempting to defraud the policyholder or claimant with regard to a settlement or award payable from insurance proceeds shall be reported to the Colorado division of insurance within the department of regulatory agencies.

District of Columbia: WARNING It is a crime to provide false or misleading information to an insurer for the purpose of defrauding the insurer or any other person. Penalties include imprisonment and/or fines. In addition, an insurer may deny insurance benefits if false information materially related to a claim was provided by the applicant.

Florida: Any person who knowingly and with intent to injure, defraud or deceive any insurer files a statement of claim or application containing any false, incomplete, or misleading information is guilty of a felony in the third degree.

Kentucky: Any person who knowingly and with intent to defraud any insurance company or other person files an application for insurance containing any materially false information or conceals for the purpose of misleading information concerning any fact material thereto commits a fraudulent insurance act which is a crime.

Louisiana: Any person who knowingly presents a false or fraudulent claim for payment of a loss or benefit or knowingly presents false information in an application for insurance is guilty of a crime and may be subject to fines and confinement in prison.

Maine & Tennessee: It is a crime to knowingly provide false, incomplete or misleading information to an insurance company for the purposes of defrauding the company. Penalties may include imprisonment, fines or a denial of insurance benefits.

New Jersey: Any person who includes false or misleading information on an application for an insurance policy is subject to criminal and civil penalties.

New Mexico: Any person who knowingly presents a false or fraudulent claim for payment of a loss or benefit or knowingly presents false information in an application for insurance is guilty of a crime and may be subject to civil fines and criminal penalties.

Ohio: Any person who, with the intent to defraud or knowing that he is facilitating a fraud against an insurer, submits an application or files a claim containing a false or deceptive statement is guilty of insurance fraud.

Oklahoma: Any person who knowingly, and with intent to injure, defraud or deceive any insurer, makes any claim for the proceeds for an insurance policy containing any false, incomplete or misleading information is guilty of a felony.

Oregon: Any person who, knowingly and with intent to defraud any insurance company or other person, files an application for insurance or a statement of claim containing any materially false information or conceals for the purpose of misleading information concerning any fact material thereto may be guilty of a fraudulent insurance act which is a crime and may subject such person to criminal and civil penalties.

Pennsylvania: Any person who knowingly and with intent to defraud any insurance company or other person files an application for insurance or a statement of claim containing any materially false information or conceals for the purpose of misleading information concerning any fact material thereto commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties.

Virginia: Any person who, with intent to defraud or knowing that he is facilitating a fraud against an insurer, submit an application or files a claim containing a false or deceptive statement may have violated state law.

Vermont: Any person who, with intent to defraud or knowing that he is facilitating a fraud against an insurer, submits an application or files a claim containing a false or deceptive statement may be proven guilty of fraud.

Washington: Any person who knowingly presents a false or fraudulent claim for payment of a loss or knowingly makes a false statement in an application for insurance may be guilty of a criminal offense under state law.

**AUTHORIZATION**

Write in names of all Proposed Insureds.

I(we), William Joseph Penn  
hereby authorize: (a) any physician, health care provider, health plan, medical professional, hospital, clinic, laboratory, pharmacy or other medical or health care facility that has provided payment, treatment or services to me(us) or on my(our) behalf; (b) any insurance company; and, (c) the Medical Information Bureau, Inc. (MIB), to disclose my(our) entire medical record and any other protected health information concerning me(us) to the Underwriting Department of The Penn Mutual Life Insurance Company, its subsidiaries, affiliates, third party administrators and reinsurers (herein Company).

I(we) understand that such information may include records relating to my(our) physical or mental condition such as diagnostic tests, physical examination notes, and treatment histories, which may include information regarding the diagnosis and treatment of human immunodeficiency virus (HIV) infection, sexually transmitted diseases, and mental illness, and the use of alcohol, drugs and tobacco, but shall not include psychotherapy notes.

I(we) acknowledge that any agreements I(we) have made to restrict my(our) protected health information do not apply to the Authorization, and I(we) instruct any physician, health care professional, hospital, clinic, medical facility or other health care provider to release and disclose my(our) entire medical record without restriction.

I(we) understand that this information will be used by the Company to determine eligibility for insurance.

I(we) hereby authorize the Company to disclose any information it obtains about me(us) to the Medical Information Bureau, Inc., or any other life insurance company with which I(we) do business. I understand that the Company will not disclose information it obtains about me(us) except as authorized by this Authorization, as may be required or permitted by law, or as I(we) may further authorize. I(we) understand that if information is redisclosed as permitted by this Authorization, it may no longer be protected by applicable federal privacy law.

I(we) understand that: (a) this Authorization shall be valid for 24 months from the date I(we) sign it; (b) I(we) may revoke it at any time by providing written notice to the Underwriting Department of the Company subject to the rights of any person who acted in reliance on it prior to receiving notice of its revocation; and (c) my(our) authorized representative and I(we) are entitled to receive a copy of the Authorization upon request and (d) a copy of this Authorization shall be as valid as the original.

I(we) acknowledge receiving an MIB, Inc. Notice, a Fair Credit Reporting Act Notice and a Notice of Information Practices and authorize Penn Mutual to obtain an investigative or other consumer report as described in the Fair Credit Reporting Act Notice.

**SIGNATURES**

Signed and Dated by the Applicant in:

Philadelphia  
City

PA  
State

01/13/2006  
Month/Day/Year

SIGNATURE OF INSURED - OR PARENT IF INSURED IS UNDER THE AGE OF 18

William Joseph Penn  
Proposed Insured 1

Proposed Insured 2

SIGNATURE OF OWNER AND OR APPLICANT - IF OTHER THAN THE PROPOSED INSURED

Owner\*

Applicant

\*If a Corporation, the signature and title of any authorized officer other than the Proposed Insured(s) is required and the full name of the corporation must be shown. If a Trust, the signature of the Trustee.

SIGNATURE OF PAYOR

Payor

**AGENTS  
CERTIFICATION**

*Be sure to check  
appropriate block.*

*Each agent present at  
solicitation must sign.*

I certify to the best of my knowledge the answers to the questions in all parts of this application are true and correct. I further certify to the best of my knowledge this policy  will  will not replace or change any existing life insurance or annuity policy now in force.

X Samuel J. Johnson  
Agent

X \_\_\_\_\_  
Agent

**HOME OFFICE  
AMENDMENTS  
AND  
CORRECTIONS**

*Not applicable in  
Pennsylvania.*

**PENN MUTUAL LIFE INSURANCE COMPANY**

**ACTUARIAL BASIS, CASH VALUE FORMULA  
DEMONSTRATION OF COMPLIANCE WITH STANDARD NONFORFEITURE LAW  
DEMONSTRATION OF COMPLIANCE WITH STANDARD VALUATION LAW**

**FLEXIBLE PREMIUM ADJUSTABLE VARIABLE LIFE, FORM VU-08(S)**

**I. DESCRIPTION OF POLICY CHARACTERISTICS**

This policy provides adjustable life insurance coverage while the policy remains in force.

**A. Death Benefits**

Insurance on the life of the insured is integrated with the policy value under one of two options.

Under option one, the total death benefit is the Specified Amount on the date of death.

Under option two, the death benefit is defined as the Specified Amount on the date of death plus the policy value on the date of death.

Under either option, should the amount of a defined percentage of the policy value be greater than the death benefit on the date of death, the death benefit will be adjusted automatically to keep the death benefit equal to the defined percentage of the policy value. The defined percentage is that percentage which will continue to qualify the policy as life insurance under Section 7702 of the 1986 Internal Revenue Code. Note that this policy form can qualify for life insurance under either the Guideline Premium Test or the Cash Value Accumulation Test.

**B. Policy Value**

The policy value is the accumulation of interest of a percentage of the net premiums less expense charges and less the cost of insurance based on the net amount of risk.

**C. Cash Surrender Value**

The cash surrender value is the policy value less the surrender charge. A policy is subject to a surrender charge on the initial Specified Amount only during the first nine years in force and for nine years following an increase in the Specified Amount.

**D. Continuation of Insurance**

If the policyholder ceases paying premiums, the policy will continue in force for as long as the net cash surrender value is sufficient to keep it in force or the No Lapse Guarantee requirement is satisfied. The rates for calculating the Monthly Deductions will be the same as those used while on a premium paying basis.

E. No Lapse Guarantee

The policy will not lapse as a result of a Net Cash Surrender Value insufficient to cover the Monthly Deduction for the following month if, on a monthly anniversary prior to the Maturity Date, the No-Lapse Guarantee Requirement is satisfied. The No-Lapse Guarantee Requirement is satisfied if, on a monthly anniversary prior to the Maturity Date, the sum of all premiums paid on this policy, reduced by any partial surrenders, is greater than or equal to the No-Lapse Premium multiplied by the number of months since the Policy Date.

However, failure to satisfy this Requirement does not necessarily lapse the contract, provided the Net Cash Surrender Value is greater than zero.

F. Flexibility

At issue the owner selects both a premium amount and the amount of insurance, subject to the minimum amounts. At any time after the first policy year, while the policy is in force, the owner may change the amount of insurance. Decreases may not lower the amount of insurance below the minimum amount. Increases are subject to the rules of Penn Mutual as to age and amount. Evidence of insurability is required for any increase in the amount of insurance. Premiums after the first may be paid in any amount and at any interval subject to the following conditions:

- (1) No premium payment may be less than \$25 or such lower amount that may be established by Penn Mutual.
- (2) Penn Mutual reserves the right to limit total premiums paid in any policy year to the planned payments for that policy year as shown on Page 3 of the Policy.
- (3) If the Guideline Premium Test is used to qualify the policy as life insurance, total premiums paid in any year may not exceed the guideline premium limitation as set forth in Section 7702 of the Internal Revenue Code of 1986.

II. BASIS OF VALUES

A. Interest

The minimum interest rate that will be used in calculating the Policy Value is .16516% per month compounded monthly. This is equivalent to 2% per year compounded annually. The actual interest that will be credited to the Policy Value will be at rates set by Penn Mutual that could be higher than 2%.

Because of the retrospective approach used for the calculation of policy values, the use of an increased rate of interest in determining policy values would produce increased cash surrender values. Therefore, such use is not in conflict with the maximum interest rate defined in the Standard Nonforfeiture law.

B. Cost of Insurance

The guaranteed maximum cost of insurance rates applied in the calculation of policy values under this policy are the 2001 CSO Composite Mortality Table, Age Nearest Birthday.

The company may use modified cost of insurance rates which produce a lower cost of insurance, thus producing higher cash surrender values than those generated by the guaranteed maximum rates.

C. Expense Charges

The maximum expense charges applicable under this policy are:

- (a) a percent of premium charge of 7.5% of each premium paid;
- (b) a monthly expense charge of \$9.00;
- (c) a monthly expense charge per \$1,000 of original Specified Amount that varies by issue age for the first 120 months following the date of issue; and
- (d) if the Specified Amount has been increased within the past year, a monthly expense charge per \$1,000 of the increased Specified Amount that varies by the age at the time of increase for the first 120 months following the date of increase.

D. The same basis of values applies whether premiums are being paid or the policyholder has ceased to pay premiums.

### III. POLICY VALUE FORMULA AND COMPARISON OF FLEXIBLE PREMIUM ADJUSTABLE VARIABLE LIFE CASH SURRENDER VALUES WITH MINIMUM NONFORFEITURE REQUIREMENTS

For Flexible Premium Adjustable Variable Life (FPAVL) the ultimate plan of insurance is determined by assuming that the initial premium and death benefit continue unchanged. Since FPAVL is a universal life type policy, the initial premium and initial death benefit are those selected by the policyowner at issue, and hence are known.

The Standard Nonforfeiture Law (SNFL) defines minimum policy values using a prospective formula. But the prospective SNFL formula can be mathematically converted to a retrospective form. The method of calculating FPAVL policy values was designed to be consistent with the retrospective equivalent of the SNFL cash value formula.

The following section will demonstrate that FPAVL cash surrender values are greater than minimum cash values required by the retrospective version of the SNFL formula using the following approach:

(1) It will be shown that the FPAVL policy value formula is consistent with the retrospective equivalent of the formula required by the SNFL.

(2) Minimum FPAVL policy values will be generated by using the minimum interest rate of 2% and maximum cost of insurance rates in the policy value formula. Minimum FPAVL cash surrender values are obtained by subtracting the maximum surrender charge from the policy values.

Excess interest and/or lower cost of insurance rates will result in policy values greater than those based on guaranteed cost of insurance and the 2% minimum interest rate.

(3) It will be shown that the maximum surrender charge for FPAVL will, at all times, be less than or equal to the maximum expense allowance permitted by the SNFL.

(4) The combination of items (1), (2) and (3) above ensures that regardless of the incidence and amount of FPAVL premium payments and benefit changes, FPAVL cash surrender values will be greater than the minimum SNFL cash values generated by the retrospective equivalent of the SNFL formula.

The following is a definition of terms used in the policy value formulas:

$t$  = duration from original issue date measured in months.

$i'$  = monthly interest rate equal to 2% annually, which equals  $(1.02)^{1/12} - 1$

$tq_x$  = 1/12 of the appropriate 2001 CSO mortality rate for age  $x$  where  $x$  is the "age nearest birthday" as of the policy anniversary prior to month  $t$ .

$F_t$  = total death benefit in month  $t$ .

$E$  = Monthly expense charge which equals \$9.00 per policy while the policy remains in force.

$EC$  = excess of the first-year monthly charge per \$1,000 of original Specified Amount over the average (over 19 years) renewal monthly charge per \$1,000 of original Specified Amount. The monthly charge per \$1,000 of original Specified Amount varies by issue age and extends for the first 120 months following the date of issue or the date of an increase.

$G_t$  = Gross premium collected in month  $t$ . All premiums are assumed to be paid monthly at the beginning of each month.

$P_t$  = Net premium credited to policy values, which equals 92.5% of  $G_t$ .

${}_t r_x$  = Maximum monthly cost of insurance rate which equals  ${}_t q_x / (1 - {}_t q_x)$  where x is the "age nearest birthday" as of the policy anniversary prior to month t.

$C_t$  = Maximum monthly cost of insurance for month t.

${}_t CV$  = Policy value at end of month t.

${}_t SC$  = Surrender Charge at end of month t.

${}_t CSV$  = Cash Surrender Value at end of month t.

The FPAVL policy value at time of issue (after receipt of the initial premium) is P. The FPAVL policy value at the end of the first month just prior to the payment of the second month's premium is:

$$(1) \quad {}_1 CV = (P_1 - E - EC - C_1) * (1 + i')$$

where:

$$(2) \quad C_1 = {}_1 r_x * \frac{[E_1 - P_1]}{(1 + i')} = \frac{{}_1 q_x}{1 - {}_1 q_x} * \frac{[E_1 - P_1]}{(1 + i')}$$

Substituting (2) into (1), we have:

$$(3) \quad {}_1 CV = [P_1 - E - EC - \frac{{}_1 q_x}{1 - {}_1 q_x} * \frac{(E_1 - P_1)}{1 + i'}] * (1 + i')$$

$$= \frac{(P_1 - E - EC) * (1 + i') * (1 - {}_1 q_x) - {}_1 q_x * E_1 + {}_1 q_x * P_1 * (1 + i')}{1 - {}_1 q_x}$$

Collecting terms:

$$(4) \quad {}_1 CV = \frac{(P_1) * (1 + i') - {}_1 q_x * E_1 - (E + EC) * (1 + i')}{(1 - {}_1 q_x)}$$

and the cash surrender value,  ${}_1 CSV$ , is given by:

$$(5) \quad {}_1 CSV = \frac{(P_1) * (1 + i') - {}_1 q_x * E_1 - (E + EC) * (1 + i') - {}_1 SC}{(1 - {}_1 q_x)}$$

Next it is necessary to show that the FPAVL cash surrender value formula is consistent with the SNFL formula for calculating minimum cash values.

The first year minimum cash value required by the SNFL is calculated using a prospective formula involving the present value of future benefits less the present value of future adjusted net premiums. This prospective form can be converted into the following retrospective form by using the technique described on page 106 of Life Contingencies by C.W. Jordan.

The notation used for the SNFL minimum cash value formulas is as follows:

$$i = .02$$

$$q_{x+t} = \text{the appropriate 2001 CSO mortality rate where age } x+t \text{ is the "age nearest birthday" as of the } t\text{th policy anniversary.}$$

$$P_t^A = \text{adjusted premium in year } t.$$

$$A_0 = \text{present value of future benefits at time of issue.}$$

$$PV(P_t^A)_0 = \text{present value of future adjusted premiums at time of issue.}$$

$$E^1 = \text{maximum first year expense allowance.}$$

$${}_tF = \text{death benefit in year } t.$$

$${}_tCV^M = \text{SNFL minimum cash value at end of year } t.$$

The retrospective formula for calculating the minimum cash value as defined by the SNFL, at the end of the first year, is:

$${}_1CV^M + q_x ({}_1F - {}_1CV^M) = ({}_0CV^M + P_1^A) (1 + i)$$

$$(6) \quad {}_1CV^M = \frac{({}_0CV^M + P_1^A) (1 + i) - q_x \cdot {}_1F}{1 - q_x}$$

where:

$${}_0CV^M = A_0 - PV (P_t^A)_0$$

$PV(P^A_t)_0$  is the present value of future net adjusted premiums which is also equal to  $A_0 + E^1$ . Using this value of  $PV(P^A_t)_0$ ,  $CV^M_0 = A_0 - (A_0 + E^1) = -E^1$ .

Substituting  $-E^1$  for  $CV_0$  in (6), we have:

$$(7) \quad {}_1CV^M = \frac{(P^A_1 - E^1)(1+i) - q_x * F_1}{1 - q_x}$$

$$= \frac{(P^A_1) * (1+i) - q_x * F_1 - E^1 * (1+i)}{1 - q_x} \quad (1 - q_x)$$

Formula (5) is shown for comparison of FPAVL cash value to SNFL minimum:

$$(5) \quad {}_1CV = \frac{[P_1](1+i) - {}_1q_x * F_1 - (E + EC) * (1+i) - {}_1SC}{1 - {}_1q_x}$$

These two formulas are identical with the following exceptions:

(a) Formula (5) develops policy values (and, therefore, cash surrender values) on a monthly basis while formula (7) is an annual calculation. The terms for interest and mortality in formula (5) are the monthly equivalents of the like terms in formula (7) based on the following assumptions:

$$(1+i)^{12} = (1+i) \quad (\text{compound interest})$$

$${}_1q_x = (1/12) * q_x \quad (\text{uniform distribution of deaths})$$

(b) The monthly expense charge, E, in formula (5) does not appear in formula (7) because it is a level expense charge. Level expense charges are not subject to the first year expense allowance limit and do not appear in the formula for minimum cash values under SNFL.

(c) The term EC in formula (5) is analogous to  $E^1$  in formula (7). It will be demonstrated that the value of EC plus the surrender charge can never exceed the minimum expense allowance under SNFL. This is a necessary condition to substantiate that the FPAVL policy value and corresponding cash value formulas satisfy minimum requirements.

For renewal periods after the first year, the same consistency as demonstrated above exists. Consider the  $t+1$ st month policy value where  $t \geq 12$ , just prior to the payment of the monthly premium  $P_{t+2}$ , which is due on the  $t+1$ st month anniversary day. The FPAVL formula is:

$$(7) \quad {}_{t+1}CV = ({}_tCV + P_{t+1})(1+i) - (1+i)C_{t+1} - E(1+i)$$

where:

$$(8) \quad C_{t+1} = {}_{t+1}r_x \frac{[E_{t+1} - (CV + P_{t+1})]}{1 + i'} = \frac{{}_{t+1}q_x}{1 - {}_{t+1}q_x} \frac{[E_{t+1} - (CV + P_{t+1})]}{1 + i'}$$

Substituting (8) in (7), we have:

$$(9) \quad {}_{t+1}CV = ({}_tCV + P_{t+1} - E)(1 + i') - (1 + i') * \frac{{}_{t+1}q_x}{(1 - {}_{t+1}q_x)} \frac{[E_{t+1} - (CV + P_{t+1})]}{1 + i'}$$

$$(10) \quad {}_{t+1}CV = \frac{({}_tCV + P_{t+1} - E)(1 + i') - {}_{t+1}q_x * F_{t+1} + E * (1 + i') * ({}_{t+1}q_x)}{1 - {}_{t+1}q_x}$$

Using the retrospective method of calculating the SNFL minimum policy value for duration t+1, we have:

$$(11) \quad {}_{t+1}CV^M = \frac{({}_tCV^M + P_{t+1}^A)(1 + i) - q_{x+t} * {}_{t+1}F}{1 - q_{x+t}}$$

The SNFL formula (11) is the same as the FPAVL formula (10) except for the monthly versus annual time period, and except for the expense charge term, which is a level expense charge and does not appear in the formula for minimum cash values under SNFL.

Upon surrender of the Flexible Premium Adjustable Variable Life Policy, a surrender charge is applied against the policy value. The surrender charge is determined by multiplying (d) times 90% of the lesser of (a), (b), and (c) where:

- (a) total premium paid in first 12 months after policy issue;
- (b) the Maximum Surrender Charge Premium;
- (c) \$45.00 per thousand of Specified Amount;
- (d) a factor based on policy year as follows:

<u>Policy Year</u>	<u>Factor</u>
1	1.00
2	.89
3	.78
4	.67
5	.56
6	.45
7	.34
8	.23
9	.12
10+	0

Given we calculated the Flexible Premium Adjustable Variable Life policy values using the minimum interest rate of 2% and the maximum monthly cost of insurance rates, the cash surrender values will be greater than the minimum policy values required by the SNFL, provided that the surrender charge can never be greater than the unamortized and unused portion of the maximum first year expense allowance under the SNFL.

The formula for the SNFL maximum allowance is:

$$E = (1.25 * H) + 10$$

where H is the minimum value of P or 40. [P is the Net Level Annual Premium].

Table 2 summarizes the maximum SNFL first year expense allowance age-by-age for comparison versus the maximum surrender charge. The nonforfeiture interest rate used is the maximum rate allowed by law (5%). Using a rate in excess of the policy's guarantee rate produces a smaller SNFL maximum first year expense allowance which is conservative when demonstrating compliance with SNFL.

As shown in Table 2, for each age, the maximum surrender charge plus the first year expense charge is less than the SNFL maximum first year expense allowance.

Table 3 shows, for various issue ages, the run off of the unamortized first year expense allowance versus the surrender charge. Note that in the ten years after issue and in the ten years following an increase, there is an annualized expense charge per \$1,000 of Specified Amount that varies by issue age or the age at the time of increase. The unamortized expense allowance reflects this charge. Table 4 contains the Maximum Surrender Charge Premiums and Table 5 contains the monthly expense charges per \$1,000 of Specified Amount.

A comment should be made about the consistency between the adjusted premiums ( $P^A$ ) in the SNFL formulas and the net premiums less level expense charge (P-E) in the FPAVL policy value formulas. The present value of adjusted premiums is equal to the present value of future benefits plus the first year expense allowance ( $E^1$ ) at time of issue in the SNFL formula. Likewise, the present value of net premiums less level expense charge (P-E) (where P equals 92.5% of gross premiums and E equals \$9.00) is equal to the present value of future benefits, using the minimum 2% interest rate and maximum cost of insurance rates, which are based on the appropriate 2001 CSO mortality table. Effectively, the SNFL formula and the FPAVL cash policy value formula amortize the first year expense charges over the premium paying period of the policy, and the first year expense allowance in the SNFL formula is greater than the policy surrender charge in the FPAVL policy value formula. Thus the FPAVL cash surrender value must be greater than the minimum SNFL value by the unamortized portion of the excess first year expenses.

The method of calculating policy values is described in the policy form and annually the Company will furnish the insured a statement showing the current policy values.

#### IV. VALUATION BASIS

The Standard Valuation Law requires minimum reserves to be computed under the Commissioner's Reserve Valuation Method (CRVM). The statutory reserve of this policy will be calculated as the greater of the following: the CRVM method; the reserve for the no-lapse guarantee; or the cash surrender value (see attached Statutory Reserves memo).

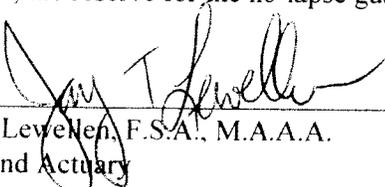
  
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Jay T. Leveleen, F.S.A., M.A.A.A.  
AVP and Actuary

Table 2

MALE PREFERRED PLUS NONTOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) - (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE	
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52	
1	2.64	13.29	1.44	0.68	0.76	3.02	3.77	9.52	
2	2.73	13.41	1.44	0.68	0.76	3.10	3.85	9.55	
3	2.83	13.53	1.44	0.68	0.76	3.19	3.94	9.59	
4	2.94	13.67	1.56	0.74	0.82	3.28	4.10	9.57	
5	3.05	13.82	1.56	0.74	0.82	3.36	4.18	9.64	
6	3.18	13.97	1.56	0.74	0.82	3.45	4.27	9.70	
7	3.31	14.13	1.56	0.74	0.82	3.54	4.36	9.78	
8	3.44	14.30	1.56	0.74	0.82	3.62	4.44	9.86	
9	3.58	14.48	1.56	0.74	0.82	3.71	4.53	9.95	
10	3.73	14.66	1.56	0.74	0.82	3.80	4.62	10.04	
11	3.89	14.86	1.56	0.74	0.82	3.88	4.70	10.16	
12	4.05	15.06	1.56	0.74	0.82	3.97	4.79	10.27	
13	4.21	15.26	1.56	0.74	0.82	4.06	4.88	10.38	
14	4.38	15.48	1.56	0.74	0.82	4.14	4.96	10.52	
15	4.66	15.70	1.56	0.74	0.82	4.23	5.05	10.65	
16	4.74	15.92	1.56	0.74	0.82	4.42	5.24	10.68	
17	4.92	16.15	1.56	0.74	0.82	4.61	5.43	10.72	
18	5.10	16.38	1.56	0.74	0.82	4.80	5.62	10.76	
19	5.30	16.62	1.56	0.74	0.82	4.99	5.81	10.81	
20	5.49	16.87	1.56	0.74	0.82	4.95	5.77	11.10	
21	5.70	17.13	1.56	0.74	0.82	5.09	5.92	11.21	
22	5.92	17.40	1.56	0.74	0.82	5.24	6.06	11.34	
23	6.15	17.69	1.56	0.74	0.82	5.38	6.20	11.49	
24	6.39	17.99	1.56	0.74	0.82	5.53	6.35	11.64	
25	6.65	18.31	1.56	0.74	0.82	5.67	6.49	11.82	
26	6.91	18.64	1.61	0.76	0.85	5.97	6.81	11.82	
27	7.19	18.98	1.66	0.78	0.87	6.26	7.14	11.85	
28	7.48	19.36	1.70	0.81	0.90	6.56	7.46	11.89	
29	7.78	19.73	1.75	0.83	0.92	6.86	7.78	11.95	
30	8.11	20.13	1.80	0.85	0.95	7.16	8.10	12.03	
31	8.45	20.56	1.85	0.88	0.97	7.45	8.42	12.14	
32	8.81	21.02	1.90	0.90	1.00	7.75	8.75	12.27	
33	9.20	21.49	1.94	0.92	1.02	8.05	9.07	12.43	
34	9.60	22.00	1.99	0.94	1.05	8.34	9.39	12.61	
35	10.03	22.53	2.04	0.97	1.07	8.64	9.71	12.82	
36	10.48	23.10	2.15	1.02	1.13	9.21	10.34	12.76	
37	10.96	23.69	2.26	1.07	1.19	9.77	10.96	12.73	
38	11.46	24.32	2.36	1.12	1.24	10.34	11.59	12.74	
39	11.99	24.98	2.47	1.17	1.30	10.91	12.21	12.78	
40	12.55	25.68	2.58	1.22	1.36	11.48	12.83	12.85	
41	13.13	26.42	2.69	1.27	1.41	12.04	13.46	12.96	
42	13.76	27.19	2.80	1.32	1.47	12.61	14.08	13.11	
43	14.41	28.01	2.90	1.38	1.53	13.18	14.70	13.31	
44	15.10	28.87	3.01	1.43	1.59	13.74	15.33	13.54	
45	15.82	29.78	3.12	1.48	1.64	14.31	15.95	13.83	

**Table 5 - Form VU-08(S)  
Flexible Premium Adjustable Life  
Monthly Per \$1,000  
of Specified Amount Charges**

Issue Age	Male Preferred Plus NT	Male Preferred NT	Male Nontobacco	Male Preferred Tobacco	Male Tobacco	Female Preferred Plus NT	Female Preferred NT	Female Nontobacco	Female Preferred Tobacco	Female Tobacco
46	0.297	0.297	0.297	0.348	0.348	0.257	0.257	0.257	0.305	0.305
47	0.304	0.304	0.304	0.366	0.366	0.264	0.264	0.264	0.320	0.320
48	0.311	0.311	0.311	0.384	0.384	0.271	0.271	0.271	0.335	0.335
49	0.318	0.318	0.318	0.402	0.402	0.278	0.278	0.278	0.350	0.350
50	0.325	0.325	0.325	0.420	0.420	0.285	0.285	0.285	0.365	0.365
51	0.332	0.332	0.332	0.438	0.438	0.292	0.292	0.292	0.380	0.380
52	0.339	0.339	0.339	0.456	0.456	0.299	0.299	0.299	0.395	0.395
53	0.346	0.346	0.346	0.474	0.474	0.306	0.306	0.306	0.410	0.410
54	0.353	0.353	0.353	0.492	0.492	0.313	0.313	0.313	0.425	0.425
55	0.360	0.360	0.360	0.510	0.510	0.320	0.320	0.320	0.440	0.440
56	0.371	0.371	0.371	0.538	0.538	0.328	0.328	0.328	0.461	0.461
57	0.382	0.382	0.382	0.566	0.566	0.336	0.336	0.336	0.482	0.482
58	0.393	0.393	0.393	0.594	0.594	0.344	0.344	0.344	0.503	0.503
59	0.404	0.404	0.404	0.622	0.622	0.352	0.352	0.352	0.524	0.524
60	0.415	0.415	0.415	0.650	0.650	0.360	0.360	0.360	0.545	0.545
61	0.426	0.426	0.426	0.678	0.678	0.368	0.368	0.368	0.566	0.566
62	0.437	0.437	0.437	0.706	0.706	0.376	0.376	0.376	0.587	0.587
63	0.448	0.448	0.448	0.734	0.734	0.384	0.384	0.384	0.608	0.608
64	0.459	0.459	0.459	0.762	0.762	0.392	0.392	0.392	0.629	0.629
65	0.470	0.470	0.470	0.790	0.790	0.400	0.400	0.400	0.650	0.650
66	0.473	0.473	0.473	0.806	0.806	0.403	0.403	0.403	0.670	0.670
67	0.476	0.476	0.476	0.822	0.822	0.406	0.406	0.406	0.690	0.690
68	0.479	0.479	0.479	0.838	0.838	0.409	0.409	0.409	0.710	0.710
69	0.482	0.482	0.482	0.854	0.854	0.412	0.412	0.412	0.730	0.730
70	0.485	0.485	0.485	0.870	0.870	0.415	0.415	0.415	0.750	0.750
71	0.488	0.488	0.488	0.886	0.886	0.418	0.418	0.418	0.770	0.770
72	0.491	0.491	0.491	0.902	0.902	0.421	0.421	0.421	0.790	0.790
73	0.494	0.494	0.494	0.918	0.918	0.424	0.424	0.424	0.810	0.810
74	0.497	0.497	0.497	0.934	0.934	0.427	0.427	0.427	0.830	0.830
75	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
76	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
77	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
78	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
79	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
80	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
81	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
82	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
83	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
84	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850
85	0.500	0.500	0.500	0.950	0.950	0.430	0.430	0.430	0.850	0.850

**Table 5 - Form VU-08(S)**  
**Flexible Premium Adjustable Life**  
**Monthly Per \$1,000**  
**of Specified Amount Charges**

<u>Issue Age</u>	<u>Male Preferred Plus NT</u>	<u>Male Preferred NT</u>	<u>Male Nontobacco</u>	<u>Male Preferred Tobacco</u>	<u>Male Tobacco</u>	<u>Female Preferred Plus NT</u>	<u>Female Preferred NT</u>	<u>Female Nontobacco</u>	<u>Female Preferred Tobacco</u>	<u>Female Tobacco</u>
0	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120
1	0.122	0.122	0.122	0.122	0.122	0.121	0.121	0.121	0.121	0.121
2	0.124	0.124	0.124	0.124	0.124	0.123	0.123	0.123	0.123	0.123
3	0.126	0.126	0.126	0.126	0.126	0.124	0.124	0.124	0.124	0.124
4	0.128	0.128	0.128	0.128	0.128	0.125	0.125	0.125	0.125	0.125
5	0.130	0.130	0.130	0.130	0.130	0.127	0.127	0.127	0.127	0.127
6	0.132	0.132	0.132	0.132	0.132	0.128	0.128	0.128	0.128	0.128
7	0.134	0.134	0.134	0.134	0.134	0.129	0.129	0.129	0.129	0.129
8	0.136	0.136	0.136	0.136	0.136	0.131	0.131	0.131	0.131	0.131
9	0.138	0.138	0.138	0.138	0.138	0.132	0.132	0.132	0.132	0.132
10	0.140	0.140	0.140	0.140	0.140	0.133	0.133	0.133	0.133	0.133
11	0.142	0.142	0.142	0.142	0.142	0.135	0.135	0.135	0.135	0.135
12	0.144	0.144	0.144	0.144	0.144	0.136	0.136	0.136	0.136	0.136
13	0.146	0.146	0.146	0.146	0.146	0.137	0.137	0.137	0.137	0.137
14	0.148	0.148	0.148	0.148	0.148	0.139	0.139	0.139	0.139	0.139
15	0.150	0.150	0.150	0.150	0.150	0.140	0.140	0.140	0.140	0.140
16	0.150	0.150	0.150	0.150	0.150	0.141	0.141	0.141	0.143	0.143
17	0.150	0.150	0.150	0.150	0.150	0.142	0.142	0.142	0.146	0.146
18	0.150	0.150	0.150	0.150	0.150	0.143	0.143	0.143	0.149	0.149
19	0.150	0.150	0.150	0.150	0.150	0.144	0.144	0.144	0.152	0.152
20	0.150	0.150	0.150	0.170	0.170	0.145	0.145	0.145	0.155	0.155
21	0.150	0.150	0.150	0.175	0.175	0.146	0.146	0.146	0.158	0.158
22	0.150	0.150	0.150	0.180	0.180	0.147	0.147	0.147	0.161	0.161
23	0.150	0.150	0.150	0.185	0.185	0.148	0.148	0.148	0.164	0.164
24	0.150	0.150	0.150	0.190	0.190	0.149	0.149	0.149	0.167	0.167
25	0.150	0.150	0.150	0.190	0.190	0.150	0.150	0.150	0.190	0.190
26	0.150	0.150	0.150	0.195	0.195	0.150	0.150	0.150	0.195	0.195
27	0.155	0.155	0.155	0.200	0.200	0.155	0.155	0.155	0.200	0.200
28	0.160	0.160	0.160	0.205	0.205	0.160	0.160	0.160	0.205	0.205
29	0.165	0.165	0.165	0.210	0.210	0.165	0.165	0.165	0.210	0.210
30	0.170	0.170	0.170	0.215	0.215	0.170	0.170	0.170	0.215	0.215
31	0.175	0.175	0.175	0.220	0.220	0.175	0.175	0.175	0.220	0.220
32	0.180	0.180	0.180	0.225	0.225	0.180	0.180	0.180	0.225	0.225
33	0.185	0.185	0.185	0.230	0.230	0.185	0.185	0.185	0.230	0.230
34	0.190	0.190	0.190	0.235	0.235	0.190	0.190	0.190	0.235	0.235
35	0.190	0.190	0.190	0.240	0.240	0.190	0.190	0.190	0.240	0.240
36	0.200	0.200	0.200	0.249	0.249	0.196	0.196	0.196	0.227	0.227
37	0.210	0.210	0.210	0.258	0.258	0.202	0.202	0.202	0.234	0.234
38	0.220	0.220	0.220	0.267	0.267	0.208	0.208	0.208	0.241	0.241
39	0.230	0.230	0.230	0.276	0.276	0.214	0.214	0.214	0.248	0.248
40	0.240	0.240	0.240	0.285	0.285	0.220	0.220	0.220	0.255	0.255
41	0.250	0.250	0.250	0.294	0.294	0.226	0.226	0.226	0.262	0.262
42	0.260	0.260	0.260	0.303	0.303	0.232	0.232	0.232	0.269	0.269
43	0.270	0.270	0.270	0.312	0.312	0.238	0.238	0.238	0.276	0.276
44	0.280	0.280	0.280	0.321	0.321	0.244	0.244	0.244	0.283	0.283
45	0.290	0.290	0.290	0.330	0.330	0.250	0.250	0.250	0.290	0.290



**Table 4 - Form VU-08(S)  
Flexible Premium Adjustable Life  
Maximum Surrender Charge Premiums**

<u>Issue Age</u>	<u>Male Preferred Plus NT</u>	<u>Male Preferred NT</u>	<u>Male Nontobacco</u>	<u>Male Preferred Tobacco</u>	<u>Male Tobacco</u>	<u>Female Preferred Plus NT</u>	<u>Female Preferred NT</u>	<u>Female Nontobacco</u>	<u>Female Preferred Tobacco</u>	<u>Female Tobacco</u>
0	3.25	3.25	3.25	3.25	3.25	2.70	2.70	2.70	2.70	2.70
1	3.35	3.35	3.35	3.35	3.35	2.79	2.79	2.79	2.79	2.79
2	3.44	3.44	3.44	3.44	3.44	2.88	2.88	2.88	2.88	2.88
3	3.54	3.54	3.54	3.54	3.54	2.97	2.97	2.97	2.97	2.97
4	3.64	3.64	3.64	3.64	3.64	3.06	3.06	3.06	3.06	3.06
5	3.73	3.73	3.73	3.73	3.73	3.15	3.15	3.15	3.15	3.15
6	3.83	3.83	3.83	3.83	3.83	3.24	3.24	3.24	3.24	3.24
7	3.93	3.93	3.93	3.93	3.93	3.33	3.33	3.33	3.33	3.33
8	4.02	4.02	4.02	4.02	4.02	3.42	3.42	3.42	3.42	3.42
9	4.12	4.12	4.12	4.12	4.12	3.51	3.51	3.51	3.51	3.51
10	4.22	4.22	4.22	4.22	4.22	3.60	3.60	3.60	3.60	3.60
11	4.31	4.31	4.31	4.31	4.31	3.69	3.69	3.69	3.69	3.69
12	4.41	4.41	4.41	4.41	4.41	3.78	3.78	3.78	3.78	3.78
13	4.51	4.51	4.51	4.51	4.51	3.87	3.87	3.87	3.87	3.87
14	4.60	4.60	4.60	4.60	4.60	3.96	3.96	3.96	3.96	3.96
15	4.70	4.70	4.70	4.70	4.70	4.05	4.05	4.05	4.05	4.05
16	4.91	4.91	4.91	4.91	4.91	4.20	4.20	4.20	4.20	4.20
17	5.12	5.12	5.12	5.12	5.12	4.35	4.35	4.35	4.35	4.35
18	5.33	5.33	5.33	5.33	5.33	4.50	4.50	4.50	4.50	4.50
19	5.54	5.54	5.54	5.54	5.54	4.65	4.65	4.65	4.65	4.65
20	5.50	5.58	5.75	6.13	6.15	4.77	4.78	4.81	5.04	5.06
21	5.66	5.75	5.96	6.41	6.44	4.91	4.92	4.96	5.24	5.26
22	5.82	5.93	6.17	6.70	6.73	5.05	5.07	5.11	5.44	5.46
23	5.98	6.10	6.38	6.98	7.02	5.19	5.21	5.26	5.63	5.67
24	6.14	6.28	6.59	7.27	7.31	5.34	5.36	5.41	5.83	5.87
25	6.30	6.45	6.80	7.55	7.60	5.48	5.50	5.56	6.03	6.07
26	6.63	6.77	7.09	7.94	7.99	5.75	5.77	5.84	6.38	6.42
27	6.96	7.09	7.38	8.33	8.38	6.01	6.05	6.12	6.73	6.78
28	7.29	7.41	7.67	8.72	8.77	6.28	6.32	6.40	7.09	7.13
29	7.62	7.73	7.96	9.11	9.16	6.55	6.59	6.68	7.44	7.48
30	7.95	8.05	8.25	9.50	9.55	6.82	6.86	6.96	7.79	7.84
31	8.28	8.37	8.54	9.89	9.94	7.08	7.14	7.23	8.14	8.19
32	8.61	8.69	8.83	10.28	10.33	7.35	7.41	7.51	8.49	8.54
33	8.94	9.01	9.12	10.67	10.72	7.62	7.68	7.79	8.85	8.89
34	9.27	9.33	9.41	11.06	11.11	7.88	7.95	8.07	9.20	9.25
35	9.60	9.65	9.70	11.45	11.50	8.15	8.23	8.35	9.55	9.60
36	10.23	10.30	10.35	12.10	12.16	8.66	8.77	8.92	10.11	10.17
37	10.86	10.94	11.00	12.74	12.82	9.16	9.32	9.48	10.66	10.74
38	11.49	11.59	11.65	13.39	13.48	9.67	9.87	10.05	11.22	11.31
39	12.12	12.23	12.30	14.03	14.14	10.17	10.42	10.61	11.77	11.88
40	12.75	12.88	12.95	14.68	14.80	10.68	10.96	11.18	12.33	12.45
41	13.38	13.52	13.60	15.32	15.46	11.18	11.51	11.74	12.88	13.02
42	14.01	14.17	14.25	15.97	16.12	11.69	12.06	12.31	13.44	13.59
43	14.64	14.81	14.90	16.61	16.78	12.19	12.61	12.87	13.99	14.16
44	15.27	15.46	15.55	17.26	17.44	12.70	13.15	13.44	14.55	14.73
45	15.90	16.10	16.20	17.90	18.10	13.20	13.70	14.00	15.10	15.30

**Table 3**

**Age: 85 Male Nontobacco**

Initial Expense Allowance: 60.00  
 Total Initial Acquisition Exp Chg: 3.16

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	85	56.84	56.84	40.50
2	86	53.74	53.74	36.05
3	87	50.81	50.81	31.59
4	88	48.07	48.07	27.14
5	89	45.52	45.52	22.68
6	90	43.17	43.17	18.23
7	91	41.01	41.01	13.77
8	92	38.98	38.98	9.32
9	93	37.06	37.06	4.86
10	94	35.26	35.26	-
11	95	33.58	33.58	
12	96	32.05	32.05	
13	97	30.58	30.58	
14	98	29.18	29.18	
15	99	27.86	27.86	
16	100	26.66	26.66	
21	105	21.67	21.67	
26	110	17.26	17.26	
27	111	16.46	16.46	
28	112	15.68	15.68	
29	113	14.92	14.92	
30	114	14.20	14.20	
31	115	13.50	13.50	
32	116	12.82	12.82	
33	117	12.17	12.17	
34	118	11.55	11.55	
35	119	11.25	11.25	
36	120	-	-	

Table 3

Age: 65 Male Nontobacco

Initial Expense Allowance: 60.00  
 Total Initial Acquisition Exp Chg: 2.97

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	65	57.03	57.03	40.50
2	66	55.34	55.34	36.05
3	67	53.63	53.63	31.59
4	68	51.91	51.91	27.14
5	69	50.18	50.18	22.68
6	70	48.42	48.42	18.23
7	71	46.65	46.65	13.77
8	72	44.88	44.88	9.32
9	73	43.12	43.12	4.86
10	74	41.37	41.37	-
11	75	39.62	39.62	
12	76	37.89	37.89	
13	77	36.17	36.17	
14	78	34.47	34.47	
15	79	32.81	32.81	
16	80	31.19	31.19	
21	85	23.85	23.85	
26	90	18.11	18.11	
31	95	14.09	14.09	
36	100	11.19	11.19	
41	105	9.09	9.09	
46	110	7.24	7.24	
51	115	5.66	5.66	
52	116	5.38	5.38	
53	117	5.11	5.11	
54	118	4.85	4.85	
55	119	4.72	4.72	
56	120	-	-	

**Table 3**

**Age: 35 Male Nontobacco**

Initial Expense Allowance: 22.53  
 Total Initial Acquisition Exp Chg: 1.20

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	35	21.33	21.33	8.73
2	36	21.14	21.14	7.77
3	37	20.93	20.93	6.81
4	38	20.72	20.72	5.85
5	39	20.51	20.51	4.89
6	40	20.28	20.28	3.93
7	41	20.05	20.05	2.97
8	42	19.81	19.81	2.01
9	43	19.57	19.57	1.05
10	44	19.32	19.32	-
11	45	19.06	19.06	
12	46	18.79	18.79	
13	47	18.52	18.52	
14	48	18.25	18.25	
15	49	17.96	17.96	
16	50	17.66	17.66	
21	55	16.07	16.07	
26	60	14.34	14.34	
31	65	12.50	12.50	
36	70	10.61	10.61	
41	75	8.68	8.68	
46	80	6.83	6.83	
51	85	5.23	5.23	
56	90	3.97	3.97	
61	95	3.09	3.09	
66	100	2.45	2.45	
71	105	1.99	1.99	
76	110	1.59	1.59	
81	115	1.24	1.24	
82	116	1.18	1.18	
83	117	1.12	1.12	
84	118	1.06	1.06	
85	119	1.03	1.03	
86	120	-	-	

Table 3

Age: 20 Male Nontobacco

Initial Expense Allowance: 16.87  
 Total Initial Acquisition Exp Chg: 0.95

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	20	15.92	15.92	5.18
2	21	15.85	15.85	4.61
3	22	15.77	15.77	4.04
4	23	15.69	15.69	3.47
5	24	15.60	15.60	2.90
6	25	15.51	15.51	2.33
7	26	15.42	15.42	1.76
8	27	15.33	15.33	1.19
9	28	15.23	15.23	0.62
10	29	15.13	15.13	-
11	30	15.03	15.03	
12	31	14.92	14.92	
13	32	14.80	14.80	
14	33	14.68	14.68	
15	34	14.56	14.56	
16	35	14.43	14.43	
21	40	13.72	13.72	
26	45	12.89	12.89	
31	50	11.95	11.95	
36	55	10.87	10.87	
41	60	9.70	9.70	
46	65	8.45	8.45	
51	70	7.18	7.18	
56	75	5.87	5.87	
61	80	4.62	4.62	
66	85	3.54	3.54	
71	90	2.69	2.69	
76	95	2.09	2.09	
81	100	1.66	1.66	
86	105	1.35	1.35	
91	110	1.07	1.07	
96	115	0.84	0.84	
97	116	0.80	0.80	
98	117	0.76	0.76	
99	118	0.72	0.72	
100	119	0.70	0.70	
101	120	-	-	

Table 2

FEMALE TOBACCO								
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) + (3)	MAXIMUM	(4) + (5)	(1) - (6)
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	UNUSED
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	ACQUIS	CHARGE	CHARGES	EXPENSE
		ALLOWANCE	CHARGE	CHARGE	EXPENSE			ALLOWANCE
					CHARGE			
46	14.00	27.50	3.66	1.73	1.93	14.59	16.52	10.98
47	14.67	28.33	3.84	1.82	2.02	15.41	17.43	10.90
48	15.37	29.21	4.02	1.90	2.12	16.23	18.34	10.86
49	16.10	30.13	4.20	1.99	2.21	17.05	19.26	10.87
50	16.88	31.10	4.38	2.07	2.31	17.87	20.17	10.93
51	17.69	32.12	4.56	2.16	2.40	18.68	21.08	11.03
52	18.55	33.19	4.74	2.25	2.49	19.50	22.00	11.19
53	19.45	34.32	4.92	2.33	2.59	20.32	22.91	11.40
54	20.40	35.50	5.10	2.42	2.68	21.14	23.83	11.67
55	21.40	36.75	5.28	2.50	2.78	21.96	24.74	12.01
56	22.45	38.06	5.53	2.62	2.91	23.17	26.08	11.98
57	23.56	39.44	5.78	2.74	3.04	24.37	27.42	12.02
58	24.72	40.89	6.04	2.86	3.18	25.58	28.75	12.14
59	25.94	42.43	6.29	2.98	3.31	26.78	30.09	12.33
60	27.24	44.05	6.54	3.10	3.44	27.99	31.43	12.61
61	28.61	45.76	6.79	3.22	3.57	29.20	32.77	12.99
62	30.07	47.58	7.04	3.34	3.71	30.40	34.11	13.47
63	31.61	49.52	7.30	3.46	3.84	31.61	35.45	14.07
64	33.26	51.58	7.55	3.58	3.97	32.81	36.79	14.79
65	35.02	53.77	7.80	3.69	4.11	34.02	38.13	15.64
66	36.89	56.11	8.04	3.81	4.23	35.30	39.53	16.58
67	38.89	58.61	8.28	3.92	4.36	36.58	40.93	17.68
68	41.03	60.00	8.52	4.04	4.48	37.86	42.34	17.66
69	43.32	60.00	8.76	4.15	4.61	39.13	43.74	16.26
70	45.77	60.00	9.00	4.26	4.74	40.41	45.15	14.85
71	48.41	60.00	9.24	4.38	4.86	40.50	45.36	14.64
72	51.23	60.00	9.48	4.49	4.99	40.50	45.49	14.51
73	54.25	60.00	9.72	4.60	5.12	40.50	45.62	14.38
74	57.50	60.00	9.96	4.72	5.24	40.50	45.74	14.26
75	61.00	60.00	10.20	4.83	5.37	40.50	45.87	14.13
76	64.77	60.00	10.20	4.83	5.37	40.50	45.87	14.13
77	68.83	60.00	10.20	4.83	5.37	40.50	45.87	14.13
78	73.23	60.00	10.20	4.83	5.37	40.50	45.87	14.13
79	78.01	60.00	10.20	4.83	5.37	40.50	45.87	14.13
80	83.19	60.00	10.20	4.83	5.37	40.50	45.87	14.13
81	88.86	60.00	10.20	4.83	5.37	40.50	45.87	14.13
82	94.90	60.00	10.20	4.83	5.37	40.50	45.87	14.13
83	101.34	60.00	10.20	4.83	5.37	40.50	45.87	14.13
84	108.25	60.00	10.20	4.83	5.37	40.50	45.87	14.13
85	115.68	60.00	10.20	4.83	5.37	40.50	45.87	14.13

Table 2

FEMALE TOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) + (3)	MAXIMUM	(4) + (5)	(1) - (6)
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	UNUSED
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	ACQUIS	CHARGE	CHARGES	EXPENSE
		ALLOWANCE	CHARGE	CHARGE	EXPENSE			ALLOWANCE
					CHARGE			
0	2.13	12.66	1.44	0.68	0.76	2.43	3.19	9.47
1	2.20	12.75	1.46	0.69	0.77	2.51	3.28	9.47
2	2.28	12.84	1.47	0.70	0.77	2.59	3.37	9.48
3	2.36	12.95	1.49	0.70	0.78	2.67	3.46	9.50
4	2.45	13.07	1.50	0.71	0.79	2.75	3.55	9.52
5	2.55	13.19	1.52	0.72	0.80	2.84	3.64	9.55
6	2.65	13.32	1.54	0.73	0.81	2.92	3.72	9.59
7	2.76	13.45	1.55	0.74	0.82	3.00	3.81	9.63
8	2.87	13.59	1.57	0.74	0.83	3.08	3.90	9.68
9	2.98	13.73	1.58	0.75	0.83	3.16	3.99	9.74
10	3.10	13.88	1.60	0.76	0.84	3.24	4.08	9.80
11	3.23	14.04	1.62	0.77	0.85	3.32	4.17	9.86
12	3.36	14.20	1.63	0.77	0.86	3.40	4.26	9.94
13	3.50	14.37	1.65	0.78	0.87	3.48	4.35	10.02
14	3.64	14.54	1.66	0.79	0.88	3.56	4.44	10.10
15	3.78	14.73	1.68	0.80	0.88	3.65	4.53	10.20
16	3.93	14.92	1.72	0.81	0.90	3.78	4.68	10.23
17	4.09	15.11	1.75	0.83	0.92	3.92	4.84	10.27
18	4.26	15.32	1.79	0.85	0.94	4.05	4.99	10.33
19	4.43	15.53	1.82	0.86	0.96	4.19	5.15	10.38
20	4.60	15.76	1.86	0.88	0.98	4.55	5.53	10.22
21	4.79	15.99	1.90	0.90	1.00	4.73	5.73	10.26
22	4.99	16.23	1.93	0.92	1.02	4.91	5.93	10.30
23	5.19	16.49	1.97	0.93	1.04	5.10	6.14	10.35
24	5.41	16.76	2.00	0.95	1.05	5.28	6.34	10.42
25	5.63	17.04	2.28	1.08	1.20	5.46	6.66	10.38
26	5.87	17.34	2.34	1.11	1.23	5.78	7.01	10.33
27	6.12	17.64	2.40	1.14	1.26	6.10	7.37	10.28
28	6.37	17.97	2.46	1.17	1.29	6.42	7.71	10.26
29	6.64	18.31	2.52	1.19	1.33	6.73	8.06	10.25
30	6.93	18.68	2.58	1.22	1.36	7.06	8.41	10.25
31	7.23	19.03	2.64	1.25	1.39	7.37	8.76	10.27
32	7.54	19.42	2.70	1.28	1.42	7.69	9.11	10.32
33	7.87	19.83	2.76	1.31	1.45	8.00	9.45	10.38
34	8.21	20.26	2.82	1.34	1.48	8.33	9.81	10.45
35	8.57	20.71	2.88	1.36	1.52	8.64	10.16	10.56
36	8.95	21.19	2.72	1.29	1.43	9.15	10.59	10.60
37	9.35	21.68	2.81	1.33	1.48	9.67	11.14	10.54
38	9.76	22.20	2.89	1.37	1.52	10.18	11.70	10.50
39	10.20	22.75	2.98	1.41	1.57	10.69	12.26	10.49
40	10.66	23.32	3.06	1.45	1.61	11.21	12.82	10.51
41	11.15	23.93	3.14	1.49	1.65	11.72	13.37	10.56
42	11.66	24.57	3.23	1.53	1.70	12.23	13.93	10.64
43	12.20	25.25	3.31	1.57	1.74	12.74	14.49	10.76
44	12.77	25.96	3.40	1.61	1.79	13.26	15.04	10.91
45	13.37	26.71	3.48	1.65	1.83	13.77	15.60	11.11

Table 2

FEMALE PREFERRED TOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
46	14.00	27.60	3.66	1.73	1.93	14.39	16.32	11.18
47	14.87	28.33	3.84	1.82	2.02	15.19	17.21	11.12
48	15.37	29.21	4.02	1.90	2.12	15.99	18.11	11.10
49	16.10	30.13	4.20	1.99	2.21	16.79	19.00	11.12
50	16.88	31.10	4.38	2.07	2.31	17.60	19.90	11.20
51	17.69	32.12	4.56	2.16	2.40	18.40	20.80	11.32
52	18.55	33.19	4.74	2.25	2.49	19.20	21.69	11.50
53	19.45	34.32	4.92	2.33	2.59	20.00	22.59	11.73
54	20.40	35.50	5.10	2.42	2.68	20.80	23.48	12.02
55	21.40	36.75	5.28	2.50	2.78	21.60	24.38	12.37
56	22.45	38.06	5.53	2.62	2.91	22.81	25.72	12.34
57	23.55	39.44	5.78	2.74	3.04	24.01	27.06	12.38
58	24.72	40.89	6.04	2.86	3.18	25.22	28.39	12.50
59	25.94	42.43	6.29	2.98	3.31	26.42	29.73	12.69
60	27.24	44.05	6.54	3.10	3.44	27.63	31.07	12.97
61	28.61	45.76	6.79	3.22	3.57	28.84	32.41	13.35
62	30.07	47.58	7.04	3.34	3.71	30.04	33.75	13.83
63	31.61	49.52	7.30	3.46	3.84	31.25	35.09	14.43
64	33.26	51.58	7.55	3.58	3.97	32.45	36.43	15.15
65	35.02	53.77	7.80	3.69	4.11	33.66	37.77	16.00
66	36.89	56.11	8.04	3.81	4.23	34.93	39.16	16.96
67	38.89	58.61	8.28	3.92	4.36	36.20	40.56	18.05
68	41.03	60.00	8.52	4.04	4.48	37.47	41.95	18.05
69	43.32	60.00	8.76	4.15	4.61	38.74	43.35	16.65
70	45.77	60.00	9.00	4.26	4.74	40.01	44.74	15.26
71	48.41	60.00	9.24	4.38	4.86	40.50	45.36	14.64
72	51.23	60.00	9.48	4.49	4.99	40.50	45.49	14.51
73	54.25	60.00	9.72	4.60	5.12	40.50	45.62	14.38
74	57.50	60.00	9.96	4.72	5.24	40.50	45.74	14.26
75	61.00	60.00	10.20	4.83	5.37	40.50	45.87	14.13
76	64.77	60.00	10.20	4.83	5.37	40.50	45.87	14.13
77	68.83	60.00	10.20	4.83	5.37	40.50	45.87	14.13
78	73.23	60.00	10.20	4.83	5.37	40.50	45.87	14.13
79	78.01	60.00	10.20	4.83	5.37	40.50	45.87	14.13
80	83.19	60.00	10.20	4.83	5.37	40.50	45.87	14.13
81	88.86	60.00	10.20	4.83	5.37	40.50	45.87	14.13
82	94.90	60.00	10.20	4.83	5.37	40.50	45.87	14.13
83	101.34	60.00	10.20	4.83	5.37	40.50	45.87	14.13
84	108.25	60.00	10.20	4.83	5.37	40.50	45.87	14.13
85	115.68	60.00	10.20	4.83	5.37	40.50	45.87	14.13

Table 2

FEMALE PREFERRED TOBACCO									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) + (3)	MAXIMUM	(4) + (5)	(1) - (6)	
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	UNUSED	
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	ACQUIS	CHARGE	CHARGES	EXPENSE	ALLOWANCE
		ALLOWANCE	CHARGE	CHARGE	CHARGE			ALLOWANCE	
0	2.13	12.66	1.44	0.68	0.76	2.43	3.19	9.47	
1	2.20	12.75	1.46	0.69	0.77	2.51	3.28	9.47	
2	2.28	12.84	1.47	0.70	0.77	2.59	3.37	9.48	
3	2.36	12.95	1.49	0.70	0.78	2.67	3.46	9.50	
4	2.45	13.07	1.50	0.71	0.79	2.75	3.55	9.52	
5	2.55	13.19	1.52	0.72	0.80	2.84	3.64	9.55	
6	2.65	13.32	1.54	0.73	0.81	2.92	3.72	9.59	
7	2.76	13.45	1.55	0.74	0.82	3.00	3.81	9.63	
8	2.87	13.59	1.57	0.74	0.83	3.08	3.90	9.68	
9	2.98	13.73	1.58	0.75	0.83	3.16	3.99	9.74	
10	3.10	13.88	1.60	0.76	0.84	3.24	4.08	9.80	
11	3.23	14.04	1.62	0.77	0.85	3.32	4.17	9.86	
12	3.36	14.20	1.63	0.77	0.86	3.40	4.26	9.94	
13	3.50	14.37	1.65	0.78	0.87	3.48	4.35	10.02	
14	3.64	14.54	1.66	0.79	0.88	3.56	4.44	10.10	
15	3.78	14.73	1.68	0.80	0.88	3.65	4.53	10.20	
16	3.93	14.92	1.72	0.81	0.90	3.78	4.68	10.23	
17	4.09	15.11	1.75	0.83	0.92	3.92	4.84	10.27	
18	4.26	15.32	1.79	0.85	0.94	4.05	4.99	10.33	
19	4.43	15.53	1.82	0.86	0.96	4.19	5.15	10.38	
20	4.60	15.76	1.86	0.88	0.98	4.54	5.51	10.24	
21	4.79	15.99	1.90	0.90	1.00	4.72	5.71	10.28	
22	4.99	16.23	1.93	0.92	1.02	4.90	5.91	10.32	
23	5.19	16.49	1.97	0.93	1.04	5.07	6.10	10.39	
24	5.41	16.76	2.00	0.95	1.05	5.25	6.30	10.46	
25	5.63	17.04	2.28	1.08	1.20	5.43	6.63	10.41	
26	5.87	17.34	2.34	1.11	1.23	5.74	6.97	10.36	
27	6.12	17.64	2.40	1.14	1.26	6.06	7.32	10.32	
28	6.37	17.97	2.46	1.17	1.29	6.38	7.68	10.29	
29	6.64	18.31	2.52	1.19	1.33	6.70	8.02	10.28	
30	6.93	18.66	2.58	1.22	1.36	7.01	8.37	10.29	
31	7.23	19.03	2.64	1.25	1.39	7.33	8.72	10.32	
32	7.54	19.42	2.70	1.28	1.42	7.64	9.06	10.36	
33	7.87	19.83	2.76	1.31	1.45	7.97	9.42	10.42	
34	8.21	20.26	2.82	1.34	1.48	8.28	9.76	10.50	
35	8.57	20.71	2.88	1.36	1.52	8.60	10.11	10.60	
36	8.95	21.19	2.72	1.29	1.43	9.10	10.53	10.65	
37	9.35	21.68	2.81	1.33	1.48	9.59	11.07	10.61	
38	9.76	22.20	2.89	1.37	1.52	10.10	11.62	10.58	
39	10.20	22.75	2.98	1.41	1.57	10.59	12.16	10.59	
40	10.66	23.32	3.06	1.45	1.61	11.10	12.71	10.62	
41	11.15	23.93	3.14	1.49	1.65	11.59	13.25	10.68	
42	11.66	24.57	3.23	1.53	1.70	12.10	13.79	10.78	
43	12.20	25.25	3.31	1.57	1.74	12.59	14.33	10.91	
44	12.77	25.96	3.40	1.61	1.79	13.10	14.88	11.08	
45	13.37	26.71	3.48	1.65	1.83	13.59	15.42	11.29	

Table 2

FEMALE NONTOBACCO		(1)	(2)	(3)	(4)	(5)	(6)	(7)
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
46	14.00	27.50	3.08	1.46	1.62	13.27	14.89	12.61
47	14.67	28.33	3.17	1.50	1.67	13.93	15.60	12.73
48	15.37	29.21	3.25	1.54	1.71	14.60	16.31	12.90
49	16.10	30.13	3.34	1.58	1.76	15.26	17.02	13.11
50	16.88	31.10	3.42	1.62	1.80	15.93	17.73	13.37
51	17.69	32.12	3.50	1.66	1.84	16.60	18.44	13.68
52	18.55	33.19	3.59	1.70	1.89	17.26	19.15	14.04
53	19.45	34.32	3.67	1.74	1.93	17.93	19.86	14.45
54	20.40	35.50	3.76	1.78	1.98	18.59	20.57	14.93
55	21.40	36.75	3.84	1.82	2.02	19.26	21.28	15.47
56	22.45	38.06	3.94	1.86	2.07	20.51	22.58	15.48
57	23.55	39.44	4.03	1.91	2.12	21.76	23.88	15.56
58	24.72	40.89	4.13	1.96	2.17	23.01	25.19	15.71
59	25.94	42.43	4.22	2.00	2.22	24.26	26.49	15.94
60	27.24	44.06	4.32	2.05	2.27	25.52	27.79	16.26
61	28.61	45.76	4.42	2.09	2.32	26.77	29.09	16.67
62	30.07	47.58	4.51	2.14	2.37	28.02	30.39	17.19
63	31.61	49.52	4.61	2.18	2.43	29.27	31.69	17.82
64	33.26	51.58	4.70	2.23	2.48	30.52	32.99	18.58
65	35.02	53.77	4.80	2.27	2.53	31.77	34.30	19.47
66	36.89	56.11	4.84	2.29	2.55	33.18	35.73	20.38
67	38.89	58.61	4.87	2.31	2.56	34.60	37.16	21.45
68	41.03	60.00	4.91	2.32	2.58	36.01	38.59	21.41
69	43.32	60.00	4.94	2.34	2.60	37.42	40.02	19.98
70	45.77	60.00	4.98	2.36	2.62	38.84	41.46	18.54
71	48.41	60.00	5.02	2.38	2.64	40.25	42.89	17.11
72	51.23	60.00	5.05	2.39	2.66	40.50	43.16	16.84
73	54.25	60.00	5.09	2.41	2.68	40.50	43.18	16.82
74	57.50	60.00	5.12	2.43	2.70	40.50	43.20	16.80
75	61.00	60.00	5.16	2.44	2.72	40.50	43.22	16.78
76	64.77	60.00	5.16	2.44	2.72	40.50	43.22	16.78
77	68.83	60.00	5.16	2.44	2.72	40.50	43.22	16.78
78	73.23	60.00	5.16	2.44	2.72	40.50	43.22	16.78
79	78.01	60.00	5.16	2.44	2.72	40.50	43.22	16.78
80	83.19	60.00	5.16	2.44	2.72	40.50	43.22	16.78
81	88.86	60.00	5.16	2.44	2.72	40.50	43.22	16.78
82	94.90	60.00	5.16	2.44	2.72	40.50	43.22	16.78
83	101.34	60.00	5.16	2.44	2.72	40.50	43.22	16.78
84	108.25	60.00	5.16	2.44	2.72	40.50	43.22	16.78
85	115.68	60.00	5.16	2.44	2.72	40.50	43.22	16.78

Table 2

FEMALE NONTOBACCO		(1)	(2)	(3)	(4)	(5)	(6)	(7)
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) + (3)	MAXIMUM	(4) + (5)	(1) - (6)
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	UNUSED
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	ACQUIS	CHARGE	CHARGES	EXPENSE
		ALLOWANCE	CHARGE	CHARGE	CHARGE			ALLOWANCE
0	2.13	12.66	1.44	0.68	0.76	2.43	3.19	9.47
1	2.20	12.75	1.46	0.69	0.77	2.51	3.28	9.47
2	2.28	12.84	1.47	0.70	0.77	2.59	3.37	9.48
3	2.36	12.95	1.49	0.70	0.78	2.67	3.46	9.50
4	2.45	13.07	1.50	0.71	0.79	2.75	3.55	9.52
5	2.55	13.19	1.52	0.72	0.80	2.84	3.64	9.55
6	2.65	13.32	1.54	0.73	0.81	2.92	3.72	9.59
7	2.76	13.45	1.55	0.74	0.82	3.00	3.81	9.63
8	2.87	13.59	1.57	0.74	0.83	3.08	3.90	9.68
9	2.98	13.73	1.58	0.75	0.83	3.16	3.99	9.74
10	3.10	13.88	1.60	0.76	0.84	3.24	4.08	9.80
11	3.23	14.04	1.62	0.77	0.85	3.32	4.17	9.86
12	3.36	14.20	1.63	0.77	0.86	3.40	4.26	9.94
13	3.50	14.37	1.65	0.78	0.87	3.48	4.35	10.02
14	3.64	14.54	1.66	0.79	0.88	3.56	4.44	10.10
15	3.78	14.73	1.68	0.80	0.88	3.65	4.53	10.20
16	3.93	14.92	1.69	0.80	0.89	3.78	4.67	10.25
17	4.09	15.11	1.70	0.81	0.90	3.92	4.81	10.30
18	4.26	15.32	1.72	0.81	0.90	4.05	4.96	10.36
19	4.43	15.53	1.73	0.82	0.91	4.19	5.10	10.43
20	4.60	15.76	1.74	0.82	0.92	4.32	5.24	10.52
21	4.79	15.99	1.75	0.83	0.92	4.46	5.38	10.61
22	4.99	16.23	1.76	0.84	0.93	4.60	5.52	10.71
23	5.19	16.49	1.78	0.84	0.93	4.73	5.67	10.82
24	5.41	16.76	1.79	0.85	0.94	4.87	5.81	10.95
25	5.63	17.04	1.80	0.85	0.95	5.00	5.95	11.09
26	5.87	17.34	1.80	0.85	0.95	5.26	6.20	11.13
27	6.12	17.64	1.86	0.88	0.98	5.51	6.49	11.16
28	6.37	17.97	1.92	0.91	1.01	5.76	6.77	11.20
29	6.64	18.31	1.98	0.94	1.04	6.01	7.05	11.25
30	6.93	18.66	2.04	0.97	1.07	6.26	7.34	11.32
31	7.23	19.03	2.10	0.99	1.11	6.51	7.61	11.42
32	7.54	19.42	2.16	1.02	1.14	6.76	7.90	11.53
33	7.87	19.83	2.22	1.05	1.17	7.01	8.18	11.65
34	8.21	20.26	2.28	1.08	1.20	7.26	8.46	11.80
35	8.57	20.71	2.28	1.08	1.20	7.52	8.72	12.00
36	8.95	21.19	2.35	1.11	1.24	8.03	9.27	11.92
37	9.35	21.68	2.42	1.15	1.28	8.53	9.81	11.87
38	9.76	22.20	2.50	1.18	1.31	9.05	10.36	11.84
39	10.20	22.75	2.57	1.22	1.35	9.55	10.90	11.85
40	10.66	23.32	2.64	1.25	1.39	10.06	11.45	11.87
41	11.15	23.93	2.71	1.28	1.43	10.57	11.99	11.94
42	11.66	24.57	2.78	1.32	1.47	11.08	12.54	12.03
43	12.20	25.25	2.86	1.35	1.50	11.58	13.09	12.16
44	12.77	25.96	2.93	1.39	1.54	12.10	13.64	12.32
45	13.37	26.71	3.00	1.42	1.58	12.60	14.18	12.53

Table 2

FEMALE PREFERRED NONTOBACCO									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE	
46	14.00	27.50	3.08	1.46	1.62	12.98	14.60	12.90	
47	14.67	28.33	3.17	1.50	1.67	13.63	15.29	13.04	
48	15.37	29.21	3.25	1.54	1.71	14.27	15.99	13.22	
49	16.10	30.13	3.34	1.58	1.76	14.92	16.68	13.45	
50	16.88	31.10	3.42	1.62	1.80	15.57	17.37	13.73	
51	17.69	32.12	3.50	1.66	1.84	16.22	18.06	14.05	
52	18.55	33.19	3.59	1.70	1.89	16.87	18.75	14.43	
53	19.45	34.32	3.67	1.74	1.93	17.51	19.45	14.87	
54	20.40	35.50	3.76	1.78	1.98	18.16	20.14	15.36	
55	21.40	36.75	3.84	1.82	2.02	18.81	20.83	15.92	
56	22.45	38.06	3.94	1.86	2.07	20.02	22.09	15.97	
57	23.55	39.44	4.03	1.91	2.12	21.22	23.34	16.10	
58	24.72	40.89	4.13	1.96	2.17	22.43	24.60	16.29	
59	25.94	42.43	4.22	2.00	2.22	23.63	25.86	16.57	
60	27.24	44.05	4.32	2.05	2.27	24.84	27.11	16.93	
61	28.61	45.76	4.42	2.09	2.32	26.05	28.37	17.39	
62	30.07	47.58	4.51	2.14	2.37	27.25	29.63	17.96	
63	31.61	49.52	4.61	2.18	2.43	28.46	30.88	18.63	
64	33.26	51.58	4.70	2.23	2.48	29.66	32.14	19.44	
65	35.02	53.77	4.80	2.27	2.53	30.87	33.40	20.37	
66	36.89	56.11	4.84	2.29	2.55	32.33	34.87	21.24	
67	38.89	58.61	4.87	2.31	2.56	33.79	36.35	22.26	
68	41.03	60.00	4.91	2.32	2.58	35.24	37.83	22.17	
69	43.32	60.00	4.94	2.34	2.60	36.70	39.30	20.70	
70	45.77	60.00	4.98	2.36	2.62	38.16	40.78	19.22	
71	48.41	60.00	5.02	2.38	2.64	39.62	42.26	17.74	
72	51.23	60.00	5.05	2.39	2.66	40.50	43.16	16.84	
73	54.25	60.00	5.09	2.41	2.68	40.50	43.18	16.82	
74	57.50	60.00	5.12	2.43	2.70	40.50	43.20	16.80	
75	61.00	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
76	64.77	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
77	68.83	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
78	73.23	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
79	78.01	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
80	83.19	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
81	88.86	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
82	94.90	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
83	101.34	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
84	108.25	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
85	115.68	60.00	5.16	2.44	2.72	40.50	43.22	16.78	

Table 2

FEMALE PREFERRED NONTOBACCO									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) + (3)	MAXIMUM	(4) + (5)	UNUSED	
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	EXPENSE	
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	ACQUIS	CHARGE	CHARGES	ALLOWANCE	
		ALLOWANCE	CHARGE	CHARGE	CHARGE				
0	2.13	12.66	1.44	0.68	0.76	2.43	3.19	9.47	
1	2.20	12.75	1.46	0.69	0.77	2.51	3.28	9.47	
2	2.28	12.84	1.47	0.70	0.77	2.59	3.37	9.48	
3	2.36	12.95	1.49	0.70	0.78	2.67	3.46	9.50	
4	2.45	13.07	1.50	0.71	0.79	2.75	3.55	9.52	
5	2.55	13.19	1.52	0.72	0.80	2.84	3.64	9.55	
6	2.65	13.32	1.54	0.73	0.81	2.92	3.72	9.59	
7	2.76	13.45	1.55	0.74	0.82	3.00	3.81	9.63	
8	2.87	13.59	1.57	0.74	0.83	3.08	3.90	9.68	
9	2.98	13.73	1.58	0.75	0.83	3.16	3.99	9.74	
10	3.10	13.88	1.60	0.76	0.84	3.24	4.08	9.80	
11	3.23	14.04	1.62	0.77	0.85	3.32	4.17	9.86	
12	3.36	14.20	1.63	0.77	0.86	3.40	4.26	9.94	
13	3.50	14.37	1.65	0.78	0.87	3.48	4.35	10.02	
14	3.64	14.54	1.66	0.79	0.88	3.56	4.44	10.10	
15	3.78	14.73	1.68	0.80	0.88	3.66	4.53	10.20	
16	3.93	14.92	1.69	0.80	0.89	3.78	4.67	10.25	
17	4.09	15.11	1.70	0.81	0.90	3.92	4.81	10.30	
18	4.26	15.32	1.72	0.81	0.90	4.05	4.96	10.36	
19	4.43	15.53	1.73	0.82	0.91	4.19	5.10	10.43	
20	4.60	15.76	1.74	0.82	0.92	4.30	5.22	10.54	
21	4.79	15.99	1.75	0.83	0.92	4.43	5.35	10.64	
22	4.99	16.23	1.76	0.84	0.93	4.56	5.49	10.74	
23	5.19	16.49	1.78	0.84	0.93	4.69	5.62	10.87	
24	5.41	16.76	1.79	0.85	0.94	4.82	5.77	10.99	
25	5.63	17.04	1.80	0.85	0.95	4.95	5.90	11.14	
26	5.87	17.34	1.80	0.85	0.95	5.19	6.14	11.20	
27	6.12	17.64	1.86	0.88	0.98	5.45	6.42	11.22	
28	6.37	17.97	1.92	0.91	1.01	5.69	6.70	11.27	
29	6.64	18.31	1.98	0.94	1.04	5.93	6.97	11.33	
30	6.93	18.66	2.04	0.97	1.07	6.17	7.25	11.41	
31	7.23	19.03	2.10	0.99	1.11	6.43	7.53	11.50	
32	7.54	19.42	2.16	1.02	1.14	6.67	7.81	11.62	
33	7.87	19.83	2.22	1.05	1.17	6.91	8.08	11.75	
34	8.21	20.26	2.28	1.08	1.20	7.16	8.36	11.91	
35	8.57	20.71	2.28	1.08	1.20	7.40	8.60	12.11	
36	8.95	21.19	2.35	1.11	1.24	7.89	9.13	12.06	
37	9.35	21.68	2.42	1.15	1.28	8.39	9.66	12.02	
38	9.76	22.20	2.50	1.18	1.31	8.88	10.20	12.00	
39	10.20	22.75	2.57	1.22	1.35	9.38	10.73	12.02	
40	10.66	23.32	2.64	1.25	1.39	9.86	11.25	12.07	
41	11.15	23.93	2.71	1.28	1.43	10.36	11.79	12.15	
42	11.66	24.57	2.78	1.32	1.47	10.85	12.32	12.25	
43	12.20	25.25	2.86	1.35	1.50	11.35	12.85	12.40	
44	12.77	25.96	2.93	1.39	1.54	11.84	13.38	12.58	
45	13.37	26.71	3.00	1.42	1.58	12.33	13.91	12.80	

Table 2

FEMALE PREFERRED PLUS NONTOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE	
46	14.00	27.50	3.08	1.46	1.62	12.53	14.15	13.35	
47	14.67	28.33	3.17	1.50	1.67	13.18	14.84	13.49	
48	15.37	29.21	3.25	1.54	1.71	13.82	15.54	13.67	
49	16.10	30.13	3.34	1.58	1.76	14.47	16.23	13.90	
50	16.88	31.10	3.42	1.62	1.80	15.12	16.92	14.18	
51	17.69	32.12	3.50	1.66	1.84	15.77	17.61	14.50	
52	18.55	33.19	3.59	1.70	1.89	16.42	18.30	14.88	
53	19.45	34.32	3.67	1.74	1.93	17.06	19.00	15.32	
54	20.40	35.50	3.76	1.78	1.98	17.71	19.69	15.81	
55	21.40	36.75	3.84	1.82	2.02	18.36	20.38	16.37	
56	22.45	38.06	3.94	1.86	2.07	19.59	21.66	16.39	
57	23.55	39.44	4.03	1.91	2.12	20.82	22.94	16.50	
58	24.72	40.89	4.13	1.96	2.17	22.05	24.22	16.67	
59	25.94	42.43	4.22	2.00	2.22	23.27	25.50	16.93	
60	27.24	44.05	4.32	2.05	2.27	24.51	26.78	17.27	
61	28.61	45.76	4.42	2.09	2.32	25.73	28.06	17.71	
62	30.07	47.58	4.51	2.14	2.37	26.96	29.34	18.24	
63	31.61	49.52	4.61	2.18	2.43	28.19	30.61	18.90	
64	33.26	51.58	4.70	2.23	2.48	29.42	31.90	19.68	
65	35.02	53.77	4.80	2.27	2.53	30.65	33.17	20.60	
66	36.89	56.11	4.84	2.29	2.55	32.09	34.63	21.48	
67	38.89	58.61	4.87	2.31	2.56	33.52	36.08	22.53	
68	41.03	60.00	4.91	2.32	2.58	34.96	37.54	22.48	
69	43.32	60.00	4.94	2.34	2.60	36.39	38.99	21.01	
70	45.77	60.00	4.98	2.36	2.62	37.83	40.45	19.55	
71	48.41	60.00	5.02	2.38	2.64	39.26	41.90	18.10	
72	51.23	60.00	5.05	2.39	2.66	40.50	43.16	16.84	
73	54.25	60.00	5.09	2.41	2.68	40.50	43.18	16.82	
74	57.50	60.00	5.12	2.43	2.70	40.50	43.20	16.80	
75	61.00	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
76	64.77	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
77	68.83	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
78	73.23	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
79	78.01	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
80	83.19	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
81	88.86	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
82	94.90	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
83	101.34	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
84	108.25	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
85	115.68	60.00	5.16	2.44	2.72	40.50	43.22	16.78	

Table 2

FEMALE PREFERRED PLUS NONTOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	UNUSED EXPENSE ALLOWANCE
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6)	
0	2.13	12.66	1.44	0.68	0.76	2.43	3.19	9.47	9.47
1	2.20	12.75	1.46	0.69	0.77	2.51	3.28	9.47	9.47
2	2.28	12.84	1.47	0.70	0.77	2.59	3.37	9.48	9.48
3	2.36	12.95	1.49	0.70	0.78	2.67	3.46	9.50	9.50
4	2.45	13.07	1.50	0.71	0.79	2.75	3.56	9.52	9.52
5	2.55	13.19	1.52	0.72	0.80	2.84	3.64	9.55	9.55
6	2.65	13.32	1.54	0.73	0.81	2.92	3.72	9.59	9.59
7	2.76	13.45	1.55	0.74	0.82	3.00	3.81	9.63	9.63
8	2.87	13.59	1.57	0.74	0.83	3.08	3.90	9.68	9.68
9	2.98	13.73	1.58	0.75	0.83	3.16	3.99	9.74	9.74
10	3.10	13.88	1.60	0.76	0.84	3.24	4.08	9.80	9.80
11	3.23	14.04	1.62	0.77	0.85	3.32	4.17	9.86	9.86
12	3.36	14.20	1.63	0.77	0.86	3.40	4.26	9.94	9.94
13	3.50	14.37	1.65	0.78	0.87	3.48	4.35	10.02	10.02
14	3.64	14.54	1.66	0.79	0.88	3.56	4.44	10.10	10.10
15	3.78	14.73	1.68	0.80	0.88	3.65	4.53	10.20	10.20
16	3.93	14.92	1.69	0.80	0.89	3.78	4.67	10.25	10.25
17	4.09	15.11	1.70	0.81	0.90	3.92	4.81	10.30	10.30
18	4.26	15.32	1.72	0.81	0.90	4.05	4.96	10.36	10.36
19	4.43	15.53	1.73	0.82	0.91	4.19	5.10	10.43	10.43
20	4.60	15.76	1.74	0.82	0.92	4.29	5.21	10.55	10.55
21	4.79	15.99	1.75	0.83	0.92	4.42	5.34	10.65	10.65
22	4.99	16.23	1.76	0.84	0.93	4.55	5.47	10.76	10.76
23	5.19	16.49	1.78	0.84	0.93	4.67	5.61	10.88	10.88
24	5.41	16.76	1.79	0.86	0.94	4.81	5.75	11.01	11.01
25	5.63	17.04	1.80	0.85	0.95	4.93	5.88	11.16	11.16
26	5.87	17.34	1.80	0.86	0.95	5.18	6.12	11.21	11.21
27	6.12	17.64	1.86	0.88	0.98	5.41	6.39	11.26	11.26
28	6.37	17.97	1.92	0.91	1.01	5.65	6.66	11.31	11.31
29	6.64	18.31	1.98	0.94	1.04	5.90	6.94	11.37	11.37
30	6.93	18.66	2.04	0.97	1.07	6.14	7.21	11.46	11.46
31	7.23	19.03	2.10	0.99	1.11	6.37	7.48	11.56	11.56
32	7.54	19.42	2.16	1.02	1.14	6.62	7.75	11.67	11.67
33	7.87	19.83	2.22	1.05	1.17	6.86	8.03	11.81	11.81
34	8.21	20.26	2.28	1.08	1.20	7.09	8.29	11.97	11.97
35	8.57	20.71	2.28	1.08	1.20	7.34	8.54	12.18	12.18
36	8.95	21.19	2.35	1.11	1.24	7.79	9.03	12.15	12.15
37	9.35	21.68	2.42	1.15	1.28	8.24	9.52	12.16	12.16
38	9.76	22.20	2.50	1.18	1.31	8.70	10.02	12.18	12.18
39	10.20	22.75	2.57	1.22	1.35	9.15	10.50	12.24	12.24
40	10.66	23.32	2.64	1.25	1.39	9.61	11.00	12.32	12.32
41	11.15	23.93	2.71	1.28	1.43	10.06	11.49	12.44	12.44
42	11.66	24.57	2.78	1.32	1.47	10.52	11.99	12.59	12.59
43	12.20	25.25	2.86	1.35	1.50	10.97	12.47	12.77	12.77
44	12.77	25.96	2.93	1.39	1.54	11.43	12.97	12.99	12.99
45	13.37	26.71	3.00	1.42	1.58	11.88	13.46	13.25	13.25

Table 2

MALE TOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(2) FIRST YEAR EXPENSE CHARGE	(3) AVERAGE RENEWAL EXPENSE CHARGE	(4) (2) + (3) INITIAL ACQUIS EXPENSE CHARGE	(5) MAXIMUM SURRENDER CHARGE	(6) (3) + (4) TOTAL CHARGES	(7) UNUSED EXPENSE ALLOWANCE	
46	16.58	30.73	4.18	1.98	2.20	17.29	19.49	11.24	
47	17.39	31.74	4.39	2.08	2.31	18.29	20.60	11.14	
48	18.24	32.80	4.61	2.18	2.43	19.29	21.71	11.08	
49	19.14	33.93	4.82	2.29	2.54	20.29	22.82	11.10	
50	20.10	35.13	5.04	2.39	2.65	21.29	23.94	11.19	
51	21.13	36.41	5.26	2.49	2.77	22.28	25.05	11.36	
52	22.22	37.78	5.47	2.59	2.88	23.28	26.16	11.61	
53	23.38	39.22	5.69	2.69	2.99	24.28	27.28	11.95	
54	24.61	40.76	5.90	2.80	3.11	25.28	28.39	12.37	
55	25.91	42.38	6.12	2.90	3.22	26.28	29.50	12.88	
56	27.28	44.10	6.46	3.06	3.40	28.12	31.51	12.59	
57	28.73	45.92	6.79	3.22	3.57	29.95	33.53	12.39	
58	30.28	47.84	7.13	3.38	3.75	31.79	35.54	12.30	
59	31.92	49.90	7.46	3.54	3.93	33.62	37.55	12.35	
60	33.68	52.11	7.80	3.69	4.11	35.46	39.57	12.54	
61	35.57	54.46	8.14	3.85	4.28	37.30	41.58	12.88	
62	37.57	56.96	8.47	4.01	4.46	39.13	43.59	13.37	
63	39.69	59.61	8.81	4.17	4.64	40.50	45.14	14.47	
64	41.93	60.00	9.14	4.33	4.81	40.50	45.31	14.69	
65	44.32	60.00	9.48	4.49	4.99	40.50	45.49	14.51	
66	46.85	60.00	9.67	4.58	5.09	40.50	45.59	14.41	
67	49.56	60.00	9.86	4.67	5.19	40.50	45.69	14.31	
68	52.48	60.00	10.06	4.76	5.29	40.50	45.79	14.21	
69	55.62	60.00	10.25	4.85	5.39	40.50	45.89	14.11	
70	59.04	60.00	10.44	4.95	5.49	40.50	45.99	14.01	
71	62.73	60.00	10.63	5.04	5.60	40.50	46.10	13.90	
72	66.74	60.00	10.82	5.13	5.70	40.50	46.20	13.80	
73	71.04	60.00	11.02	5.22	5.80	40.50	46.30	13.70	
74	75.67	60.00	11.21	5.31	5.90	40.50	46.40	13.60	
75	80.68	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
76	86.12	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
77	92.05	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
78	98.49	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
79	105.45	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
80	112.93	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
81	120.97	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
82	129.56	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
83	138.80	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
84	148.76	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
85	159.46	60.00	11.40	5.40	6.00	40.50	46.50	13.50	

Table 2

MALE TOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(3) + (4) TOTAL CHARGES	UNUSED EXPENSE ALLOWANCE	
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52	
1	2.64	13.29	1.46	0.69	0.77	3.02	3.79	9.51	
2	2.73	13.41	1.49	0.70	0.78	3.10	3.88	9.53	
3	2.83	13.53	1.51	0.72	0.80	3.19	3.98	9.55	
4	2.94	13.67	1.54	0.73	0.81	3.28	4.08	9.59	
5	3.05	13.82	1.56	0.74	0.82	3.36	4.18	9.64	
6	3.18	13.97	1.58	0.75	0.83	3.45	4.28	9.69	
7	3.31	14.13	1.61	0.76	0.85	3.54	4.38	9.75	
8	3.44	14.30	1.63	0.77	0.86	3.62	4.48	9.83	
9	3.58	14.48	1.66	0.78	0.87	3.71	4.58	9.90	
10	3.73	14.66	1.68	0.80	0.88	3.80	4.68	9.98	
11	3.89	14.86	1.70	0.81	0.90	3.88	4.78	10.08	
12	4.05	15.06	1.73	0.82	0.91	3.97	4.88	10.18	
13	4.21	15.26	1.75	0.83	0.92	4.06	4.98	10.28	
14	4.38	15.48	1.78	0.84	0.93	4.14	5.07	10.40	
15	4.56	15.70	1.80	0.85	0.95	4.23	5.18	10.52	
16	4.74	15.92	1.80	0.85	0.95	4.42	5.37	10.55	
17	4.92	16.15	1.80	0.85	0.95	4.61	5.56	10.59	
18	5.10	16.38	1.80	0.85	0.95	4.80	5.74	10.64	
19	5.30	16.62	1.80	0.85	0.95	4.99	5.93	10.69	
20	5.49	16.87	2.04	0.97	1.07	5.54	6.61	10.26	
21	5.70	17.13	2.10	0.99	1.11	5.80	6.90	10.23	
22	5.92	17.40	2.16	1.02	1.14	6.06	7.19	10.21	
23	6.15	17.69	2.22	1.05	1.17	6.32	7.49	10.20	
24	6.39	17.99	2.28	1.08	1.20	6.58	7.78	10.21	
25	6.65	18.31	2.28	1.08	1.20	6.84	8.04	10.27	
26	6.91	18.64	2.34	1.11	1.23	7.19	8.42	10.22	
27	7.19	18.98	2.40	1.14	1.26	7.54	8.81	10.18	
28	7.48	19.35	2.46	1.17	1.29	7.89	9.19	10.16	
29	7.78	19.73	2.52	1.19	1.33	8.24	9.57	10.16	
30	8.11	20.13	2.58	1.22	1.36	8.60	9.95	10.18	
31	8.45	20.56	2.64	1.25	1.39	8.95	10.34	10.23	
32	8.81	21.02	2.70	1.28	1.42	9.30	10.72	10.30	
33	9.20	21.49	2.76	1.31	1.45	9.65	11.10	10.39	
34	9.60	22.00	2.82	1.34	1.48	10.00	11.48	10.52	
35	10.03	22.53	2.88	1.36	1.52	10.35	11.87	10.67	
36	10.48	23.10	2.99	1.42	1.57	10.94	12.52	10.58	
37	10.96	23.69	3.10	1.47	1.63	11.54	13.17	10.53	
38	11.46	24.32	3.20	1.52	1.69	12.13	13.82	10.50	
39	11.99	24.98	3.31	1.57	1.74	12.73	14.47	10.52	
40	12.55	25.68	3.42	1.62	1.80	13.32	15.12	10.56	
41	13.13	26.42	3.53	1.67	1.86	13.91	15.77	10.65	
42	13.76	27.19	3.64	1.72	1.91	14.51	16.42	10.77	
43	14.41	28.01	3.74	1.77	1.97	15.10	17.07	10.94	
44	15.10	28.87	3.85	1.82	2.03	15.70	17.72	11.15	
45	15.82	29.78	3.96	1.88	2.08	16.29	18.37	11.40	

Table 2

MALE PREFERRED TOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	UNUSED EXPENSE ALLOWANCE
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(3) + (4) TOTAL CHARGES		
46	16.58	30.73	4.18	1.98	2.20	17.09	19.29	11.44	
47	17.39	31.74	4.39	2.08	2.31	18.07	20.38	11.35	
48	18.24	32.80	4.61	2.18	2.43	19.05	21.48	11.32	
49	19.14	33.93	4.82	2.29	2.54	20.03	22.57	11.35	
50	20.10	35.13	5.04	2.39	2.65	21.02	23.67	11.46	
51	21.13	36.41	5.26	2.49	2.77	22.00	24.76	11.65	
52	22.22	37.78	5.47	2.59	2.88	22.98	25.86	11.92	
53	23.38	39.22	5.69	2.69	2.99	23.96	26.95	12.27	
54	24.61	40.76	5.90	2.80	3.11	24.94	28.05	12.71	
55	25.91	42.38	6.12	2.90	3.22	25.92	29.14	13.24	
56	27.28	44.10	6.46	3.06	3.40	27.74	31.14	12.97	
57	28.73	45.92	6.79	3.22	3.57	29.56	33.13	12.79	
58	30.28	47.84	7.13	3.38	3.75	31.37	35.13	12.72	
59	31.92	49.90	7.46	3.54	3.93	33.19	37.12	12.78	
60	33.68	52.11	7.80	3.69	4.11	35.01	39.12	12.99	
61	35.57	54.46	8.14	3.85	4.28	36.83	41.11	13.35	
62	37.57	56.96	8.47	4.01	4.46	38.65	43.10	13.85	
63	39.69	59.61	8.81	4.17	4.64	40.46	45.10	14.51	
64	41.93	60.00	9.14	4.33	4.81	40.50	45.31	14.69	
65	44.32	60.00	9.48	4.49	4.99	40.50	45.49	14.51	
66	46.85	60.00	9.67	4.58	5.09	40.50	45.59	14.41	
67	49.56	60.00	9.86	4.67	5.19	40.50	45.69	14.31	
68	52.48	60.00	10.06	4.76	5.29	40.50	45.79	14.21	
69	55.62	60.00	10.25	4.85	5.39	40.50	45.89	14.11	
70	59.04	60.00	10.44	4.95	5.49	40.50	45.99	14.01	
71	62.73	60.00	10.63	5.04	5.60	40.50	46.10	13.90	
72	66.74	60.00	10.82	5.13	5.70	40.50	46.20	13.80	
73	71.04	60.00	11.02	5.22	5.80	40.50	46.30	13.70	
74	75.67	60.00	11.21	5.31	5.90	40.50	46.40	13.60	
75	80.68	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
76	86.12	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
77	92.05	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
78	98.49	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
79	105.45	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
80	112.93	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
81	120.97	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
82	129.56	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
83	138.80	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
84	148.76	60.00	11.40	5.40	6.00	40.50	46.50	13.50	
85	159.46	60.00	11.40	5.40	6.00	40.50	46.50	13.50	

Table 2

MALE PREFERRED TOBACCO									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) + (3)	MAXIMUM	(3) + (4)	UNUSED	
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	EXPENSE	
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	ACQUIS	CHARGE	CHARGES	ALLOWANCE	
		ALLOWANCE	CHARGE	CHARGE	EXPENSE				
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52	
1	2.64	13.29	1.46	0.69	0.77	3.02	3.79	9.51	
2	2.73	13.41	1.49	0.70	0.78	3.10	3.88	9.53	
3	2.83	13.53	1.51	0.72	0.80	3.19	3.98	9.55	
4	2.94	13.67	1.54	0.73	0.81	3.28	4.08	9.59	
5	3.05	13.82	1.56	0.74	0.82	3.36	4.18	9.64	
6	3.18	13.97	1.58	0.75	0.83	3.45	4.28	9.69	
7	3.31	14.13	1.61	0.76	0.85	3.54	4.38	9.75	
8	3.44	14.30	1.63	0.77	0.86	3.62	4.48	9.83	
9	3.58	14.48	1.66	0.78	0.87	3.71	4.58	9.90	
10	3.73	14.66	1.68	0.80	0.88	3.80	4.68	9.98	
11	3.89	14.86	1.70	0.81	0.90	3.88	4.78	10.08	
12	4.05	15.06	1.73	0.82	0.91	3.97	4.88	10.18	
13	4.21	15.26	1.75	0.83	0.92	4.06	4.98	10.28	
14	4.38	15.48	1.78	0.84	0.93	4.14	5.07	10.40	
15	4.56	15.70	1.80	0.85	0.95	4.23	5.18	10.52	
16	4.74	15.92	1.80	0.85	0.95	4.42	5.37	10.55	
17	4.92	16.15	1.80	0.85	0.95	4.61	5.56	10.59	
18	5.10	16.38	1.80	0.85	0.95	4.80	5.74	10.64	
19	5.30	16.62	1.80	0.85	0.95	4.99	5.93	10.69	
20	5.49	16.87	2.04	0.97	1.07	5.52	6.59	10.28	
21	5.70	17.13	2.10	0.99	1.11	5.77	6.87	10.25	
22	5.92	17.40	2.16	1.02	1.14	6.03	7.17	10.24	
23	6.15	17.69	2.22	1.05	1.17	6.28	7.45	10.24	
24	6.39	17.99	2.28	1.08	1.20	6.54	7.74	10.25	
25	6.65	18.31	2.28	1.08	1.20	6.80	8.00	10.31	
26	6.91	18.64	2.34	1.11	1.23	7.15	8.38	10.26	
27	7.19	18.98	2.40	1.14	1.26	7.50	8.76	10.22	
28	7.48	19.35	2.46	1.17	1.29	7.85	9.14	10.20	
29	7.78	19.73	2.52	1.19	1.33	8.20	9.53	10.20	
30	8.11	20.13	2.58	1.22	1.36	8.55	9.91	10.23	
31	8.45	20.56	2.64	1.25	1.39	8.90	10.29	10.27	
32	8.81	21.02	2.70	1.28	1.42	9.25	10.67	10.34	
33	9.20	21.49	2.76	1.31	1.45	9.60	11.06	10.44	
34	9.60	22.00	2.82	1.34	1.48	9.95	11.44	10.56	
35	10.03	22.53	2.88	1.36	1.52	10.31	11.82	10.71	
36	10.48	23.10	2.99	1.42	1.57	10.89	12.46	10.64	
37	10.96	23.69	3.10	1.47	1.63	11.47	13.10	10.60	
38	11.46	24.32	3.20	1.52	1.69	12.05	13.74	10.59	
39	11.99	24.98	3.31	1.57	1.74	12.63	14.37	10.61	
40	12.55	25.68	3.42	1.62	1.80	13.21	15.01	10.67	
41	13.13	26.42	3.53	1.67	1.86	13.79	15.64	10.77	
42	13.76	27.19	3.64	1.72	1.91	14.37	16.29	10.91	
43	14.41	28.01	3.74	1.77	1.97	14.95	16.92	11.09	
44	15.10	28.87	3.85	1.82	2.03	15.53	17.56	11.31	
45	15.82	29.78	3.96	1.88	2.08	16.11	18.19	11.58	

Table 2

MALE NONTOBACCO								
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) - (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.58	30.73	3.56	1.69	1.88	15.49	17.36	13.37
47	17.39	31.74	3.65	1.73	1.92	16.40	18.32	13.42
48	18.24	32.80	3.73	1.77	1.96	17.31	19.27	13.52
49	19.14	33.93	3.82	1.81	2.01	18.22	20.22	13.70
50	20.10	35.13	3.90	1.85	2.05	19.13	21.18	13.95
51	21.13	36.41	3.98	1.89	2.10	20.03	22.13	14.28
52	22.22	37.78	4.07	1.93	2.14	20.94	23.08	14.69
53	23.38	39.22	4.15	1.97	2.19	21.85	24.04	15.19
54	24.61	40.76	4.24	2.01	2.23	22.76	24.99	15.77
55	25.91	42.38	4.32	2.05	2.27	23.67	25.94	16.44
56	27.28	44.10	4.45	2.11	2.34	24.54	27.79	16.31
57	28.73	45.92	4.58	2.17	2.41	25.42	29.63	16.29
58	30.28	47.84	4.72	2.23	2.48	26.31	31.47	16.37
59	31.92	49.90	4.85	2.30	2.55	27.22	33.31	16.59
60	33.68	52.11	4.98	2.36	2.62	28.13	35.16	16.95
61	35.57	54.46	5.11	2.42	2.69	29.04	37.00	17.46
62	37.57	56.96	5.24	2.48	2.76	29.94	38.84	18.12
63	39.69	59.61	5.38	2.55	2.83	30.85	40.68	18.93
64	41.93	60.00	5.51	2.61	2.90	31.76	42.53	17.47
65	44.32	60.00	5.64	2.67	2.97	32.67	43.47	16.53
66	46.85	60.00	5.68	2.69	2.99	33.58	43.49	16.51
67	49.56	60.00	5.71	2.71	3.01	34.49	43.51	16.49
68	52.48	60.00	5.75	2.72	3.03	35.40	43.53	16.47
69	55.62	60.00	5.78	2.74	3.04	36.31	43.54	16.46
70	59.04	60.00	5.82	2.76	3.06	37.22	43.56	16.44
71	62.73	60.00	5.86	2.77	3.08	38.13	43.58	16.42
72	66.74	60.00	5.89	2.79	3.10	39.04	43.60	16.40
73	71.04	60.00	5.93	2.81	3.12	39.94	43.62	16.38
74	75.67	60.00	5.96	2.83	3.14	40.85	43.64	16.36
75	80.68	60.00	6.00	2.84	3.16	41.76	43.66	16.34
76	86.12	60.00	6.00	2.84	3.16	42.67	43.66	16.34
77	92.05	60.00	6.00	2.84	3.16	43.58	43.66	16.34
78	98.49	60.00	6.00	2.84	3.16	44.49	43.66	16.34
79	105.45	60.00	6.00	2.84	3.16	45.40	43.66	16.34
80	112.93	60.00	6.00	2.84	3.16	46.31	43.66	16.34
81	120.97	60.00	6.00	2.84	3.16	47.22	43.66	16.34
82	129.56	60.00	6.00	2.84	3.16	48.13	43.66	16.34
83	138.80	60.00	6.00	2.84	3.16	49.04	43.66	16.34
84	148.76	60.00	6.00	2.84	3.16	50.00	43.66	16.34
85	159.46	60.00	6.00	2.84	3.16	51.00	43.66	16.34

Table 2

MALE NONTOBACCO									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) - (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE	
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52	
1	2.64	13.29	1.46	0.69	0.77	3.02	3.79	9.51	
2	2.73	13.41	1.49	0.70	0.78	3.10	3.88	9.53	
3	2.83	13.53	1.51	0.72	0.80	3.19	3.98	9.55	
4	2.94	13.67	1.54	0.73	0.81	3.28	4.08	9.59	
5	3.05	13.82	1.56	0.74	0.82	3.36	4.18	9.64	
6	3.18	13.97	1.58	0.75	0.83	3.45	4.28	9.69	
7	3.31	14.13	1.61	0.76	0.85	3.54	4.38	9.75	
8	3.44	14.30	1.63	0.77	0.86	3.62	4.48	9.83	
9	3.58	14.48	1.66	0.78	0.87	3.71	4.58	9.90	
10	3.73	14.66	1.68	0.80	0.88	3.80	4.68	9.98	
11	3.89	14.86	1.70	0.81	0.90	3.88	4.78	10.08	
12	4.05	15.06	1.73	0.82	0.91	3.97	4.88	10.18	
13	4.21	15.26	1.75	0.83	0.92	4.06	4.98	10.28	
14	4.38	15.48	1.78	0.84	0.93	4.14	5.07	10.40	
15	4.56	15.70	1.80	0.85	0.95	4.23	5.18	10.52	
16	4.74	15.92	1.80	0.85	0.95	4.42	5.37	10.55	
17	4.92	16.15	1.80	0.85	0.95	4.61	5.56	10.59	
18	5.10	16.38	1.80	0.85	0.95	4.80	5.74	10.64	
19	5.30	16.62	1.80	0.85	0.95	4.99	5.93	10.69	
20	5.49	16.87	1.80	0.85	0.95	5.18	6.12	10.76	
21	5.70	17.13	1.80	0.85	0.95	5.36	6.31	10.82	
22	5.92	17.40	1.80	0.85	0.95	5.55	6.50	10.90	
23	6.15	17.69	1.80	0.85	0.95	5.74	6.69	11.00	
24	6.39	17.99	1.80	0.85	0.95	5.93	6.88	11.11	
25	6.65	18.31	1.80	0.85	0.95	6.12	7.07	11.24	
26	6.91	18.64	1.80	0.85	0.95	6.38	7.33	11.31	
27	7.19	18.98	1.86	0.88	0.98	6.64	7.62	11.36	
28	7.48	19.35	1.92	0.91	1.01	6.90	7.91	11.43	
29	7.78	19.73	1.98	0.94	1.04	7.16	8.21	11.52	
30	8.11	20.13	2.04	0.97	1.07	7.43	8.50	11.64	
31	8.45	20.56	2.10	0.99	1.11	7.69	8.79	11.77	
32	8.81	21.02	2.16	1.02	1.14	7.95	9.08	11.93	
33	9.20	21.49	2.22	1.05	1.17	8.21	9.38	12.12	
34	9.60	22.00	2.28	1.08	1.20	8.47	9.67	12.33	
35	10.03	22.53	2.28	1.08	1.20	8.73	9.93	12.60	
36	10.48	23.10	2.40	1.14	1.26	9.32	10.58	12.52	
37	10.96	23.69	2.52	1.19	1.33	9.90	11.23	12.47	
38	11.46	24.32	2.64	1.25	1.39	10.49	11.87	12.45	
39	11.99	24.98	2.76	1.31	1.45	11.07	12.52	12.46	
40	12.55	25.68	2.88	1.36	1.52	11.66	13.17	12.51	
41	13.13	26.42	3.00	1.42	1.58	12.24	13.82	12.60	
42	13.76	27.19	3.12	1.48	1.64	12.83	14.47	12.73	
43	14.41	28.01	3.24	1.53	1.71	13.41	15.12	12.90	
44	15.10	28.87	3.36	1.59	1.77	14.00	15.76	13.11	
45	15.82	29.78	3.48	1.65	1.83	14.58	16.41	13.37	

Table 2

## MALE PREFERRED NONTOBACCO

ISSUE AGE	(1) NET LEVEL ANNUAL PREMIUM	(2) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(3) FIRST YEAR EXPENSE CHARGE	(4) AVERAGE RENEWAL EXPENSE CHARGE	(4) - (3) INITIAL ACQUIS EXPENSE CHARGE	(5) MAXIMUM SURRENDER CHARGE	(6) (4) + (5) TOTAL CHARGES	(7) (1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.58	30.73	3.56	1.69	1.88	15.40	17.27	13.46
47	17.39	31.74	3.65	1.73	1.92	16.30	18.22	13.52
48	18.24	32.80	3.73	1.77	1.96	17.21	19.17	13.62
49	19.14	33.93	3.82	1.81	2.01	18.11	20.12	13.81
50	20.10	35.13	3.90	1.85	2.05	19.02	21.07	14.06
51	21.13	36.41	3.98	1.89	2.10	19.92	22.01	14.40
52	22.22	37.78	4.07	1.93	2.14	20.83	22.97	14.81
53	23.38	39.22	4.15	1.97	2.19	21.73	23.91	15.31
54	24.61	40.76	4.24	2.01	2.23	22.64	24.86	15.89
55	25.91	42.38	4.32	2.05	2.27	23.54	25.81	16.57
56	27.28	44.10	4.45	2.11	2.34	24.52	27.58	16.52
57	28.73	45.92	4.58	2.17	2.41	26.93	29.34	16.58
58	30.28	47.84	4.72	2.23	2.48	28.63	31.11	16.73
59	31.92	49.90	4.85	2.30	2.55	30.32	32.87	17.03
60	33.68	52.11	4.98	2.36	2.62	32.02	34.64	17.46
61	35.57	54.46	5.11	2.42	2.69	33.71	36.40	18.05
62	37.57	56.96	5.24	2.48	2.76	35.42	38.18	18.78
63	39.69	59.61	5.38	2.55	2.83	37.11	39.94	19.67
64	41.93	60.00	5.51	2.61	2.90	38.81	41.71	18.29
65	44.32	60.00	5.64	2.67	2.97	40.50	43.47	16.53
66	46.85	60.00	5.68	2.69	2.99	40.50	43.49	16.51
67	49.56	60.00	5.71	2.71	3.01	40.50	43.51	16.49
68	52.48	60.00	5.75	2.72	3.03	40.50	43.53	16.47
69	55.62	60.00	5.78	2.74	3.04	40.50	43.54	16.46
70	59.04	60.00	5.82	2.76	3.06	40.50	43.56	16.44
71	62.73	60.00	5.86	2.77	3.08	40.50	43.58	16.42
72	66.74	60.00	5.89	2.79	3.10	40.50	43.60	16.40
73	71.04	60.00	5.93	2.81	3.12	40.50	43.62	16.38
74	75.67	60.00	5.96	2.83	3.14	40.50	43.64	16.36
75	80.68	60.00	6.00	2.84	3.16	40.50	43.66	16.34
76	86.12	60.00	6.00	2.84	3.16	40.50	43.66	16.34
77	92.05	60.00	6.00	2.84	3.16	40.50	43.66	16.34
78	98.49	60.00	6.00	2.84	3.16	40.50	43.66	16.34
79	105.45	60.00	6.00	2.84	3.16	40.50	43.66	16.34
80	112.93	60.00	6.00	2.84	3.16	40.50	43.66	16.34
81	120.97	60.00	6.00	2.84	3.16	40.50	43.66	16.34
82	129.56	60.00	6.00	2.84	3.16	40.50	43.66	16.34
83	138.80	60.00	6.00	2.84	3.16	40.50	43.66	16.34
84	148.76	60.00	6.00	2.84	3.16	40.50	43.66	16.34
85	159.46	60.00	6.00	2.84	3.16	40.50	43.66	16.34

Table 2

MALE PREFERRED NONTOBACCO									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) - (3)	MAXIMUM	(4) + (5)	(1) - (6)	
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	UNUSED	
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	ACQUIS	CHARGE	CHARGES	EXPENSE	ALLOWANCE
		ALLOWANCE	CHARGE	CHARGE	EXPENSE			ALLOWANCE	
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52	
1	2.64	13.29	1.46	0.69	0.77	3.02	3.79	9.51	
2	2.73	13.41	1.49	0.70	0.78	3.10	3.88	9.53	
3	2.83	13.53	1.51	0.72	0.80	3.19	3.98	9.55	
4	2.94	13.67	1.54	0.73	0.81	3.28	4.08	9.59	
5	3.05	13.82	1.56	0.74	0.82	3.36	4.18	9.64	
6	3.18	13.97	1.58	0.75	0.83	3.45	4.28	9.69	
7	3.31	14.13	1.61	0.76	0.85	3.54	4.38	9.75	
8	3.44	14.30	1.63	0.77	0.86	3.62	4.48	9.83	
9	3.58	14.48	1.66	0.78	0.87	3.71	4.58	9.90	
10	3.73	14.66	1.68	0.80	0.88	3.80	4.68	9.98	
11	3.89	14.86	1.70	0.81	0.90	3.88	4.78	10.08	
12	4.05	15.06	1.73	0.82	0.91	3.97	4.88	10.18	
13	4.21	15.26	1.75	0.83	0.92	4.06	4.98	10.28	
14	4.38	15.48	1.78	0.84	0.93	4.14	5.07	10.40	
15	4.56	15.70	1.80	0.85	0.95	4.23	5.18	10.52	
16	4.74	15.92	1.80	0.85	0.95	4.42	5.37	10.55	
17	4.92	16.15	1.80	0.85	0.95	4.61	5.56	10.59	
18	5.10	16.38	1.80	0.85	0.95	4.80	5.74	10.64	
19	5.30	16.62	1.80	0.85	0.95	4.99	5.93	10.69	
20	5.49	16.87	1.80	0.85	0.95	5.02	5.97	10.90	
21	5.70	17.13	1.80	0.85	0.95	5.18	6.12	11.01	
22	5.92	17.40	1.80	0.85	0.95	5.34	6.28	11.12	
23	6.15	17.69	1.80	0.85	0.95	5.49	6.44	11.25	
24	6.39	17.99	1.80	0.85	0.95	5.65	6.60	11.39	
25	6.65	18.31	1.80	0.85	0.95	5.81	6.75	11.55	
26	6.91	18.64	1.80	0.85	0.95	6.09	7.04	11.60	
27	7.19	18.98	1.86	0.88	0.98	6.38	7.36	11.62	
28	7.48	19.35	1.92	0.91	1.01	6.67	7.68	11.67	
29	7.78	19.73	1.98	0.94	1.04	6.96	8.00	11.73	
30	8.11	20.13	2.04	0.97	1.07	7.25	8.32	11.82	
31	8.45	20.56	2.10	0.99	1.11	7.53	8.64	11.92	
32	8.81	21.02	2.16	1.02	1.14	7.82	8.96	12.06	
33	9.20	21.49	2.22	1.05	1.17	8.11	9.28	12.22	
34	9.60	22.00	2.28	1.08	1.20	8.40	9.60	12.40	
35	10.03	22.53	2.28	1.08	1.20	8.69	9.89	12.65	
36	10.48	23.10	2.40	1.14	1.26	9.27	10.53	12.57	
37	10.96	23.69	2.52	1.19	1.33	9.86	11.17	12.52	
38	11.46	24.32	2.64	1.25	1.39	10.43	11.82	12.50	
39	11.99	24.98	2.76	1.31	1.45	11.01	12.46	12.52	
40	12.55	25.68	2.88	1.36	1.52	11.59	13.11	12.57	
41	13.13	26.42	3.00	1.42	1.58	12.17	13.75	12.67	
42	13.76	27.19	3.12	1.48	1.64	12.75	14.40	12.80	
43	14.41	28.01	3.24	1.53	1.71	13.33	15.03	12.98	
44	15.10	28.87	3.36	1.59	1.77	13.91	15.68	13.19	
45	15.82	29.78	3.48	1.65	1.83	14.49	16.32	13.46	

Table 2

MALE PREFERRED PLUS NONTOBACCO									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) - (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE	
46	16.58	30.73	3.56	1.69	1.88	15.21	17.09	13.65	
47	17.39	31.74	3.65	1.73	1.92	16.11	18.03	13.71	
48	18.24	32.80	3.73	1.77	1.96	17.01	18.97	13.82	
49	19.14	33.93	3.82	1.81	2.01	17.91	19.92	14.01	
50	20.10	35.13	3.90	1.85	2.05	18.81	20.86	14.27	
51	21.13	36.41	3.98	1.89	2.10	19.71	21.81	14.60	
52	22.22	37.78	4.07	1.93	2.14	20.61	22.75	15.02	
53	23.38	39.22	4.15	1.97	2.19	21.51	23.70	15.53	
54	24.61	40.76	4.24	2.01	2.23	22.41	24.64	16.12	
55	25.91	42.38	4.32	2.05	2.27	23.31	25.58	16.80	
56	27.28	44.10	4.45	2.11	2.34	24.94	27.28	16.82	
57	28.73	45.92	4.58	2.17	2.41	26.57	28.98	16.94	
58	30.28	47.84	4.72	2.23	2.48	28.20	30.68	17.16	
59	31.92	49.90	4.85	2.30	2.55	29.83	32.38	17.53	
60	33.68	52.11	4.98	2.36	2.62	31.46	34.08	18.03	
61	35.57	54.46	5.11	2.42	2.69	33.08	35.77	18.68	
62	37.57	56.96	5.24	2.48	2.76	34.71	37.47	19.49	
63	39.69	59.61	5.38	2.55	2.83	36.34	39.17	20.44	
64	41.93	60.00	5.51	2.61	2.90	37.97	40.87	19.13	
65	44.32	60.00	5.64	2.67	2.97	39.60	42.57	17.43	
66	46.85	60.00	5.68	2.69	2.99	40.50	43.49	16.51	
67	49.56	60.00	5.71	2.71	3.01	40.50	43.51	16.49	
68	52.48	60.00	5.75	2.72	3.03	40.50	43.53	16.47	
69	55.62	60.00	5.78	2.74	3.04	40.50	43.54	16.46	
70	59.04	60.00	5.82	2.76	3.06	40.50	43.56	16.44	
71	62.73	60.00	5.86	2.77	3.08	40.50	43.58	16.42	
72	66.74	60.00	5.89	2.79	3.10	40.50	43.60	16.40	
73	71.04	60.00	5.93	2.81	3.12	40.50	43.62	16.38	
74	75.67	60.00	5.96	2.83	3.14	40.50	43.64	16.36	
75	80.68	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
76	86.12	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
77	92.05	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
78	98.49	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
79	105.45	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
80	112.93	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
81	120.97	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
82	129.56	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
83	138.80	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
84	148.76	60.00	6.00	2.84	3.16	40.50	43.66	16.34	
85	159.46	60.00	6.00	2.84	3.16	40.50	43.66	16.34	

Table 2

MALE PREFERRED PLUS NONTOBACCO									
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) - (3)	MAXIMUM	(4) + (5)	(1) - (6)	
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	UNUSED	
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	ACQUIS	CHARGE	CHARGES	EXPENSE	
		ALLOWANCE	CHARGE	CHARGE	CHARGE			ALLOWANCE	
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52	
1	2.64	13.29	1.46	0.69	0.77	3.02	3.79	9.51	
2	2.73	13.41	1.49	0.70	0.78	3.10	3.88	9.53	
3	2.83	13.53	1.51	0.72	0.80	3.19	3.98	9.55	
4	2.94	13.67	1.54	0.73	0.81	3.28	4.08	9.59	
5	3.05	13.82	1.56	0.74	0.82	3.36	4.18	9.64	
6	3.18	13.97	1.58	0.75	0.83	3.45	4.28	9.69	
7	3.31	14.13	1.61	0.76	0.85	3.54	4.38	9.75	
8	3.44	14.30	1.63	0.77	0.86	3.62	4.48	9.83	
9	3.58	14.48	1.66	0.78	0.87	3.71	4.58	9.90	
10	3.73	14.66	1.68	0.80	0.88	3.80	4.68	9.98	
11	3.89	14.86	1.70	0.81	0.90	3.88	4.78	10.08	
12	4.05	15.06	1.73	0.82	0.91	3.97	4.88	10.18	
13	4.21	15.26	1.76	0.83	0.92	4.06	4.98	10.28	
14	4.38	15.48	1.78	0.84	0.93	4.14	5.07	10.40	
15	4.56	15.70	1.80	0.85	0.95	4.23	5.18	10.52	
16	4.74	15.92	1.80	0.85	0.95	4.42	5.37	10.55	
17	4.92	16.15	1.80	0.85	0.95	4.61	5.56	10.59	
18	5.10	16.38	1.80	0.85	0.95	4.80	5.74	10.64	
19	5.30	16.62	1.80	0.85	0.95	4.99	5.93	10.69	
20	5.49	16.87	1.80	0.85	0.95	4.95	5.90	10.97	
21	5.70	17.13	1.80	0.85	0.95	5.09	6.04	11.09	
22	5.92	17.40	1.80	0.85	0.95	5.24	6.19	11.22	
23	6.15	17.69	1.80	0.85	0.95	5.38	6.33	11.36	
24	6.39	17.99	1.80	0.85	0.95	5.53	6.47	11.52	
25	6.65	18.31	1.80	0.85	0.95	5.67	6.62	11.69	
26	6.91	18.64	1.80	0.85	0.95	5.97	6.91	11.72	
27	7.19	18.98	1.86	0.88	0.98	6.26	7.24	11.74	
28	7.48	19.35	1.92	0.91	1.01	6.56	7.57	11.78	
29	7.78	19.73	1.98	0.94	1.04	6.86	7.90	11.83	
30	8.11	20.13	2.04	0.97	1.07	7.16	8.23	11.91	
31	8.45	20.56	2.10	0.99	1.11	7.45	8.56	12.01	
32	8.81	21.02	2.16	1.02	1.14	7.75	8.89	12.13	
33	9.20	21.49	2.22	1.05	1.17	8.05	9.21	12.28	
34	9.60	22.00	2.28	1.08	1.20	8.34	9.54	12.46	
35	10.03	22.53	2.28	1.08	1.20	8.64	9.84	12.69	
36	10.48	23.10	2.40	1.14	1.26	9.21	10.47	12.63	
37	10.96	23.69	2.52	1.19	1.33	9.77	11.10	12.59	
38	11.46	24.32	2.64	1.25	1.39	10.34	11.73	12.59	
39	11.99	24.98	2.76	1.31	1.45	10.91	12.36	12.62	
40	12.55	25.68	2.88	1.36	1.52	11.48	12.99	12.69	
41	13.13	26.42	3.00	1.42	1.58	12.04	13.62	12.80	
42	13.76	27.19	3.12	1.48	1.64	12.61	14.25	12.94	
43	14.41	28.01	3.24	1.53	1.71	13.18	14.88	13.13	
44	15.10	28.87	3.36	1.59	1.77	13.74	15.51	13.36	
45	15.82	29.78	3.48	1.65	1.83	14.31	16.14	13.64	

Male Age 35 NonSmoker  
 Guaranteed Interest = 2%  
 Guaranteed COI = 2001 CSO Male Composite  
 Specified Amount = \$100,000 (includes Policy Value)

Form VUL-08(S)

GMP = \$1,984.61

Duration	GMF	FB	Duration	GMF	FB
1	1,267	100,000	44	72,612	100,000
2	2,554	100,000	45	74,044	100,000
3	3,863	100,000	46	75,419	100,000
4	5,190	100,000	47	76,731	100,000
5	6,537	100,000	48	77,986	100,000
6	7,902	100,000	49	79,188	100,000
7	9,284	100,000	50	80,334	100,000
8	10,680	100,000	51	81,417	100,000
9	12,091	100,000	52	82,431	100,000
10	13,512	100,000	53	83,372	100,000
11	15,173	100,000	54	84,241	100,000
12	16,852	100,000	55	85,038	100,000
13	18,546	100,000	56	85,765	100,000
14	20,267	100,000	57	86,446	100,000
15	22,013	100,000	58	87,084	100,000
16	23,783	100,000	59	87,680	100,000
17	25,571	100,000	60	88,231	100,000
18	27,373	100,000	61	88,734	100,000
19	29,186	100,000	62	89,214	100,000
20	31,005	100,000	63	89,667	100,000
21	32,825	100,000	64	90,090	100,000
22	34,645	100,000	65	90,476	100,000
23	36,466	100,000	66	90,814	100,000
24	38,299	100,000	67	91,145	100,000
25	40,140	100,000	68	91,467	100,000
26	41,983	100,000	69	91,782	100,000
27	43,820	100,000	70	92,087	100,000
28	45,643	100,000	71	92,383	100,000
29	47,447	100,000	72	92,671	100,000
30	49,234	100,000	73	92,949	100,000
31	51,004	100,000	74	93,218	100,000
32	52,762	100,000	75	93,478	100,000
33	54,514	100,000	76	93,729	100,000
34	56,259	100,000	77	93,971	100,000
35	58,002	100,000	78	94,204	100,000
36	59,734	100,000	79	94,430	100,000
37	61,454	100,000	80	94,651	100,000
38	63,139	100,000	81	94,873	100,000
39	64,793	100,000	82	95,112	100,000
40	66,421	100,000	83	95,409	100,000
41	68,020	100,000	84	95,882	100,000
42	69,591	100,000	85	97,006	100,000
43	71,125	100,000	86	100,000	100,000

**Statutory Reserves**  
**Form VU-08(S)**

Because the No-Lapse guarantee is embedded in the policy, the reserves will be the greater of the sum of the reserve calculated under the Commissioner's Reserve Valuation Method (CRVM) for Flexible Premium Adjustable Variable Life and the reserve calculated using Actuarial Guideline XXXVII (AG37) methodology or the Cash Surrender Value. The description and demonstration of the AG37 reserve can be found in the attachment to this memorandum.

The following items will be calculated at time of policy issue.

Guaranteed Maturity Premium (GMP) - The GMP is the level annual gross premium paid to age 121, which will endow the policy at age 121. The GMP is calculated based on the underwriting classification, plan of insurance purchased and policy guarantees including expense charges, interest rates and mortality charges.

Guaranteed Maturity Fund (GMF) - The GMF is an accumulation fund value defined for each duration using guaranteed expense charges, interest rates and mortality charges, and assuming the GMP's are paid.

Future Benefits (FB) - The FB are the Death Benefits associated with each of the GMF values, defined for all policy durations. These Future Benefits are based on the Death Benefit Option (Specified Amount includes Policy Value or Specified Amount does not include Policy Value) and the percentage of Policy Value factors in Section 12 of Form VU-08(S), if applicable.

Present Value of Future Benefits (PVFB<sub>T</sub>) - The PVFB at issue is the value of the future benefits, discounted for interest and mortality that correspond to the valuation basis for the year of issue. The mortality used is based on the 2001 CSO Sex Distinct Composite Mortality Table, Age Nearest Birthday.

$$PVFB_T = \frac{1 * \sum_{t=1}^{121-x} [(l_{x+t-1} - l_{x+t}) * FB_t]}{l_x \frac{1 - v^{121-x}}{1 - v^{1+i_k}}}$$

where:

x = issue age

$l_{x+t}$  = number of lives at age x+t using valuation mortality

$i_k$  = valuation interest rate for duration k

SA = Specified Amount at issue

CRVM Expense Allowance ( $E^{CRVM}$ ) - The  $E^{CRVM}$  is equal to (a)-(b) where:

(a) is (i) the net level annual premium for the contract as if issued at an age one year older with premiums payable one year less and maturing at the same age, but not greater than (ii) a net level annual premium for a 19 pay whole life contract issued at an age one year older.

$$(i) \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_jP_{x+1} * q_{x+j+1} + FB_{(121-x)} * v^{(121-x)-1} * {}_{121-x-1}P_{x+1}}{\sum_{j=0}^{(121-x)-2} v^j * {}_jP_{x+1}}$$

(ii)  $ELRA * 19P_{x+1}$

where, ELRA is the Equivalent Level Renewal Amount

$$ELRA = \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_jP_{x+1} * q_{x+j+1}}{A_{x+1}}$$

and,

$$19P_{x+1} = A_{x+1} / a_{x+1:19}$$

(b) is the net one year term insurance premium for the benefit provided in the first year.

$$FB_1 * A_{x:1}$$

The following items will be calculated at each valuation date.

Cash Value ( $CV_m$ ) - The  $CV_m$  is the accumulated fund value of the policy, at the time of valuation.

Net Surrender Value ( $CSV_m$ ) - The  $CSV_m$  is the cash value of the policy less the surrender charge, if any, at the time of valuation.

Ratio ( $r$ ) - equals  $CV_m$  divided by  $GMF_m$ .

If the ratio  $r$  is less than zero or greater than one, then it should be set equal to one.

Future Benefits ( $FB$ ) - Using the greater of  $CV_m$  or  $GMF_m$  as a starting value on the valuation date, future benefits are calculated assuming guaranteed interest, mortality and expense charges, with GMP's paid on the policy anniversaries.

Present Value of Future Benefits ( $PVFB_m$ ) - The  $PVFB$  at the time of valuation is the value of the Future Benefits, discounted for interest and mortality using the valuation basis.

Net Level Premium Reserves ( $NLR_m$ ) - The net level premium reserves are equal to  $((A) - (B)) * r$  where:

(A) is  $PVFB_m$

(B) is  $PVNLP = NLP * a_{x+m}$   
where  $NLP = PVFB_1 / a_x$

$r$  is the ratio defined above.

CRVM Reserve ( $CRVM_m$ ) - The  $CRVM$  at time of valuation  $m$  is defined as follows:

$$CRVM_m = NLR_m - (E^{CRVM} * \frac{a_{x+m}}{a_x} * r)$$

**STATUTORY RESERVES  
FORM VU-08(S)  
SAMPLE CALCULATION**

Male, Age 35, Nonsmoker  
\$100,000 Specified Amount  
Issue Date = 5/1/08

Guaranteed Maturity Premium (GMP) = 1,831.63

Guaranteed Maturity Fund (GMF) - see attached Table

Future Benefits (FB) - see attached Table

Present Value of Future Benefits (PVFB<sub>T</sub>) - using 4% interest and the 2001 CSO Nonsmoker Mortality Table, the PVFB<sub>T</sub> = 20,624.54

CRVM Expense Allowance (E<sup>CRVM</sup>) -

(a) (i) the net level annual premium issued one year older = \$1,042.27

(ii) ELRA \*  ${}_{19}P_{x+1}$  = \$1,588.91

ELRA = \$100,000

${}_{19}P_{x+1}$  = .0158891

(b) is the net one year term insurance premium

FB<sub>1</sub> \* A<sub>x:1</sub> = \$55.81

FB<sub>1</sub> = 100,000

A<sub>x:1</sub> = .0005581

E<sup>CRVM</sup> = (a) - (b) = 1,042.27 - 55.81 = 986.46

Using a valuation date of 12/31/08, m=8.

Cash Value (CV<sub>m</sub>) - Assuming an actual premium of \$1,831.63, actual interest credited at 2%, and current cost of insurance rates, CV<sub>m</sub> = \$1,562.00.

Net Surrender Value = 689.00

Ratio (r) - CV<sub>m</sub> / GMF<sub>m</sub>

GMF<sub>m</sub> = 1,411.27

r = 1,562.00/1,411.27 > 1, therefore r = 1.00

Present Value of Future Benefits (PVFB<sub>m</sub>) -

PVFB<sub>8</sub> = 21,170.42

Net Level Premium Reserves (NLR<sub>m</sub>) -

((A) - (B)) \* r

(A) is PVFB<sub>8</sub> = 21,170.42

(B) is PVNLP = NLP \* a<sub>x+m</sub>

$$\begin{aligned} \text{where NLP} &= \text{PVFB}_I / a_x \\ &= 20,624.54 / 20.73 \\ &= 994.69 \end{aligned}$$

$$a_{x+m} = 20.27$$

$$\text{PVNLP} = 994.69 * 20.27 = 20,157.54$$

$$\text{NLR}_m = (21,170.42 - 20,157.54) * 1.00 = 1,012.88$$

CRVM Reserve ( $\text{CRVM}_m$ ) -

$$\begin{aligned} \text{CRVM}_m &= \text{NLR}_m - (E^{\text{CRVM}} * \frac{a_{x+m}}{a_x} * r) \\ &= 1,012.88 - 986.46 * 20.27 / 20.73 * 1.00 \\ &= 48.75 \end{aligned}$$

AG37 Reserve ( $t\text{IV}_{[x]}$  from Attachment) = 256.22

Statutory Reserve = MAX ( $\text{CSV}_m, \text{CRVM}_m + t\text{IV}_{[x]}$ ) = MAX(597.00, 48.75 + 256.22) = 597.00

## Actuarial Guideline XXXVII Reserves for Secondary Guarantee on Form VU-08(S)

### Description

Actuarial Guideline XXXVII describes a two step process to calculate the reserves on a variable universal life policy that guarantees the coverage to remain in force as long as the accumulation of premiums paid satisfy the secondary guarantee requirement.

AG37 reserves are held in addition to basic reserves unless the appointed actuary provides satisfactory documentation to the state of domicile insurance department stating why such reserves are redundant. Basic reserves include the reserve held for death benefits provided in the absence of a GMDB. AG37 reserves provide for the contingency of death occurring when the guaranteed minimum death benefit exceeds the death benefit that would be paid in the absence of the guarantee. If a contract has multiple guarantee periods, a reserve should be determined for each guarantee and the greatest of the AG37 reserves should be held.

The first step is to calculate the One Year Term (OYT) reserve which is calculated by projecting the policy value following a 1/3-Asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

In step two, the Attained Age Level Reserve (AALR) is calculated. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee. The AALR reserve component cannot be less than zero and will be equal to the "residue", as described below, of the prior year's AALR increased or decreased by a "payment", also described below.

The AG37 reserve is the greater of the OYT reserve and the AALR reserve. The final reserve is equal to the sum of the AG37 reserve and the Base reserve.

### Definitions and Notation

Secondary Guarantee Period (n) – the period for which policyholder can maintain the policy in force due to the provisions of the secondary guarantee.

Minimum Gross Premium (GP) – the minimum premium to keep the secondary guarantee in force. This amount is calculated as the minimum premium that can be paid at the beginning of the policy year to keep the guarantee in force at the end of the year.

Present Value of Future Benefits (PVFB) – Value of future benefits discounted for interest, mortality and lapses. For Minimum reserve PVFB is determined using an interest rate of 4% and Minimum Mortality. The maximum lapses allowed are used in the present value calculation.

Minimum Mortality - is defined as 2001 CSO Male/Female Composite S & U Mortality.

Attained Age Level Reserve (AALR) – The AALR is a methodology described in the 1983 and 1989 revisions to the Variable Life Insurance Model Regulation. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee.

One-year Term (OYT) Reserve – The OYT reserve covers a period of no more than one year following a 1/3-asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

Total AG37 Reserve ( $tTV_{[n]}$ ) – The total reserve held, which is equal to the maximum of the OYT reserve and AALR reserve.

## Formulas

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ \text{AALR}_t \text{ payment} &= [\text{PV}_{[x]+t} - \text{AALR}_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\ \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ {}_t \text{TV}_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \end{aligned}$$

where:

$q_{[x]+t}$  includes only applicable mortality

$x$  = issue age of insured

$n$  = secondary guarantee period

$j$  = length of current segment

$v = 1 / (1+i)$

$i$  = valuation interest rate

${}^{\text{GM}}\text{BD}_{[x]+t}$  = guaranteed minimum death benefit at duration  $t$

$\text{BD}_{[x]+t}$  = death benefit at duration  $t$  assuming an immediate one-third depreciation

${}^{\text{C}}\text{BD}_{[x]+t}$  = death benefit at duration  $t$

$\text{PV}_{[x]+t}$  = present value at duration  $t$  of the excess of the guaranteed minimum death benefit over the death benefit payable in absence of the guaranteed minimum death benefit

## Sample Calculation

Insured: Male, Age 35, Nonsmoker  
Specified Amount: \$100,000  
Target Premium: \$970  
Issue Date: 05/01/2008  
Valuation Date: 12/31/2008  
 $i = 4.0\%$   
Account Value (12/31/08): \$1,615.28  
Premium Paid since Issue: \$1,984.61

## Actuarial Guideline XXXVII Reserve

Secondary Guarantee Period = To age 121

Specified Premium = \$950

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ &= (1.04^{(-1/12)}) * (1 - .999899) * [100,000 - 100,000] = 0 \\ \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ &= [0 * (1.04) - (100,000 - 100,000) * (1 - .999899)] / (.999899) = 0 \end{aligned}$$

$$PV_{[x]+t} = 686,874.35 - 37,995.54 = 648,878.81$$

$$\begin{aligned} \text{AALR}_t \text{ payment} &= [PV_{[x]+t} - \text{AALR}_t \text{ residue}] / ( \ddot{a}_{[x]+t : n-t} ) \\ &= [648,878.81 - 0] / (39.55299) \\ &= 16,405.30 \end{aligned}$$

$$\begin{aligned} \text{AALR}_t &= \text{Max} (0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ &= \text{Max} (0, 0 + 16,405.30) = 16,405.30 \end{aligned}$$

$$\begin{aligned} {}_t TV_{[x]} &= \text{Max} (\text{OYT}_t, \text{AALR}_t) \\ &= \text{Max} (0, 16,405.30) = 16,405.30 \end{aligned}$$

**PENN MUTUAL LIFE INSURANCE COMPANY**

**ACTUARIAL BASIS, CASH VALUE FORMULA  
DEMONSTRATION OF COMPLIANCE WITH STANDARD NONFORFEITURE LAW  
DEMONSTRATION OF COMPLIANCE WITH STANDARD VALUATION LAW**

**FLEXIBLE PREMIUM ADJUSTABLE VARIABLE LIFE, FORM VU-08(U)**

I. DESCRIPTION OF POLICY CHARACTERISTICS

This policy provides adjustable life insurance coverage while the policy remains in force.

A. Death Benefits

Insurance on the life of the insured is integrated with the policy value under one of two options.

Under option one, the total death benefit is the Specified Amount on the date of death.

Under option two, the death benefit is defined as the Specified Amount on the date of death plus the policy value on the date of death.

Under either option, should the amount of a defined percentage of the policy value be greater than the death benefit on the date of death, the death benefit will be adjusted automatically to keep the death benefit equal to the defined percentage of the policy value. The defined percentage is that percentage which will continue to qualify the policy as life insurance under Section 7702 of the 1986 Internal Revenue Code. Note that this policy form can qualify for life insurance under either the Guideline Premium Test or the Cash Value Accumulation Test.

B. Policy Value

The policy value is the accumulation of interest of a percentage of the net premiums less expense charges and less the cost of insurance based on the net amount of risk.

C. Cash Surrender Value

The cash surrender value is the policy value less the surrender charge. A policy is subject to a surrender charge on the initial Specified Amount only during the first fourteen years in force and for fourteen years following an increase in the Specified Amount.

D. Continuation of Insurance

If the policyholder ceases paying premiums, the policy will continue in force for as long as the net cash surrender value is sufficient to keep it in force or the No Lapse Guarantee requirement is satisfied. The rates for calculating the Monthly Deductions will be the same as those used while on a premium paying basis.

E. No Lapse Guarantee

The policy will not lapse as a result of a Net Cash Surrender Value insufficient to cover the Monthly Deduction for the following month if, on a monthly anniversary prior to the Maturity Date, the No-Lapse Guarantee Requirement is satisfied. The No-Lapse Guarantee Requirement is satisfied if, on a monthly anniversary prior to the Maturity Date, the sum of all premiums paid on this policy, reduced by any partial surrenders, is greater than or equal to the No-Lapse Premium multiplied by the number of months since the Policy Date.

However, failure to satisfy this Requirement does not necessarily lapse the contract, provided the Net Cash Surrender Value is greater than zero.

F. Flexibility

At issue the owner selects both a premium amount and the amount of insurance, subject to the minimum amounts. At any time after the first policy year, while the policy is in force, the owner may change the amount of insurance. Decreases may not lower the amount of insurance below the minimum amount. Increases are subject to the rules of Penn Mutual as to age and amount. Evidence of insurability is required for any increase in the amount of insurance. Premiums after the first may be paid in any amount and at any interval subject to the following conditions:

- (1) No premium payment may be less than \$25 or such lower amount that may be established by Penn Mutual.
- (2) Penn Mutual reserves the right to limit total premiums paid in any policy year to the planned payments for that policy year as shown on Page 3 of the Policy.
- (3) If the Guideline Premium Test is used to qualify the policy as life insurance, total premiums paid in any year may not exceed the guideline premium limitation as set forth in Section 7702 of the Internal Revenue Code of 1986.

II. BASIS OF VALUES

A. Interest

The minimum interest rate that will be used in calculating the Policy Value is .16516% per month compounded monthly. This is equivalent to 2% per year compounded annually. The actual interest that will be credited to the Policy Value will be at rates set by Penn Mutual that could be higher than 2%.

Because of the retrospective approach used for the calculation of policy values, the use of an increased rate of interest in determining policy values would produce increased cash surrender values. Therefore, such use is not in conflict with the maximum interest rate defined in the Standard Nonforfeiture law.

B. Cost of Insurance

The guaranteed maximum cost of insurance rates applied in the calculation of policy values under this policy are the 2001 CSO (80) Composite Mortality Table, Age Nearest Birthday.

The company may use modified cost of insurance rates which produce a lower cost of insurance, thus producing higher cash surrender values than those generated by the guaranteed maximum rates.

C. Expense Charges

The maximum expense charges applicable under this policy are:

- (a) a percent of premium charge of 7.5% of each premium paid;
- (b) a monthly expense charge of \$9.00;
- (c) a monthly expense charge per \$1,000 of original Specified Amount that varies by issue age for the first 120 months following the date of issue; and
- (d) if the Specified Amount has been increased within the past year, a monthly expense charge per \$1,000 of the increased Specified Amount that varies by the age at the time of increase for the first 120 months following the date of increase.

D. The same basis of values applies whether premiums are being paid or the policyholder has ceased to pay premiums.

### III. POLICY VALUE FORMULA AND COMPARISON OF FLEXIBLE PREMIUM ADJUSTABLE VARIABLE LIFE CASH SURRENDER VALUES WITH MINIMUM NONFORFEITURE REQUIREMENTS

For Flexible Premium Adjustable Variable Life (FPAVL) the ultimate plan of insurance is determined by assuming that the initial premium and death benefit continue unchanged. Since FPAVL is a universal life type policy, the initial premium and initial death benefit are those selected by the policyowner at issue, and hence are known.

The Standard Nonforfeiture Law (SNFL) defines minimum policy values using a prospective formula. But the prospective SNFL formula can be mathematically converted to a retrospective form. The method of calculating FPAVL policy values was designed to be consistent with the retrospective equivalent of the SNFL cash value formula.

The following section will demonstrate that FPAVL cash surrender values are greater than minimum cash values required by the retrospective version of the SNFL formula using the following approach:

(1) It will be shown that the FPAVL policy value formula is consistent with the retrospective equivalent of the formula required by the SNFL.

(2) Minimum FPAVL policy values will be generated by using the minimum interest rate of 2% and maximum cost of insurance rates in the policy value formula. Minimum FPAVL cash surrender values are obtained by subtracting the maximum surrender charge from the policy values.

Excess interest and/or lower cost of insurance rates will result in policy values greater than those based on guaranteed cost of insurance and the 2% minimum interest rate.

(3) It will be shown that the maximum surrender charge for FPAVL will, at all times, be less than or equal to the maximum expense allowance permitted by the SNFL.

(4) The combination of items (1), (2) and (3) above ensures that regardless of the incidence and amount of FPAVL premium payments and benefit changes, FPAVL cash surrender values will be greater than the minimum SNFL cash values generated by the retrospective equivalent of the SNFL formula.

The following is a definition of terms used in the policy value formulas:

- $t$  = duration from original issue date measured in months.
- $i'$  = monthly interest rate equal to 2% annually, which equals  $(1.02)^{1/12} - 1$
- $tq_x$  = 1/12 of the appropriate 2001 CSO mortality rate for age  $x$  where  $x$  is the "age nearest birthday" as of the policy anniversary prior to month  $t$ .
- $F_t$  = total death benefit in month  $t$ .
- $E$  = Monthly expense charge which equals \$9.00 per policy while the policy remains in force.
- $EC$  = excess of the first-year monthly charge per \$1,000 of original Specified Amount over the average (over 19 years) renewal monthly charge per \$1,000 of original Specified Amount. The monthly charge per \$1,000 of original Specified Amount varies by issue age and extends for the first 120 months following the date of issue or the date of an increase.
- $G_t$  = Gross premium collected in month  $t$ . All premiums are assumed to be paid monthly at the beginning of each month.
- $P_t$  = Net premium credited to policy values, which equals 92.5% of  $G_t$ .

${}_t r_x$  = Maximum monthly cost of insurance rate which equals  ${}_t q_x / (1 - {}_t q_x)$  where x is the "age nearest birthday" as of the policy anniversary prior to month t.

$C_t$  = Maximum monthly cost of insurance for month t.

${}_t CV$  = Policy value at end of month t.

${}_t SC$  = Surrender Charge at end of month t.

${}_t CSV$  = Cash Surrender Value at end of month t.

The FPAVL policy value at time of issue (after receipt of the initial premium) is P. The FPAVL policy value at the end of the first month just prior to the payment of the second month's premium is:

$$(1) \quad {}_1 CV = (P_1 - E - EC - C_1) * (1 + i')$$

where:

$$(2) \quad C_1 = {}_1 r_x * \frac{[E_1] - P_1}{(1 + i')} = \frac{{}_1 q_x}{1 - {}_1 q_x} * \frac{[E_1] - P_1}{(1 + i')}$$

Substituting (2) into (1), we have:

$$(3) \quad {}_1 CV = [P_1 - E - EC - \frac{{}_1 q_x}{1 - {}_1 q_x} * \frac{([E_1] - P_1)}{1 + i'}] * (1 + i')$$

$$= \frac{(P_1 - E - EC) * (1 + i') * (1 - {}_1 q_x) - {}_1 q_x * E_1 + {}_1 q_x * P_1 * (1 + i')}{1 - {}_1 q_x}$$

Collecting terms:

$$(4) \quad {}_1 CV = \frac{(P_1) * (1 + i') - {}_1 q_x * E_1}{(1 - {}_1 q_x)} - (E + EC) * (1 + i')$$

and the cash surrender value,  ${}_1 CSV$ , is given by:

$$(5) \quad {}_1 CSV = \frac{(P_1) * (1 + i') - {}_1 q_x * E_1}{(1 - {}_1 q_x)} - (E + EC) * (1 + i') - {}_1 SC$$

Next it is necessary to show that the FPAVL cash surrender value formula is consistent with the SNFL formula for calculating minimum cash values.

The first year minimum cash value required by the SNFL is calculated using a prospective formula involving the present value of future benefits less the present value of future adjusted net premiums. This prospective form can be converted into the following retrospective form by using the technique described on page 106 of Life Contingencies by C.W. Jordan.

The notation used for the SNFL minimum cash value formulas is as follows:

$$i = .02$$

$$q_{x+t} = \text{the appropriate 2001 CSO mortality rate where age } x+t \text{ is the "age nearest birthday" as of the } t\text{th policy anniversary.}$$

$$P_t^A = \text{adjusted premium in year } t.$$

$$A_0 = \text{present value of future benefits at time of issue.}$$

$$PV(P_t^A)_0 = \text{present value of future adjusted premiums at time of issue.}$$

$$E^1 = \text{maximum first year expense allowance.}$$

$${}_tF = \text{death benefit in year } t.$$

$${}_tCV^M = \text{SNFL minimum cash value at end of year } t.$$

The retrospective formula for calculating the minimum cash value as defined by the SNFL, at the end of the first year, is:

$${}_1CV^M + q_x ({}_1F - {}_1CV^M) = ({}_0CV^M + P_1^A) (1 + i)$$

$$(6) \quad {}_1CV^M = \frac{({}_0CV^M + P_1^A)(1 + i) - q_x \cdot {}_1F}{1 - q_x}$$

where:

$${}_0CV^M = A_0 - PV(P_t^A)_0$$

$PV(P^A_t)_0$  is the present value of future net adjusted premiums which is also equal to  $A_0 + E^1$ . Using this value of  $PV(P^A_t)_0$ ,  $CV^M_0 = A_0 - (A_0 + E^1) = -E^1$ .

Substituting  $-E^1$  for  $CV_0$  in (6), we have:

$$(7) \quad {}_1CV^M = \frac{(P^A_1 - E^1)(1+i) - q_x * F_1}{1 - q_x}$$

$$= \frac{(P^A_1) * (1+i) - q_x * F_1 - E^1 * (1+i)}{1 - q_x} \quad (1 - q_x)$$

Formula (5) is shown for comparison of FPAVL cash value to SNFL minimum:

$$(5) \quad {}_1CV = \frac{[P_1](1+i') - {}_1q_x * F_1 - (E + EC) * (1+i') - {}_1SC}{1 - {}_1q_x}$$

These two formulas are identical with the following exceptions:

(a) Formula (5) develops policy values (and, therefore, cash surrender values) on a monthly basis while formula (7) is an annual calculation. The terms for interest and mortality in formula (5) are the monthly equivalents of the like terms in formula (7) based on the following assumptions:

$$(1+i')^{12} = (1+i) \quad (\text{compound interest})$$

$${}_1q_x = (1/12) * q_x \quad (\text{uniform distribution of deaths})$$

(b) The monthly expense charge,  $E$ , in formula (5) does not appear in formula (7) because it is a level expense charge. Level expense charges are not subject to the first year expense allowance limit and do not appear in the formula for minimum cash values under SNFL.

(c) The term  $EC$  in formula (5) is analogous to  $E^1$  in formula (7). It will be demonstrated that the value of  $EC$  plus the surrender charge can never exceed the minimum expense allowance under SNFL. This is a necessary condition to substantiate that the FPAVL policy value and corresponding cash value formulas satisfy minimum requirements.

For renewal periods after the first year, the same consistency as demonstrated above exists. Consider the  $t+1$ st month policy value where  $t \geq 12$ , just prior to the payment of the monthly premium  $P_{t+2}$ , which is due on the  $t+1$ st month anniversary day. The FPAVL formula is:

$$(7) \quad {}_{t+1}CV = ({}_tCV + P_{t+1})(1+i') - (1+i')C_{t+1} - E(1+i')$$

where:

$$(8) \quad C_{t-1} = \frac{{}_{t-1}r_x [E_{t-1} - (iCV + P_{t-1})]}{1 + i'} = \frac{{}_{t-1}q_x [E_{t-1} - (iCV + P_{t-1})]}{1 - {}_{t-1}q_x} \frac{1}{1 + i'}$$

Substituting (8) in (7), we have:

$$(9) \quad {}_{t+1}CV = (iCV + P_{t+1} - E)(1 + i') - (1 + i') * \frac{{}_{t+1}q_x [E_{t+1} - (iCV + P_{t+1})]}{(1 - {}_{t+1}q_x)(1 + i')}$$

$$(10) \quad {}_{t+1}CV = \frac{(iCV + P_{t+1} - E)(1 + i') - {}_{t+1}q_x * E * (1 + i') * ({}_{t+1}q_x)}{1 - {}_{t+1}q_x}$$

Using the retrospective method of calculating the SNFL minimum policy value for duration t+1, we have:

$$(11) \quad {}_{t+1}CV^M = \frac{(iCV^M + P_{t+1}^A)(1 + i) - q_{x+t} * {}_{t+1}F}{1 - q_{x+t}}$$

The SNFL formula (11) is the same as the FPAVL formula (10) except for the monthly versus annual time period, and except for the expense charge term, which is a level expense charge and does not appear in the formula for minimum cash values under SNFL.

Upon surrender of the Flexible Premium Adjustable Variable Life Policy, a surrender charge is applied against the policy value. The surrender charge is determined by multiplying (d) times 90% of the lesser of (a), (b), and (c) where:

- (a) total premium paid in first 12 months after policy issue;
- (b) the Maximum Surrender Charge Premium;
- (c) \$45.00 per thousand of Specified Amount;
- (d) a factor based on policy year as follows:

<u>Policy Year</u>	<u>Factor</u>
1	1.00
2	.89
3	.78
4	.67
5	.56
6	.45
7	.34
8	.23
9	.12
10+	0

Given we calculated the Flexible Premium Adjustable Variable Life policy values using the minimum interest rate of 2% and the maximum monthly cost of insurance rates, the cash surrender values will be greater than the minimum policy values required by the SNFL, provided that the surrender charge can never be greater than the unamortized and unused portion of the maximum first year expense allowance under the SNFL.

The formula for the SNFL maximum allowance is:

$$E = (1.25 * H) + 10$$

where H is the minimum value of P or 40. [P is the Net Level Annual Premium].

Table 2 summarizes the maximum SNFL first year expense allowance age-by-age for comparison versus the maximum surrender charge. The nonforfeiture interest rate used is the maximum rate allowed by law (5%). Using a rate in excess of the policy's guarantee rate produces a smaller SNFL maximum first year expense allowance which is conservative when demonstrating compliance with SNFL.

As shown in Table 2, for each age, the maximum surrender charge plus the first year expense charge is less than the SNFL maximum first year expense allowance.

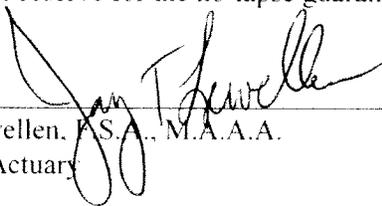
Table 3 shows, for various issue ages, the run off of the unamortized first year expense allowance versus the surrender charge. Note that in the ten years after issue and in the ten years following an increase, there is an annualized expense charge per \$1,000 of Specified Amount that varies by issue age or the age at the time of increase. The unamortized expense allowance reflects this charge. Table 4 contains the Maximum Surrender Charge Premiums and Table 5 contains the monthly expense charges per \$1,000 of Specified Amount.

A comment should be made about the consistency between the adjusted premiums ( $P^A$ ) in the SNFL formulas and the net premiums less level expense charge (P-E) in the FPAVL policy value formulas. The present value of adjusted premiums is equal to the present value of future benefits plus the first year expense allowance ( $E^1$ ) at time of issue in the SNFL formula. Likewise, the present value of net premiums less level expense charge (P-E) (where P equals 92.5% of gross premiums and E equals \$9.00) is equal to the present value of future benefits, using the minimum 2% interest rate and maximum cost of insurance rates, which are based on the appropriate 2001 CSO mortality table. Effectively, the SNFL formula and the FPAVL cash policy value formula amortize the first year expense charges over the premium paying period of the policy, and the first year expense allowance in the SNFL formula is greater than the policy surrender charge in the FPAVL policy value formula. Thus the FPAVL cash surrender value must be greater than the minimum SNFL value by the unamortized portion of the excess first year expenses.

The method of calculating policy values is described in the policy form and annually the Company will furnish the insured a statement showing the current policy values.

#### IV. VALUATION BASIS

The Standard Valuation Law requires minimum reserves to be computed under the Commissioner's Reserve Valuation Method (CRVM). The statutory reserve of this policy will be calculated as the greater of the following: the CRVM method; the reserve for the no-lapse guarantee; or the cash surrender value (see attached Statutory Reserves memo).



Jay T. Lewellen, F.S.A., M.A.A.A.  
AVP and Actuary

Table 2

UNISEX PREFERRED PLUS NONTOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE	
0	2.48	13.10	1.44	0.68	0.76	2.83	3.58	9.51	
1	2.55	13.18	1.46	0.69	0.77	2.91	3.68	9.50	
2	2.64	13.29	1.48	0.70	0.78	3.00	3.78	9.52	
3	2.73	13.42	1.51	0.71	0.79	3.08	3.88	9.54	
4	2.84	13.55	1.53	0.72	0.81	3.17	3.98	9.57	
5	2.95	13.69	1.55	0.74	0.82	3.25	4.07	9.62	
6	3.07	13.84	1.57	0.75	0.83	3.34	4.17	9.67	
7	3.20	14.00	1.60	0.76	0.84	3.43	4.27	9.73	
8	3.33	14.16	1.62	0.77	0.85	3.51	4.36	9.80	
9	3.46	14.33	1.64	0.78	0.86	3.60	4.46	9.87	
10	3.61	14.51	1.66	0.79	0.88	3.69	4.56	9.94	
11	3.75	14.69	1.69	0.80	0.89	3.77	4.65	10.04	
12	3.91	14.89	1.71	0.81	0.90	3.86	4.75	10.13	
13	4.07	15.08	1.73	0.82	0.91	3.94	4.85	10.23	
14	4.23	15.29	1.75	0.83	0.92	4.02	4.96	10.34	
15	4.40	15.50	1.78	0.84	0.93	4.11	5.05	10.46	
16	4.58	15.72	1.78	0.84	0.94	4.29	5.23	10.49	
17	4.75	15.94	1.78	0.84	0.94	4.47	5.41	10.53	
18	4.93	16.17	1.78	0.84	0.94	4.65	5.59	10.58	
19	5.12	16.40	1.79	0.85	0.94	4.83	5.77	10.63	
20	5.31	16.64	1.79	0.85	0.94	4.82	5.76	10.88	
21	5.52	16.90	1.79	0.85	0.94	4.96	5.90	11.00	
22	5.73	17.17	1.79	0.85	0.94	5.10	6.04	11.12	
23	5.96	17.45	1.80	0.85	0.94	5.24	6.18	11.26	
24	6.19	17.74	1.80	0.85	0.95	5.38	6.33	11.41	
25	6.44	18.05	1.80	0.85	0.95	5.52	6.47	11.58	
26	6.70	18.37	1.80	0.85	0.95	5.81	6.76	11.62	
27	6.97	18.71	1.86	0.88	0.98	6.09	7.07	11.64	
28	7.25	19.07	1.92	0.91	1.01	6.38	7.39	11.68	
29	7.55	19.44	1.98	0.94	1.04	6.67	7.71	11.73	
30	7.87	19.83	2.04	0.97	1.07	6.95	8.03	11.81	
31	8.20	20.25	2.10	0.99	1.11	7.24	8.34	11.91	
32	8.55	20.69	2.16	1.02	1.14	7.52	8.66	12.03	
33	8.92	21.16	2.22	1.05	1.17	7.81	8.98	12.18	
34	9.32	21.65	2.28	1.08	1.20	8.09	9.29	12.35	
35	9.73	22.16	2.28	1.08	1.20	8.38	9.58	12.58	
36	10.17	22.71	2.39	1.13	1.26	8.92	10.18	12.53	
37	10.63	23.28	2.50	1.18	1.32	9.47	10.78	12.50	
38	11.11	23.89	2.61	1.24	1.37	10.01	11.39	12.50	
39	11.62	24.52	2.72	1.29	1.43	10.56	11.99	12.54	
40	12.16	25.20	2.83	1.34	1.49	11.10	12.59	12.60	
41	12.72	25.91	2.94	1.39	1.55	11.65	13.19	12.71	
42	13.32	26.65	3.05	1.45	1.61	12.19	13.80	12.86	
43	13.95	27.44	3.16	1.50	1.66	12.74	14.40	13.04	
44	14.62	28.27	3.27	1.55	1.72	13.28	15.00	13.27	
45	15.31	29.14	3.38	1.60	1.78	13.82	15.61	13.54	

Table 2

UNISEX PREFERRED PLUS NONTOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	UNUSED EXPENSE ALLOWANCE
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6)	
46	16.05	30.06	3.47	1.64	1.83	14.67	16.50	13.56	
47	16.82	31.03	3.55	1.68	1.87	15.52	17.39	13.63	
48	17.64	32.05	3.64	1.72	1.91	16.37	18.29	13.76	
49	18.50	33.13	3.72	1.78	1.96	17.22	19.18	13.95	
50	19.43	34.28	3.80	1.80	2.00	18.07	20.07	14.21	
51	20.41	35.51	3.89	1.84	2.05	18.92	20.97	14.54	
52	21.46	36.81	3.97	1.88	2.09	19.77	21.86	14.95	
53	22.55	38.18	4.06	1.92	2.13	20.62	22.76	15.43	
54	23.71	39.64	4.14	1.96	2.18	21.47	23.65	15.99	
55	24.95	41.18	4.22	2.00	2.22	22.32	24.54	16.64	
56	26.25	42.81	4.35	2.06	2.29	23.87	26.16	16.65	
57	27.62	44.53	4.47	2.12	2.35	25.42	27.77	16.76	
58	29.08	46.35	4.60	2.18	2.42	26.97	29.39	16.96	
59	30.63	48.28	4.72	2.24	2.49	28.52	31.00	17.28	
60	32.28	50.35	4.85	2.30	2.55	30.07	32.62	17.73	
61	34.04	52.55	4.97	2.36	2.62	31.61	34.23	18.32	
62	35.92	54.89	5.10	2.41	2.68	33.16	35.85	19.05	
63	37.90	57.37	5.22	2.47	2.75	34.71	37.46	19.91	
64	40.00	60.00	5.35	2.53	2.81	36.26	39.08	20.92	
65	42.23	60.00	5.47	2.59	2.88	37.81	40.69	19.31	
66	44.60	60.00	5.51	2.61	2.90	39.39	42.29	17.71	
67	47.13	60.00	5.54	2.63	2.92	40.50	43.42	16.58	
68	49.84	60.00	5.58	2.64	2.94	40.50	43.44	16.56	
69	52.76	60.00	5.62	2.66	2.96	40.50	43.46	16.54	
70	55.92	60.00	5.65	2.68	2.97	40.50	43.47	16.53	
71	59.33	60.00	5.69	2.69	2.99	40.50	43.49	16.51	
72	63.01	60.00	5.72	2.71	3.01	40.50	43.51	16.49	
73	66.95	60.00	5.76	2.73	3.03	40.50	43.53	16.47	
74	71.18	60.00	5.80	2.75	3.05	40.50	43.55	16.45	
75	75.74	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
76	80.68	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
77	86.02	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
78	91.80	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
79	98.03	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
80	104.70	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
81	111.87	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
82	119.47	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
83	127.58	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
84	136.25	60.00	5.83	2.76	3.07	40.50	43.57	16.43	
85	145.50	60.00	5.83	2.76	3.07	40.50	43.57	16.43	

Table 2

UNISEX PREFERRED NONTOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.48	13.10	1.44	0.68	0.76	2.83	3.58	9.51
1	2.55	13.18	1.46	0.69	0.77	2.91	3.68	9.50
2	2.64	13.29	1.48	0.70	0.78	3.00	3.78	9.52
3	2.73	13.42	1.51	0.71	0.79	3.08	3.88	9.54
4	2.84	13.55	1.53	0.72	0.81	3.17	3.98	9.57
5	2.95	13.69	1.55	0.74	0.82	3.25	4.07	9.62
6	3.07	13.84	1.57	0.75	0.83	3.34	4.17	9.67
7	3.20	14.00	1.60	0.76	0.84	3.43	4.27	9.73
8	3.33	14.16	1.62	0.77	0.85	3.51	4.36	9.80
9	3.46	14.33	1.64	0.78	0.86	3.60	4.46	9.87
10	3.61	14.51	1.66	0.79	0.88	3.69	4.56	9.94
11	3.75	14.69	1.69	0.80	0.89	3.77	4.65	10.04
12	3.91	14.89	1.71	0.81	0.90	3.86	4.75	10.13
13	4.07	15.08	1.73	0.82	0.91	3.94	4.85	10.23
14	4.23	15.29	1.75	0.83	0.92	4.02	4.95	10.34
15	4.40	15.50	1.78	0.84	0.93	4.11	5.05	10.46
16	4.58	15.72	1.78	0.84	0.94	4.29	5.23	10.49
17	4.75	15.94	1.78	0.84	0.94	4.47	5.41	10.53
18	4.93	16.17	1.78	0.84	0.94	4.65	5.59	10.58
19	5.12	16.40	1.79	0.85	0.94	4.83	5.77	10.63
20	5.31	16.64	1.79	0.85	0.94	4.88	5.82	10.82
21	5.52	16.90	1.79	0.85	0.94	5.03	5.97	10.93
22	5.73	17.17	1.79	0.85	0.94	5.18	6.13	11.04
23	5.96	17.45	1.80	0.85	0.94	5.33	6.27	11.17
24	6.19	17.74	1.80	0.85	0.95	5.49	6.43	11.31
25	6.44	18.05	1.80	0.85	0.95	5.63	6.58	11.47
26	6.70	18.37	1.80	0.85	0.95	5.91	6.86	11.51
27	6.97	18.71	1.86	0.88	0.98	6.19	7.17	11.54
28	7.25	19.07	1.92	0.91	1.01	6.47	7.48	11.58
29	7.55	19.44	1.98	0.94	1.04	6.75	7.79	11.65
30	7.87	19.83	2.04	0.97	1.07	7.03	8.10	11.73
31	8.20	20.25	2.10	0.99	1.11	7.31	8.42	11.83
32	8.55	20.69	2.16	1.02	1.14	7.59	8.73	11.96
33	8.92	21.16	2.22	1.05	1.17	7.87	9.04	12.12
34	9.32	21.65	2.28	1.08	1.20	8.15	9.35	12.30
35	9.73	22.16	2.28	1.08	1.20	8.43	9.63	12.53
36	10.17	22.71	2.39	1.13	1.26	8.99	10.25	12.46
37	10.63	23.28	2.50	1.18	1.32	9.55	10.87	12.41
38	11.11	23.89	2.61	1.24	1.37	10.12	11.50	12.39
39	11.62	24.52	2.72	1.29	1.43	10.68	12.11	12.41
40	12.16	25.20	2.83	1.34	1.49	11.25	12.74	12.46
41	12.72	25.91	2.94	1.39	1.55	11.81	13.35	12.55
42	13.32	26.65	3.05	1.45	1.61	12.37	13.98	12.67
43	13.95	27.44	3.16	1.50	1.66	12.93	14.60	12.84
44	14.62	28.27	3.27	1.55	1.72	13.50	15.22	13.05
45	15.31	29.14	3.38	1.60	1.78	14.06	15.84	13.30

Table 2

## UNISEX PREFERRED NONTOBACCO

ISSUE AGE	(1) NET LEVEL ANNUAL PREMIUM	(2) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(3) FIRST YEAR EXPENSE CHARGE	(4) AVERAGE RENEWAL EXPENSE CHARGE	(5) (2) + (3) INITIAL ACQUIS EXPENSE CHARGE	(6) MAXIMUM SURRENDER CHARGE	(7) (4) + (5) TOTAL CHARGES	(8) (1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.05	30.06	3.47	1.64	1.83	14.91	16.74	13.32
47	16.82	31.03	3.55	1.68	1.87	15.76	17.63	13.39
48	17.64	32.05	3.64	1.72	1.91	16.62	18.53	13.51
49	18.50	33.13	3.72	1.76	1.96	17.47	19.43	13.70
50	19.43	34.28	3.80	1.80	2.00	18.33	20.33	13.95
51	20.41	35.51	3.89	1.84	2.05	19.18	21.22	14.28
52	21.45	36.81	3.97	1.88	2.09	20.03	22.12	14.68
53	22.55	38.18	4.06	1.92	2.13	20.88	23.02	15.17
54	23.71	39.64	4.14	1.96	2.18	21.74	23.92	15.72
55	24.96	41.18	4.22	2.00	2.22	22.59	24.81	16.37
56	26.25	42.81	4.35	2.06	2.29	24.19	26.48	16.33
57	27.62	44.53	4.47	2.12	2.35	25.79	28.14	16.39
58	29.08	46.35	4.60	2.18	2.42	27.39	29.81	16.54
59	30.63	48.28	4.72	2.24	2.49	28.98	31.47	16.81
60	32.28	50.35	4.86	2.30	2.55	30.59	33.14	17.21
61	34.04	52.55	4.97	2.36	2.62	32.18	34.80	17.76
62	35.92	54.89	5.10	2.41	2.68	33.78	36.47	18.43
63	37.90	57.37	5.22	2.47	2.75	35.38	38.13	19.25
64	40.00	60.00	5.35	2.53	2.81	36.98	39.79	20.21
65	42.23	60.00	5.47	2.59	2.88	38.57	41.45	18.55
66	44.60	60.00	5.51	2.61	2.90	40.16	43.06	16.94
67	47.13	60.00	5.54	2.63	2.92	40.50	43.42	16.58
68	49.84	60.00	5.58	2.64	2.94	40.50	43.44	16.56
69	52.76	60.00	5.62	2.66	2.96	40.50	43.46	16.54
70	55.92	60.00	5.65	2.68	2.97	40.50	43.47	16.53
71	59.33	60.00	5.69	2.69	2.99	40.50	43.49	16.51
72	63.01	60.00	5.72	2.71	3.01	40.50	43.51	16.49
73	66.95	60.00	5.76	2.73	3.03	40.50	43.53	16.47
74	71.18	60.00	5.80	2.75	3.05	40.50	43.55	16.45
75	75.74	60.00	5.83	2.76	3.07	40.50	43.57	16.43
76	80.68	60.00	5.83	2.76	3.07	40.50	43.57	16.43
77	86.02	60.00	5.83	2.76	3.07	40.50	43.57	16.43
78	91.80	60.00	5.83	2.76	3.07	40.50	43.57	16.43
79	98.03	60.00	5.83	2.76	3.07	40.50	43.57	16.43
80	104.70	60.00	5.83	2.76	3.07	40.50	43.57	16.43
81	111.87	60.00	5.83	2.76	3.07	40.50	43.57	16.43
82	119.47	60.00	5.83	2.76	3.07	40.50	43.57	16.43
83	127.58	60.00	5.83	2.76	3.07	40.50	43.57	16.43
84	136.25	60.00	5.83	2.76	3.07	40.50	43.57	16.43
85	145.50	60.00	5.83	2.76	3.07	40.50	43.57	16.43

Table 2

ISSUE AGE	UNISEX NONTOBACCO		(2)	(3)	(4)	(5)	(6)	(7)
	NET LEVEL ANNUAL PREMIUM	(1) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE						
0	2.48	13.10	1.44	0.68	0.76	2.83	3.58	9.51
1	2.55	13.18	1.46	0.69	0.77	2.91	3.68	9.50
2	2.64	13.29	1.48	0.70	0.78	3.00	3.78	9.52
3	2.73	13.42	1.51	0.71	0.79	3.08	3.88	9.54
4	2.84	13.55	1.53	0.72	0.81	3.17	3.98	9.57
5	2.95	13.69	1.55	0.74	0.82	3.25	4.07	9.62
6	3.07	13.84	1.57	0.75	0.83	3.34	4.17	9.67
7	3.20	14.00	1.60	0.76	0.84	3.43	4.27	9.73
8	3.33	14.16	1.62	0.77	0.85	3.51	4.36	9.80
9	3.46	14.33	1.64	0.78	0.86	3.60	4.46	9.87
10	3.61	14.51	1.66	0.79	0.88	3.69	4.56	9.94
11	3.75	14.69	1.69	0.80	0.89	3.77	4.65	10.04
12	3.91	14.89	1.71	0.81	0.90	3.86	4.75	10.13
13	4.07	15.08	1.73	0.82	0.91	3.94	4.85	10.23
14	4.23	15.29	1.75	0.83	0.92	4.02	4.95	10.34
15	4.40	15.50	1.78	0.84	0.93	4.11	5.06	10.46
16	4.58	15.72	1.78	0.84	0.94	4.29	5.23	10.49
17	4.75	15.94	1.78	0.84	0.94	4.47	5.41	10.53
18	4.93	16.17	1.78	0.84	0.94	4.65	5.59	10.58
19	5.12	16.40	1.79	0.85	0.94	4.83	5.77	10.63
20	5.31	16.64	1.79	0.85	0.94	5.00	5.95	10.70
21	5.52	16.90	1.79	0.85	0.94	5.18	6.13	10.77
22	5.73	17.17	1.79	0.85	0.94	5.36	6.31	10.86
23	5.96	17.45	1.80	0.85	0.94	5.54	6.48	10.96
24	6.19	17.74	1.80	0.85	0.95	5.72	6.66	11.08
25	6.44	18.05	1.80	0.85	0.95	5.90	6.84	11.21
26	6.70	18.37	1.80	0.85	0.95	6.16	7.10	11.27
27	6.97	18.71	1.86	0.88	0.98	6.42	7.39	11.32
28	7.25	19.07	1.92	0.91	1.01	6.67	7.68	11.38
29	7.55	19.44	1.98	0.94	1.04	6.93	7.98	11.46
30	7.87	19.83	2.04	0.97	1.07	7.19	8.27	11.57
31	8.20	20.25	2.10	0.99	1.11	7.45	8.56	11.70
32	8.55	20.69	2.16	1.02	1.14	7.71	8.85	11.84
33	8.92	21.16	2.22	1.05	1.17	7.97	9.14	12.02
34	9.32	21.65	2.28	1.08	1.20	8.23	9.43	12.22
35	9.73	22.16	2.28	1.08	1.20	8.49	9.69	12.48
36	10.17	22.71	2.39	1.13	1.26	9.06	10.32	12.39
37	10.63	23.28	2.50	1.18	1.32	9.63	10.94	12.34
38	11.11	23.89	2.61	1.24	1.37	10.20	11.57	12.32
39	11.62	24.52	2.72	1.29	1.43	10.77	12.20	12.33
40	12.16	25.20	2.83	1.34	1.49	11.34	12.83	12.37
41	12.72	25.91	2.94	1.39	1.55	11.91	13.45	12.45
42	13.32	26.65	3.05	1.45	1.61	12.48	14.08	12.57
43	13.95	27.44	3.16	1.50	1.66	13.04	14.71	12.73
44	14.62	28.27	3.27	1.55	1.72	13.62	15.34	12.93
45	15.31	29.14	3.38	1.60	1.78	14.18	15.97	13.18

Table 2

ISSUE AGE	UNISEX NONTOBACCO		(2)	(3)	(4)	(5)	(6)	(7)
	NET LEVEL ANNUAL PREMIUM	(1) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.05	30.06	3.47	1.64	1.83	15.04	16.87	13.19
47	16.82	31.03	3.55	1.68	1.87	15.90	17.77	13.25
48	17.64	32.05	3.64	1.72	1.91	16.77	18.68	13.37
49	18.50	33.13	3.72	1.76	1.96	17.63	19.58	13.55
50	19.43	34.28	3.80	1.80	2.00	18.49	20.49	13.80
51	20.41	35.51	3.89	1.84	2.05	19.35	21.39	14.12
52	21.45	36.81	3.97	1.88	2.09	20.21	22.30	14.51
53	22.55	38.18	4.06	1.92	2.13	21.07	23.20	14.98
54	23.71	39.64	4.14	1.96	2.18	21.93	24.11	15.54
55	24.96	41.18	4.22	2.00	2.22	22.79	25.01	16.17
56	26.26	42.81	4.35	2.06	2.29	24.46	26.75	16.06
57	27.62	44.53	4.47	2.12	2.35	26.13	28.48	16.05
58	29.08	46.35	4.60	2.18	2.42	27.79	30.21	16.13
59	30.63	48.28	4.72	2.24	2.49	29.46	31.95	16.34
60	32.28	50.35	4.85	2.30	2.55	31.13	33.68	16.67
61	34.04	52.55	4.97	2.36	2.62	32.80	35.42	17.14
62	35.92	54.89	5.10	2.41	2.68	34.47	37.15	17.74
63	37.90	57.37	5.22	2.47	2.75	36.14	38.89	18.49
64	40.00	60.00	5.35	2.53	2.81	37.81	40.62	19.38
65	42.23	60.00	5.47	2.59	2.88	39.47	42.35	17.65
66	44.60	60.00	5.51	2.61	2.90	40.50	43.40	16.60
67	47.13	60.00	5.54	2.63	2.92	40.50	43.42	16.58
68	49.84	60.00	5.58	2.64	2.94	40.50	43.44	16.56
69	52.76	60.00	5.62	2.66	2.96	40.50	43.46	16.54
70	55.92	60.00	5.65	2.68	2.97	40.50	43.47	16.53
71	59.33	60.00	5.69	2.69	2.99	40.50	43.49	16.51
72	63.01	60.00	5.72	2.71	3.01	40.50	43.51	16.49
73	66.95	60.00	5.76	2.73	3.03	40.50	43.53	16.47
74	71.18	60.00	5.80	2.75	3.05	40.50	43.55	16.45
75	75.74	60.00	5.83	2.76	3.07	40.50	43.57	16.43
76	80.68	60.00	5.83	2.76	3.07	40.50	43.57	16.43
77	86.02	60.00	5.83	2.76	3.07	40.50	43.57	16.43
78	91.80	60.00	5.83	2.76	3.07	40.50	43.57	16.43
79	98.03	60.00	5.83	2.76	3.07	40.50	43.57	16.43
80	104.70	60.00	5.83	2.76	3.07	40.50	43.57	16.43
81	111.87	60.00	5.83	2.76	3.07	40.50	43.57	16.43
82	119.47	60.00	5.83	2.76	3.07	40.50	43.57	16.43
83	127.58	60.00	5.83	2.76	3.07	40.50	43.57	16.43
84	136.25	60.00	5.83	2.76	3.07	40.50	43.57	16.43
85	145.50	60.00	5.83	2.76	3.07	40.50	43.57	16.43

Table 2

UNISEX PREFERRED TOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.48	13.10	1.44	0.68	0.76	2.83	3.58	9.51
1	2.55	13.18	1.46	0.69	0.77	2.91	3.68	9.50
2	2.64	13.29	1.48	0.70	0.78	3.00	3.78	9.52
3	2.73	13.42	1.51	0.71	0.79	3.08	3.88	9.54
4	2.84	13.55	1.53	0.72	0.81	3.17	3.98	9.57
5	2.95	13.69	1.55	0.74	0.82	3.25	4.07	9.62
6	3.07	13.84	1.57	0.75	0.83	3.34	4.17	9.67
7	3.20	14.00	1.60	0.76	0.84	3.43	4.27	9.73
8	3.33	14.16	1.62	0.77	0.85	3.51	4.36	9.80
9	3.46	14.33	1.64	0.78	0.86	3.60	4.46	9.87
10	3.61	14.51	1.66	0.79	0.88	3.69	4.56	9.94
11	3.75	14.69	1.69	0.80	0.89	3.77	4.65	10.04
12	3.91	14.89	1.71	0.81	0.90	3.86	4.75	10.13
13	4.07	15.08	1.73	0.82	0.91	3.94	4.85	10.23
14	4.23	15.29	1.75	0.83	0.92	4.02	4.95	10.34
15	4.40	15.50	1.78	0.84	0.93	4.11	5.05	10.46
16	4.58	15.72	1.78	0.84	0.94	4.29	5.23	10.49
17	4.75	15.94	1.79	0.85	0.94	4.47	5.41	10.53
18	4.93	16.17	1.80	0.85	0.95	4.65	5.59	10.57
19	5.12	16.40	1.80	0.85	0.96	4.83	5.78	10.62
20	5.31	16.64	2.00	0.95	1.05	5.32	6.38	10.27
21	5.52	16.90	2.06	0.98	1.08	5.56	6.64	10.26
22	5.73	17.17	2.11	1.00	1.11	5.80	6.92	10.25
23	5.96	17.45	2.17	1.03	1.14	6.04	7.18	10.27
24	6.19	17.74	2.22	1.05	1.17	6.28	7.45	10.29
25	6.44	18.05	2.28	1.08	1.20	6.52	7.72	10.33
26	6.70	18.37	2.34	1.11	1.23	6.87	8.10	10.28
27	6.97	18.71	2.40	1.14	1.26	7.21	8.47	10.24
28	7.25	19.07	2.46	1.17	1.29	7.55	8.85	10.22
29	7.55	19.44	2.52	1.19	1.33	7.90	9.22	10.22
30	7.87	19.83	2.58	1.22	1.36	8.24	9.60	10.23
31	8.20	20.25	2.64	1.25	1.39	8.59	9.98	10.28
32	8.55	20.69	2.70	1.28	1.42	8.93	10.35	10.34
33	8.92	21.16	2.76	1.31	1.45	9.28	10.73	10.43
34	9.32	21.65	2.82	1.34	1.48	9.62	11.10	10.54
35	9.73	22.16	2.88	1.36	1.52	9.96	11.48	10.68
36	10.17	22.71	2.94	1.39	1.54	10.53	12.08	10.63
37	10.63	23.28	3.04	1.44	1.60	11.09	12.69	10.59
38	11.11	23.89	3.14	1.49	1.65	11.66	13.31	10.57
39	11.62	24.52	3.24	1.54	1.71	12.22	13.93	10.60
40	12.16	25.20	3.35	1.59	1.76	12.79	14.55	10.65
41	12.72	25.91	3.45	1.63	1.82	13.35	15.17	10.74
42	13.32	26.65	3.55	1.68	1.87	13.92	15.79	10.86
43	13.95	27.44	3.66	1.73	1.93	14.48	16.40	11.04
44	14.62	28.27	3.76	1.78	1.98	15.05	17.03	11.24
45	15.31	29.14	3.86	1.83	2.03	15.61	17.64	11.50

Table 2

## UNISEX PREFERRED TOBACCO

ISSUE AGE	(1) NET LEVEL ANNUAL PREMIUM	(2) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(3) FIRST YEAR EXPENSE CHARGE	(4) AVERAGE RENEWAL EXPENSE CHARGE	(5) (2) + (3) INITIAL ACQUIS EXPENSE CHARGE	(6) MAXIMUM SURRENDER CHARGE	(7) (4) + (5) TOTAL CHARGES	(8) (1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.05	30.06	4.07	1.93	2.14	16.55	18.69	11.36
47	16.82	31.03	4.28	2.03	2.25	17.50	19.75	11.28
48	17.64	32.05	4.49	2.13	2.36	18.44	20.80	11.24
49	18.50	33.13	4.70	2.23	2.47	19.39	21.86	11.27
50	19.43	34.28	4.91	2.32	2.58	20.33	22.91	11.37
51	20.41	35.51	5.12	2.42	2.69	21.28	23.97	11.54
52	21.45	36.81	5.33	2.52	2.80	22.22	25.02	11.78
53	22.55	38.18	5.53	2.62	2.91	23.17	26.08	12.11
54	23.71	39.64	5.74	2.72	3.02	24.11	27.13	12.51
55	24.95	41.18	5.95	2.82	3.13	25.06	28.19	12.99
56	26.25	42.81	6.27	2.97	3.30	26.75	30.05	12.76
57	27.62	44.53	6.59	3.12	3.47	28.45	31.92	12.61
58	29.08	46.35	6.91	3.27	3.64	30.14	33.78	12.57
59	30.63	48.28	7.23	3.42	3.80	31.84	35.64	12.64
60	32.28	50.35	7.55	3.58	3.97	33.53	37.51	12.84
61	34.04	52.55	7.87	3.73	4.14	35.23	39.37	13.18
62	35.92	54.89	8.19	3.88	4.31	36.93	41.23	13.66
63	37.90	57.37	8.51	4.03	4.48	38.62	43.10	14.28
64	40.00	60.00	8.82	4.18	4.64	40.32	44.96	15.04
65	42.23	60.00	9.14	4.33	4.81	40.50	45.31	14.69
66	44.60	60.00	9.35	4.43	4.92	40.50	45.42	14.58
67	47.13	60.00	9.55	4.52	5.02	40.50	45.52	14.48
68	49.84	60.00	9.75	4.62	5.13	40.50	45.63	14.37
69	52.76	60.00	9.95	4.71	5.24	40.50	45.74	14.26
70	55.92	60.00	10.15	4.81	5.34	40.50	45.84	14.16
71	59.33	60.00	10.35	4.90	5.45	40.50	45.95	14.05
72	63.01	60.00	10.56	5.00	5.56	40.50	46.06	13.94
73	66.96	60.00	10.76	5.10	5.66	40.50	46.16	13.84
74	71.18	60.00	10.96	5.19	5.77	40.50	46.27	13.73
75	75.74	60.00	11.16	5.29	5.87	40.50	46.37	13.63
76	80.68	60.00	11.16	5.29	5.87	40.50	46.37	13.63
77	86.02	60.00	11.16	5.29	5.87	40.50	46.37	13.63
78	91.80	60.00	11.16	5.29	5.87	40.50	46.37	13.63
79	98.03	60.00	11.16	5.29	5.87	40.50	46.37	13.63
80	104.70	60.00	11.16	5.29	5.87	40.50	46.37	13.63
81	111.87	60.00	11.16	5.29	5.87	40.50	46.37	13.63
82	119.47	60.00	11.16	5.29	5.87	40.50	46.37	13.63
83	127.58	60.00	11.16	5.29	5.87	40.50	46.37	13.63
84	136.25	60.00	11.16	5.29	5.87	40.50	46.37	13.63
85	145.50	60.00	11.16	5.29	5.87	40.50	46.37	13.63

Table 2

UNISEX TOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE	
0	2.48	13.10	1.44	0.68	0.76	2.83	3.58	9.51	
1	2.55	13.18	1.46	0.69	0.77	2.91	3.68	9.50	
2	2.64	13.29	1.48	0.70	0.78	3.00	3.78	9.52	
3	2.73	13.42	1.51	0.71	0.79	3.08	3.88	9.54	
4	2.84	13.55	1.53	0.72	0.81	3.17	3.98	9.57	
5	2.95	13.69	1.55	0.74	0.82	3.25	4.07	9.62	
6	3.07	13.84	1.57	0.75	0.83	3.34	4.17	9.67	
7	3.20	14.00	1.60	0.76	0.84	3.43	4.27	9.73	
8	3.33	14.16	1.62	0.77	0.85	3.51	4.36	9.80	
9	3.46	14.33	1.64	0.78	0.86	3.60	4.46	9.87	
10	3.61	14.51	1.66	0.79	0.88	3.69	4.56	9.94	
11	3.75	14.69	1.69	0.80	0.89	3.77	4.65	10.04	
12	3.91	14.89	1.71	0.81	0.90	3.86	4.75	10.13	
13	4.07	15.08	1.73	0.82	0.91	3.94	4.85	10.23	
14	4.23	15.29	1.75	0.83	0.92	4.02	4.95	10.34	
15	4.40	15.50	1.78	0.84	0.93	4.11	5.05	10.46	
16	4.58	15.72	1.78	0.84	0.94	4.29	5.23	10.49	
17	4.75	15.94	1.79	0.85	0.94	4.47	5.41	10.53	
18	4.93	16.17	1.80	0.85	0.95	4.65	5.59	10.57	
19	5.12	16.40	1.80	0.85	0.95	4.83	5.78	10.62	
20	5.31	16.64	2.00	0.95	1.05	5.34	6.39	10.25	
21	5.52	16.90	2.06	0.98	1.08	5.58	6.67	10.23	
22	5.73	17.17	2.11	1.00	1.11	5.83	6.94	10.22	
23	5.96	17.45	2.17	1.03	1.14	6.08	7.22	10.23	
24	6.19	17.74	2.22	1.05	1.17	6.32	7.49	10.25	
25	6.44	18.05	2.28	1.08	1.20	6.56	7.76	10.29	
26	6.70	18.37	2.34	1.11	1.23	6.91	8.14	10.23	
27	6.97	18.71	2.40	1.14	1.26	7.25	8.52	10.20	
28	7.25	19.07	2.46	1.17	1.29	7.60	8.89	10.17	
29	7.55	19.44	2.52	1.19	1.33	7.94	9.27	10.17	
30	7.87	19.83	2.58	1.22	1.36	8.29	9.65	10.19	
31	8.20	20.25	2.64	1.25	1.39	8.63	10.02	10.23	
32	8.55	20.69	2.70	1.28	1.42	8.97	10.40	10.30	
33	8.92	21.16	2.76	1.31	1.45	9.32	10.77	10.38	
34	9.32	21.65	2.82	1.34	1.48	9.66	11.15	10.50	
35	9.73	22.16	2.88	1.36	1.52	10.01	11.52	10.64	
36	10.17	22.71	2.94	1.39	1.54	10.59	12.13	10.58	
37	10.63	23.28	3.04	1.44	1.60	11.16	12.76	10.52	
38	11.11	23.89	3.14	1.49	1.65	11.74	13.39	10.49	
39	11.62	24.52	3.24	1.54	1.71	12.32	14.03	10.50	
40	12.16	25.20	3.35	1.59	1.76	12.90	14.66	10.54	
41	12.72	25.91	3.45	1.63	1.82	13.47	15.29	10.61	
42	13.32	26.65	3.55	1.68	1.87	14.05	15.92	10.73	
43	13.95	27.44	3.66	1.73	1.93	14.63	16.56	10.89	
44	14.62	28.27	3.76	1.78	1.98	15.21	17.19	11.08	
45	15.31	29.14	3.86	1.83	2.03	15.79	17.82	11.32	

Table 2

UNISEX TOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(2) FIRST YEAR EXPENSE CHARGE	(3) AVERAGE RENEWAL EXPENSE CHARGE	(4) (2) + (3) INITIAL ACQUIS EXPENSE CHARGE	(5) MAXIMUM SURRENDER CHARGE	(6) (4) + (5) TOTAL CHARGES	(7) (1) - (6) UNUSED EXPENSE ALLOWANCE	
46	16.05	30.06	4.07	1.93	2.14	16.75	18.89	11.17	
47	16.82	31.03	4.28	2.03	2.25	17.71	19.97	11.06	
48	17.64	32.05	4.49	2.13	2.36	18.68	21.04	11.01	
49	18.50	33.13	4.70	2.23	2.47	19.64	22.11	11.02	
50	19.43	34.28	4.91	2.32	2.58	20.60	23.18	11.10	
51	20.41	35.51	5.12	2.42	2.69	21.56	24.26	11.25	
52	21.45	36.81	5.33	2.52	2.80	22.53	25.33	11.48	
53	22.55	38.18	5.53	2.62	2.91	23.49	26.40	11.78	
54	23.71	39.64	5.74	2.72	3.02	24.45	27.48	12.17	
55	24.95	41.18	5.95	2.82	3.13	25.42	28.55	12.63	
56	26.25	42.81	6.27	2.97	3.30	27.13	30.43	12.38	
57	27.62	44.53	6.59	3.12	3.47	28.84	32.30	12.22	
58	29.08	46.35	6.91	3.27	3.64	30.56	34.18	12.16	
59	30.63	48.28	7.23	3.42	3.80	32.26	36.06	12.22	
60	32.28	50.35	7.55	3.58	3.97	33.97	37.94	12.41	
61	34.04	52.55	7.87	3.73	4.14	35.68	39.82	12.74	
62	35.92	54.89	8.19	3.88	4.31	37.39	41.69	13.20	
63	37.90	57.37	8.51	4.03	4.48	39.10	43.57	13.80	
64	40.00	60.00	8.82	4.18	4.64	40.50	45.14	14.86	
65	42.23	60.00	9.14	4.33	4.81	40.50	45.31	14.69	
66	44.60	60.00	9.35	4.43	4.92	40.50	45.42	14.58	
67	47.13	60.00	9.55	4.52	5.02	40.50	45.52	14.48	
68	49.84	60.00	9.75	4.62	5.13	40.50	45.63	14.37	
69	52.76	60.00	9.95	4.71	5.24	40.50	45.74	14.26	
70	55.92	60.00	10.15	4.81	5.34	40.50	45.84	14.16	
71	59.33	60.00	10.35	4.90	5.45	40.50	45.95	14.05	
72	63.01	60.00	10.56	5.00	5.56	40.50	46.06	13.94	
73	66.95	60.00	10.76	5.10	5.66	40.50	46.16	13.84	
74	71.18	60.00	10.96	5.19	5.77	40.50	46.27	13.73	
75	75.74	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
76	80.68	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
77	86.02	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
78	91.80	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
79	98.03	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
80	104.70	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
81	111.87	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
82	119.47	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
83	127.58	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
84	136.25	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
85	145.50	60.00	11.16	5.29	5.87	40.50	46.37	13.63	

**Table 3**

**Age: 20 Unisex Nontobacco**

Initial Expense Allowance: 16.64  
 Total Initial Acquisition Exp Chg: 0.94

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	20	15.70	15.70	5.00
2	21	15.63	15.63	4.45
3	22	15.55	15.55	3.90
4	23	15.48	15.48	3.35
5	24	15.39	15.39	2.80
6	25	15.31	15.31	2.25
7	26	15.22	15.22	1.70
8	27	15.13	15.13	1.15
9	28	15.04	15.04	0.60
10	29	14.94	14.94	-
11	30	14.84	14.84	
12	31	14.73	14.73	
13	32	14.62	14.62	
14	33	14.51	14.51	
15	34	14.39	14.39	
16	35	14.26	14.26	
21	40	13.58	13.58	
26	45	12.78	12.78	
31	50	11.87	11.87	
36	55	10.84	10.84	
41	60	9.72	9.72	
46	65	8.52	8.52	
51	70	7.28	7.28	
56	75	6.02	6.02	
61	80	4.80	4.80	
66	85	3.74	3.74	
71	90	2.90	2.90	
76	95	2.27	2.27	
81	100	1.82	1.82	
86	105	1.40	1.40	
91	110	1.06	1.06	
96	115	0.83	0.83	
97	116	0.79	0.79	
98	117	0.74	0.74	
99	118	0.71	0.71	
100	119	0.69	0.69	
101	120	-	-	

**Table 3****Age: 35 Unisex Nontobacco**

Initial Expense Allowance: 22.16

Total Initial Acquisition Exp Chg: 1.20

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	35	20.96	20.96	8.49
2	36	20.77	20.77	7.55
3	37	20.58	20.58	6.62
4	38	20.38	20.38	5.69
5	39	20.17	20.17	4.75
6	40	19.96	19.96	3.82
7	41	19.74	19.74	2.89
8	42	19.51	19.51	1.95
9	43	19.27	19.27	1.02
10	44	19.03	19.03	-
11	45	18.79	18.79	
12	46	18.53	18.53	
13	47	18.27	18.27	
14	48	18.01	18.01	
15	49	17.73	17.73	
16	50	17.45	17.45	
21	55	15.93	15.93	
26	60	14.28	14.28	
31	65	12.52	12.52	
36	70	10.70	10.70	
41	75	8.85	8.85	
46	80	7.06	7.06	
51	85	5.49	5.49	
56	90	4.27	4.27	
61	95	3.33	3.33	
66	100	2.67	2.67	
71	105	2.06	2.06	
76	110	1.56	1.56	
81	115	1.21	1.21	
82	116	1.15	1.15	
83	117	1.09	1.09	
84	118	1.04	1.04	
85	119	1.01	1.01	
86	120	-	-	

**Table 3**

**Age: 65 Unisex Nontobacco**

Initial Expense Allowance: 60.00  
 Total Initial Acquisition Exp Chg: 2.88

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	65	57.12	57.12	39.47
2	66	55.49	55.49	35.13
3	67	53.85	53.85	30.79
4	68	52.20	52.20	26.45
5	69	50.52	50.52	22.11
6	70	48.83	48.83	17.76
7	71	47.13	47.13	13.42
8	72	45.42	45.42	9.08
9	73	43.73	43.73	4.74
10	74	42.04	42.04	-
11	75	40.36	40.36	
12	76	38.69	38.69	
13	77	37.02	37.02	
14	78	35.38	35.38	
15	79	33.77	33.77	
16	80	32.19	32.19	
21	85	25.05	25.05	
26	90	19.46	19.46	
31	95	15.20	15.20	
36	100	12.18	12.18	
41	105	9.38	9.38	
46	110	7.13	7.13	
51	115	5.54	5.54	
52	116	5.26	5.26	
53	117	4.99	4.99	
54	118	4.76	4.76	
55	119	4.61	4.61	
56	120	-	-	

**Table 3**

**Age: 85 Unisex Nontobacco**

Initial Expense Allowance: 60.00

Total Initial Acquisition Exp Chg: 3.07

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	85	56.93	56.93	40.50
2	86	54.06	54.06	36.05
3	87	51.32	51.32	31.59
4	88	48.77	48.77	27.14
5	89	46.40	46.40	22.68
6	90	44.23	44.23	18.23
7	91	42.21	42.21	13.77
8	92	40.20	40.20	9.32
9	93	38.22	38.22	4.86
10	94	36.32	36.32	-
11	95	34.54	34.54	
12	96	32.96	32.96	
13	97	31.54	31.54	
14	98	30.35	30.35	
15	99	29.03	29.03	
16	100	27.69	27.69	
21	105	21.31	21.31	
26	110	16.20	16.20	
27	111	15.40	15.40	
28	112	14.67	14.67	
29	113	14.00	14.00	
30	114	13.25	13.25	
31	115	12.59	12.59	
32	116	11.96	11.96	
33	117	11.35	11.35	
34	118	10.82	10.82	
35	119	10.47	10.47	
36	120	-	-	

**Table 4 - Form VU-08(U)**  
**Flexible Premium Adjustable Life**  
**Maximum Surrender Charge Premiums**

<u>Issue Age</u>	<u>Preferred Plus NT</u>	<u>Preferred NT</u>	<u>Nontobacco</u>	<u>Preferred Tobacco</u>	<u>Tobacco</u>
0	3.14	3.14	3.14	3.14	3.14
1	3.24	3.24	3.24	3.24	3.24
2	3.33	3.33	3.33	3.33	3.33
3	3.43	3.43	3.43	3.43	3.43
4	3.52	3.52	3.52	3.52	3.52
5	3.61	3.61	3.61	3.61	3.61
6	3.71	3.71	3.71	3.71	3.71
7	3.81	3.81	3.81	3.81	3.81
8	3.90	3.90	3.90	3.90	3.90
9	4.00	4.00	4.00	4.00	4.00
10	4.10	4.10	4.10	4.10	4.10
11	4.19	4.19	4.19	4.19	4.19
12	4.28	4.28	4.28	4.28	4.28
13	4.38	4.38	4.38	4.38	4.38
14	4.47	4.47	4.47	4.47	4.47
15	4.57	4.57	4.57	4.57	4.57
16	4.77	4.77	4.77	4.77	4.77
17	4.97	4.97	4.97	4.97	4.97
18	5.16	5.16	5.16	5.16	5.16
19	5.36	5.36	5.36	5.36	5.36
20	5.35	5.42	5.56	5.91	5.93
21	5.51	5.58	5.76	6.18	6.20
22	5.67	5.76	5.96	6.45	6.48
23	5.82	5.92	6.16	6.71	6.75
24	5.98	6.10	6.35	6.98	7.02
25	6.14	6.26	6.55	7.25	7.29
26	6.45	6.57	6.84	7.63	7.68
27	6.77	6.88	7.13	8.01	8.06
28	7.09	7.19	7.42	8.39	8.44
29	7.41	7.50	7.70	8.78	8.82
30	7.72	7.81	7.99	9.16	9.21
31	8.04	8.12	8.28	9.54	9.59
32	8.36	8.43	8.57	9.92	9.97
33	8.68	8.74	8.85	10.31	10.35
34	8.99	9.05	9.14	10.69	10.74
35	9.31	9.37	9.43	11.07	11.12
36	9.92	9.99	10.06	11.70	11.76
37	10.52	10.62	10.70	12.32	12.40
38	11.13	11.25	11.33	12.96	13.05
39	11.73	11.87	11.96	13.58	13.69
40	12.34	12.50	12.60	14.21	14.33
41	12.94	13.12	13.23	14.83	14.97
42	13.55	13.75	13.86	15.46	15.61
43	14.15	14.37	14.49	16.09	16.26
44	14.76	15.00	15.13	16.72	16.90
45	15.36	15.62	15.76	17.34	17.54

**Table 4 - Form VU-08(U)**  
**Flexible Premium Adjustable Life**  
**Maximum Surrender Charge Premiums**

<u>Issue Age</u>	<u>Preferred Plus NT</u>	<u>Preferred NT</u>	<u>Nontobacco</u>	<u>Preferred Tobacco</u>	<u>Tobacco</u>
46	16.30	16.57	16.72	18.39	18.61
47	17.25	17.52	17.67	19.44	19.68
48	18.19	18.47	18.63	20.49	20.75
49	19.14	19.41	19.58	21.54	21.82
50	20.08	20.36	20.54	22.59	22.89
51	21.02	21.31	21.50	23.64	23.96
52	21.97	22.26	22.45	24.69	25.03
53	22.91	23.20	23.41	25.74	26.10
54	23.86	24.16	24.36	26.79	27.17
55	24.80	25.10	25.32	27.84	28.24
56	26.52	26.88	27.17	29.72	30.14
57	28.24	28.65	29.03	31.61	32.04
58	29.96	30.43	30.88	33.49	33.94
59	31.68	32.20	32.74	35.38	35.84
60	33.41	33.98	34.59	37.26	37.74
61	35.13	35.76	36.44	39.14	39.64
62	36.85	37.54	38.30	41.03	41.54
63	38.57	39.31	40.15	42.91	43.44
64	40.29	41.09	42.01	44.80	45.00
65	42.01	42.86	43.86	45.00	45.00
66	43.77	44.62	45.00	45.00	45.00
67	45.00	45.00	45.00	45.00	45.00
68	45.00	45.00	45.00	45.00	45.00
69	45.00	45.00	45.00	45.00	45.00
70	45.00	45.00	45.00	45.00	45.00
71	45.00	45.00	45.00	45.00	45.00
72	45.00	45.00	45.00	45.00	45.00
73	45.00	45.00	45.00	45.00	45.00
74	45.00	45.00	45.00	45.00	45.00
75	45.00	45.00	45.00	45.00	45.00
76	45.00	45.00	45.00	45.00	45.00
77	45.00	45.00	45.00	45.00	45.00
78	45.00	45.00	45.00	45.00	45.00
79	45.00	45.00	45.00	45.00	45.00
80	45.00	45.00	45.00	45.00	45.00
81	45.00	45.00	45.00	45.00	45.00
82	45.00	45.00	45.00	45.00	45.00
83	45.00	45.00	45.00	45.00	45.00
84	45.00	45.00	45.00	45.00	45.00
85	45.00	45.00	45.00	45.00	45.00

**Table 5 - Form VU-08(U)**  
**Flexible Premium Adjustable Life**  
**Monthly Per \$1,000**  
**of Specified Amount Charges**

<u>Issue Age</u>	<u>Preferred Plus NT</u>	<u>Preferred NT</u>	<u>Nontobacco</u>	<u>Preferred Tobacco</u>	<u>Tobacco</u>
0	0.120	0.120	0.120	0.120	0.120
1	0.122	0.122	0.122	0.122	0.122
2	0.124	0.124	0.124	0.124	0.124
3	0.126	0.126	0.126	0.126	0.126
4	0.127	0.127	0.127	0.127	0.127
5	0.129	0.129	0.129	0.129	0.129
6	0.131	0.131	0.131	0.131	0.131
7	0.133	0.133	0.133	0.133	0.133
8	0.135	0.135	0.135	0.135	0.135
9	0.137	0.137	0.137	0.137	0.137
10	0.139	0.139	0.139	0.139	0.139
11	0.141	0.141	0.141	0.141	0.141
12	0.142	0.142	0.142	0.142	0.142
13	0.144	0.144	0.144	0.144	0.144
14	0.146	0.146	0.146	0.146	0.146
15	0.148	0.148	0.148	0.148	0.148
16	0.148	0.148	0.148	0.149	0.149
17	0.148	0.148	0.148	0.149	0.149
18	0.149	0.149	0.149	0.150	0.150
19	0.149	0.149	0.149	0.150	0.150
20	0.149	0.149	0.149	0.167	0.167
21	0.149	0.149	0.149	0.172	0.172
22	0.149	0.149	0.149	0.176	0.176
23	0.150	0.150	0.150	0.181	0.181
24	0.150	0.150	0.150	0.185	0.185
25	0.150	0.150	0.150	0.190	0.190
26	0.150	0.150	0.150	0.195	0.195
27	0.155	0.155	0.155	0.200	0.200
28	0.160	0.160	0.160	0.205	0.205
29	0.165	0.165	0.165	0.210	0.210
30	0.170	0.170	0.170	0.215	0.215
31	0.175	0.175	0.175	0.220	0.220
32	0.180	0.180	0.180	0.225	0.225
33	0.185	0.185	0.185	0.230	0.230
34	0.190	0.190	0.190	0.235	0.235
35	0.190	0.190	0.190	0.240	0.240
36	0.199	0.199	0.199	0.245	0.245
37	0.208	0.208	0.208	0.253	0.253
38	0.218	0.218	0.218	0.262	0.262
39	0.227	0.227	0.227	0.270	0.270
40	0.236	0.236	0.236	0.279	0.279
41	0.245	0.245	0.245	0.288	0.288
42	0.254	0.254	0.254	0.296	0.296
43	0.264	0.264	0.264	0.305	0.305
44	0.273	0.273	0.273	0.313	0.313
45	0.282	0.282	0.282	0.322	0.322

**Table 5 - Form VU-08(U)  
Flexible Premium Adjustable Life  
Monthly Per \$1,000  
of Specified Amount Charges**

<u>Issue Age</u>	<u>Preferred Plus NT</u>	<u>Preferred NT</u>	<u>Nontobacco</u>	<u>Preferred Tobacco</u>	<u>Tobacco</u>
46	0.289	0.289	0.289	0.339	0.339
47	0.296	0.296	0.296	0.357	0.357
48	0.303	0.303	0.303	0.374	0.374
49	0.310	0.310	0.310	0.392	0.392
50	0.317	0.317	0.317	0.409	0.409
51	0.324	0.324	0.324	0.426	0.426
52	0.331	0.331	0.331	0.444	0.444
53	0.338	0.338	0.338	0.461	0.461
54	0.345	0.345	0.345	0.479	0.479
55	0.352	0.352	0.352	0.496	0.496
56	0.362	0.362	0.362	0.523	0.523
57	0.373	0.373	0.373	0.549	0.549
58	0.383	0.383	0.383	0.576	0.576
59	0.394	0.394	0.394	0.602	0.602
60	0.404	0.404	0.404	0.629	0.629
61	0.414	0.414	0.414	0.656	0.656
62	0.425	0.425	0.425	0.682	0.682
63	0.435	0.435	0.435	0.709	0.709
64	0.446	0.446	0.446	0.735	0.735
65	0.456	0.456	0.456	0.762	0.762
66	0.459	0.459	0.459	0.779	0.779
67	0.462	0.462	0.462	0.796	0.796
68	0.465	0.465	0.465	0.812	0.812
69	0.468	0.468	0.468	0.829	0.829
70	0.471	0.471	0.471	0.846	0.846
71	0.474	0.474	0.474	0.863	0.863
72	0.477	0.477	0.477	0.880	0.880
73	0.480	0.480	0.480	0.896	0.896
74	0.483	0.483	0.483	0.913	0.913
75	0.486	0.486	0.486	0.930	0.930
76	0.486	0.486	0.486	0.930	0.930
77	0.486	0.486	0.486	0.930	0.930
78	0.486	0.486	0.486	0.930	0.930
79	0.486	0.486	0.486	0.930	0.930
80	0.486	0.486	0.486	0.930	0.930
81	0.486	0.486	0.486	0.930	0.930
82	0.486	0.486	0.486	0.930	0.930
83	0.486	0.486	0.486	0.930	0.930
84	0.486	0.486	0.486	0.930	0.930
85	0.486	0.486	0.486	0.930	0.930

Age 35 NonSmoker

Form VUL-08(U)

Guaranteed Interest = 2%

Guaranteed COI = 2001 CSO (80) Composite

Specified Amount = \$100,000 (includes Policy Value)

GMP = \$1,945.78

Duration	GMF	FB	Duration	GMF	FB
1	1,235	100,000	44	71,277	100,000
2	2,490	100,000	45	72,704	100,000
3	3,766	100,000	46	74,080	100,000
4	5,059	100,000	47	75,393	100,000
5	6,371	100,000	48	76,647	100,000
6	7,703	100,000	49	77,849	100,000
7	9,051	100,000	50	78,993	100,000
8	10,415	100,000	51	80,075	100,000
9	11,793	100,000	52	81,097	100,000
10	13,182	100,000	53	82,044	100,000
11	14,813	100,000	54	82,917	100,000
12	16,460	100,000	55	83,717	100,000
13	18,124	100,000	56	84,456	100,000
14	19,812	100,000	57	85,185	100,000
15	21,523	100,000	58	85,894	100,000
16	23,254	100,000	59	86,570	100,000
17	25,003	100,000	60	87,200	100,000
18	26,764	100,000	61	87,757	100,000
19	28,536	100,000	62	88,259	100,000
20	30,313	100,000	63	88,692	100,000
21	32,093	100,000	64	89,160	100,000
22	33,874	100,000	65	89,633	100,000
23	35,655	100,000	66	90,084	100,000
24	37,447	100,000	67	90,534	100,000
25	39,245	100,000	68	90,979	100,000
26	41,047	100,000	69	91,412	100,000
27	42,845	100,000	70	91,827	100,000
28	44,631	100,000	71	92,216	100,000
29	46,403	100,000	72	92,578	100,000
30	48,161	100,000	73	92,914	100,000
31	49,906	100,000	74	93,227	100,000
32	51,642	100,000	75	93,515	100,000
33	53,372	100,000	76	93,775	100,000
34	55,095	100,000	77	94,016	100,000
35	56,815	100,000	78	94,244	100,000
36	58,526	100,000	79	94,484	100,000
37	60,223	100,000	80	94,705	100,000
38	61,888	100,000	81	94,925	100,000
39	63,525	100,000	82	95,162	100,000
40	65,137	100,000	83	95,452	100,000
41	66,721	100,000	84	95,931	100,000
42	68,277	100,000	85	97,042	100,000
43	69,798	100,000	86	100,000	100,000

**Statutory Reserves**  
**Form VU-08 (U)**

Because the No-Lapse guarantee is embedded in the policy, the reserves will be the greater of the sum of the reserve calculated under the Commissioner's Reserve Valuation Method (CRVM) for Flexible Premium Adjustable Variable Life and the reserve calculated using Actuarial Guideline XXXVII (AG37) methodology or the Cash Surrender Value. The description and demonstration of the AG37 reserve can be found in the attachment to this memorandum.

The following items will be calculated at time of policy issue.

**Guaranteed Maturity Premium (GMP)** - The GMP is the level annual gross premium paid to age 121, which will endow the policy at age 121. The GMP is calculated based on the underwriting classification, plan of insurance purchased and policy guarantees including expense charges, interest rates and mortality charges.

**Guaranteed Maturity Fund (GMF)** - The GMF is an accumulation fund value defined for each duration using guaranteed expense charges, interest rates and mortality charges, and assuming the GMP's are paid.

**Future Benefits (FB)** - The FB are the Death Benefits associated with each of the GMF values, defined for all policy durations. These Future Benefits are based on the Death Benefit Option (Specified Amount includes Policy Value or Specified Amount does not include Policy Value) and the percentage of Policy Value factors in Section 12 of Form VU-08(U), if applicable.

**Present Value of Future Benefits (PVFB<sub>I</sub>)** - The PVFB at issue is the value of the future benefits, discounted for interest and mortality that correspond to the valuation basis for the year of issue. The mortality used is based on the 2001 CSO Sex Distinct Composite Mortality Table, Age Nearest Birthday.

$$PVFB_I = \frac{1}{l_x} \sum_{t=1}^{121-x} \frac{[(l_{x+t-1} - l_{x+t}) * FB_t]}{l_1 (1+i_k)^k}$$

where:

x = issue age

$l_{x+t}$  = number of lives at age x+t using valuation mortality

$i_k$  = valuation interest rate for duration k

SA = Specified Amount at issue

**CRVM Expense Allowance (E<sup>CRVM</sup>)** - The E<sup>CRVM</sup> is equal to (a)-(b) where:

(a) is (i) the net level annual premium for the contract as if issued at an age one year older with premiums payable one year less and maturing at the same age, but not greater than (ii) a net level annual premium for a 19 pay whole life contract issued at an age one year older.

$$(i) \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_j p_{x+1} * q_{x+j+1} + FB_{(121-x)} * v^{(121-x)-1} * {}_{121-x-i} p_{x+1}}{\sum_{j=0}^{(121-x)-2} v^j * {}_j e_{x+1}}$$

(ii)  $ELRA * 19P_{x+1}$

where, ELRA is the Equivalent Level Renewal Amount

$$ELRA = \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * jP_{x+1} * q_{x+j+1}}{A_{x+1}}$$

and,

$$19P_{x+1} = A_{x+1} / a_{x+1:19}$$

(b) is the net one year term insurance premium for the benefit provided in the first year.

$$FB_1 * A_{x:1}$$

The following items will be calculated at each valuation date.

Cash Value ( $CV_m$ ) - The  $CV_m$  is the accumulated fund value of the policy, at the time of valuation.

Net Surrender Value ( $CSV_m$ ) - The  $CSV_m$  is the cash value of the policy less the surrender charge, if any, at the time of valuation.

Ratio ( $r$ ) - equals  $CV_m$  divided by  $GME_m$ .

If the ratio  $r$  is less than zero or greater than one, then it should be set equal to one.

Future Benefits ( $FB$ ) - Using the greater of  $CV_m$  or  $GME_m$  as a starting value on the valuation date, future benefits are calculated assuming guaranteed interest, mortality and expense charges, with GMP's paid on the policy anniversaries.

Present Value of Future Benefits ( $PVFB_m$ ) - The  $PVFB$  at the time of valuation is the value of the Future Benefits, discounted for interest and mortality using the valuation basis.

Net Level Premium Reserves ( $NLR_m$ ) - The net level premium reserves are equal to  $((A) - (B)) * r$  where:

(A) is  $PVFB_m$

(B) is  $PVNLP = NLP * a_{x+m}$   
where  $NLP = PVFB_I / a_x$

$r$  is the ratio defined above.

CRVM Reserve ( $CRVM_m$ ) - The  $CRVM$  at time of valuation  $m$  is defined as follows:

$$CRVM_m = NLR_m - (E^{CRVM} * \frac{a_{x+m}}{a_x} * r)$$

**STATUTORY RESERVES  
FORM VU-08 (U)  
SAMPLE CALCULATION**

Age 35, Nonsmoker  
\$100,000 Specified Amount  
Issue Date = 5/1/08

Guaranteed Maturity Premium (GMP) = 1,792.77

Guaranteed Maturity Fund (GMF) - see attached Table

Future Benefits (FB) - see attached Table

Present Value of Future Benefits (PVFB<sub>I</sub>) - using 4% interest and the 2001 CSO Nonsmoker Mortality Table, the PVFB<sub>I</sub> = 20,624.54

CRVM Expense Allowance (E<sub>CRVM</sub>) -

(a) (i) the net level annual premium issued one year older = \$1,042.27

$$(ii) ELRA * {}_{19}P_{x+1} = \$1,588.91$$

$$ELRA = \$100,000$$

$${}_{19}P_{x+1} = .0158891$$

(b) is the net one year term insurance premium

$$FB_1 * A_{x:1} = \$55.81$$

$$FB_1 = 100,000$$

$$A_{x:1} = .0005581$$

$$E_{CRVM} = (a) - (b) = 1,042.27 - 55.81 = 986.46$$

Using a valuation date of 12/31/08, m=8.

Cash Value (CV<sub>m</sub>) - Assuming an actual premium of \$1,792.77, actual interest credited at 2%, and current cost of insurance rates, CV<sub>m</sub> = \$1,525.94.

Net Surrender Value = 677.24

Ratio (r) - CV<sub>m</sub> / GMF<sub>m</sub>

$$GMF_m = 1,411.27$$

$$r = 1,525.94 / 1,411.27 > 1, \text{ therefore } r = 1.00$$

Present Value of Future Benefits (PVFB<sub>m</sub>) -

$$PVFB_g = 21,157.04$$

Net Level Premium Reserves (NLR<sub>m</sub>) -

$$((A) - (B)) * r$$

$$(A) \text{ is } PVFB_g = 21,157.04$$

$$(B) \text{ is } PVNLP = NLP * a_{x+m}$$

$$\begin{aligned} \text{where NLP} &= \text{PVFB}_I / a_x \\ &= 20,624.54/20.73 \\ &= 994.69 \end{aligned}$$

$$a_{x+m} = 20.27$$

$$\text{PVNLP} = 994.69 * 20.27 = 20,157.54$$

$$\text{NLR}_m = (21,157.04 - 20,157.54) * 1.00 = 999.50$$

CRVM Reserve ( $\text{CRVM}_m$ ) -

$$\begin{aligned} \text{CRVM}_m &= \text{NLR}_m - (E^{\text{CRVM}} * \frac{a_{x+m}}{a_x} * r) \\ &= 999.50 - 986.46 * 20.27/20.73 * 1.00 \\ &= 35.37 \end{aligned}$$

AG37 Reserve ( $t\text{TV}_{(x)}$  from Attachment) = 258.15

Statutory Reserve = MAX ( $\text{CSV}_n$ ,  $\text{CRVM}_m + t\text{TV}_{(x)}$ ) = MAX(597.00, 35.37 + 258.15) = 597.00

## Actuarial Guideline XXXVII Reserves for Secondary Guarantee on Form VU-08(U)

### Description

Actuarial Guideline XXXVII describes a two step process to calculate the reserves on a variable universal life policy that guarantees the coverage to remain in force as long as the accumulation of premiums paid satisfy the secondary guarantee requirement.

AG37 reserves are held in addition to basic reserves unless the appointed actuary provides satisfactory documentation to the state of domicile insurance department stating why such reserves are redundant. Basic reserves include the reserve held for death benefits provided in the absence of a GMDB. AG37 reserves provide for the contingency of death occurring when the guaranteed minimum death benefit exceeds the death benefit that would be paid in the absence of the guarantee. If a contract has multiple guarantee periods, a reserve should be determined for each guarantee and the greatest of the AG37 reserves should be held.

The first step is to calculate the One Year Term (OYT) reserve which is calculated by projecting the policy value following a 1/3-Asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

In step two, the Attained Age Level Reserve (AALR) is calculated. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee. The AALR reserve component cannot be less than zero and will be equal to the "residue", as described below, of the prior year's AALR increased or decreased by a "payment", also described below.

The AG37 reserve is the greater of the OYT reserve and the AALR reserve. The final reserve is equal to the sum of the AG37 reserve and the Base reserve.

### Definitions and Notation

Secondary Guarantee Period (n) – the period for which policyholder can maintain the policy in force due to the provisions of the secondary guarantee.

Minimum Gross Premium (GP) – the minimum premium to keep the secondary guarantee in force. This amount is calculated as the minimum premium that can be paid at the beginning of the policy year to keep the guarantee in force at the end of the year.

Present Value of Future Benefits (PVFB) – Value of future benefits discounted for interest, mortality and lapses. For Minimum reserve PVFB is determined using an interest rate of 4% and Minimum Mortality. The maximum lapses allowed are used in the present value calculation.

Minimum Mortality - is defined as 2001 CSO Male/Female Composite S & U Mortality.

Attained Age Level Reserve (AALR) – The AALR is a methodology described in the 1983 and 1989 revisions to the Variable Life Insurance Model Regulation. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee.

One-year Term (OYT) Reserve – The OYT reserve covers a period of no more than one year following a 1/3-asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

Total AG37 Reserve ( $tTV_{[X]}$ ) – The total reserve held, which is equal to the maximum of the OYT reserve and AALR reserve.

## Formulas

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ \text{AALR}_t \text{ payment} &= [\text{PV}_{[x]+t} - \text{AALR}_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\ \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ {}_t \text{TV}_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \end{aligned}$$

where:

$q_{[x]+t}$  includes only applicable mortality

$x$  = issue age of insured

$n$  = secondary guarantee period

$j$  = length of current segment

$v = 1 / (1+i)$

$i$  = valuation interest rate

${}^{\text{GM}}\text{BD}_{[x]+t}$  = guaranteed minimum death benefit at duration  $t$

$\text{BD}_{[x]+t}$  = death benefit at duration  $t$  assuming an immediate one-third depreciation

${}^{\text{C}}\text{BD}_{[x]+t}$  = death benefit at duration  $t$

$\text{PV}_{[x]+t}$  = present value at duration  $t$  of the excess of the guaranteed minimum death benefit over the death benefit payable in absence of the guaranteed minimum death benefit

## Sample Calculation

Insured: Age 35, Nonsmoker  
Specified Amount: \$100,000  
Target Premium: \$943  
Issue Date: 05/01/2008  
Valuation Date: 12/31/2008  
 $i = 4.0\%$   
Account Value (12/31/08): \$1,579.45  
Premium Paid since Issue: \$1,945.78

## Actuarial Guideline XXXVII Reserve

Secondary Guarantee Period = To age 121

Specified Premium = \$911.64

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ &= (1.04^{-(1/12)}) * (1 - .999899) * [100,000 - 100,000] = 0 \\ \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ &= [0 * (1.04) - (100,000 - 100,000) * (1 - .999899)] / (.999899) = 0 \end{aligned}$$

$$PV_{[x]+t} = 721,627.25 - 37,168.65 = 684,458.60$$

$$\begin{aligned} \text{AALR}_t \text{ payment} &= [PV_{[x]+t} - \text{AALR}_t \text{ residue}] / (a_{[x]+t:n-t}^-) \\ &= [684,458.60 - 0] / (39.55299) \\ &= 17,304.85 \end{aligned}$$

$$\begin{aligned} \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ &= \text{Max}(0, 0 + 17,304.85) = 17,304.85 \end{aligned}$$

$$\begin{aligned} {}_t \text{TV}_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \\ &= \text{Max}(0, 17,304.85) = 17,304.85 \end{aligned}$$

**Statutory Reserves**  
**Form ENLG-08(S)**

For the Extended No-Lapse Guarantee Rider the reserves will be the greater of the sum of the reserve calculated under the Commissioner's Reserve Valuation Method (CRVM) for Flexible Premium Adjustable Variable Life and the reserve calculated using Actuarial Guideline XXXVII (AG37) methodology or the Cash Surrender Value. The description and demonstration of the AG37 reserve can be found in the attachment to this memorandum.

The following items will be calculated at time of policy issue.

Guaranteed Maturity Premium (GMP) - The GMP is the level annual gross premium paid to age 121, which will endow the policy at age 121. The GMP is calculated based on the underwriting classification, plan of insurance purchased and policy guarantees including expense charges, interest rates and mortality charges.

Guaranteed Maturity Fund (GMF) - The GMF is an accumulation fund value defined for each duration using guaranteed expense charges, interest rates and mortality charges, and assuming the GMP's are paid.

Future Benefits (FB) - The FB are the Death Benefits associated with each of the GMF values, defined for all policy durations. These Future Benefits are based on the Death Benefit Option (Specified Amount includes Policy Value or Specified Amount does not include Policy Value) and the percentage of Policy Value factors in Section 12 of Form VU-08(S), if applicable.

Present Value of Future Benefits (PVFB<sub>T</sub>) - The PVFB at issue is the value of the future benefits, discounted for interest and mortality that correspond to the valuation basis for the year of issue. The mortality used is based on the 2001 CSO Sex Distinct Composite Mortality Table, Age Nearest Birthday.

$$PVFB_T = \frac{1 * \sum_{t=1}^{121-x} [(l_{x+t-1} - l_{x+t}) * FB_t]}{l_x \prod_{k=1}^t (1+i_k)}$$

where:

x = issue age

$l_{x+t}$  = number of lives at age x+t using valuation mortality

$i_k$  = valuation interest rate for duration k

SA = Specified Amount at issue

CRVM Expense Allowance (E<sup>CRVM</sup>) - The E<sup>CRVM</sup> is equal to (a)-(b) where:

(a) is (i) the net level annual premium for the contract as if issued at an age one year older with premiums payable one year less and maturing at the same age, but not greater than (ii) a net level annual premium for a 19 pay whole life contract issued at an age one year older.

$$(i) \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_jP_{x+1} * q_{x+j+1} + FB_{(121-x)} * v^{(121-x)-1} * {}_{121-x-1}P_{x+1}}{\sum_{j=0}^{(121-x)-2} v^j * {}_jP_{x+1}}$$

(ii)  $ELRA * 19P_{x+1}$

where, ELRA is the Equivalent Level Renewal Amount

$$ELRA = \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_jP_{x+1} * q_{x+j+1}}{A_{x+1}}$$

and,

$$19P_{x+1} = A_{x+1} / a_{x+1:19}$$

(b) is the net one year term insurance premium for the benefit provided in the first year.

$$FB_1 * A_{x:1}$$

The following items will be calculated at each valuation date.

Cash Value ( $CV_m$ ) - The  $CV_m$  is the accumulated fund value of the policy, at the time of valuation.

Net Surrender Value ( $CSV_m$ ) - The  $CSV_m$  is the cash value of the policy less the surrender charge, if any, at the time of valuation.

Ratio ( $r$ ) - equals  $CV_m$  divided by  $GMF_m$ .

If the ratio  $r$  is less than zero or greater than one, then it should be set equal to one.

Future Benefits ( $FB$ ) - Using the greater of  $CV_m$  or  $GMF_m$  as a starting value on the valuation date, future benefits are calculated assuming guaranteed interest, mortality and expense charges, with GMP's paid on the policy anniversaries.

Present Value of Future Benefits ( $PVFB_m$ ) - The  $PVFB$  at the time of valuation is the value of the Future Benefits, discounted for interest and mortality using the valuation basis.

Net Level Premium Reserves ( $NLR_m$ ) - The net level premium reserves are equal to  $((A) - (B)) * r$  where:

(A) is  $PVFB_m$

(B) is  $PVNLP = NLP * a_{x+m}$   
where  $NLP = PVFB_I / a_x$

$r$  is the ratio defined above.

CRVM Reserve ( $CRVM_m$ ) - The  $CRVM$  at time of valuation  $m$  is defined as follows:

$$CRVM_m = NLR_m - (E^{CRVM} * \frac{a_{x+m}}{a_x} * r)$$

**STATUTORY RESERVES  
FORM ENLG-08(S)  
SAMPLE CALCULATION**

Male, Age 35, Nonsmoker  
\$100,000 Specified Amount  
Issue Date = 5/1/08

Guaranteed Maturity Premium (GMP) = 1,984.61

Guaranteed Maturity Fund (GMF) - see attached Table

Future Benefits (FB) - see attached Table

Present Value of Future Benefits (PVFB<sub>T</sub>) - using 4% interest and the 2001 CSO Nonsmoker Mortality Table, the PVFB<sub>T</sub> = 20,624.54

CRVM Expense Allowance (E<sup>CRVM</sup>) -

(a) (i) the net level annual premium issued one year older = \$1,042.27

(ii) ELRA \*  ${}_{19}P_{x+1}$  = \$1,588.91

ELRA = \$100,000

${}_{19}P_{x+1}$  = .0158891

(b) is the net one year term insurance premium

FB<sub>1</sub> \* A<sub>x:1</sub> = \$55.81

FB<sub>1</sub> = 100,000

A<sub>x:1</sub> = .0005581

E<sup>CRVM</sup> = (a) - (b) = 1,042.27 - 55.81 = 986.46

Using a valuation date of 12/31/08, m=8.

Cash Value (CV<sub>m</sub>) - Assuming an actual premium of \$1,984.61, actual interest credited at 2%, and current cost of insurance rates, CV<sub>m</sub> = \$1,615.28.

Net Surrender Value = 742.28

Ratio (r) - CV<sub>m</sub> / GMF<sub>m</sub>

GMF<sub>m</sub> = 1,458.02

r = 1,615.28/1,458.02 > 1, therefore r = 1.00

Present Value of Future Benefits (PVFB<sub>m</sub>) -

PVFB<sub>g</sub> = 21,172.02

Net Level Premium Reserves (NLR<sub>m</sub>) -

((A) - (B)) \* r

(A) is PVFB<sub>g</sub> = 21,172.02

(B) is PVNLP = NLP \*  $d_{x+m}$

$$\begin{aligned}
 \text{where NLP} &= \text{PVFB}_I / a_x \\
 &= 20,624.54/20.73 \\
 &= 994.69
 \end{aligned}$$

$$a_{x+m} = 20.27$$

$$\text{PVNLP} = 994.69 * 20.27 = 20,157.54$$

$$\text{NLR}_m = (21,172.02 - 20,157.54) * 1.00 = 1,014.47$$

CRVM Reserve ( $\text{CRVM}_m$ ) -

$$\begin{aligned}
 \text{CRVM}_m &= \text{NLR}_m - (E^{\text{CRVM}} * \frac{a_{x+m}}{a_x} * r) \\
 &= 1,014.47 - 986.46 * 20.27/20.73 * 1.00 \\
 &= 50.35
 \end{aligned}$$

$$\text{AG37 Reserve (tTV}_{[x]}\text{ from Attachment)} = 25,410.50$$

$$\text{Statutory Reserve} = \text{MAX} (\text{CSV}_m, \text{CRVM}_m + \text{tTV}_{[x]}) = \text{MAX}(742.28, 50.35 + 25,410.50) = 25,460.85$$

## Actuarial Guideline XXXVII Reserves for Secondary Guarantee on Form ENLG-08(S)

### Description

Actuarial Guideline XXXVII describes a two step process to calculate the reserves on a variable universal life policy that guarantees the coverage to remain in force as long as the accumulation of premiums paid satisfy the secondary guarantee requirement.

AG37 reserves are held in addition to basic reserves unless the appointed actuary provides satisfactory documentation to the state of domicile insurance department stating why such reserves are redundant. Basic reserves include the reserve held for death benefits provided in the absence of a GMDB. AG37 reserves provide for the contingency of death occurring when the guaranteed minimum death benefit exceeds the death benefit that would be paid in the absence of the guarantee. If a contract has multiple guarantee periods, a reserve should be determined for each guarantee and the greatest of the AG37 reserves should be held.

The first step is to calculate the One Year Term (OYT) reserve which is calculated by projecting the policy value following a 1/3-Asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

In step two, the Attained Age Level Reserve (AALR) is calculated. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee. The AALR reserve component cannot be less than zero and will be equal to the "residue", as described below, of the prior year's AALR increased or decreased by a "payment", also described below.

The AG37 reserve is the greater of the OYT reserve and the AALR reserve. The final reserve is equal to the sum of the AG37 reserve and the Base reserve.

### Definitions and Notation

Secondary Guarantee Period (n) – the period for which policyholder can maintain the policy in force due to the provisions of the secondary guarantee.

Minimum Gross Premium (GP) – the minimum premium to keep the secondary guarantee in force. This amount is calculated as the minimum premium that can be paid at the beginning of the policy year to keep the guarantee in force at the end of the year.

Present Value of Future Benefits (PVFB) – Value of future benefits discounted for interest, mortality and lapses. For Minimum reserves, PVFB is determined using an interest rate of 4% and Minimum Mortality. The maximum lapses allowed are used in the present value calculation.

Minimum Mortality - is defined as 2001 CSO Male/Female Composite S & U Mortality.

Attained Age Level Reserve (AALR) – The AALR is a methodology described in the 1983 and 1989 revisions to the Variable Life Insurance Model Regulation. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee.

One-year Term (OYT) Reserve – The OYT reserve covers a period of no more than one year following a 1/3-asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

Total AG37 Reserve ( $tTV_{AG37}$ ) – The total reserve held, which is equal to the maximum of the OYT reserve and AALR reserve.

## Formulas

$$\begin{aligned}OYT_t &= v * q_{[x]+t} * [{}^{GM}BD_{[x]+t} - BD_{[x]+t}] \\AALR_t \text{ residue} &= [AALR_{t-1} * (1+i) - ({}^{GM}BD_{[x]+t} - {}^C BD_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\AALR_t \text{ payment} &= [PV_{[x]+t} - AALR_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\AALR_t &= \text{Max}(0, AALR_t \text{ residue} + AALR_t \text{ payment}) \\{}_t TV_{[x]} &= \text{Max}(OYT_t, AALR_t)\end{aligned}$$

where:

$q_{[x]+t}$  includes only applicable mortality

$x$  = issue age of insured

$n$  = secondary guarantee period

$j$  = length of current segment

$$v = 1 / (1+i)$$

$i$  = valuation interest rate

${}^{GM}BD_{[x]+t}$  = guaranteed minimum death benefit at duration  $t$

$BD_{[x]+t}$  = death benefit at duration  $t$  assuming an immediate one-third depreciation

${}^C BD_{[x]+t}$  = death benefit at duration  $t$

$PV_{[x]+t}$  = present value at duration  $t$  of the excess of the guaranteed minimum death benefit over the death benefit payable in absence of the guaranteed minimum death benefit

## Sample Calculation

Insured: Male, Age 35, Nonsmoker  
Specified Amount: \$100,000  
Target Premium: \$970  
Issue Date: 05/01/2008  
Valuation Date: 12/31/2008  
 $i = 4.0\%$   
Account Value (12/31/08): \$1,615.28  
Premium Paid since Issue: \$1,984.61

## Actuarial Guideline XXXVII Reserve

Secondary Guarantee Period = To age 121

Specified Premium = \$950

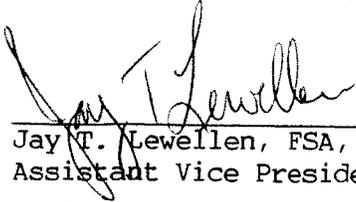
$$\begin{aligned}OYT_t &= v * q_{[x]+t} * [{}^{GM}BD_{[x]+t} - BD_{[x]+t}] \\ &= (1.04^{-12} * (-1/12)) * (1 - .999899) * [100,000 - 100,000] = 0 \\ AALR_t \text{ residue} &= [AALR_{t-1} * (1+i) - ({}^{GM}BD_{[x]+t} - {}^C BD_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ &= [0 * (1.04) - (100,000 - 100,000) * (1 - .999899)] / (.999899) = 0\end{aligned}$$

$$PV_{[N]+t} = 1,030,871.79 - 25,810.52 = 1,005,061.27$$

$$\begin{aligned} \text{AALR}_t \text{ payment} &= [\text{PV}_{[N]+t} - \text{AALR}_t \text{ residue}] / (\ddot{a}_{[N]+t, n-t}^-) \\ &= [1,005,061.27 - 0] / (39.55299) \\ &= 25,410.50 \end{aligned}$$

$$\begin{aligned} \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ &= \text{Max}(0, 0 + 25,410.50) = 25,410.50 \end{aligned}$$

$$\begin{aligned} {}_t\text{TV}_{[N]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \\ &= \text{Max}(0, 25,410.50) = 25,410.50 \end{aligned}$$



Jay T. Lewellen, FSA, MAAA  
Assistant Vice President and Actuary

4/30/08

Date

Male Age 35 NonSmoker  
 Guaranteed Interest = 2%  
 Guaranteed COI = 2001 CSO Male Composite  
 Specified Amount = \$100,000 (includes Policy Value)

Form ENLG-08(S)

GMP = \$1,984.61

<u>Duration</u>	<u>GMF</u>	<u>FB</u>	<u>Duration</u>	<u>GMF</u>	<u>FB</u>
1	1,267	100,000	44	72,612	100,000
2	2,554	100,000	45	74,044	100,000
3	3,863	100,000	46	75,419	100,000
4	5,190	100,000	47	76,731	100,000
5	6,537	100,000	48	77,986	100,000
6	7,902	100,000	49	79,188	100,000
7	9,284	100,000	50	80,334	100,000
8	10,680	100,000	51	81,417	100,000
9	12,091	100,000	52	82,431	100,000
10	13,512	100,000	53	83,372	100,000
11	15,173	100,000	54	84,241	100,000
12	16,852	100,000	55	85,038	100,000
13	18,546	100,000	56	85,765	100,000
14	20,267	100,000	57	86,446	100,000
15	22,013	100,000	58	87,084	100,000
16	23,783	100,000	59	87,680	100,000
17	25,571	100,000	60	88,231	100,000
18	27,373	100,000	61	88,734	100,000
19	29,186	100,000	62	89,214	100,000
20	31,005	100,000	63	89,667	100,000
21	32,825	100,000	64	90,090	100,000
22	34,645	100,000	65	90,476	100,000
23	36,466	100,000	66	90,814	100,000
24	38,299	100,000	67	91,145	100,000
25	40,140	100,000	68	91,467	100,000
26	41,983	100,000	69	91,782	100,000
27	43,820	100,000	70	92,087	100,000
28	45,643	100,000	71	92,383	100,000
29	47,447	100,000	72	92,671	100,000
30	49,234	100,000	73	92,949	100,000
31	51,004	100,000	74	93,218	100,000
32	52,762	100,000	75	93,478	100,000
33	54,514	100,000	76	93,729	100,000
34	56,259	100,000	77	93,971	100,000
35	58,002	100,000	78	94,204	100,000
36	59,734	100,000	79	94,430	100,000
37	61,454	100,000	80	94,651	100,000
38	63,139	100,000	81	94,873	100,000
39	64,793	100,000	82	95,112	100,000
40	66,421	100,000	83	95,409	100,000
41	68,020	100,000	84	95,882	100,000
42	69,591	100,000	85	97,006	100,000
43	71,125	100,000	86	100,000	100,000

**Statutory Reserves**  
**Form ENLG-08 (U)**

For the Extended No-Lapse Guarantee the reserves will be the greater of the sum of the reserve calculated under the Commissioner's Reserve Valuation Method (CRVM) for Flexible Premium Adjustable Variable Life and the reserve calculated using Actuarial Guideline XXXVII (AG37) methodology or the Cash Surrender Value. The description and demonstration of the AG37 reserve can be found in the attachment to this memorandum.

The following items will be calculated at time of policy issue.

Guaranteed Maturity Premium (GMP) - The GMP is the level annual gross premium paid to age 121, which will endow the policy at age 121. The GMP is calculated based on the underwriting classification, plan of insurance purchased and policy guarantees including expense charges, interest rates and mortality charges.

Guaranteed Maturity Fund (GMF) - The GMF is an accumulation fund value defined for each duration using guaranteed expense charges, interest rates and mortality charges, and assuming the GMP's are paid.

Future Benefits (FB) - The FB are the Death Benefits associated with each of the GMF values, defined for all policy durations. These Future Benefits are based on the Death Benefit Option (Specified Amount includes Policy Value or Specified Amount does not include Policy Value) and the percentage of Policy Value factors in Section 12 of Form VU-08(U), if applicable.

Present Value of Future Benefits (PVFB<sub>T</sub>) - The PVFB at issue is the value of the future benefits, discounted for interest and mortality that correspond to the valuation basis for the year of issue. The mortality used is based on the 2001 CSO Sex Distinct Composite Mortality Table, Age Nearest Birthday.

$$PVFB_T = \frac{1 + \sum_{t=1}^{121-x} [(l_{x+t-1} - l_{x+t}) * FB_t]}{l_x \sum_{k=1}^t (1+i_k)}$$

where:

x = issue age

$l_{x+t}$  = number of lives at age x+t using valuation mortality

$i_k$  = valuation interest rate for duration k

SA = Specified Amount at issue

CRVM Expense Allowance (E<sup>CRVM</sup>) - The E<sup>CRVM</sup> is equal to (a)-(b) where:

(a) is (i) the net level annual premium for the contract as if issued at an age one year older with premiums payable one year less and maturing at the same age, but not greater than (ii) a net level annual premium for a 19 pay whole life contract issued at an age one year older.

$$(i) \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_jP_{x+1} * q_{x+j+1} + FB_{(121-x)} * v^{(121-x)-1} * {}_{121-x-1}P_{x+1}}{\sum_{j=0}^{(121-x)-2} v^j * {}_jP_{x+1}}$$

(ii)  $ELRA * 19P_{x+1}$

where, ELRA is the Equivalent Level Renewal Amount

$$ELRA = \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * jP_{x+1} * q_{x+j+1}}{A_{x+1}}$$

and,

$$19P_{x+1} = A_{x+1} / a_{x+1:19}$$

(b) is the net one year term insurance premium for the benefit provided in the first year.

$$FB_1 * A_{x:1}$$

The following items will be calculated at each valuation date.

Cash Value ( $CV_m$ ) - The  $CV_m$  is the accumulated fund value of the policy, at the time of valuation.

Net Surrender Value ( $CSV_m$ ) - The  $CSV_m$  is the cash value of the policy less the surrender charge, if any, at the time of valuation.

Ratio ( $r$ ) - equals  $CV_m$  divided by  $GMF_m$ .

If the ratio  $r$  is less than zero or greater than one, then it should be set equal to one.

Future Benefits ( $FB$ ) - Using the greater of  $CV_m$  or  $GMF_m$  as a starting value on the valuation date, future benefits are calculated assuming guaranteed interest, mortality and expense charges, with GMP's paid on the policy anniversaries.

Present Value of Future Benefits ( $PVFB_m$ ) - The  $PVFB$  at the time of valuation is the value of the Future Benefits, discounted for interest and mortality using the valuation basis.

Net Level Premium Reserves ( $NLR_m$ ) - The net level premium reserves are equal to  $((A) - (B)) * r$  where:

(A) is  $PVFB_m$

(B) is  $PVNLP = NLP * a_{x+m}$   
 where  $NLP = PVFB_I / a_x$

$r$  is the ratio defined above.

CRVM Reserve ( $CRVM_m$ ) - The  $CRVM$  at time of valuation  $m$  is defined as follows:

$$CRVM_m = NLR_m - (E_{CRVM} * \frac{a_{x+m}}{a_x} * r)$$

**STATUTORY RESERVES  
FORM ENLG-08 (U)  
SAMPLE CALCULATION**

Age 35, Nonsmoker  
\$100,000 Specified Amount  
Issue Date = 5/1/08

Guaranteed Maturity Premium (GMP) = 1,945.78

Guaranteed Maturity Fund (GMF) - see attached Table

Future Benefits (FB) - see attached Table

Present Value of Future Benefits (PVFB<sub>I</sub>) - using 4% interest and the 2001 CSO Nonsmoker Mortality Table, the PVFB<sub>I</sub> = 20,624.54

CRVM Expense Allowance (E<sup>CRVM</sup>) -

(a) (i) the net level annual premium issued one year older = \$1,042.27

(ii) ELRA \* 19P<sub>x+1</sub> = \$1,588.91

ELRA = \$100,000

19P<sub>x+1</sub> = .0158891

(b) is the net one year term insurance premium

FB<sub>1</sub> \* A<sub>x:1</sub> = \$55.81

FB<sub>1</sub> = 100,000

A<sub>x:1</sub> = .0005581

E<sup>CRVM</sup> = (a) - (b) = 1,042.27 - 55.81 = 986.46

Using a valuation date of 12/31/08, m=8.

Cash Value (CV<sub>m</sub>) - Assuming an actual premium of \$1,945.78, actual interest credited at 2%, and current cost of insurance rates, CV<sub>m</sub> = \$1,579.45.

Net Surrender Value = 730.75

Ratio (r) - CV<sub>m</sub> / GMF<sub>m</sub>

GMF<sub>m</sub> = 1,424.85

r = 1,579.45/1,424.85 > 1, therefore r = 1.00

Present Value of Future Benefits (PVFB<sub>m</sub>) -

PVFB<sub>g</sub> = 21,158.05

Net Level Premium Reserves (NLR<sub>m</sub>) -

((A) - (B)) \* r

(A) is PVFB<sub>g</sub> = 21,158.05

(B) is PVNLP = NLP \* a<sub>x+m</sub>

$$\begin{aligned} \text{where NLP} &= \text{PVFB}_I / a_x \\ &= 20,624.54 / 20.73 \\ &= 994.69 \end{aligned}$$

$$a_{x+m} = 20.27$$

$$\text{PVNLP} = 994.69 * 20.27 = 20,157.54$$

$$\text{NLR}_m = (21,158.05 - 20,157.54) * 1.00 = 1000.50$$

CRVM Reserve ( $\text{CRVM}_m$ ) -

$$\begin{aligned} \text{CRVM}_m &= \text{NLR}_m - (E^{\text{CRVM}} * \frac{a_{x+m}}{a_x} * r) \\ &= 1000.50 - 986.46 * 20.27 / 20.73 * 1.00 \\ &= 36.38 \end{aligned}$$

$$\text{AG37 Reserve (tTV}_{[x]}\text{ from Attachment)} = 26,559.54$$

$$\text{Statutory Reserve} = \text{MAX} (\text{CSV}_m, \text{CRVM}_m + \text{tTV}_{[x]}) = \text{MAX}(730.75, 36.38 + 26,559.54) = 26,595.92$$

## Actuarial Guideline XXXVII Reserves for Secondary Guarantee on Form ENLG-08(U)

### Description

Actuarial Guideline XXXVII describes a two step process to calculate the reserves on a variable universal life policy that guarantees the coverage to remain in force as long as the accumulation of premiums paid satisfy the secondary guarantee requirement.

AG37 reserves are held in addition to basic reserves unless the appointed actuary provides satisfactory documentation to the state of domicile insurance department stating why such reserves are redundant. Basic reserves include the reserve held for death benefits provided in the absence of a GMDB. AG37 reserves provide for the contingency of death occurring when the guaranteed minimum death benefit exceeds the death benefit that would be paid in the absence of the guarantee. If a contract has multiple guarantee periods, a reserve should be determined for each guarantee and the greatest of the AG37 reserves should be held.

The first step is to calculate the One Year Term (OYT) reserve which is calculated by projecting the policy value following a 1/3-Asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

In step two, the Attained Age Level Reserve (AALR) is calculated. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee. The AALR reserve component cannot be less than zero and will be equal to the "residue", as described below, of the prior year's AALR increased or decreased by a "payment", also described below.

The AG37 reserve is the greater of the OYT reserve and the AALR reserve. The final reserve is equal to the sum of the AG37 reserve and the Base reserve.

### Definitions and Notation

Secondary Guarantee Period (n) – the period for which policyholder can maintain the policy in force due to the provisions of the secondary guarantee.

Minimum Gross Premium (GP) – the minimum premium to keep the secondary guarantee in force. This amount is calculated as the minimum premium that can be paid at the beginning of the policy year to keep the guarantee in force at the end of the year.

Present Value of Future Benefits (PVFB) – Value of future benefits discounted for interest, mortality and lapses. For Minimum reserves, PVFB is determined using an interest rate of 4% and Minimum Mortality. The maximum lapses allowed are used in the present value calculation.

Minimum Mortality - is defined as 2001 CSO Male/Female Composite S & U Mortality.

Attained Age Level Reserve (AALR) – The AALR is a methodology described in the 1983 and 1989 revisions to the Variable Life Insurance Model Regulation. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee.

One-year Term (OYT) Reserve – The OYT reserve covers a period of no more than one year following a 1/3-asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

Total AG37 Reserve ( $tTV_{(x)}$ ) – The total reserve held, which is equal to the maximum of the OYT reserve and AALR reserve.

### Formulas

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ \text{AALR}_t \text{ payment} &= [\text{PV}_{[x]+t} - \text{AALR}_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\ \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ {}_t \text{TV}_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \end{aligned}$$

where:

$q_{[x]+t}$  includes only applicable mortality

$x$  = issue age of insured

$n$  = secondary guarantee period

$j$  = length of current segment

$v = 1 / (1+i)$

$i$  = valuation interest rate

${}^{\text{GM}}\text{BD}_{[x]+t}$  = guaranteed minimum death benefit at duration  $t$

$\text{BD}_{[x]+t}$  = death benefit at duration  $t$  assuming an immediate one-third depreciation

${}^{\text{C}}\text{BD}_{[x]+t}$  = death benefit at duration  $t$

$\text{PV}_{[x]+t}$  = present value at duration  $t$  of the excess of the guaranteed minimum death benefit over the death benefit payable in absence of the guaranteed minimum death benefit

### Sample Calculation

Insured: Age 35, Nonsmoker  
Specified Amount: \$100,000  
Target Premium: \$943  
Issue Date: 05/01/2008  
Valuation Date: 12/31/2008  
 $i = 4.0\%$   
Account Value (12/31/08): \$1,579.45  
Premium Paid since Issue: \$1,945.78

### Actuarial Guideline XXXVII Reserve

Secondary Guarantee Period = To age 121

Specified Premium = \$911.64

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ &= (1.04^{-1/12}) * (1 - .999899) * [100,000 - 100,000] = 0 \end{aligned}$$

$$\begin{aligned} \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ &= [0 * (1.04) - (100,000 - 100,000) * (1 - .999899)] / (.999899) = 0 \end{aligned}$$

$$PV_{[x]+t} = 1,074,641.45 - 24,132.14 = 1,050,509.31$$

$$\begin{aligned} \text{AALR}_t \text{ payment} &= [\text{PV}_{[x]+t} - \text{AALR}_t \text{ residue}] / (\ddot{a}_{[x]+t} - n \cdot i^{-1}) \\ &= [1,050,509.31 - 0] / (39.55299) \\ &= 26,559.54 \end{aligned}$$

$$\begin{aligned} \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ &= \text{Max}(0, 0 + 26,559.54) = 26,559.54 \end{aligned}$$

$$\begin{aligned} {}_t \text{TV}_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \\ &= \text{Max}(0, 26,559.54) = 26,559.54 \end{aligned}$$



Jay T. Lewellen, FSA, MAAA  
Assistant Vice President and Actuary

4/30/28

Date

Age 35 NonSmoker  
 Guaranteed Interest = 2%  
 Guaranteed COI = 2001 CSO (80) Composite  
 Specified Amount = \$100,000 (includes Policy Value)

Form ENLG-08(U)

GMP = \$1,945.78

<u>Duration</u>	<u>GMF</u>	<u>FB</u>	<u>Duration</u>	<u>GMF</u>	<u>FB</u>
1	1,235	100,000	44	71,277	100,000
2	2,490	100,000	45	72,704	100,000
3	3,766	100,000	46	74,080	100,000
4	5,059	100,000	47	75,393	100,000
5	6,371	100,000	48	76,647	100,000
6	7,703	100,000	49	77,849	100,000
7	9,051	100,000	50	78,993	100,000
8	10,415	100,000	51	80,075	100,000
9	11,793	100,000	52	81,097	100,000
10	13,182	100,000	53	82,044	100,000
11	14,813	100,000	54	82,917	100,000
12	16,460	100,000	55	83,717	100,000
13	18,124	100,000	56	84,456	100,000
14	19,812	100,000	57	85,185	100,000
15	21,523	100,000	58	85,894	100,000
16	23,254	100,000	59	86,570	100,000
17	25,003	100,000	60	87,200	100,000
18	26,764	100,000	61	87,757	100,000
19	28,536	100,000	62	88,259	100,000
20	30,313	100,000	63	88,692	100,000
21	32,093	100,000	64	89,160	100,000
22	33,874	100,000	65	89,633	100,000
23	35,655	100,000	66	90,084	100,000
24	37,447	100,000	67	90,534	100,000
25	39,245	100,000	68	90,979	100,000
26	41,047	100,000	69	91,412	100,000
27	42,845	100,000	70	91,827	100,000
28	44,631	100,000	71	92,216	100,000
29	46,403	100,000	72	92,578	100,000
30	48,161	100,000	73	92,914	100,000
31	49,906	100,000	74	93,227	100,000
32	51,642	100,000	75	93,515	100,000
33	53,372	100,000	76	93,775	100,000
34	55,095	100,000	77	94,016	100,000
35	56,815	100,000	78	94,244	100,000
36	58,526	100,000	79	94,484	100,000
37	60,223	100,000	80	94,705	100,000
38	61,888	100,000	81	94,925	100,000
39	63,525	100,000	82	95,162	100,000
40	65,137	100,000	83	95,452	100,000
41	66,721	100,000	84	95,931	100,000
42	68,277	100,000	85	97,042	100,000
43	69,798	100,000	86	100,000	100,000

**PENN MUTUAL LIFE INSURANCE COMPANY**

**ACTUARIAL BASIS, CASH VALUE FORMULA  
DEMONSTRATION OF COMPLIANCE WITH STANDARD NONFORFEITURE LAW  
DEMONSTRATION OF COMPLIANCE WITH STANDARD VALUATION LAW**

**FLEXIBLE PREMIUM ADJUSTABLE VARIABLE LIFE, FORM SLTI-08(S)**

**I. DESCRIPTION OF POLICY CHARACTERISTICS**

This policy provides adjustable life insurance coverage while the policy remains in force.

**A. Death Benefits**

Insurance on the life of the insured is integrated with the policy value under one of two options.

Under option one, the total death benefit is the Specified Amount on the date of death.

Under option two, the death benefit is defined as the Specified Amount on the date of death plus the policy value on the date of death.

Under either option, should the amount of a defined percentage of the policy value be greater than the death benefit on the date of death, the death benefit will be adjusted automatically to keep the death benefit equal to the defined percentage of the policy value. The defined percentage is that percentage which will continue to qualify the policy as life insurance under Section 7702 of the 1986 Internal Revenue Code. Note that this policy form can qualify for life insurance under either the Guideline Premium Test or the Cash Value Accumulation Test.

**B. Policy Value**

The policy value is the accumulation of interest of a percentage of the net premiums less expense charges and less the cost of insurance based on the net amount of risk.

**C. Cash Surrender Value**

The cash surrender value is the policy value less the surrender charge. A policy is subject to a surrender charge on the initial Specified Amount only during the first nine years in force and for nine years following an increase in the Specified Amount.

**D. Continuation of Insurance**

If the policyholder ceases paying premiums, the policy will continue in force for as long as the net cash surrender value is sufficient to keep it in force or the No Lapse Guarantee requirement is satisfied. The rates for calculating the Monthly Deductions will be the same as those used while on a premium paying basis.

E. No Lapse Guarantee

The policy will not lapse as a result of a Net Cash Surrender Value insufficient to cover the Monthly Deduction for the following month if, on a monthly anniversary prior to the Maturity Date, the No-Lapse Guarantee Requirement is satisfied. The No-Lapse Guarantee Requirement is satisfied if, on a monthly anniversary prior to the Maturity Date, the sum of all premiums paid on this policy, reduced by any partial surrenders, is greater than or equal to the No-Lapse Premium multiplied by the number of months since the Policy Date.

However, failure to satisfy this Requirement does not necessarily lapse the contract, provided the Net Cash Surrender Value is greater than zero.

F. Flexibility

At issue the owner selects both a premium amount and the amount of insurance, subject to the minimum amounts. At any time after the first policy year, while the policy is in force, the owner may change the amount of insurance. Decreases may not lower the amount of insurance below the minimum amount. Increases are subject to the rules of Penn Mutual as to age and amount. Evidence of insurability is required for any increase in the amount of insurance. Premiums after the first may be paid in any amount and at any interval subject to the following conditions:

- (1) No premium payment may be less than \$25 or such lower amount that may be established by Penn Mutual.
- (2) Penn Mutual reserves the right to limit total premiums paid in any policy year to the planned payments for that policy year as shown on Page 3 of the Policy.
- (3) If the Guideline Premium Test is used to qualify the policy as life insurance, total premiums paid in any year may not exceed the guideline premium limitation as set forth in Section 7702 of the Internal Revenue Code of 1986.

II. BASIS OF VALUES

A. Interest

The minimum interest rate that will be used in calculating the Policy Value is .16516% per month compounded monthly. This is equivalent to 2% per year compounded annually. The actual interest that will be credited to the Policy Value will be at rates set by Penn Mutual that could be higher than 2%.

Because of the retrospective approach used for the calculation of policy values, the use of an increased rate of interest in determining policy values would produce increased cash surrender values. Therefore, such use is not in conflict with the maximum interest rate defined in the Standard Nonforfeiture law.

B. Cost of Insurance

The guaranteed maximum cost of insurance rates applied in the calculation of policy values under this policy are the 2001 CSO Composite Mortality Table, Age Nearest Birthday.

The company may use modified cost of insurance rates which produce a lower cost of insurance, thus producing higher cash surrender values than those generated by the guaranteed maximum rates.

C. Expense Charges

The maximum expense charges applicable under this policy are:

- (a) a percent of premium charge of 7.5% of each premium paid;
- (b) a monthly expense charge of \$9.00;
- (c) a monthly expense charge per \$1,000 of original Specified Amount that varies by issue age for the first 120 months following the date of issue; and
- (d) if the Specified Amount has been increased within the past year, a monthly expense charge per \$1,000 of the increased Specified Amount that varies by the age at the time of increase for the first 120 months following the date of increase.

D. The same basis of values applies whether premiums are being paid or the policyholder has ceased to pay premiums.

### III. POLICY VALUE FORMULA AND COMPARISON OF FLEXIBLE PREMIUM ADJUSTABLE VARIABLE LIFE CASH SURRENDER VALUES WITH MINIMUM NONFORFEITURE REQUIREMENTS

For Flexible Premium Adjustable Variable Life (FPAVL) the ultimate plan of insurance is determined by assuming that the initial premium and death benefit continue unchanged. Since FPAVL is a universal life type policy, the initial premium and initial death benefit are those selected by the policyowner at issue, and hence are known.

The Standard Nonforfeiture Law (SNFL) defines minimum policy values using a prospective formula. But the prospective SNFL formula can be mathematically converted to a retrospective form. The method of calculating FPAVL policy values was designed to be consistent with the retrospective equivalent of the SNFL cash value formula.

The following section will demonstrate that FPAVL cash surrender values are greater than minimum cash values required by the retrospective version of the SNFL formula using the following approach:

(1) It will be shown that the FPAVL policy value formula is consistent with the retrospective equivalent of the formula required by the SNFL.

(2) Minimum FPAVL policy values will be generated by using the minimum interest rate of 2% and maximum cost of insurance rates in the policy value formula. Minimum FPAVL cash surrender values are obtained by subtracting the maximum surrender charge from the policy values.

Excess interest and/or lower cost of insurance rates will result in policy values greater than those based on guaranteed cost of insurance and the 2% minimum interest rate.

(3) It will be shown that the maximum surrender charge for FPAVL will, at all times, be less than or equal to the maximum expense allowance permitted by the SNFL.

(4) The combination of items (1), (2) and (3) above ensures that regardless of the incidence and amount of FPAVL premium payments and benefit changes, FPAVL cash surrender values will be greater than the minimum SNFL cash values generated by the retrospective equivalent of the SNFL formula.

The following is a definition of terms used in the policy value formulas:

- $t$  = duration from original issue date measured in months.
- $i'$  = monthly interest rate equal to 2% annually, which equals  $(1.02)^{1/12} - 1$
- $tq_x$  = 1/12 of the appropriate 2001 CSO mortality rate for age  $x$  where  $x$  is the "age nearest birthday" as of the policy anniversary prior to month  $t$ .
- $F_t$  = total death benefit in month  $t$ .
- $E$  = Monthly expense charge which equals \$9.00 per policy while the policy remains in force.
- $EC$  = excess of the first-year monthly charge per \$1,000 of original Specified Amount over the average (over 19 years) renewal monthly charge per \$1,000 of original Specified Amount. The monthly charge per \$1,000 of original Specified Amount varies by issue age and extends for the first 120 months following the date of issue or the date of an increase.
- $G_t$  = Gross premium collected in month  $t$ . All premiums are assumed to be paid monthly at the beginning of each month.
- $P_t$  = Net premium credited to policy values, which equals 92.5% of  $G_t$ .

${}_t r_x$  = Maximum monthly cost of insurance rate which equals  ${}_t q_x / (1 - {}_t q_x)$  where x is the "age nearest birthday" as of the policy anniversary prior to month t.

$C_t$  = Maximum monthly cost of insurance for month t.

${}_t CV$  = Policy value at end of month t.

${}_t SC$  = Surrender Charge at end of month t.

${}_t CSV$  = Cash Surrender Value at end of month t.

The FPAVL policy value at time of issue (after receipt of the initial premium) is P. The FPAVL policy value at the end of the first month just prior to the payment of the second month's premium is:

$$(1) \quad {}_1 CV = (P_1 - E - EC - C_1) * (1 + i')$$

where:

$$(2) \quad C_1 = {}_1 r_x * \frac{[F_1 - P_1]}{(1 + i')} = \frac{{}_1 q_x}{1 - {}_1 q_x} * \frac{[F_1 - P_1]}{(1 + i')}$$

Substituting (2) into (1), we have:

$$(3) \quad {}_1 CV = [P_1 - E - EC - \frac{{}_1 q_x}{1 - {}_1 q_x} * (F_1 - P_1)] * (1 + i')$$

$$= \frac{(P_1 - E - EC) * (1 + i') * (1 - {}_1 q_x) - {}_1 q_x * F_1 + {}_1 q_x * P_1 * (1 + i')}{1 - {}_1 q_x}$$

Collecting terms:

$$(4) \quad {}_1 CV = \frac{(P_1) * (1 + i') - {}_1 q_x * F_1}{(1 - {}_1 q_x)} - (E + EC) * (1 + i')$$

and the cash surrender value,  ${}_1 CSV$ , is given by:

$$(5) \quad {}_1 CSV = \frac{(P_1) * (1 + i') - {}_1 q_x * F_1}{(1 - {}_1 q_x)} - (E + EC) * (1 + i') - {}_1 SC$$

Next it is necessary to show that the FPAVL cash surrender value formula is consistent with the SNFL formula for calculating minimum cash values.

The first year minimum cash value required by the SNFL is calculated using a prospective formula involving the present value of future benefits less the present value of future adjusted net premiums. This prospective form can be converted into the following retrospective form by using the technique described on page 106 of Life Contingencies by C.W. Jordan.

The notation used for the SNFL minimum cash value formulas is as follows:

$$i = .02$$

$$q_{x+t} = \text{the appropriate 2001 CSO mortality rate where age } x+t \text{ is the "age nearest birthday" as of the } t\text{'th policy anniversary.}$$

$$P_t^A = \text{adjusted premium in year } t.$$

$$A_0 = \text{present value of future benefits at time of issue.}$$

$$PV(P_t^A)_0 = \text{present value of future adjusted premiums at time of issue.}$$

$$E^1 = \text{maximum first year expense allowance.}$$

$${}_tF = \text{death benefit in year } t.$$

$${}_tCV^M = \text{SNFL minimum cash value at end of year } t.$$

The retrospective formula for calculating the minimum cash value as defined by the SNFL, at the end of the first year, is:

$${}_1CV^M + q_x ({}_1F - {}_1CV^M) = ({}_0CV^M + P_1^A) (1 + i)$$

$$(6) \quad {}_1CV^M = \frac{({}_0CV^M + P_1^A) (1 + i) - q_x \cdot {}_1F}{1 - q_x}$$

where:

$${}_0CV^M = A_0 - PV(P_t^A)_0$$

$PV(P^A)_0$  is the present value of future net adjusted premiums which is also equal to  $A_0 + E^1$ . Using this value of  $PV(P^A)_0$ ,  $CV^M_0 = A_0 - (A_0 + E^1) = -E^1$ .

Substituting  $-E^1$  for  $CV_0$  in (6), we have:

$$(7) \quad {}_1CV^M = \frac{(P^A_1 - E^1)(1+i) - q_x * F_1}{1 - q_x}$$

$$= \frac{(P^A_1) * (1+i) - q_x * F_1 - E^1 * (1+i)}{1 - q_x} \quad (1 - q_x)$$

Formula (5) is shown for comparison of FPAVL cash value to SNFL minimum:

$$(5) \quad {}_1CV = \frac{[P_1](1+i)^{12} - {}_1q_x * F_1}{1 - {}_1q_x} - (E + EC) * (1+i)^{12} - {}_1SC$$

These two formulas are identical with the following exceptions:

(a) Formula (5) develops policy values (and, therefore, cash surrender values) on a monthly basis while formula (7) is an annual calculation. The terms for interest and mortality in formula (5) are the monthly equivalents of the like terms in formula (7) based on the following assumptions:

$$(1+i)^{12} = (1+i) \quad (\text{compound interest})$$

$${}_1q_x = (1/12) * q_x \quad (\text{uniform distribution of deaths})$$

(b) The monthly expense charge,  $E$ , in formula (5) does not appear in formula (7) because it is a level expense charge. Level expense charges are not subject to the first year expense allowance limit and do not appear in the formula for minimum cash values under SNFL.

(c) The term  $EC$  in formula (5) is analogous to  $E^1$  in formula (7). It will be demonstrated that the value of  $EC$  plus the surrender charge can never exceed the minimum expense allowance under SNFL. This is a necessary condition to substantiate that the FPAVL policy value and corresponding cash value formulas satisfy minimum requirements.

For renewal periods after the first year, the same consistency as demonstrated above exists. Consider the  $t+1$ st month policy value where  $t \geq 12$ , just prior to the payment of the monthly premium  $P_{t+2}$ , which is due on the  $t+1$ st month anniversary day. The FPAVL formula is:

$$(7) \quad {}_{t+1}CV = ({}_tCV + P_{t+1})(1+i)^t - (1+i)^t C_{t+1} - E(1+i)^t$$

where:

$$(8) \quad C_{t+1} = {}_{t+1}r_x \frac{[E_{t+1} - ({}_tCV + P_{t+1})]}{1 + i'} = \frac{{}_{t+1}q_x}{1 - {}_{t+1}q_x} \frac{[E_{t+1} - ({}_tCV + P_{t+1})]}{1 + i'}$$

Substituting (8) in (7), we have:

$$(9) \quad {}_{t+1}CV = ({}_tCV + P_{t+1} - E)(1 + i') - (1 + i') * \frac{{}_{t+1}q_x}{(1 - {}_{t+1}q_x)} [E_{t+1} - ({}_tCV + P_{t+1})]$$

$$(10) \quad {}_{t+1}CV = \frac{({}_tCV + P_{t+1} - E)(1 + i') - {}_{t+1}q_x * E_{t+1} + E * (1 + i') * ({}_{t+1}q_x)}{1 - {}_{t+1}q_x}$$

Using the retrospective method of calculating the SNFL minimum policy value for duration t+1, we have:

$$(11) \quad {}_{t+1}CV^M = \frac{({}_tCV^M + P_{t+1}^A)(1 + i) - q_{x+t+1} * {}_{t+1}F}{1 - q_{x+t}}$$

The SNFL formula (11) is the same as the FPAVL formula (10) except for the monthly versus annual time period, and except for the expense charge term, which is a level expense charge and does not appear in the formula for minimum cash values under SNFL.

Upon surrender of the Flexible Premium Adjustable Variable Life Policy, a surrender charge is applied against the policy value. The surrender charge is determined by multiplying (d) times 90% of the lesser of (a), (b), and (c) where:

- (a) total premium paid in first 12 months after policy issue;
- (b) the Maximum Surrender Charge Premium;
- (c) \$45.00 per thousand of Specified Amount;
- (d) a factor based on policy year as follows:

<u>Policy Year</u>	<u>Factor</u>
1	1.00
2	.89
3	.78
4	.67
5	.56
6	.45
7	.34
8	.23
9	.12
10+	0

Given we calculated the Flexible Premium Adjustable Variable Life policy values using the minimum interest rate of 2% and the maximum monthly cost of insurance rates, the cash surrender values will be greater than the minimum policy values required by the SNFL, provided that the surrender charge can never be greater than the unamortized and unused portion of the maximum first year expense allowance under the SNFL.

The formula for the SNFL maximum allowance is:

$$E = (1.25 * H) + 10$$

where H is the minimum value of P or 40. [P is the Net Level Annual Premium].

Table 2 summarizes the maximum SNFL first year expense allowance age-by-age for comparison versus the maximum surrender charge. The nonforfeiture interest rate used is the maximum rate allowed by law (5%). Using a rate in excess of the policy's guarantee rate produces a smaller SNFL maximum first year expense allowance which is conservative when demonstrating compliance with SNFL.

As shown in Table 2, for each age, the maximum surrender charge plus the first year expense charge is less than the SNFL maximum first year expense allowance.

Table 3 shows, for various issue ages, the run off of the unamortized first year expense allowance versus the surrender charge. Note that in the ten years after issue and in the ten years following an increase, there is an annualized expense charge per \$1,000 of Specified Amount that varies by issue age or the age at the time of increase. The unamortized expense allowance reflects this charge. Table 4 contains the Maximum Surrender Charge Premiums and Table 5 contains the monthly expense charges per \$1,000 of Specified Amount.

A comment should be made about the consistency between the adjusted premiums ( $P^A$ ) in the SNFL formulas and the net premiums less level expense charge (P-E) in the FPAVL policy value formulas. The present value of adjusted premiums is equal to the present value of future benefits plus the first year expense allowance ( $E^1$ ) at time of issue in the SNFL formula. Likewise, the present value of net premiums less level expense charge (P-E) (where P equals 92.5% of gross premiums and E equals \$9.00) is equal to the present value of future benefits, using the minimum 2% interest rate and maximum cost of insurance rates, which are based on the appropriate 2001 CSO mortality table. Effectively, the SNFL formula and the FPAVL cash policy value formula amortize the first year expense charges over the premium paying period of the policy, and the first year expense allowance in the SNFL formula is greater than the policy surrender charge in the FPAVL policy value formula. Thus the FPAVL cash surrender value must be greater than the minimum SNFL value by the unamortized portion of the excess first year expenses.

The method of calculating policy values is described in the policy form and annually the Company will furnish the insured a statement showing the current policy values.

#### IV. VALUATION BASIS

The Standard Valuation Law requires minimum reserves to be computed under the Commissioner's Reserve Valuation Method (CRVM). The statutory reserve of this policy will be calculated as the greater of the following: the CRVM method; the reserve for the no-lapse guarantee; or the cash surrender value (see attached Statutory Reserves memo).

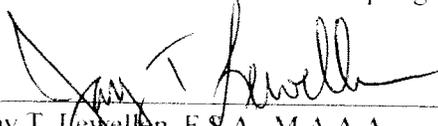
  
\_\_\_\_\_  
Jay T. Lewellen, F.S.A., M.A.A.A.  
AVP and Actuary

Table 2

MALE PREFERRED PLUS NONTOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) - (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.58	30.73	3.19	1.51	1.68	15.21	16.89	13.84
47	17.39	31.74	3.26	1.56	1.72	16.11	17.83	13.91
48	18.24	32.80	3.34	1.58	1.76	17.01	18.77	14.03
49	19.14	33.93	3.41	1.61	1.79	17.91	19.70	14.22
50	20.10	35.13	3.48	1.65	1.83	18.81	20.64	14.49
51	21.13	36.41	3.56	1.68	1.87	19.71	21.58	14.83
52	22.22	37.78	3.62	1.72	1.91	20.61	22.52	15.26
53	23.36	39.22	3.70	1.75	1.95	21.51	23.46	15.77
54	24.61	40.76	3.77	1.78	1.98	22.41	24.39	16.37
55	25.91	42.38	3.84	1.82	2.02	23.31	25.33	17.06
56	27.28	44.10	3.96	1.88	2.08	24.94	27.02	17.08
57	28.73	45.92	4.08	1.93	2.15	26.57	28.72	17.20
58	30.28	47.84	4.20	1.99	2.21	28.20	30.41	17.44
59	31.92	49.90	4.32	2.06	2.27	29.83	32.10	17.80
60	33.68	52.11	4.44	2.10	2.34	31.46	33.79	18.31
61	35.57	54.46	4.56	2.16	2.40	33.08	35.48	18.97
62	37.57	56.96	4.68	2.22	2.46	34.71	37.18	19.78
63	39.69	59.61	4.80	2.27	2.53	36.34	38.87	20.74
64	41.93	60.00	4.92	2.33	2.59	37.97	40.56	19.44
65	44.32	60.00	5.04	2.39	2.65	39.60	42.25	17.75
66	46.85	60.00	5.06	2.40	2.67	40.50	43.17	16.83
67	49.56	60.00	5.09	2.41	2.68	40.50	43.18	16.82
68	52.48	60.00	5.11	2.42	2.69	40.50	43.19	16.81
69	55.62	60.00	5.14	2.43	2.70	40.50	43.20	16.80
70	59.04	60.00	5.16	2.44	2.72	40.50	43.22	16.78
71	62.73	60.00	5.18	2.46	2.73	40.50	43.23	16.77
72	66.74	60.00	5.21	2.47	2.74	40.50	43.24	16.76
73	71.04	60.00	5.23	2.48	2.75	40.50	43.25	16.75
74	75.67	60.00	5.26	2.49	2.77	40.50	43.27	16.73
75	80.68	60.00	5.28	2.50	2.78	40.50	43.28	16.72
76	86.12	60.00	5.28	2.50	2.78	40.50	43.28	16.72
77	92.05	60.00	5.28	2.50	2.78	40.50	43.28	16.72
78	98.49	60.00	5.28	2.50	2.78	40.50	43.28	16.72
79	105.45	60.00	5.28	2.50	2.78	40.50	43.28	16.72
80	112.93	60.00	5.28	2.50	2.78	40.50	43.28	16.72
81	120.97	60.00	5.28	2.50	2.78	40.50	43.28	16.72
82	129.56	60.00	5.28	2.50	2.78	40.50	43.28	16.72
83	138.80	60.00	5.28	2.50	2.78	40.50	43.28	16.72
84	148.76	60.00	5.28	2.50	2.78	40.50	43.28	16.72
85	159.48	60.00	5.28	2.50	2.78	40.50	43.28	16.72

Table 2

MALE PREFERRED NONTOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	UNUSED EXPENSE ALLOWANCE
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) - (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6)	
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52	
1	2.64	13.29	1.44	0.68	0.76	3.02	3.77	9.52	
2	2.73	13.41	1.44	0.68	0.76	3.10	3.86	9.56	
3	2.83	13.53	1.44	0.68	0.76	3.19	3.94	9.59	
4	2.94	13.67	1.56	0.74	0.82	3.28	4.10	9.57	
5	3.06	13.82	1.56	0.74	0.82	3.36	4.18	9.64	
6	3.18	13.97	1.56	0.74	0.82	3.45	4.27	9.70	
7	3.31	14.13	1.56	0.74	0.82	3.54	4.36	9.78	
8	3.44	14.30	1.56	0.74	0.82	3.62	4.44	9.86	
9	3.58	14.48	1.56	0.74	0.82	3.71	4.53	9.96	
10	3.73	14.66	1.56	0.74	0.82	3.80	4.62	10.04	
11	3.89	14.86	1.56	0.74	0.82	3.88	4.70	10.16	
12	4.06	15.06	1.56	0.74	0.82	3.97	4.79	10.27	
13	4.21	15.26	1.56	0.74	0.82	4.06	4.88	10.38	
14	4.38	15.48	1.56	0.74	0.82	4.14	4.96	10.52	
15	4.56	15.70	1.56	0.74	0.82	4.23	5.06	10.66	
16	4.74	15.92	1.56	0.74	0.82	4.42	5.24	10.88	
17	4.92	16.18	1.56	0.74	0.82	4.61	5.43	10.72	
18	5.10	16.38	1.56	0.74	0.82	4.80	5.62	10.76	
19	5.30	16.62	1.56	0.74	0.82	4.99	5.81	10.81	
20	5.49	16.87	1.56	0.74	0.82	5.02	5.84	11.02	
21	5.70	17.13	1.56	0.74	0.82	5.18	6.00	11.13	
22	5.92	17.40	1.56	0.74	0.82	5.34	6.16	11.24	
23	6.16	17.69	1.56	0.74	0.82	5.49	6.31	11.38	
24	6.39	17.99	1.56	0.74	0.82	5.65	6.47	11.52	
25	6.65	18.31	1.56	0.74	0.82	5.81	6.63	11.68	
26	6.91	18.64	1.61	0.76	0.85	6.09	6.94	11.70	
27	7.19	18.98	1.66	0.78	0.87	6.38	7.25	11.73	
28	7.48	19.35	1.70	0.81	0.90	6.67	7.57	11.78	
29	7.78	19.73	1.75	0.83	0.92	6.96	7.88	11.85	
30	8.11	20.13	1.80	0.85	0.95	7.25	8.19	11.94	
31	8.45	20.56	1.85	0.88	0.97	7.53	8.51	12.06	
32	8.81	21.02	1.90	0.90	1.00	7.82	8.82	12.20	
33	9.20	21.49	1.94	0.92	1.02	8.11	9.13	12.36	
34	9.60	22.00	1.99	0.94	1.05	8.40	9.45	12.56	
35	10.03	22.53	2.04	0.97	1.07	8.69	9.76	12.78	
36	10.48	23.10	2.15	1.02	1.13	9.27	10.40	12.70	
37	10.96	23.69	2.26	1.07	1.19	9.85	11.03	12.66	
38	11.48	24.32	2.36	1.12	1.24	10.43	11.68	12.65	
39	11.99	24.98	2.47	1.17	1.30	11.01	12.31	12.68	
40	12.55	25.68	2.58	1.22	1.36	11.59	12.95	12.73	
41	13.13	26.42	2.69	1.27	1.41	12.17	13.58	12.84	
42	13.76	27.19	2.80	1.32	1.47	12.75	14.22	12.97	
43	14.41	28.01	2.90	1.38	1.53	13.33	14.86	13.15	
44	15.10	28.87	3.01	1.43	1.59	13.91	15.50	13.37	
45	15.82	29.78	3.12	1.48	1.64	14.49	16.13	13.65	

Table 2

MALE PREFERRED NONTOBACCO									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) - (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE	
46	16.58	30.73	3.19	1.51	1.68	15.40	17.08	13.66	
47	17.39	31.74	3.26	1.55	1.72	16.30	18.02	13.72	
48	18.24	32.80	3.34	1.58	1.76	17.21	18.96	13.83	
49	19.14	33.93	3.41	1.61	1.79	18.11	19.90	14.02	
50	20.10	35.13	3.48	1.65	1.83	19.02	20.85	14.28	
51	21.13	36.41	3.55	1.68	1.87	19.92	21.79	14.62	
52	22.22	37.78	3.62	1.72	1.91	20.83	22.73	15.04	
53	23.38	39.22	3.70	1.75	1.95	21.73	23.67	15.55	
54	24.61	40.76	3.77	1.78	1.98	22.64	24.62	16.14	
55	25.91	42.38	3.84	1.82	2.02	23.54	25.56	16.83	
56	27.28	44.10	3.96	1.88	2.08	25.24	27.32	16.78	
57	28.73	45.92	4.08	1.93	2.15	26.93	29.08	16.84	
58	30.28	47.84	4.20	1.99	2.21	28.63	30.84	17.00	
59	31.92	49.90	4.32	2.05	2.27	30.32	32.59	17.31	
60	33.68	52.11	4.44	2.10	2.34	32.02	34.36	17.76	
61	35.57	54.46	4.56	2.16	2.40	33.71	36.11	18.34	
62	37.57	56.96	4.68	2.22	2.46	35.42	37.88	19.08	
63	39.69	59.61	4.80	2.27	2.53	37.11	39.63	19.98	
64	41.93	60.00	4.92	2.33	2.59	38.81	41.40	18.60	
65	44.32	60.00	5.04	2.39	2.65	40.50	43.15	16.86	
66	46.85	60.00	5.06	2.40	2.67	40.50	43.17	16.83	
67	49.50	60.00	5.09	2.41	2.68	40.50	43.18	16.82	
68	52.48	60.00	5.11	2.42	2.69	40.50	43.19	16.81	
69	55.62	60.00	5.14	2.43	2.70	40.50	43.20	16.80	
70	59.04	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
71	62.73	60.00	5.18	2.46	2.73	40.50	43.23	16.77	
72	66.74	60.00	5.21	2.47	2.74	40.50	43.24	16.76	
73	71.04	60.00	5.23	2.48	2.75	40.50	43.25	16.75	
74	75.67	60.00	5.26	2.49	2.77	40.50	43.27	16.73	
75	80.68	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
76	86.12	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
77	92.05	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
78	98.49	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
79	105.45	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
80	112.93	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
81	120.97	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
82	129.56	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
83	138.80	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
84	148.76	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
85	159.46	60.00	5.28	2.50	2.78	40.50	43.28	16.72	

Table 2

MALE NONTOBACCO								
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) - (3)	MAXIMUM	(4) + (5)	(1) - (6)
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	UNUSED
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	EXPENSE	CHARGE	CHARGES	EXPENSE
		ALLOWANCE	CHARGE	CHARGE	CHARGE			ALLOWANCE
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52
1	2.64	13.29	1.44	0.68	0.76	3.02	3.77	9.52
2	2.73	13.41	1.44	0.68	0.76	3.10	3.85	9.55
3	2.83	13.53	1.44	0.68	0.76	3.19	3.94	9.59
4	2.94	13.67	1.56	0.74	0.82	3.28	4.10	9.57
5	3.05	13.82	1.56	0.74	0.82	3.36	4.18	9.64
6	3.18	13.97	1.56	0.74	0.82	3.45	4.27	9.70
7	3.31	14.13	1.56	0.74	0.82	3.54	4.36	9.78
8	3.44	14.30	1.56	0.74	0.82	3.62	4.44	9.86
9	3.58	14.48	1.56	0.74	0.82	3.71	4.53	9.95
10	3.73	14.66	1.56	0.74	0.82	3.80	4.62	10.04
11	3.89	14.86	1.56	0.74	0.82	3.88	4.70	10.16
12	4.05	15.06	1.56	0.74	0.82	3.97	4.79	10.27
13	4.21	15.26	1.56	0.74	0.82	4.06	4.88	10.38
14	4.38	15.48	1.56	0.74	0.82	4.14	4.96	10.52
15	4.56	15.70	1.56	0.74	0.82	4.23	5.05	10.65
16	4.74	15.92	1.56	0.74	0.82	4.42	5.24	10.68
17	4.92	16.16	1.56	0.74	0.82	4.61	5.43	10.72
18	5.10	16.38	1.56	0.74	0.82	4.80	5.62	10.76
19	5.30	16.62	1.56	0.74	0.82	4.99	5.81	10.81
20	5.49	16.87	1.56	0.74	0.82	5.18	6.00	10.87
21	5.70	17.13	1.56	0.74	0.82	5.36	6.19	10.94
22	5.92	17.40	1.56	0.74	0.82	5.55	6.37	11.03
23	6.15	17.69	1.56	0.74	0.82	5.74	6.56	11.13
24	6.39	17.99	1.56	0.74	0.82	5.93	6.75	11.24
25	6.65	18.31	1.56	0.74	0.82	6.12	6.94	11.37
26	6.91	18.64	1.61	0.76	0.85	6.38	7.23	11.41
27	7.19	18.98	1.66	0.78	0.87	6.64	7.51	11.47
28	7.48	19.35	1.70	0.81	0.90	6.90	7.80	11.55
29	7.78	19.73	1.75	0.83	0.92	7.16	8.09	11.64
30	8.11	20.13	1.80	0.85	0.95	7.43	8.37	11.76
31	8.45	20.56	1.85	0.88	0.97	7.69	8.66	11.90
32	8.81	21.02	1.90	0.90	1.00	7.95	8.94	12.07
33	9.20	21.49	1.94	0.92	1.02	8.21	9.23	12.26
34	9.60	22.00	1.99	0.94	1.05	8.47	9.52	12.48
35	10.03	22.53	2.04	0.97	1.07	8.73	9.80	12.73
36	10.48	23.10	2.15	1.02	1.13	9.32	10.45	12.65
37	10.96	23.69	2.26	1.07	1.19	9.90	11.09	12.61
38	11.46	24.32	2.38	1.12	1.24	10.49	11.73	12.59
39	11.99	24.98	2.47	1.17	1.30	11.07	12.37	12.61
40	12.55	25.68	2.58	1.22	1.36	11.66	13.01	12.67
41	13.13	26.42	2.69	1.27	1.41	12.24	13.65	12.76
42	13.76	27.19	2.80	1.32	1.47	12.83	14.30	12.90
43	14.41	28.01	2.90	1.38	1.53	13.41	14.94	13.07
44	15.10	28.87	3.01	1.43	1.59	14.00	15.58	13.29
45	15.82	29.78	3.12	1.48	1.64	14.58	16.22	13.56

Table 2

MALE NONTOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(2) FIRST YEAR EXPENSE CHARGE	(3) AVERAGE RENEWAL EXPENSE CHARGE	(4) (2) - (3) INITIAL ACQUIS EXPENSE CHARGE	(5) MAXIMUM SURRENDER CHARGE	(6) (4) + (5) TOTAL CHARGES	(7) (1) - (6) UNUSED EXPENSE ALLOWANCE	
46	16.58	30.73	3.19	1.51	1.68	15.49	17.17	13.56	
47	17.39	31.74	3.26	1.55	1.72	16.40	18.12	13.62	
48	18.24	32.80	3.34	1.58	1.76	17.31	19.06	13.73	
49	19.14	33.93	3.41	1.61	1.79	18.22	20.01	13.92	
50	20.10	35.13	3.48	1.65	1.83	19.13	20.96	14.17	
51	21.13	36.41	3.55	1.68	1.87	20.03	21.90	14.51	
52	22.22	37.78	3.62	1.72	1.91	20.94	22.85	14.93	
53	23.38	39.22	3.70	1.75	1.95	21.85	23.80	15.43	
54	24.61	40.76	3.77	1.78	1.98	22.76	24.74	16.01	
55	25.91	42.38	3.84	1.82	2.02	23.67	25.69	16.69	
56	27.28	44.10	3.96	1.88	2.08	25.44	27.53	16.57	
57	28.73	45.92	4.08	1.93	2.15	27.22	29.38	16.55	
58	30.28	47.84	4.20	1.99	2.21	28.99	31.20	16.64	
59	31.92	49.90	4.32	2.05	2.27	30.76	33.04	16.87	
60	33.68	52.11	4.44	2.10	2.34	32.54	34.87	17.23	
61	35.57	54.46	4.56	2.16	2.40	34.31	36.71	17.75	
62	37.57	56.96	4.68	2.22	2.46	36.08	38.54	18.42	
63	39.69	59.61	4.80	2.27	2.53	37.85	40.38	19.23	
64	41.93	60.00	4.92	2.33	2.59	39.63	42.22	17.78	
65	44.32	60.00	5.04	2.39	2.65	40.50	43.15	16.85	
66	46.85	60.00	5.06	2.40	2.67	40.50	43.17	16.83	
67	49.56	60.00	5.09	2.41	2.68	40.50	43.18	16.82	
68	52.48	60.00	5.11	2.42	2.69	40.50	43.19	16.81	
69	55.62	60.00	5.14	2.43	2.70	40.50	43.20	16.80	
70	59.04	60.00	5.16	2.44	2.72	40.50	43.22	16.78	
71	62.73	60.00	5.18	2.46	2.73	40.50	43.23	16.77	
72	66.74	60.00	5.21	2.47	2.74	40.50	43.24	16.76	
73	71.04	60.00	5.23	2.48	2.75	40.50	43.25	16.75	
74	75.67	60.00	5.26	2.49	2.77	40.50	43.27	16.73	
75	80.68	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
76	86.12	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
77	92.05	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
78	98.49	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
79	105.45	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
80	112.93	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
81	120.97	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
82	129.56	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
83	138.80	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
84	148.76	60.00	5.28	2.50	2.78	40.50	43.28	16.72	
85	159.46	60.00	5.28	2.50	2.78	40.50	43.28	16.72	

Table 2

MALE PREFERRED TOBACCO								
ISSUE AGE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(3) + (4)	TOTAL CHARGES
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52
1	2.64	13.29	1.44	0.68	0.76	3.02	3.77	9.52
2	2.73	13.41	1.44	0.68	0.76	3.10	3.85	9.56
3	2.83	13.53	1.44	0.68	0.76	3.19	3.94	9.59
4	2.94	13.67	1.56	0.74	0.82	3.28	4.10	9.67
5	3.06	13.82	1.56	0.74	0.82	3.36	4.18	9.64
6	3.18	13.97	1.58	0.75	0.83	3.46	4.28	9.69
7	3.31	14.13	1.61	0.76	0.85	3.54	4.38	9.75
8	3.44	14.30	1.63	0.77	0.86	3.62	4.48	9.83
9	3.58	14.48	1.66	0.78	0.87	3.71	4.58	9.90
10	3.73	14.68	1.68	0.80	0.88	3.80	4.68	9.98
11	3.89	14.88	1.70	0.81	0.90	3.89	4.78	10.08
12	4.06	15.08	1.73	0.82	0.91	3.97	4.88	10.18
13	4.21	15.28	1.75	0.83	0.92	4.06	4.98	10.28
14	4.38	15.48	1.78	0.84	0.93	4.14	5.07	10.40
15	4.56	15.70	1.80	0.85	0.95	4.23	5.18	10.52
16	4.74	15.92	1.80	0.85	0.95	4.42	5.37	10.55
17	4.92	16.15	1.80	0.85	0.95	4.61	5.56	10.59
18	5.10	16.38	1.80	0.85	0.95	4.80	5.74	10.64
19	5.30	16.62	1.80	0.85	0.95	4.99	5.93	10.69
20	5.49	16.87	2.04	0.97	1.07	5.52	6.59	10.28
21	5.70	17.13	2.04	0.97	1.07	5.77	6.84	10.29
22	5.92	17.40	2.04	0.97	1.07	6.03	7.10	10.30
23	6.15	17.69	2.04	0.97	1.07	6.28	7.36	10.33
24	6.39	17.99	2.04	0.97	1.07	6.54	7.62	10.37
25	6.65	18.31	2.04	0.97	1.07	6.80	7.87	10.44
26	6.91	18.64	2.10	0.99	1.11	7.15	8.25	10.39
27	7.19	18.98	2.16	1.02	1.14	7.50	8.63	10.38
28	7.48	19.35	2.22	1.05	1.17	7.86	9.02	10.33
29	7.78	19.73	2.28	1.08	1.20	8.20	9.40	10.33
30	8.11	20.13	2.34	1.11	1.23	8.55	9.78	10.35
31	8.45	20.56	2.40	1.14	1.26	8.90	10.16	10.40
32	8.81	21.02	2.46	1.17	1.29	9.25	10.55	10.47
33	9.20	21.49	2.52	1.19	1.33	9.60	10.93	10.57
34	9.60	22.00	2.58	1.22	1.36	9.95	11.31	10.69
35	10.03	22.53	2.64	1.25	1.39	10.31	11.69	10.84
36	10.48	23.10	2.75	1.30	1.46	10.89	12.34	10.76
37	10.96	23.69	2.86	1.35	1.50	11.47	12.97	10.73
38	11.46	24.32	2.96	1.40	1.56	12.05	13.61	10.71
39	11.99	24.98	3.07	1.46	1.62	12.63	14.24	10.74
40	12.55	25.68	3.18	1.51	1.67	13.21	14.89	10.80
41	13.13	26.42	3.29	1.56	1.73	13.79	15.52	10.90
42	13.76	27.19	3.40	1.61	1.79	14.37	16.16	11.03
43	14.41	28.01	3.50	1.66	1.84	14.95	16.79	11.22
44	15.10	28.87	3.61	1.71	1.90	15.53	17.44	11.44
45	15.82	29.78	3.72	1.76	1.96	16.11	18.07	11.71

Table 2

MALE PREFERRED TOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(3) + (4) TOTAL CHARGES	UNUSED EXPENSE ALLOWANCE
46	16.58	30.73	3.82	1.81	2.01	17.09	19.10	11.63
47	17.39	31.74	3.91	1.85	2.06	18.07	20.13	11.60
48	18.24	32.80	4.01	1.90	2.11	19.05	21.16	11.63
49	19.14	33.93	4.10	1.94	2.16	20.03	22.19	11.73
50	20.10	35.13	4.20	1.99	2.21	21.02	23.23	11.90
51	21.13	36.41	4.30	2.03	2.26	22.00	24.26	12.15
52	22.22	37.78	4.39	2.08	2.31	22.98	25.29	12.49
53	23.38	39.22	4.49	2.13	2.36	23.96	26.32	12.90
54	24.61	40.76	4.58	2.17	2.41	24.94	27.35	13.41
55	25.91	42.38	4.68	2.22	2.46	25.92	28.38	14.00
56	27.28	44.10	4.81	2.28	2.53	27.74	30.27	13.63
57	28.73	45.92	4.94	2.34	2.60	29.56	32.16	13.76
58	30.28	47.84	5.08	2.40	2.67	31.37	34.06	13.80
59	31.92	49.90	5.21	2.47	2.74	33.19	35.93	13.97
60	33.68	52.11	5.34	2.53	2.81	35.01	37.82	14.28
61	35.57	54.46	5.47	2.59	2.88	36.83	39.71	14.75
62	37.57	56.96	5.60	2.65	2.95	38.65	41.60	15.36
63	39.69	59.61	5.74	2.72	3.02	40.48	43.48	16.13
64	41.93	60.00	5.87	2.78	3.09	40.50	43.59	16.41
65	44.32	60.00	6.00	2.84	3.16	40.50	43.66	16.34
66	46.85	60.00	6.12	2.90	3.22	40.50	43.72	16.28
67	49.56	60.00	6.24	2.96	3.28	40.50	43.78	16.22
68	52.48	60.00	6.36	3.01	3.35	40.50	43.85	16.16
69	55.62	60.00	6.48	3.07	3.41	40.50	43.91	16.09
70	59.04	60.00	6.60	3.13	3.47	40.50	43.97	16.03
71	62.73	60.00	6.72	3.18	3.54	40.50	44.04	15.96
72	66.74	60.00	6.84	3.24	3.60	40.50	44.10	15.90
73	71.04	60.00	6.96	3.30	3.66	40.50	44.16	15.84
74	75.67	60.00	7.08	3.35	3.73	40.50	44.23	15.77
75	80.68	60.00	7.20	3.41	3.79	40.50	44.29	15.71
76	86.12	60.00	7.20	3.41	3.79	40.50	44.29	15.71
77	92.05	60.00	7.20	3.41	3.79	40.50	44.29	15.71
78	98.49	60.00	7.20	3.41	3.79	40.50	44.29	15.71
79	105.45	60.00	7.20	3.41	3.79	40.50	44.29	15.71
80	112.93	60.00	7.20	3.41	3.79	40.50	44.29	15.71
81	120.97	60.00	7.20	3.41	3.79	40.50	44.29	15.71
82	129.56	60.00	7.20	3.41	3.79	40.50	44.29	15.71
83	138.80	60.00	7.20	3.41	3.79	40.50	44.29	15.71
84	148.76	60.00	7.20	3.41	3.79	40.50	44.29	15.71
85	159.46	60.00	7.20	3.41	3.79	40.50	44.29	15.71

Table 2

MALE TOBACCO		(1)	(2)	(3)	(4)	(5)	(6)	(7)
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(3) + (4) TOTAL CHARGES	UNUSED EXPENSE ALLOWANCE
0	2.57	13.21	1.44	0.68	0.76	2.93	3.68	9.52
1	2.64	13.29	1.44	0.68	0.76	3.02	3.77	9.52
2	2.73	13.41	1.44	0.68	0.76	3.10	3.85	9.55
3	2.83	13.53	1.44	0.68	0.76	3.19	3.94	9.59
4	2.94	13.67	1.56	0.74	0.82	3.28	4.10	9.57
5	3.05	13.82	1.56	0.74	0.82	3.36	4.18	9.64
6	3.18	13.97	1.58	0.75	0.83	3.45	4.28	9.69
7	3.31	14.13	1.61	0.76	0.85	3.54	4.38	9.75
8	3.44	14.30	1.63	0.77	0.86	3.62	4.48	9.83
9	3.58	14.48	1.66	0.78	0.87	3.71	4.58	9.90
10	3.73	14.66	1.68	0.80	0.88	3.80	4.68	9.98
11	3.89	14.86	1.70	0.81	0.90	3.88	4.78	10.08
12	4.05	15.06	1.73	0.82	0.91	3.97	4.88	10.18
13	4.21	15.26	1.75	0.83	0.92	4.06	4.98	10.28
14	4.38	15.48	1.78	0.84	0.93	4.14	5.07	10.40
15	4.58	15.70	1.80	0.85	0.95	4.23	5.18	10.52
16	4.74	15.92	1.80	0.85	0.95	4.42	5.37	10.55
17	4.92	16.15	1.80	0.85	0.95	4.61	5.56	10.59
18	5.10	16.38	1.80	0.85	0.95	4.80	5.74	10.64
19	5.30	16.62	1.80	0.85	0.95	4.99	5.93	10.69
20	5.49	16.87	2.04	0.97	1.07	5.54	6.61	10.26
21	5.70	17.13	2.04	0.97	1.07	5.80	6.87	10.26
22	5.92	17.40	2.04	0.97	1.07	6.06	7.13	10.27
23	6.15	17.69	2.04	0.97	1.07	6.32	7.39	10.30
24	6.39	17.99	2.04	0.97	1.07	6.58	7.65	10.34
25	6.65	18.31	2.04	0.97	1.07	6.84	7.91	10.39
26	6.91	18.64	2.10	0.99	1.11	7.19	8.30	10.34
27	7.19	18.98	2.16	1.02	1.14	7.54	8.68	10.31
28	7.48	19.35	2.22	1.05	1.17	7.89	9.06	10.29
29	7.78	19.73	2.28	1.08	1.20	8.24	9.44	10.29
30	8.11	20.13	2.34	1.11	1.23	8.60	9.83	10.31
31	8.45	20.56	2.40	1.14	1.26	8.95	10.21	10.35
32	8.81	21.02	2.46	1.17	1.29	9.30	10.59	10.42
33	9.20	21.49	2.52	1.19	1.33	9.65	10.97	10.52
34	9.60	22.00	2.58	1.22	1.36	10.00	11.36	10.64
35	10.03	22.53	2.64	1.25	1.39	10.35	11.74	10.80
36	10.48	23.10	2.75	1.30	1.45	10.94	12.39	10.71
37	10.96	23.69	2.86	1.35	1.50	11.54	13.04	10.65
38	11.46	24.32	2.96	1.40	1.56	12.13	13.69	10.63
39	11.99	24.98	3.07	1.46	1.62	12.73	14.34	10.64
40	12.55	25.68	3.18	1.51	1.67	13.32	14.99	10.69
41	13.13	26.42	3.29	1.56	1.73	13.91	15.64	10.77
42	13.76	27.19	3.40	1.61	1.79	14.51	16.30	10.90
43	14.41	28.01	3.50	1.66	1.84	15.10	16.95	11.07
44	15.10	28.87	3.61	1.71	1.90	15.70	17.60	11.28
45	15.82	29.78	3.72	1.76	1.96	16.29	18.25	11.53

Table 2

MALE TOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(2) FIRST YEAR EXPENSE CHARGE	(3) AVERAGE RENEWAL EXPENSE CHARGE	(4) (2) + (3) INITIAL ACQUIS EXPENSE CHARGE	(5) MAXIMUM SURRENDER CHARGE	(6) (3) + (4) TOTAL CHARGES	(7) UNUSED EXPENSE ALLOWANCE	
46	16.58	30.73	3.95	1.87	2.08	17.29	19.37	11.36	
47	17.39	31.74	4.18	1.98	2.20	18.29	20.49	11.25	
48	18.24	32.80	4.40	2.09	2.32	19.29	21.60	11.19	
49	19.14	33.93	4.63	2.19	2.44	20.29	22.72	11.20	
50	20.10	35.13	4.86	2.30	2.56	21.29	23.84	11.29	
51	21.13	36.41	5.09	2.41	2.68	22.28	24.96	11.45	
52	22.22	37.78	5.32	2.52	2.80	23.28	26.08	11.69	
53	23.38	39.22	5.54	2.63	2.92	24.28	27.20	12.02	
54	24.61	40.76	5.77	2.73	3.04	25.28	28.32	12.44	
55	25.91	42.38	6.00	2.84	3.16	26.28	29.44	12.95	
56	27.28	44.10	6.32	3.00	3.33	28.12	31.44	12.66	
57	28.73	45.92	6.65	3.15	3.50	29.95	33.45	12.47	
58	30.28	47.84	6.97	3.30	3.67	31.79	35.46	12.39	
59	31.92	49.90	7.30	3.46	3.84	33.62	37.46	12.44	
60	33.68	52.11	7.62	3.61	4.01	35.46	39.47	12.63	
61	35.57	54.46	7.94	3.76	4.18	37.30	41.48	12.98	
62	37.57	56.96	8.27	3.92	4.35	39.13	43.48	13.48	
63	39.69	59.61	8.59	4.07	4.52	40.50	45.02	14.59	
64	41.93	60.00	8.92	4.22	4.69	40.50	45.19	14.81	
65	44.32	60.00	9.24	4.38	4.86	40.50	45.36	14.64	
66	46.85	60.00	9.43	4.47	4.96	40.50	45.48	14.54	
67	49.56	60.00	9.62	4.56	5.07	40.50	45.57	14.43	
68	52.48	60.00	9.82	4.65	5.17	40.50	45.67	14.33	
69	55.62	60.00	10.01	4.74	5.27	40.50	45.77	14.23	
70	59.04	60.00	10.20	4.83	5.37	40.50	45.87	14.13	
71	62.73	60.00	10.39	4.92	5.47	40.50	45.97	14.03	
72	66.74	60.00	10.58	5.01	5.57	40.50	46.07	13.93	
73	71.04	60.00	10.78	5.10	5.67	40.50	46.17	13.83	
74	75.67	60.00	10.97	5.20	5.77	40.50	46.27	13.73	
75	80.68	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
76	86.12	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
77	92.05	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
78	98.49	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
79	105.45	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
80	112.93	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
81	120.97	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
82	129.56	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
83	138.80	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
84	148.76	60.00	11.16	5.29	5.87	40.50	46.37	13.63	
85	159.46	60.00	11.16	5.29	5.87	40.50	46.37	13.63	

Table 2

FEMALE PREFERRED PLUS NONTOBACCO								
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.13	12.66	1.44	0.68	0.76	2.43	3.19	9.47
1	2.20	12.75	1.44	0.68	0.76	2.51	3.27	9.48
2	2.28	12.84	1.44	0.68	0.76	2.59	3.35	9.49
3	2.36	12.95	1.44	0.68	0.76	2.67	3.43	9.52
4	2.45	13.07	1.56	0.74	0.82	2.75	3.58	9.49
5	2.55	13.19	1.56	0.74	0.82	2.84	3.66	9.53
6	2.65	13.32	1.56	0.74	0.82	2.92	3.74	9.58
7	2.76	13.45	1.56	0.74	0.82	3.00	3.82	9.53
8	2.87	13.59	1.56	0.74	0.82	3.08	3.90	9.59
9	2.98	13.73	1.56	0.74	0.82	3.16	3.98	9.75
10	3.10	13.88	1.56	0.74	0.82	3.24	4.06	9.82
11	3.23	14.04	1.56	0.74	0.82	3.32	4.14	9.89
12	3.36	14.20	1.56	0.74	0.82	3.40	4.22	9.98
13	3.50	14.37	1.56	0.74	0.82	3.48	4.30	10.06
14	3.64	14.54	1.56	0.74	0.82	3.56	4.39	10.16
15	3.78	14.73	1.56	0.74	0.82	3.65	4.47	10.26
16	3.93	14.92	1.66	0.74	0.82	3.78	4.60	10.31
17	4.09	15.11	1.56	0.74	0.82	3.92	4.74	10.38
18	4.26	15.32	1.56	0.74	0.82	4.05	4.87	10.46
19	4.43	15.53	1.56	0.74	0.82	4.19	5.01	10.52
20	4.60	15.76	1.56	0.74	0.82	4.29	5.11	10.64
21	4.79	15.99	1.56	0.74	0.82	4.42	5.24	10.75
22	4.99	16.23	1.56	0.74	0.82	4.55	5.37	10.87
23	5.19	16.49	1.56	0.74	0.82	4.67	5.49	11.00
24	5.41	16.76	1.56	0.74	0.82	4.81	5.63	11.13
25	5.63	17.04	1.56	0.74	0.82	4.93	5.75	11.29
26	5.87	17.34	1.61	0.76	0.85	5.18	6.02	11.31
27	6.12	17.64	1.66	0.78	0.87	5.41	6.28	11.36
28	6.37	17.97	1.70	0.81	0.90	5.65	6.55	11.42
29	6.64	18.31	1.75	0.83	0.92	5.90	6.82	11.49
30	6.93	18.66	1.80	0.85	0.95	6.14	7.09	11.58
31	7.23	19.03	1.85	0.88	0.97	6.37	7.34	11.69
32	7.54	19.42	1.90	0.90	1.00	6.62	7.61	11.81
33	7.87	19.83	1.94	0.92	1.02	6.86	7.88	11.95
34	8.21	20.26	1.99	0.94	1.05	7.09	8.14	12.12
35	8.57	20.71	2.04	0.97	1.07	7.34	8.41	12.31
36	8.95	21.19	2.10	0.99	1.11	7.79	8.90	12.29
37	9.35	21.68	2.16	1.02	1.14	8.24	9.38	12.30
38	9.76	22.20	2.22	1.05	1.17	8.70	9.87	12.33
39	10.20	22.75	2.28	1.08	1.20	9.15	10.35	12.39
40	10.66	23.32	2.34	1.11	1.23	9.61	10.84	12.48
41	11.15	23.93	2.40	1.14	1.26	10.06	11.33	12.61
42	11.66	24.57	2.46	1.17	1.29	10.52	11.82	12.76
43	12.20	25.25	2.52	1.19	1.33	10.97	12.30	12.95
44	12.77	25.96	2.58	1.22	1.36	11.43	12.79	13.17
45	13.37	26.71	2.64	1.25	1.39	11.88	13.27	13.44

Table 2

FEMALE PREFERRED PLUS NONTOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	UNUSED EXPENSE ALLOWANCE
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6)	
46	14.00	27.50	2.72	1.29	1.43	12.53	13.96	13.54	
47	14.67	28.33	2.81	1.33	1.48	13.18	14.65	13.68	
48	15.37	29.21	2.89	1.37	1.52	13.82	15.35	13.86	
49	16.10	30.13	2.98	1.41	1.57	14.47	16.04	14.09	
50	16.88	31.10	3.06	1.45	1.61	15.12	16.73	14.37	
51	17.69	32.12	3.14	1.49	1.65	15.77	17.42	14.69	
52	18.55	33.19	3.23	1.53	1.70	16.42	18.11	15.07	
53	19.45	34.32	3.31	1.57	1.74	17.06	18.81	15.51	
54	20.40	35.50	3.40	1.61	1.79	17.71	19.50	16.00	
55	21.40	36.75	3.48	1.65	1.83	18.36	20.19	16.55	
56	22.45	38.06	3.56	1.69	1.88	19.01	20.88	17.14	
57	23.55	39.44	3.65	1.73	1.92	19.66	21.57	17.73	
58	24.72	40.89	3.73	1.77	1.96	20.31	22.26	18.32	
59	25.94	42.43	3.82	1.81	2.01	20.96	22.95	18.91	
60	27.24	44.05	3.90	1.85	2.05	21.61	23.64	19.50	
61	28.61	45.76	3.98	1.89	2.10	22.26	24.33	20.09	
62	30.07	47.58	4.07	1.93	2.14	22.91	25.02	20.68	
63	31.61	49.52	4.15	1.97	2.19	23.56	25.71	21.27	
64	33.26	51.58	4.24	2.01	2.23	24.21	26.40	21.86	
65	35.02	53.77	4.32	2.05	2.27	24.86	27.09	22.45	
66	36.89	56.11	4.38	2.06	2.29	25.51	27.78	23.04	
67	38.89	58.61	4.39	2.08	2.31	26.16	28.47	23.63	
68	41.03	60.00	4.43	2.10	2.33	26.81	29.16	24.22	
69	43.32	60.00	4.46	2.11	2.35	27.46	29.85	24.81	
70	45.77	60.00	4.50	2.13	2.37	28.11	30.54	25.40	
71	48.41	60.00	4.54	2.15	2.39	28.76	31.23	26.00	
72	51.23	60.00	4.57	2.17	2.41	29.41	31.92	26.59	
73	54.25	60.00	4.61	2.18	2.43	30.06	32.61	27.18	
74	57.50	60.00	4.64	2.20	2.44	30.71	33.30	27.77	
75	61.00	60.00	4.68	2.22	2.46	31.36	34.00	28.36	
76	64.77	60.00	4.68	2.22	2.46	32.01	34.70	28.95	
77	68.83	60.00	4.68	2.22	2.46	32.66	35.40	29.54	
78	73.23	60.00	4.68	2.22	2.46	33.31	36.10	30.13	
79	78.01	60.00	4.68	2.22	2.46	33.96	36.80	30.72	
80	83.19	60.00	4.68	2.22	2.46	34.61	37.50	31.31	
81	88.86	60.00	4.68	2.22	2.46	35.26	38.20	31.90	
82	94.90	60.00	4.68	2.22	2.46	35.91	38.90	32.49	
83	101.34	60.00	4.68	2.22	2.46	36.56	39.60	33.08	
84	108.25	60.00	4.68	2.22	2.46	37.21	40.30	33.67	
85	115.68	60.00	4.68	2.22	2.46	37.86	41.00	34.26	

Table 2

FEMALE PREFERRED NONTOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) + (3)	(4) + (5)	(1) - (6)	
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	MAXIMUM	UNUSED	
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	EXPENSE	SURRENDER	EXPENSE	
		ALLOWANCE	CHARGE	CHARGE	CHARGE	CHARGE	ALLOWANCE	
							TOTAL	
							CHARGES	
0	2.13	12.66	1.44	0.68	0.76	2.43	3.19	9.47
1	2.20	12.75	1.44	0.68	0.76	2.51	3.27	9.48
2	2.28	12.84	1.44	0.68	0.76	2.59	3.36	9.49
3	2.36	12.95	1.44	0.68	0.76	2.67	3.43	9.52
4	2.46	13.07	1.56	0.74	0.82	2.75	3.58	9.49
5	2.56	13.19	1.56	0.74	0.82	2.84	3.66	9.53
6	2.66	13.32	1.56	0.74	0.82	2.92	3.74	9.58
7	2.76	13.46	1.56	0.74	0.82	3.00	3.82	9.63
8	2.87	13.59	1.56	0.74	0.82	3.08	3.90	9.69
9	2.98	13.73	1.56	0.74	0.82	3.16	3.98	9.75
10	3.10	13.88	1.56	0.74	0.82	3.24	4.06	9.82
11	3.23	14.04	1.56	0.74	0.82	3.32	4.14	9.89
12	3.36	14.20	1.56	0.74	0.82	3.40	4.22	9.98
13	3.50	14.37	1.56	0.74	0.82	3.48	4.30	10.06
14	3.64	14.54	1.56	0.74	0.82	3.56	4.39	10.16
15	3.78	14.73	1.56	0.74	0.82	3.65	4.47	10.26
16	3.93	14.92	1.56	0.74	0.82	3.75	4.60	10.31
17	4.09	15.11	1.56	0.74	0.82	3.92	4.74	10.38
18	4.26	15.32	1.56	0.74	0.82	4.06	4.87	10.46
19	4.43	15.53	1.56	0.74	0.82	4.19	5.01	10.52
20	4.60	15.76	1.56	0.74	0.82	4.30	5.12	10.63
21	4.79	15.99	1.56	0.74	0.82	4.43	5.25	10.74
22	4.99	16.23	1.56	0.74	0.82	4.56	5.38	10.85
23	5.19	16.49	1.56	0.74	0.82	4.69	5.61	10.98
24	5.41	16.76	1.56	0.74	0.82	4.82	5.85	11.11
25	5.63	17.04	1.56	0.74	0.82	4.95	5.77	11.27
26	5.87	17.34	1.61	0.78	0.85	5.19	6.04	11.30
27	6.12	17.64	1.66	0.78	0.87	5.45	6.32	11.33
28	6.37	17.97	1.70	0.81	0.90	5.69	6.58	11.38
29	6.64	18.31	1.75	0.83	0.92	5.93	6.86	11.45
30	6.93	18.66	1.80	0.85	0.95	6.17	7.12	11.54
31	7.23	19.03	1.85	0.88	0.97	6.43	7.40	11.64
32	7.54	19.42	1.90	0.90	1.00	6.67	7.67	11.76
33	7.87	19.83	1.94	0.92	1.02	6.91	7.94	11.90
34	8.21	20.26	1.99	0.94	1.05	7.16	8.20	12.06
35	8.57	20.71	2.04	0.97	1.07	7.40	8.48	12.24
36	8.95	21.19	2.10	0.99	1.11	7.89	9.00	12.19
37	9.35	21.68	2.16	1.02	1.14	8.39	9.52	12.16
38	9.76	22.20	2.22	1.05	1.17	8.88	10.05	12.15
39	10.20	22.75	2.28	1.08	1.20	9.38	10.58	12.17
40	10.66	23.32	2.34	1.11	1.23	9.86	11.10	12.23
41	11.15	23.93	2.40	1.14	1.26	10.36	11.62	12.31
42	11.66	24.57	2.46	1.17	1.29	10.85	12.15	12.42
43	12.20	25.25	2.52	1.19	1.33	11.35	12.68	12.57
44	12.77	25.96	2.58	1.22	1.36	11.84	13.19	12.77
45	13.37	26.71	2.64	1.25	1.39	12.33	13.72	12.99

Table 2

FEMALE PREFERRED NONTOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
46	14.00	27.50	2.72	1.29	1.43	12.98	14.41	13.09
47	14.67	28.33	2.81	1.33	1.48	13.63	16.10	13.23
48	15.37	29.21	2.89	1.37	1.52	14.27	15.80	13.41
49	16.10	30.13	2.98	1.41	1.57	14.92	16.49	13.64
50	16.88	31.10	3.06	1.45	1.61	15.57	17.18	13.92
51	17.69	32.12	3.14	1.49	1.65	16.22	17.87	14.24
52	18.55	33.19	3.23	1.53	1.70	16.87	18.56	14.82
53	19.45	34.32	3.31	1.57	1.74	17.51	19.26	15.06
54	20.40	35.50	3.40	1.61	1.79	18.16	19.95	15.55
55	21.40	36.75	3.48	1.65	1.83	18.81	20.64	16.10
56	22.45	38.06	3.56	1.69	1.88	20.02	21.89	16.17
57	23.55	39.44	3.66	1.73	1.92	21.22	23.14	16.30
58	24.72	40.89	3.73	1.77	1.96	22.43	24.39	16.50
59	25.94	42.43	3.82	1.81	2.01	23.63	25.64	16.78
60	27.24	44.06	3.90	1.85	2.05	24.84	26.89	17.15
61	28.61	45.76	3.98	1.89	2.10	26.05	28.14	17.62
62	30.07	47.58	4.07	1.93	2.14	27.25	29.39	18.19
63	31.61	49.52	4.15	1.97	2.19	28.46	30.64	18.87
64	33.26	51.58	4.24	2.01	2.23	29.66	31.89	19.68
65	35.02	53.77	4.32	2.05	2.27	30.87	33.14	20.63
66	36.89	56.11	4.36	2.06	2.29	32.33	34.62	21.49
67	38.89	58.61	4.39	2.08	2.31	33.79	36.10	22.51
68	41.03	60.00	4.43	2.10	2.33	35.24	37.57	22.43
69	43.32	60.00	4.46	2.11	2.35	36.70	39.05	20.95
70	45.77	60.00	4.50	2.13	2.37	38.16	40.53	19.47
71	48.41	60.00	4.54	2.15	2.39	39.62	42.01	17.99
72	51.23	60.00	4.57	2.17	2.41	40.50	42.91	17.09
73	54.25	60.00	4.61	2.18	2.43	40.50	42.93	17.07
74	57.50	60.00	4.64	2.20	2.44	40.50	42.94	17.06
75	61.00	60.00	4.68	2.22	2.46	40.50	42.96	17.04
76	64.77	60.00	4.68	2.22	2.46	40.50	42.96	17.04
77	68.83	60.00	4.68	2.22	2.46	40.50	42.96	17.04
78	73.23	60.00	4.68	2.22	2.46	40.50	42.96	17.04
79	78.01	60.00	4.68	2.22	2.46	40.50	42.96	17.04
80	83.19	60.00	4.68	2.22	2.46	40.50	42.96	17.04
81	88.86	60.00	4.68	2.22	2.46	40.50	42.96	17.04
82	94.90	60.00	4.68	2.22	2.46	40.50	42.96	17.04
83	101.34	60.00	4.68	2.22	2.46	40.50	42.96	17.04
84	108.25	60.00	4.68	2.22	2.46	40.50	42.96	17.04
85	115.68	60.00	4.68	2.22	2.46	40.50	42.96	17.04

Table 2

FEMALE NONTOBACCO		(1)	(2)	(3)	(4)	(5)	(6)	(7)
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.13	12.86	1.44	0.68	0.76	2.43	3.19	9.47
1	2.20	12.75	1.44	0.68	0.76	2.51	3.27	9.48
2	2.28	12.84	1.44	0.68	0.76	2.59	3.35	9.49
3	2.36	12.95	1.44	0.68	0.76	2.67	3.43	9.52
4	2.48	13.07	1.56	0.74	0.82	2.75	3.58	9.49
5	2.58	13.19	1.56	0.74	0.82	2.84	3.66	9.53
6	2.65	13.32	1.56	0.74	0.82	2.92	3.74	9.58
7	2.76	13.45	1.56	0.74	0.82	3.00	3.82	9.63
8	2.87	13.59	1.56	0.74	0.82	3.08	3.90	9.69
9	2.98	13.73	1.56	0.74	0.82	3.16	3.98	9.75
10	3.10	13.88	1.56	0.74	0.82	3.24	4.06	9.82
11	3.23	14.04	1.56	0.74	0.82	3.32	4.14	9.89
12	3.36	14.20	1.56	0.74	0.82	3.40	4.22	9.98
13	3.50	14.37	1.56	0.74	0.82	3.48	4.30	10.06
14	3.64	14.54	1.56	0.74	0.82	3.56	4.39	10.16
15	3.78	14.73	1.56	0.74	0.82	3.66	4.47	10.26
16	3.93	14.92	1.56	0.74	0.82	3.78	4.60	10.31
17	4.09	15.11	1.56	0.74	0.82	3.92	4.74	10.38
18	4.26	15.32	1.56	0.74	0.82	4.06	4.87	10.45
19	4.43	15.53	1.56	0.74	0.82	4.19	5.01	10.52
20	4.60	15.76	1.56	0.74	0.82	4.32	5.15	10.61
21	4.79	15.99	1.56	0.74	0.82	4.46	5.28	10.71
22	4.99	16.23	1.56	0.74	0.82	4.60	5.42	10.82
23	5.19	16.49	1.56	0.74	0.82	4.73	5.55	10.94
24	5.41	16.76	1.56	0.74	0.82	4.87	5.69	11.07
25	5.63	17.04	1.56	0.74	0.82	5.00	5.83	11.22
26	5.87	17.34	1.61	0.76	0.85	5.26	6.10	11.23
27	6.12	17.64	1.66	0.78	0.87	5.51	6.38	11.27
28	6.37	17.97	1.70	0.81	0.90	5.76	6.66	11.31
29	6.64	18.31	1.75	0.83	0.92	6.01	6.93	11.37
30	6.93	18.66	1.80	0.86	0.95	6.26	7.21	11.46
31	7.23	19.03	1.85	0.88	0.97	6.51	7.48	11.55
32	7.54	19.42	1.90	0.90	1.00	6.76	7.76	11.67
33	7.87	19.83	1.94	0.92	1.02	7.01	8.03	11.80
34	8.21	20.26	1.99	0.94	1.05	7.26	8.31	11.96
35	8.57	20.71	2.04	0.97	1.07	7.52	8.59	12.13
36	8.95	21.19	2.10	0.99	1.11	8.03	9.13	12.06
37	9.35	21.68	2.16	1.02	1.14	8.53	9.67	12.01
38	9.76	22.20	2.22	1.05	1.17	9.05	10.21	11.99
39	10.20	22.75	2.28	1.08	1.20	9.55	10.75	12.00
40	10.66	23.32	2.34	1.11	1.23	10.06	11.29	12.03
41	11.15	23.93	2.40	1.14	1.26	10.57	11.83	12.10
42	11.66	24.57	2.46	1.17	1.29	11.08	12.37	12.20
43	12.20	25.25	2.52	1.19	1.33	11.58	12.91	12.34
44	12.77	25.96	2.58	1.22	1.36	12.10	13.45	12.51
45	13.37	26.71	2.64	1.25	1.39	12.60	13.99	12.72

Table 2

ISSUE AGE	FEMALE NONTOBACCO		(1)	(2)	(3)	(4)	(5)	(6)	(7)
	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE	
46	14.00	27.50	2.72	1.29	1.43	13.27	14.70	12.80	
47	14.67	28.33	2.81	1.33	1.48	13.93	15.41	12.92	
48	15.37	29.21	2.89	1.37	1.52	14.60	16.12	13.09	
49	16.10	30.13	2.98	1.41	1.57	15.26	16.83	13.30	
50	16.88	31.10	3.06	1.45	1.61	15.93	17.54	13.56	
51	17.69	32.12	3.14	1.49	1.65	16.60	18.25	13.87	
52	18.55	33.19	3.23	1.53	1.70	17.26	18.96	14.23	
53	19.45	34.32	3.31	1.57	1.74	17.93	19.67	14.64	
54	20.40	35.50	3.40	1.61	1.79	18.59	20.38	15.12	
55	21.40	36.75	3.48	1.65	1.83	19.26	21.09	15.65	
56	22.45	38.06	3.56	1.69	1.88	20.51	22.39	15.67	
57	23.55	39.44	3.65	1.73	1.92	21.76	23.68	15.76	
58	24.72	40.89	3.73	1.77	1.96	23.01	24.98	15.92	
59	25.94	42.43	3.82	1.81	2.01	24.26	26.27	16.16	
60	27.24	44.05	3.90	1.85	2.05	25.52	27.57	16.48	
61	28.61	45.76	3.98	1.89	2.10	26.77	28.86	16.90	
62	30.07	47.58	4.07	1.93	2.14	28.02	30.16	17.43	
63	31.61	49.52	4.15	1.97	2.19	29.27	31.45	18.06	
64	33.26	51.58	4.24	2.01	2.23	30.52	32.75	18.83	
65	35.02	53.77	4.32	2.05	2.27	31.77	34.04	19.73	
66	36.89	56.11	4.36	2.06	2.29	33.18	35.48	20.63	
67	38.89	58.61	4.39	2.08	2.31	34.60	36.91	21.70	
68	41.03	60.00	4.43	2.10	2.33	36.01	38.34	21.66	
69	43.32	60.00	4.46	2.11	2.35	37.42	39.77	20.23	
70	45.77	60.00	4.50	2.13	2.37	38.84	41.20	18.80	
71	48.41	60.00	4.54	2.15	2.39	40.25	42.64	17.36	
72	51.23	60.00	4.57	2.17	2.41	40.50	42.91	17.09	
73	54.25	60.00	4.61	2.18	2.43	40.50	42.93	17.07	
74	57.50	60.00	4.64	2.20	2.44	40.50	42.94	17.06	
75	61.00	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
76	64.77	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
77	68.83	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
78	73.23	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
79	78.01	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
80	83.19	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
81	88.86	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
82	94.90	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
83	101.34	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
84	108.25	60.00	4.68	2.22	2.46	40.50	42.96	17.04	
85	115.68	60.00	4.68	2.22	2.46	40.50	42.96	17.04	

Table 2

FEMALE PREFERRED TOBACCO								
ISSUE AGE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.13	12.66	1.44	0.68	0.76	2.43	3.19	9.47
1	2.20	12.75	1.44	0.68	0.76	2.51	3.27	9.48
2	2.28	12.84	1.44	0.68	0.76	2.59	3.35	9.49
3	2.36	12.95	1.44	0.68	0.76	2.67	3.43	9.52
4	2.46	13.07	1.56	0.74	0.82	2.75	3.58	9.49
5	2.55	13.19	1.56	0.74	0.82	2.84	3.66	9.53
6	2.65	13.32	1.56	0.74	0.82	2.92	3.74	9.58
7	2.76	13.45	1.56	0.74	0.82	3.00	3.82	9.63
8	2.87	13.59	1.57	0.74	0.83	3.08	3.90	9.58
9	2.98	13.73	1.58	0.75	0.83	3.16	3.99	9.74
10	3.10	13.88	1.60	0.76	0.84	3.24	4.08	9.80
11	3.23	14.04	1.62	0.77	0.85	3.32	4.17	9.86
12	3.36	14.20	1.63	0.77	0.86	3.40	4.26	9.94
13	3.50	14.37	1.65	0.78	0.87	3.48	4.35	10.02
14	3.64	14.54	1.66	0.79	0.88	3.56	4.44	10.10
15	3.78	14.73	1.68	0.80	0.88	3.65	4.53	10.20
16	3.93	14.92	1.72	0.81	0.90	3.74	4.62	10.23
17	4.09	15.11	1.75	0.83	0.92	3.82	4.71	10.27
18	4.26	15.32	1.79	0.85	0.94	3.91	4.80	10.33
19	4.43	15.53	1.82	0.86	0.96	4.00	4.89	10.38
20	4.60	15.76	1.86	0.88	0.98	4.09	4.98	10.44
21	4.79	15.99	2.04	0.97	1.07	4.18	5.07	10.50
22	4.99	16.23	2.04	0.97	1.07	4.27	5.16	10.56
23	5.19	16.49	2.04	0.97	1.07	4.36	5.25	10.62
24	5.41	16.76	2.04	0.97	1.07	4.45	5.34	10.68
25	5.63	17.04	2.04	0.97	1.07	4.54	5.43	10.74
26	5.87	17.34	2.10	0.99	1.11	4.63	5.52	10.80
27	6.12	17.64	2.16	1.02	1.14	4.72	5.61	10.86
28	6.37	17.97	2.22	1.05	1.17	4.81	5.70	10.92
29	6.64	18.31	2.28	1.08	1.20	4.90	5.79	10.98
30	6.93	18.66	2.34	1.11	1.23	5.00	5.88	11.04
31	7.23	19.03	2.40	1.14	1.26	5.09	5.97	11.10
32	7.54	19.42	2.46	1.17	1.29	5.18	6.06	11.16
33	7.87	19.83	2.52	1.19	1.33	5.27	6.15	11.22
34	8.21	20.26	2.58	1.22	1.36	5.36	6.24	11.28
35	8.57	20.71	2.64	1.25	1.39	5.45	6.33	11.34
36	8.95	21.19	2.71	1.28	1.43	5.54	6.42	11.40
37	9.35	21.68	2.78	1.32	1.47	5.63	6.51	11.46
38	9.76	22.20	2.86	1.35	1.50	5.72	6.60	11.52
39	10.20	22.75	2.93	1.39	1.54	5.81	6.69	11.58
40	10.66	23.32	3.00	1.42	1.58	5.90	6.78	11.64
41	11.15	23.93	3.07	1.46	1.62	6.00	6.87	11.70
42	11.66	24.57	3.14	1.49	1.66	6.09	6.96	11.76
43	12.20	25.25	3.22	1.52	1.69	6.18	7.05	11.82
44	12.77	25.96	3.29	1.56	1.73	6.27	7.14	11.88
45	13.37	26.71	3.36	1.59	1.77	6.36	7.23	11.94

Table 2

FEMALE PREFERRED TOBACCO									
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	UNUSED EXPENSE ALLOWANCE
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6)	
46	14.00	27.50	3.46	1.84	1.82	14.39	16.21	11.29	
47	14.67	28.33	3.55	1.68	1.87	15.19	17.06	11.27	
48	15.37	29.21	3.65	1.73	1.92	15.99	17.91	11.29	
49	16.10	30.13	3.74	1.77	1.97	16.79	18.76	11.38	
50	16.88	31.10	3.84	1.82	2.02	17.60	19.62	11.48	
51	17.69	32.12	3.94	1.86	2.07	18.40	20.47	11.65	
52	18.55	33.19	4.03	1.91	2.12	19.20	21.32	11.87	
53	19.45	34.32	4.13	1.96	2.17	20.00	22.17	12.14	
54	20.40	35.50	4.22	2.00	2.22	20.80	23.02	12.48	
55	21.40	36.75	4.32	2.05	2.27	21.60	23.87	12.87	
56	22.45	38.06	4.49	2.13	2.36	22.81	25.17	12.89	
57	23.55	39.44	4.66	2.21	2.45	24.01	26.46	12.98	
58	24.72	40.89	4.82	2.29	2.54	25.22	27.76	13.14	
59	25.94	42.43	4.99	2.36	2.63	26.42	29.05	13.37	
60	27.24	44.05	5.16	2.44	2.72	27.63	30.35	13.70	
61	28.61	45.76	5.33	2.52	2.80	28.84	31.64	14.12	
62	30.07	47.58	5.50	2.60	2.89	30.04	32.93	14.66	
63	31.61	49.52	5.66	2.68	2.98	31.25	34.23	15.29	
64	33.26	51.58	5.83	2.76	3.07	32.45	35.52	16.05	
65	35.02	53.77	6.00	2.84	3.16	33.66	36.82	16.95	
66	36.89	56.11	6.12	2.90	3.22	34.93	38.15	17.96	
67	38.89	58.61	6.24	2.96	3.28	36.20	39.48	19.13	
68	41.03	60.00	6.36	3.01	3.35	37.47	40.81	19.19	
69	43.32	60.00	6.48	3.07	3.41	38.74	42.15	17.85	
70	45.77	60.00	6.60	3.13	3.47	40.01	43.48	16.52	
71	48.41	60.00	6.72	3.18	3.54	40.50	44.04	15.96	
72	51.23	60.00	6.84	3.24	3.60	40.50	44.10	15.90	
73	54.25	60.00	6.96	3.30	3.66	40.50	44.16	15.84	
74	57.50	60.00	7.08	3.35	3.73	40.50	44.23	15.77	
75	61.00	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
76	64.77	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
77	68.83	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
78	73.23	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
79	78.01	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
80	83.19	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
81	88.86	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
82	94.90	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
83	101.34	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
84	108.25	60.00	7.20	3.41	3.79	40.50	44.29	15.71	
85	115.68	60.00	7.20	3.41	3.79	40.50	44.29	15.71	

Table 2

FEMALE TOBACCO									
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE	NET LEVEL	MAXIMUM	FIRST	AVERAGE	(2) + (3)	MAXIMUM	(4) + (5)	(1) - (6)	
AGE	ANNUAL	FIRST YEAR	YEAR	RENEWAL	INITIAL	SURRENDER	TOTAL	UNUSED	
	PREMIUM	EXPENSE	EXPENSE	EXPENSE	ACQUIS	CHARGE	CHARGES	EXPENSE	
		ALLOWANCE	CHARGE	CHARGE	EXPENSE			ALLOWANCE	
					CHARGE				
0	2.13	12.66	1.44	0.68	0.76	2.43	3.19	9.47	
1	2.20	12.76	1.44	0.68	0.76	2.51	3.27	9.48	
2	2.28	12.84	1.44	0.68	0.76	2.59	3.36	9.49	
3	2.36	12.96	1.44	0.68	0.76	2.67	3.43	9.52	
4	2.45	13.07	1.56	0.74	0.82	2.75	3.58	9.49	
5	2.55	13.19	1.56	0.74	0.82	2.84	3.66	9.53	
6	2.65	13.32	1.56	0.74	0.82	2.92	3.74	9.58	
7	2.76	13.45	1.56	0.74	0.82	3.00	3.82	9.63	
8	2.87	13.59	1.57	0.74	0.83	3.08	3.90	9.68	
9	2.98	13.73	1.58	0.75	0.83	3.16	3.99	9.74	
10	3.10	13.88	1.60	0.76	0.84	3.24	4.08	9.80	
11	3.23	14.04	1.62	0.77	0.85	3.32	4.17	9.86	
12	3.36	14.20	1.63	0.77	0.86	3.40	4.26	9.94	
13	3.50	14.37	1.65	0.78	0.87	3.48	4.35	10.02	
14	3.64	14.54	1.66	0.79	0.88	3.56	4.44	10.10	
15	3.78	14.73	1.68	0.80	0.88	3.65	4.53	10.20	
16	3.93	14.92	1.72	0.81	0.90	3.78	4.68	10.23	
17	4.09	15.11	1.75	0.83	0.92	3.92	4.84	10.27	
18	4.28	15.32	1.79	0.85	0.94	4.05	4.99	10.33	
19	4.43	15.53	1.82	0.86	0.96	4.19	5.15	10.38	
20	4.60	15.76	1.86	0.88	0.98	4.35	5.33	10.22	
21	4.79	15.99	2.04	0.97	1.07	4.73	5.81	10.18	
22	4.99	16.23	2.04	0.97	1.07	4.91	5.99	10.25	
23	5.19	16.49	2.04	0.97	1.07	5.10	6.18	10.31	
24	5.41	16.76	2.04	0.97	1.07	5.28	6.36	10.40	
25	5.63	17.04	2.04	0.97	1.07	5.46	6.54	10.50	
26	5.87	17.34	2.10	0.99	1.11	5.78	6.88	10.45	
27	6.12	17.64	2.16	1.02	1.14	6.10	7.24	10.41	
28	6.37	17.97	2.22	1.05	1.17	6.42	7.59	10.38	
29	6.64	18.31	2.28	1.08	1.20	6.73	7.93	10.37	
30	6.93	18.68	2.34	1.11	1.23	7.06	8.29	10.37	
31	7.23	19.03	2.40	1.14	1.26	7.37	8.63	10.40	
32	7.54	19.42	2.46	1.17	1.29	7.69	8.98	10.44	
33	7.87	19.83	2.52	1.19	1.33	8.00	9.33	10.51	
34	8.21	20.26	2.58	1.22	1.36	8.33	9.68	10.58	
35	8.57	20.71	2.64	1.25	1.39	8.64	10.03	10.69	
36	8.95	21.19	2.71	1.28	1.43	9.15	10.58	10.81	
37	9.36	21.68	2.78	1.32	1.47	9.67	11.13	10.55	
38	9.76	22.20	2.86	1.35	1.50	10.18	11.68	10.52	
39	10.20	22.75	2.93	1.39	1.54	10.69	12.23	10.51	
40	10.66	23.32	3.00	1.42	1.58	11.21	12.78	10.54	
41	11.15	23.93	3.07	1.46	1.62	11.72	13.33	10.60	
42	11.66	24.57	3.14	1.49	1.65	12.23	13.89	10.69	
43	12.20	25.25	3.22	1.52	1.69	12.74	14.44	10.81	
44	12.77	25.96	3.29	1.56	1.73	13.26	14.99	10.97	
45	13.37	26.71	3.36	1.59	1.77	13.77	15.54	11.17	

Table 2

FEMALE TOBACCO								
ISSUE AGE	(1) NET LEVEL ANNUAL PREMIUM	(2) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(3) FIRST YEAR EXPENSE CHARGE	(4) AVERAGE RENEWAL EXPENSE CHARGE	(5) (2) + (3) INITIAL ACQUIS EXPENSE CHARGE	(6) MAXIMUM SURRENDER CHARGE	(7) (4) + (5) TOTAL CHARGES	(8) (7) - (6) UNUSED EXPENSE ALLOWANCE
46	14.00	27.50	3.46	1.64	1.82	14.59	16.41	11.09
47	14.67	28.33	3.55	1.68	1.87	15.41	17.28	11.05
48	15.37	29.21	3.65	1.73	1.92	16.23	18.15	11.06
49	16.10	30.13	3.74	1.77	1.97	17.05	19.02	11.11
50	16.88	31.10	3.84	1.82	2.02	17.87	19.89	11.21
51	17.69	32.12	3.94	1.86	2.07	18.68	20.76	11.36
52	18.55	33.19	4.03	1.91	2.12	19.50	21.63	11.56
53	19.45	34.32	4.13	1.96	2.17	20.32	22.49	11.82
54	20.40	35.50	4.22	2.00	2.22	21.14	23.36	12.14
55	21.40	36.75	4.32	2.05	2.27	21.96	24.23	12.51
56	22.45	38.06	4.66	2.21	2.45	23.17	25.62	12.44
57	23.55	39.44	4.99	2.36	2.63	24.37	27.00	12.44
58	24.72	40.89	5.33	2.52	2.80	25.58	28.38	12.51
59	25.94	42.43	5.66	2.68	2.98	26.78	29.77	12.66
60	27.24	44.05	6.00	2.84	3.16	27.99	31.15	12.90
61	28.61	45.76	6.34	3.00	3.33	29.20	32.53	13.23
62	30.07	47.58	6.67	3.16	3.51	30.40	33.91	13.67
63	31.61	49.52	7.01	3.32	3.69	31.61	35.30	14.22
64	33.26	51.58	7.34	3.48	3.87	32.81	36.68	14.90
65	35.02	53.77	7.68	3.64	4.04	34.02	38.06	15.71
66	36.89	56.11	7.92	3.75	4.17	35.30	39.47	16.64
67	38.89	58.61	8.16	3.87	4.29	36.58	40.87	17.74
68	41.03	60.00	8.40	3.98	4.42	37.85	42.28	17.72
69	43.32	60.00	8.64	4.09	4.55	39.13	43.68	16.32
70	45.77	60.00	8.88	4.21	4.67	40.41	45.08	14.92
71	48.41	60.00	9.12	4.32	4.80	40.50	45.30	14.70
72	51.23	60.00	9.36	4.43	4.93	40.50	45.43	14.57
73	54.25	60.00	9.60	4.55	5.05	40.50	45.55	14.45
74	57.50	60.00	9.84	4.66	5.18	40.50	45.68	14.32
75	61.00	60.00	10.08	4.77	5.31	40.50	45.81	14.19
76	64.77	60.00	10.08	4.77	5.31	40.50	45.81	14.19
77	68.83	60.00	10.08	4.77	5.31	40.50	45.81	14.19
78	73.23	60.00	10.08	4.77	5.31	40.50	45.81	14.19
79	78.01	60.00	10.08	4.77	5.31	40.50	45.81	14.19
80	83.19	60.00	10.08	4.77	5.31	40.50	45.81	14.19
81	88.86	60.00	10.08	4.77	5.31	40.50	45.81	14.19
82	94.90	60.00	10.08	4.77	5.31	40.50	45.81	14.19
83	101.34	60.00	10.08	4.77	5.31	40.50	45.81	14.19
84	108.25	60.00	10.08	4.77	5.31	40.50	45.81	14.19
85	115.68	60.00	10.08	4.77	5.31	40.50	45.81	14.19

Table 3

Age: 20 Male Nontobacco

Initial Expense Allowance: 16.87  
 Total Initial Acquisition Exp Chg: 0.82

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	20	16.05	16.05	5.18
2	21	15.97	15.97	4.61
3	22	15.89	15.89	4.04
4	23	15.81	15.81	3.47
5	24	15.73	15.73	2.90
6	25	15.64	15.64	2.33
7	26	15.55	15.55	1.76
8	27	15.45	15.45	1.19
9	28	15.35	15.35	0.62
10	29	15.25	15.25	-
11	30	15.15	15.15	
12	31	15.04	15.04	
13	32	14.92	14.92	
14	33	14.80	14.80	
15	34	14.68	14.68	
16	35	14.55	14.55	
21	40	13.83	13.83	
26	45	12.99	12.99	
31	50	12.04	12.04	
36	55	10.96	10.96	
41	60	9.78	9.78	
46	65	8.52	8.52	
51	70	7.23	7.23	
56	75	5.92	5.92	
61	80	4.66	4.66	
66	85	3.56	3.56	
71	90	2.71	2.71	
76	95	2.11	2.11	
81	100	1.67	1.67	
86	105	1.36	1.36	
91	110	1.08	1.08	
96	115	0.85	0.85	
97	116	0.80	0.80	
98	117	0.76	0.76	
99	118	0.72	0.72	
100	119	0.71	0.71	
101	120	-	-	

**Table 3**

**Age: 35 Male Nontobacco**

Initial Expense Allowance: 22.53

Total Initial Acquisition Exp Chg: 1.07

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	35	21.46	21.46	8.73
2	36	21.26	21.26	7.77
3	37	21.06	21.06	6.81
4	38	20.85	20.85	5.85
5	39	20.63	20.63	4.89
6	40	20.40	20.40	3.93
7	41	20.17	20.17	2.97
8	42	19.93	19.93	2.01
9	43	19.68	19.68	1.05
10	44	19.43	19.43	-
11	45	19.17	19.17	
12	46	18.90	18.90	
13	47	18.63	18.63	
14	48	18.35	18.35	
15	49	18.07	18.07	
16	50	17.77	17.77	
21	55	16.17	16.17	
26	60	14.42	14.42	
31	65	12.57	12.57	
36	70	10.67	10.67	
41	75	8.73	8.73	
46	80	6.87	6.87	
51	85	5.26	5.26	
56	90	3.99	3.99	
61	95	3.11	3.11	
66	100	2.47	2.47	
71	105	2.00	2.00	
76	110	1.60	1.60	
81	115	1.25	1.25	
82	116	1.19	1.19	
83	117	1.13	1.13	
84	118	1.07	1.07	
85	119	1.04	1.04	

86

120

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**Table 3**

**Age: 65 Male Nontobacco**

Initial Expense Allowance: 60.00  
 Total Initial Acquisition Exp Chg: 2.65

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	65	57.35	57.35	40.50
2	66	55.64	55.64	36.05
3	67	53.93	53.93	31.59
4	68	52.20	52.20	27.14
5	69	50.46	50.46	22.68
6	70	48.69	48.69	18.23
7	71	46.91	46.91	13.77
8	72	45.12	45.12	9.32
9	73	43.35	43.35	4.86
10	74	41.60	41.60	-
11	75	39.84	39.84	
12	76	38.10	38.10	
13	77	36.37	36.37	
14	78	34.66	34.66	
15	79	32.99	32.99	
16	80	31.36	31.36	
21	85	23.98	23.98	
26	90	18.21	18.21	
31	95	14.17	14.17	
36	100	11.25	11.25	
41	105	9.14	9.14	
46	110	7.28	7.28	
51	115	5.69	5.69	
52	116	5.41	5.41	
53	117	5.14	5.14	
54	118	4.87	4.87	
55	119	4.75	4.75	
56	120	-	-	

**Table 3**

**Age: 85 Male Nontobacco**

Initial Expense Allowance: 60.00  
 Total Initial Acquisition Exp Chg: 2.78

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	85	57.22	57.22	40.50
2	86	54.10	54.10	36.05
3	87	51.15	51.15	31.59
4	88	48.39	48.39	27.14
5	89	45.82	45.82	22.68
6	90	43.46	43.46	18.23
7	91	41.29	41.29	13.77
8	92	39.24	39.24	9.32
9	93	37.31	37.31	4.86
10	94	35.49	35.49	-
11	95	33.81	33.81	
12	96	32.27	32.27	
13	97	30.79	30.79	
14	98	29.38	29.38	
15	99	28.05	28.05	
16	100	26.84	26.84	
21	105	21.81	21.81	
26	110	17.38	17.38	
27	111	16.57	16.57	
28	112	15.78	15.78	
29	113	15.02	15.02	
30	114	14.29	14.29	
31	115	13.59	13.59	
32	116	12.91	12.91	
33	117	12.25	12.25	
34	118	11.63	11.63	
35	119	11.33	11.33	
36	120	-	-	

**Table 4 - Form SLTI-08(S)**  
**Flexible Premium Adjustable Life**  
**Maximum Surrender Charge Premiums**

<u>Issue Age</u>	<u>Male Preferred Plus NT</u>	<u>Male Preferred NT</u>	<u>Male Nontobacco</u>	<u>Male Preferred Tobacco</u>	<u>Male Tobacco</u>	<u>Female Preferred Plus NT</u>	<u>Female Preferred NT</u>	<u>Female Nontobacco</u>	<u>Female Preferred Tobacco</u>	<u>Female Tobacco</u>
0	3.25	3.25	3.25	3.25	3.25	2.70	2.70	2.70	2.70	2.70
1	3.35	3.35	3.35	3.35	3.35	2.79	2.79	2.79	2.79	2.79
2	3.44	3.44	3.44	3.44	3.44	2.88	2.88	2.88	2.88	2.88
3	3.54	3.54	3.54	3.54	3.54	2.97	2.97	2.97	2.97	2.97
4	3.64	3.64	3.64	3.64	3.64	3.06	3.06	3.06	3.06	3.06
5	3.73	3.73	3.73	3.73	3.73	3.15	3.15	3.15	3.15	3.15
6	3.83	3.83	3.83	3.83	3.83	3.24	3.24	3.24	3.24	3.24
7	3.93	3.93	3.93	3.93	3.93	3.33	3.33	3.33	3.33	3.33
8	4.02	4.02	4.02	4.02	4.02	3.42	3.42	3.42	3.42	3.42
9	4.12	4.12	4.12	4.12	4.12	3.51	3.51	3.51	3.51	3.51
10	4.22	4.22	4.22	4.22	4.22	3.60	3.60	3.60	3.60	3.60
11	4.31	4.31	4.31	4.31	4.31	3.69	3.69	3.69	3.69	3.69
12	4.41	4.41	4.41	4.41	4.41	3.78	3.78	3.78	3.78	3.78
13	4.51	4.51	4.51	4.51	4.51	3.87	3.87	3.87	3.87	3.87
14	4.60	4.60	4.60	4.60	4.60	3.96	3.96	3.96	3.96	3.96
15	4.70	4.70	4.70	4.70	4.70	4.05	4.05	4.05	4.05	4.05
16	4.91	4.91	4.91	4.91	4.91	4.20	4.20	4.20	4.20	4.20
17	5.12	5.12	5.12	5.12	5.12	4.35	4.35	4.35	4.35	4.35
18	5.33	5.33	5.33	5.33	5.33	4.50	4.50	4.50	4.50	4.50
19	5.54	5.54	5.54	5.54	5.54	4.65	4.65	4.65	4.65	4.65
20	5.50	5.58	5.75	6.13	6.15	4.77	4.78	4.81	5.04	5.06
21	5.66	5.75	5.96	6.41	6.44	4.91	4.92	4.96	5.24	5.26
22	5.82	5.93	6.17	6.70	6.73	5.05	5.07	5.11	5.44	5.46
23	5.98	6.10	6.38	6.98	7.02	5.19	5.21	5.26	5.63	5.67
24	6.14	6.28	6.59	7.27	7.31	5.34	5.36	5.41	5.83	5.87
25	6.30	6.45	6.80	7.55	7.60	5.48	5.50	5.56	6.03	6.07
26	6.63	6.77	7.09	7.94	7.99	5.75	5.77	5.84	6.38	6.42
27	6.96	7.09	7.38	8.33	8.38	6.01	6.05	6.12	6.73	6.78
28	7.29	7.41	7.67	8.72	8.77	6.28	6.32	6.40	7.09	7.13
29	7.62	7.73	7.96	9.11	9.16	6.55	6.59	6.68	7.44	7.48
30	7.95	8.05	8.25	9.50	9.55	6.82	6.86	6.96	7.79	7.84
31	8.28	8.37	8.54	9.89	9.94	7.08	7.14	7.23	8.14	8.19
32	8.61	8.69	8.83	10.28	10.33	7.35	7.41	7.51	8.49	8.54
33	8.94	9.01	9.12	10.67	10.72	7.62	7.68	7.79	8.85	8.89
34	9.27	9.33	9.41	11.06	11.11	7.88	7.95	8.07	9.20	9.25
35	9.60	9.65	9.70	11.45	11.50	8.15	8.23	8.35	9.55	9.60
36	10.23	10.30	10.35	12.10	12.16	8.66	8.77	8.92	10.11	10.17
37	10.86	10.94	11.00	12.74	12.82	9.16	9.32	9.48	10.66	10.74
38	11.49	11.59	11.65	13.39	13.48	9.67	9.87	10.05	11.22	11.31
39	12.12	12.23	12.30	14.03	14.14	10.17	10.42	10.61	11.77	11.88
40	12.75	12.88	12.95	14.68	14.80	10.68	10.96	11.18	12.33	12.45
41	13.38	13.52	13.60	15.32	15.46	11.18	11.51	11.74	12.88	13.02
42	14.01	14.17	14.25	15.97	16.12	11.69	12.06	12.31	13.44	13.59
43	14.64	14.81	14.90	16.61	16.78	12.19	12.61	12.87	13.99	14.16
44	15.27	15.46	15.55	17.26	17.44	12.70	13.15	13.44	14.55	14.73
45	15.90	16.10	16.20	17.90	18.10	13.20	13.70	14.00	15.10	15.30



**Table 5 - Form SLTI-08(S)  
Flexible Premium Adjustable Life  
Monthly Per \$1,000  
of Specified Amount Charges**

Issue Age	Male Preferred Plus NT	Male Preferred NT	Male Nontobacco	Male Preferred Tobacco	Male Tobacco	Female Preferred Plus NT	Female Preferred NT	Female Nontobacco	Female Preferred Tobacco	Female Tobacco
0	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120
1	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120
2	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120
3	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120
4	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130
5	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130
6	0.130	0.130	0.130	0.132	0.132	0.130	0.130	0.130	0.130	0.130
7	0.130	0.130	0.130	0.134	0.134	0.130	0.130	0.130	0.130	0.130
8	0.130	0.130	0.130	0.136	0.136	0.130	0.130	0.130	0.130	0.130
9	0.130	0.130	0.130	0.138	0.138	0.130	0.130	0.130	0.131	0.131
10	0.130	0.130	0.130	0.140	0.140	0.130	0.130	0.130	0.132	0.132
11	0.130	0.130	0.130	0.142	0.142	0.130	0.130	0.130	0.133	0.133
12	0.130	0.130	0.130	0.144	0.144	0.130	0.130	0.130	0.135	0.135
13	0.130	0.130	0.130	0.146	0.146	0.130	0.130	0.130	0.136	0.136
14	0.130	0.130	0.130	0.148	0.148	0.130	0.130	0.130	0.137	0.137
15	0.130	0.130	0.130	0.150	0.150	0.130	0.130	0.130	0.139	0.139
16	0.130	0.130	0.130	0.150	0.150	0.130	0.130	0.130	0.140	0.140
17	0.130	0.130	0.130	0.150	0.150	0.130	0.130	0.130	0.143	0.143
18	0.130	0.130	0.130	0.150	0.150	0.130	0.130	0.130	0.146	0.146
19	0.130	0.130	0.130	0.150	0.150	0.130	0.130	0.130	0.149	0.149
20	0.130	0.130	0.130	0.150	0.150	0.130	0.130	0.130	0.152	0.152
21	0.130	0.130	0.130	0.170	0.170	0.130	0.130	0.130	0.155	0.155
22	0.130	0.130	0.130	0.170	0.170	0.130	0.130	0.130	0.170	0.170
23	0.130	0.130	0.130	0.170	0.170	0.130	0.130	0.130	0.170	0.170
24	0.130	0.130	0.130	0.170	0.170	0.130	0.130	0.130	0.170	0.170
25	0.130	0.130	0.130	0.170	0.170	0.130	0.130	0.130	0.170	0.170
26	0.134	0.134	0.134	0.175	0.175	0.134	0.134	0.134	0.170	0.170
27	0.138	0.138	0.138	0.175	0.175	0.134	0.134	0.134	0.175	0.175
28	0.138	0.138	0.138	0.180	0.180	0.138	0.138	0.138	0.175	0.175
29	0.142	0.142	0.142	0.185	0.185	0.138	0.138	0.138	0.180	0.180
30	0.146	0.146	0.146	0.190	0.190	0.142	0.142	0.142	0.185	0.185
31	0.150	0.150	0.150	0.190	0.190	0.146	0.146	0.146	0.190	0.190
32	0.154	0.154	0.154	0.195	0.195	0.150	0.150	0.150	0.195	0.195
33	0.158	0.158	0.158	0.200	0.200	0.154	0.154	0.154	0.200	0.200
34	0.158	0.158	0.158	0.205	0.205	0.158	0.158	0.158	0.205	0.205
35	0.162	0.162	0.162	0.210	0.210	0.162	0.162	0.162	0.210	0.210
36	0.166	0.166	0.166	0.215	0.215	0.166	0.166	0.166	0.215	0.215
37	0.170	0.170	0.170	0.220	0.220	0.170	0.170	0.170	0.220	0.220
38	0.179	0.179	0.179	0.229	0.229	0.175	0.175	0.175	0.226	0.226
39	0.188	0.188	0.188	0.238	0.238	0.180	0.180	0.180	0.232	0.232
40	0.197	0.197	0.197	0.247	0.247	0.185	0.185	0.185	0.238	0.238
41	0.206	0.206	0.206	0.256	0.256	0.185	0.185	0.185	0.244	0.244
42	0.215	0.215	0.215	0.265	0.265	0.190	0.190	0.190	0.250	0.250
43	0.224	0.224	0.224	0.274	0.274	0.195	0.195	0.195	0.256	0.256
44	0.233	0.233	0.233	0.283	0.283	0.200	0.200	0.200	0.262	0.262
45	0.242	0.242	0.242	0.292	0.292	0.205	0.205	0.205	0.268	0.268
46	0.251	0.251	0.251	0.301	0.301	0.210	0.210	0.210	0.274	0.274
47	0.260	0.260	0.260	0.310	0.310	0.215	0.215	0.215	0.280	0.280
48	0.260	0.260	0.260	0.310	0.310	0.220	0.220	0.220	0.280	0.280

**Table 5 - Form SLTI-08(S)**  
**Flexible Premium Adjustable Life**  
**Monthly Per \$1,000**  
**of Specified Amount Charges**

<u>Issue Age</u>	<u>Male Preferred Plus NT</u>	<u>Male Preferred NT</u>	<u>Male Nontobacco</u>	<u>Male Preferred Tobacco</u>	<u>Male Tobacco</u>	<u>Female Preferred Plus NT</u>	<u>Female Preferred NT</u>	<u>Female Nontobacco</u>	<u>Female Preferred Tobacco</u>	<u>Female Tobacco</u>
46	0.266	0.266	0.266	0.318	0.329	0.227	0.227	0.227	0.288	0.288
47	0.272	0.272	0.272	0.326	0.348	0.234	0.234	0.234	0.296	0.296
48	0.278	0.278	0.278	0.334	0.367	0.241	0.241	0.241	0.304	0.304
49	0.284	0.284	0.284	0.342	0.386	0.248	0.248	0.248	0.312	0.312
50	0.290	0.290	0.290	0.350	0.405	0.255	0.255	0.255	0.320	0.320
51	0.296	0.296	0.296	0.358	0.424	0.262	0.262	0.262	0.328	0.328
52	0.302	0.302	0.302	0.366	0.443	0.269	0.269	0.269	0.336	0.336
53	0.308	0.308	0.308	0.374	0.462	0.276	0.276	0.276	0.344	0.344
54	0.314	0.314	0.314	0.382	0.481	0.283	0.283	0.283	0.352	0.352
55	0.320	0.320	0.320	0.390	0.500	0.290	0.290	0.290	0.360	0.360
56	0.330	0.330	0.330	0.401	0.527	0.297	0.297	0.297	0.374	0.388
57	0.340	0.340	0.340	0.412	0.554	0.304	0.304	0.304	0.388	0.416
58	0.350	0.350	0.350	0.423	0.581	0.311	0.311	0.311	0.402	0.444
59	0.360	0.360	0.360	0.434	0.608	0.318	0.318	0.318	0.416	0.472
60	0.370	0.370	0.370	0.445	0.635	0.325	0.325	0.325	0.430	0.500
61	0.380	0.380	0.380	0.456	0.662	0.332	0.332	0.332	0.444	0.528
62	0.390	0.390	0.390	0.467	0.689	0.339	0.339	0.339	0.458	0.556
63	0.400	0.400	0.400	0.478	0.716	0.346	0.346	0.346	0.472	0.584
64	0.410	0.410	0.410	0.489	0.743	0.353	0.353	0.353	0.486	0.612
65	0.420	0.420	0.420	0.500	0.770	0.360	0.360	0.360	0.500	0.640
66	0.422	0.422	0.422	0.510	0.786	0.363	0.363	0.363	0.510	0.660
67	0.424	0.424	0.424	0.520	0.802	0.366	0.366	0.366	0.520	0.680
68	0.426	0.426	0.426	0.530	0.818	0.369	0.369	0.369	0.530	0.700
69	0.428	0.428	0.428	0.540	0.834	0.372	0.372	0.372	0.540	0.720
70	0.430	0.430	0.430	0.550	0.850	0.375	0.375	0.375	0.550	0.740
71	0.432	0.432	0.432	0.560	0.866	0.378	0.378	0.378	0.560	0.760
72	0.434	0.434	0.434	0.570	0.882	0.381	0.381	0.381	0.570	0.780
73	0.436	0.436	0.436	0.580	0.898	0.384	0.384	0.384	0.580	0.800
74	0.438	0.438	0.438	0.590	0.914	0.387	0.387	0.387	0.590	0.820
75	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
76	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
77	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
78	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
79	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
80	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
81	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
82	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
83	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
84	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840
85	0.440	0.440	0.440	0.600	0.930	0.390	0.390	0.390	0.600	0.840

**Statutory Reserves**  
**Form SLTI-08(S)**

For the Enhanced Coverage Rider, the reserves will be the greater of the sum of the reserve calculated under the Commissioner's Reserve Valuation Method (CRVM) for Flexible Premium Adjustable Variable Life and the reserve calculated using Actuarial Guideline XXXVII (AG37) methodology or the Cash Surrender Value. The description and demonstration of the AG37 reserve can be found in the attachment to this memorandum.

The following items will be calculated at time of policy issue.

Guaranteed Maturity Premium (GMP) - The GMP is the level annual gross premium paid to age 121, which will endow the policy at age 121. The GMP is calculated based on the underwriting classification, plan of insurance purchased and policy guarantees including expense charges, interest rates and mortality charges.

Guaranteed Maturity Fund (GMF) - The GMF is an accumulation fund value defined for each duration using guaranteed expense charges, interest rates and mortality charges, and assuming the GMP's are paid.

Future Benefits (FB) - The FB are the Death Benefits associated with each of the GMF values, defined for all policy durations. These Future Benefits are based on the Death Benefit Option (Specified Amount includes Policy Value or Specified Amount does not include Policy Value) and the percentage of Policy Value factors in Section 12 of Form VU-08(S), if applicable.

Present Value of Future Benefits (PVFB<sub>T</sub>) - The PVFB at issue is the value of the future benefits, discounted for interest and mortality that correspond to the valuation basis for the year of issue. The mortality used is based on the 2001 CSO Sex Distinct Composite Mortality Table, Age Nearest Birthday.

$$PVFB_T = \frac{1 * \sum_{t=1}^{121-x} [(l_{x+t-1} - l_{x+t}) * FB_t]}{l_x \prod_{k=1}^t (1+i_k)}$$

where:

x = issue age

$l_{x+t}$  = number of lives at age x+t using valuation mortality

$i_k$  = valuation interest rate for duration k

SA = Specified Amount at issue

CRVM Expense Allowance (E<sup>CRVM</sup>) - The E<sup>CRVM</sup> is equal to (a)-(b) where:

(a) is (i) the net level annual premium for the contract as if issued at an age one year older with premiums payable one year less and maturing at the same age, but not greater than (ii) a net level annual premium for a 19 pay whole life contract issued at an age one year older.

$$(i) \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_j p_{x+1} * q_{x+j+1} + FB_{(121-x)} * v^{(121-x)-1} * {}_{121-x-i} p_{x+1}}{\sum_{j=0}^{(121-x)-2} v^j * {}_j p_{x+1}}$$

(ii)  $ELRA * 19P_{x+1}$

where, ELRA is the Equivalent Level Renewal Amount

$$ELRA = \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * jP_{x+1} * q_{x+j+1}}{A_{x+1}}$$

and,

$$19P_{x+1} = A_{x+1} / a_{x+1:19}$$

(b) is the net one year term insurance premium for the benefit provided in the first year.

$$FB_1 * A_{x:1}$$

The following items will be calculated at each valuation date.

Cash Value ( $CV_m$ ) - The  $CV_m$  is the accumulated fund value of the policy, at the time of valuation.

Net Surrender Value ( $CSV_m$ ) - The  $CSV_m$  is the cash value of the policy less the surrender charge, if any, at the time of valuation.

Ratio ( $r$ ) - equals  $CV_m$  divided by  $GMF_m$ .

If the ratio  $r$  is less than zero or greater than one, then it should be set equal to one.

Future Benefits ( $FB$ ) - Using the greater of  $CV_m$  or  $GMF_m$  as a starting value on the valuation date, future benefits are calculated assuming guaranteed interest, mortality and expense charges, with GMP's paid on the policy anniversaries.

Present Value of Future Benefits ( $PVFB_m$ ) - The  $PVFB$  at the time of valuation is the value of the Future Benefits, discounted for interest and mortality using the valuation basis.

Net Level Premium Reserves ( $NLR_m$ ) - The net level premium reserves are equal to  $((A) - (B)) * r$  where:

(A) is  $PVFB_m$

(B) is  $PVNLP = NLP * a_{x+m}$   
 where  $NLP = PVFB_1 / a_x$

$r$  is the ratio defined above.

CRVM Reserve ( $CRVM_m$ ) - The  $CRVM$  at time of valuation  $m$  is defined as follows:

$$CRVM_m = NLR_m - (E^{CRVM} * \frac{a_{x+m}}{a_x} * r)$$

**STATUTORY RESERVES  
FORM SLTI-08(S)  
SAMPLE CALCULATION**

Male, Age 35, Nonsmoker  
\$100,000 Specified Amount  
Issue Date = 5/1/08

Guaranteed Maturity Premium (GMP) = 1,773.72

Guaranteed Maturity Fund (GMF) - see attached Table

Future Benefits (FB) - see attached Table

Present Value of Future Benefits (PVFB<sub>T</sub>) - using 4% interest and the 2001 CSO Nonsmoker Mortality Table, the PVFB<sub>T</sub> = 20,624.54

CRVM Expense Allowance (E<sub>CRVM</sub>) -

(a) (i) the net level annual premium issued one year older = \$1,042.27

(ii) ELRA \*  ${}_{19}P_{x+1}$  = \$1,588.91

ELRA = \$100,000

${}_{19}P_{x+1}$  = .0158891

(b) is the net one year term insurance premium

$FB_1 * A_{x:1}$  = \$55.81

$FB_1$  = 100,000

$A_{x:1}$  = .0005581

$E_{CRVM}$  = (a) - (b) = 1,042.27 - 55.81 = 986.46

Using a valuation date of 12/31/08, m=8.

Cash Value (CV<sub>m</sub>) - Assuming an actual premium of \$1,773.72, actual interest credited at 2%, and current cost of insurance rates, CV<sub>m</sub> = \$1,507.87.

Net Surrender Value = 634.87

Ratio (r) - CV<sub>m</sub> / GMF<sub>m</sub>

GMF<sub>m</sub> = 1,365.01

$r = 1,507.87/1,365.01 > 1$ , therefore  $r = 1.00$

Present Value of Future Benefits (PVFB<sub>m</sub>) -

PVFB<sub>2</sub> = 21,170.76

Net Level Premium Reserves (NLR<sub>m</sub>) -

((A) - (B)) \* r

(A) is PVFB<sub>2</sub> = 21,170.76

(B) is PVNLP = NLP \*  ${}_1q_{x+m}$

$$\begin{aligned}
\text{where NLP} &= \text{PVFB}_I / a_x \\
&= 20,624.54 / 20.73 \\
&= 994.69
\end{aligned}$$

$$a_{x+m} = 20.27$$

$$\text{PVNLP} = 994.69 * 20.27 = 20,157.54$$

$$\text{NLR}_m = (21,170.76 - 20,157.54) * 1.00 = 1,013.21$$

CRVM Reserve ( $\text{CRVM}_m$ ) -

$$\begin{aligned}
\text{CRVM}_m &= \text{NLR}_m - (E^{\text{CRVM}} * \frac{a_{x+m}}{a_x} * r) \\
&= 1,013.21 - 986.46 * 20.27 / 20.73 * 1.00 \\
&= 49.09
\end{aligned}$$

AG37 Reserve ( $t\text{TV}_{[x]}$  from Attachment) = 256.25

Statutory Reserve = MAX ( $\text{CSV}_m$ ,  $\text{CRVM}_m + t\text{TV}_{[x]}$ ) = MAX(634.87, 49.09 + 256.25) = 634.87

## **Actuarial Guideline XXXVII Reserves for Secondary Guarantee on Form SLTI-08(S)**

### **Description**

Actuarial Guideline XXXVII describes a two step process to calculate the reserves on a variable universal life policy that guarantees the coverage to remain in force as long as the accumulation of premiums paid satisfy the secondary guarantee requirement.

AG37 reserves are held in addition to basic reserves unless the appointed actuary provides satisfactory documentation to the state of domicile insurance department stating why such reserves are redundant. Basic reserves include the reserve held for death benefits provided in the absence of a GMDB. AG37 reserves provide for the contingency of death occurring when the guaranteed minimum death benefit exceeds the death benefit that would be paid in the absence of the guarantee. If a contract has multiple guarantee periods, a reserve should be determined for each guarantee and the greatest of the AG37 reserves should be held.

The first step is to calculate the One Year Term (OYT) reserve which is calculated by projecting the policy value following a 1/3-Asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

In step two, the Attained Age Level Reserve (AALR) is calculated. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee. The AALR reserve component cannot be less than zero and will be equal to the "residue", as described below, of the prior year's AALR increased or decreased by a "payment", also described below.

The AG37 reserve is the greater of the OYT reserve and the AALR reserve. The final reserve is equal to the sum of the AG37 reserve and the Base reserve.

### **Definitions and Notation**

Secondary Guarantee Period (n) – the period for which policyholder can maintain the policy in force due to the provisions of the secondary guarantee.

Minimum Gross Premium (GP) – the minimum premium to keep the secondary guarantee in force. This amount is calculated as the minimum premium that can be paid at the beginning of the policy year to keep the guarantee in force at the end of the year.

Present Value of Future Benefits (PVFB) – Value of future benefits discounted for interest, mortality and lapses. For Minimum reserves, PVFB is determined using an interest rate of 4% and Minimum Mortality. The maximum lapses allowed are used in the present value calculation.

Minimum Mortality - is defined as 2001 CSO Male/Female Composite S & U Mortality.

Attained Age Level Reserve (AALR) – The AALR is a methodology described in the 1983 and 1989 revisions to the Variable Life Insurance Model Regulation. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee.

One-year Term (OYT) Reserve – The OYT reserve covers a period of no more than one year following a 1/3-asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

Total AG37 Reserve ( $tTV_{[X]}$ ) – The total reserve held, which is equal to the maximum of the OYT reserve and AALR reserve.

### Formulas

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ \text{AALR}_t \text{ payment} &= [\text{PV}_{[x]+t} - \text{AALR}_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\ \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ {}_t\text{TV}_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \end{aligned}$$

where:

$q_{[x]+t}$  includes only applicable mortality

$x$  = issue age of insured

$n$  = secondary guarantee period

$j$  = length of current segment

$$v = 1 / (1+i)$$

$i$  = valuation interest rate

${}^{\text{GM}}\text{BD}_{[x]+t}$  = guaranteed minimum death benefit at duration  $t$

$\text{BD}_{[x]+t}$  = death benefit at duration  $t$  assuming an immediate one-third depreciation

${}^{\text{C}}\text{BD}_{[x]+t}$  = death benefit at duration  $t$

$\text{PV}_{[x]+t}$  = present value at duration  $t$  of the excess of the guaranteed minimum death benefit over the death benefit payable in absence of the guaranteed minimum death benefit

### Sample Calculation

Insured: Male, Age 35, Nonsmoker  
Specified Amount: \$100,000  
Target Premium: \$970  
Issue Date: 05/01/2008  
Valuation Date: 12/31/2008  
 $i = 4.0\%$   
Account Value (12/31/08): \$1,507.87  
Premium Paid since Issue: \$1,773.72

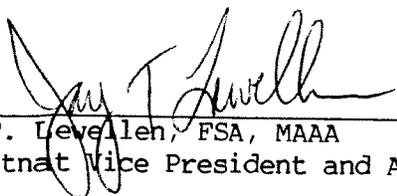
### Actuarial Guideline XXXVII Reserve

Secondary Guarantee Period = 20 years

Specified Premium = 380.00

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ &= (1.04^{(-1/12)}) * (1 - .999899) * [100,000 - 100,000] = 0 \\ \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ &= [0 * (1.04) - (100,000 - 100,000) * (1 - .999899)] / (.999899) = 0 \end{aligned}$$

$$\begin{aligned}
PV_{[x]+t} &= 5,185.26 - 480.00 = 4,705.26 \\
AALR_t \text{ payment} &= [PV_{[x]+t} - AALR_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\
&= [4,705.26 - 0] / (18.36189) \\
&= 256.25 \\
AALR_t &= \text{Max}(0, AALR_t \text{ residue} + AALR_t \text{ payment}) \\
&= \text{Max}(0, 0 + 256.25) = 256.25 \\
{}_tTV_{[x]} &= \text{Max}(OYT_t, AALR_t) \\
&= \text{Max}(0, 256.25) = 256.25
\end{aligned}$$




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Jay T. Leveille, FSA, MAAA  
Assistant Vice President and Actuary

April 30, 2008

Male Age 35 NonSmoker  
 Guaranteed Interest = 2%  
 Guaranteed COI = 2001 CSO Male Composite  
 Specified Amount = \$100,000 (includes Policy Value)

Form SLTI-08(S)

GMP = \$1,773.72

<u>Duration</u>	<u>GMF</u>	<u>FB</u>	<u>Duration</u>	<u>GMF</u>	<u>FB</u>
1	1,226	100,000	44	72,366	100,000
2	2,471	100,000	45	73,809	100,000
3	3,736	100,000	46	75,197	100,000
4	5,019	100,000	47	76,520	100,000
5	6,320	100,000	48	77,787	100,000
6	7,742	100,000	49	79,001	100,000
7	9,182	100,000	50	80,160	100,000
8	10,639	100,000	51	81,254	100,000
9	12,110	100,000	52	82,280	100,000
10	13,593	100,000	53	83,233	100,000
11	15,221	100,000	54	84,112	100,000
12	16,868	100,000	55	84,919	100,000
13	18,532	100,000	56	85,655	100,000
14	20,224	100,000	57	86,346	100,000
15	21,942	100,000	58	86,993	100,000
16	23,685	100,000	59	87,597	100,000
17	25,449	100,000	60	88,156	100,000
18	27,227	100,000	61	88,666	100,000
19	29,018	100,000	62	89,153	100,000
20	30,817	100,000	63	89,613	100,000
21	32,618	100,000	64	90,042	100,000
22	34,421	100,000	65	90,435	100,000
23	36,227	100,000	66	90,778	100,000
24	38,045	100,000	67	91,114	100,000
25	39,873	100,000	68	91,442	100,000
26	41,706	100,000	69	91,761	100,000
27	43,534	100,000	70	92,072	100,000
28	45,348	100,000	71	92,374	100,000
29	47,146	100,000	72	92,666	100,000
30	48,927	100,000	73	92,950	100,000
31	50,693	100,000	74	93,224	100,000
32	52,449	100,000	75	93,488	100,000
33	54,200	100,000	76	93,744	100,000
34	55,945	100,000	77	93,990	100,000
35	57,690	100,000	78	94,228	100,000
36	59,425	100,000	79	94,459	100,000
37	61,149	100,000	80	94,684	100,000
38	62,839	100,000	81	94,910	100,000
39	64,500	100,000	82	95,152	100,000
40	66,136	100,000	83	95,450	100,000
41	67,743	100,000	84	95,919	100,000
42	69,324	100,000	85	97,032	100,000
43	70,868	100,000	86	100,000	100,000

**PENN MUTUAL LIFE INSURANCE COMPANY**

**ACTUARIAL BASIS, CASH VALUE FORMULA  
DEMONSTRATION OF COMPLIANCE WITH STANDARD NONFORFEITURE LAW  
DEMONSTRATION OF COMPLIANCE WITH STANDARD VALUATION LAW**

**FLEXIBLE PREMIUM ADJUSTABLE VARIABLE LIFE, FORM SLTI-08(U)**

**I. DESCRIPTION OF POLICY CHARACTERISTICS**

This policy provides adjustable life insurance coverage while the policy remains in force.

**A. Death Benefits**

Insurance on the life of the insured is integrated with the policy value under one of two options.

Under option one, the total death benefit is the Specified Amount on the date of death.

Under option two, the death benefit is defined as the Specified Amount on the date of death plus the policy value on the date of death.

Under either option, should the amount of a defined percentage of the policy value be greater than the death benefit on the date of death, the death benefit will be adjusted automatically to keep the death benefit equal to the defined percentage of the policy value. The defined percentage is that percentage which will continue to qualify the policy as life insurance under Section 7702 of the 1986 Internal Revenue Code. Note that this policy form can qualify for life insurance under either the Guideline Premium Test or the Cash Value Accumulation Test.

**B. Policy Value**

The policy value is the accumulation of interest of a percentage of the net premiums less expense charges and less the cost of insurance based on the net amount of risk.

**C. Cash Surrender Value**

The cash surrender value is the policy value less the surrender charge. A policy is subject to a surrender charge on the initial Specified Amount only during the first fourteen years in force and for fourteen years following an increase in the Specified Amount.

**D. Continuation of Insurance**

If the policyholder ceases paying premiums, the policy will continue in force for as long as the net cash surrender value is sufficient to keep it in force or the No Lapse Guarantee requirement is satisfied. The rates for calculating the Monthly Deductions will be the same as those used while on a premium paying basis.

E. No Lapse Guarantee

The policy will not lapse as a result of a Net Cash Surrender Value insufficient to cover the Monthly Deduction for the following month if, on a monthly anniversary prior to the Maturity Date, the No-Lapse Guarantee Requirement is satisfied. The No-Lapse Guarantee Requirement is satisfied if, on a monthly anniversary prior to the Maturity Date, the sum of all premiums paid on this policy, reduced by any partial surrenders, is greater than or equal to the No-Lapse Premium multiplied by the number of months since the Policy Date.

However, failure to satisfy this Requirement does not necessarily lapse the contract, provided the Net Cash Surrender Value is greater than zero.

F. Flexibility

At issue the owner selects both a premium amount and the amount of insurance, subject to the minimum amounts. At any time after the first policy year, while the policy is in force, the owner may change the amount of insurance. Decreases may not lower the amount of insurance below the minimum amount. Increases are subject to the rules of Penn Mutual as to age and amount. Evidence of insurability is required for any increase in the amount of insurance. Premiums after the first may be paid in any amount and at any interval subject to the following conditions:

- (1) No premium payment may be less than \$25 or such lower amount that may be established by Penn Mutual.
- (2) Penn Mutual reserves the right to limit total premiums paid in any policy year to the planned payments for that policy year as shown on Page 3 of the Policy.
- (3) If the Guideline Premium Test is used to qualify the policy as life insurance, total premiums paid in any year may not exceed the guideline premium limitation as set forth in Section 7702 of the Internal Revenue Code of 1986.

II. BASIS OF VALUES

A. Interest

The minimum interest rate that will be used in calculating the Policy Value is .16516% per month compounded monthly. This is equivalent to 2% per year compounded annually. The actual interest that will be credited to the Policy Value will be at rates set by Penn Mutual that could be higher than 2%.

Because of the retrospective approach used for the calculation of policy values, the use of an increased rate of interest in determining policy values would produce increased cash surrender values. Therefore, such use is not in conflict with the maximum interest rate defined in the Standard Nonforfeiture law.

B. Cost of Insurance

The guaranteed maximum cost of insurance rates applied in the calculation of policy values under this policy are the 2001 CSO (80) Composite Mortality Table, Age Nearest Birthday.

The company may use modified cost of insurance rates which produce a lower cost of insurance, thus producing higher cash surrender values than those generated by the guaranteed maximum rates.

C. Expense Charges

The maximum expense charges applicable under this policy are:

- (a) a percent of premium charge of 7.5% of each premium paid;
- (b) a monthly expense charge of \$9.00;
- (c) a monthly expense charge per \$1,000 of original Specified Amount that varies by issue age for the first 120 months following the date of issue; and
- (d) if the Specified Amount has been increased within the past year, a monthly expense charge per \$1,000 of the increased Specified Amount that varies by the age at the time of increase for the first 120 months following the date of increase.

D. The same basis of values applies whether premiums are being paid or the policyholder has ceased to pay premiums.

III. POLICY VALUE FORMULA AND COMPARISON OF FLEXIBLE PREMIUM ADJUSTABLE VARIABLE LIFE CASH SURRENDER VALUES WITH MINIMUM NONFORFEITURE REQUIREMENTS

For Flexible Premium Adjustable Variable Life (FPAVL) the ultimate plan of insurance is determined by assuming that the initial premium and death benefit continue unchanged. Since FPAVL is a universal life type policy, the initial premium and initial death benefit are those selected by the policyowner at issue, and hence are known.

The Standard Nonforfeiture Law (SNFL) defines minimum policy values using a prospective formula. But the prospective SNFL formula can be mathematically converted to a retrospective form. The method of calculating FPAVL policy values was designed to be consistent with the retrospective equivalent of the SNFL cash value formula.

The following section will demonstrate that FPAVL cash surrender values are greater than minimum cash values required by the retrospective version of the SNFL formula using the following approach:

- (1) It will be shown that the FPAVL policy value formula is consistent with the retrospective equivalent of the formula required by the SNFL.
- (2) Minimum FPAVL policy values will be generated by using the minimum interest rate of 2% and maximum cost of insurance rates in the policy value formula. Minimum FPAVL cash surrender values are obtained by subtracting the maximum surrender charge from the policy values.  
Excess interest and/or lower cost of insurance rates will result in policy values greater than those based on guaranteed cost of insurance and the 2% minimum interest rate.
- (3) It will be shown that the maximum surrender charge for FPAVL will, at all times, be less than or equal to the maximum expense allowance permitted by the SNFL.
- (4) The combination of items (1), (2) and (3) above ensures that regardless of the incidence and amount of FPAVL premium payments and benefit changes, FPAVL cash surrender values will be greater than the minimum SNFL cash values generated by the retrospective equivalent of the SNFL formula.

The following is a definition of terms used in the policy value formulas:

- $t$  = duration from original issue date measured in months.
- $i'$  = monthly interest rate equal to 2% annually, which equals  $(1.02)^{1/12} - 1$
- $tq_x$  = 1/12 of the appropriate 2001 CSO mortality rate for age  $x$  where  $x$  is the "age nearest birthday" as of the policy anniversary prior to month  $t$ .
- $F_t$  = total death benefit in month  $t$ .
- $E$  = Monthly expense charge which equals \$9.00 per policy while the policy remains in force.
- $EC$  = excess of the first-year monthly charge per \$1,000 of original Specified Amount over the average (over 19 years) renewal monthly charge per \$1,000 of original Specified Amount. The monthly charge per \$1,000 of original Specified Amount varies by issue age and extends for the first 120 months following the date of issue or the date of an increase.
- $G_t$  = Gross premium collected in month  $t$ . All premiums are assumed to be paid monthly at the beginning of each month.
- $P_t$  = Net premium credited to policy values, which equals 92.5% of  $G_t$ .

${}^t r_x$  = Maximum monthly cost of insurance rate which equals  ${}_{t-1}q_x / (1 - {}_{t-1}q_x)$  where x is the "age nearest birthday" as of the policy anniversary prior to month t.

$C_t$  = Maximum monthly cost of insurance for month t.

${}_t CV$  = Policy value at end of month t.

${}_t SC$  = Surrender Charge at end of month t.

${}_t CSV$  = Cash Surrender Value at end of month t.

The FPAVL policy value at time of issue (after receipt of the initial premium) is P. The FPAVL policy value at the end of the first month just prior to the payment of the second month's premium is:

$$(1) \quad {}_1 CV = (P_1 - E - EC - C_1) * (1 + i')$$

where:

$$(2) \quad C_1 = {}_1 r_x * \left[ \frac{{}_1 E_1}{(1 + i')} - P_1 \right] = \frac{{}_1 q_x}{1 - {}_1 q_x} * \left[ \frac{{}_1 E_1}{(1 + i')} - P_1 \right]$$

Substituting (2) into (1), we have:

$$(3) \quad {}_1 CV = \left[ P_1 - E - EC - \frac{{}_1 q_x}{1 - {}_1 q_x} * \left( \frac{{}_1 E_1}{1 + i'} - P_1 \right) \right] * (1 + i')$$

$$= \frac{(P_1 - E - EC) * (1 + i') * (1 - {}_1 q_x) - {}_1 q_x * {}_1 E_1 + {}_1 q_x * P_1 * (1 + i')}{1 - {}_1 q_x}$$

Collecting terms:

$$(4) \quad {}_1 CV = \frac{(P_1) * (1 + i') - {}_1 q_x * {}_1 E_1}{(1 - {}_1 q_x)} - (E + EC) * (1 + i')$$

and the cash surrender value,  ${}_1 CSV$ , is given by:

$$(5) \quad {}_1 CSV = \frac{(P_1) * (1 + i') - {}_1 q_x * {}_1 E_1}{(1 - {}_1 q_x)} - (E + EC) * (1 + i') - {}_1 SC$$

Next it is necessary to show that the FPAVL cash surrender value formula is consistent with the SNFL formula for calculating minimum cash values.

The first year minimum cash value required by the SNFL is calculated using a prospective formula involving the present value of future benefits less the present value of future adjusted net premiums. This prospective form can be converted into the following retrospective form by using the technique described on page 106 of Life Contingencies by C.W. Jordan.

The notation used for the SNFL minimum cash value formulas is as follows:

- $i$  = .02
- $q_{x+t}$  = the appropriate 2001 CSO mortality rate where age  $x+t$  is the "age nearest birthday" as of the  $t$ 'th policy anniversary.
- $P^A_t$  = adjusted premium in year  $t$ .
- $A_0$  = present value of future benefits at time of issue.
- $PV(P^A_t)_0$  = present value of future adjusted premiums at time of issue.
- $E^1$  = maximum first year expense allowance.
- ${}_tF$  = death benefit in year  $t$ .
- ${}_tCV^M$  = SNFL minimum cash value at end of year  $t$ .

The retrospective formula for calculating the minimum cash value as defined by the SNFL, at the end of the first year, is:

$${}_1CV^M + q_x ({}_1F - {}_1CV^M) = ({}_0CV^M + P^A_1) (1 + i)$$

$$(6) \quad {}_1CV^M = \frac{({}_0CV^M + P^A_1) (1 + i) - q_x \cdot {}_1F}{1 - q_x}$$

where:

$${}_0CV^M = A_0 - PV(P^A_t)_0$$

$PV(P^A)_0$  is the present value of future net adjusted premiums which is also equal to  $A_0 + E^1$ . Using this value of  $PV(P^A)_0$ ,  $CV^M_0 = A_0 - (A_0 + E^1) = -E^1$ .

Substituting  $-E^1$  for  $CV_0$  in (6), we have:

$$(7) \quad {}_1CV^M = \frac{(P^A_1 - E^1)(1+i) - q_x * F_1}{1 - q_x}$$

$$= \frac{(P^A_1) * (1+i) - q_x * F_1 - E^1 * (1+i)}{1 - q_x}$$

Formula (5) is shown for comparison of FPAVL cash value to SNFL minimum:

$$(5) \quad {}_1CV = \frac{[P_1](1+i') - {}_1q_x * F_1 - (E + EC) * (1+i') - {}_1SC}{1 - {}_1q_x}$$

These two formulas are identical with the following exceptions:

(a) Formula (5) develops policy values (and, therefore, cash surrender values) on a monthly basis while formula (7) is an annual calculation. The terms for interest and mortality in formula (5) are the monthly equivalents of the like terms in formula (7) based on the following assumptions:

$$(1+i')^{12} = (1+i) \quad (\text{compound interest})$$

$${}_1q_x = (1/12) * q_x \quad (\text{uniform distribution of deaths})$$

(b) The monthly expense charge,  $E$ , in formula (5) does not appear in formula (7) because it is a level expense charge. Level expense charges are not subject to the first year expense allowance limit and do not appear in the formula for minimum cash values under SNFL.

(c) The term  $EC$  in formula (5) is analogous to  $E^1$  in formula (7). It will be demonstrated that the value of  $EC$  plus the surrender charge can never exceed the minimum expense allowance under SNFL. This is a necessary condition to substantiate that the FPAVL policy value and corresponding cash value formulas satisfy minimum requirements.

For renewal periods after the first year, the same consistency as demonstrated above exists. Consider the  $t+1$ st month policy value where  $t \geq 12$ , just prior to the payment of the monthly premium  $P_{t+2}$ , which is due on the  $t+1$ st month anniversary day. The FPAVL formula is:

$$(7) \quad {}_{t-1}CV = ({}_{t-1}CV + P_{t-1})(1+i') - (1+i') C_{t-1} - E(1+i')$$

where:

$$(8) \quad C_{t+1} = \frac{{}_{t+1}r_x [F_{t+1} - (CV + P_{t+1})]}{1 + i'} = \frac{{}_{t+1}q_x [F_{t+1} - (CV + P_{t+1})]}{1 - {}_{t+1}q_x} \frac{1}{1 + i'}$$

Substituting (8) in (7), we have:

$$(9) \quad {}_{t+1}CV = (CV + P_{t+1} - E)(1 + i') - (1 + i') * \frac{{}_{t+1}q_x [F_{t+1} - (CV + P_{t+1})]}{(1 - {}_{t+1}q_x)(1 + i')}$$

$$(10) \quad {}_{t+1}CV = \frac{(CV + P_{t+1} - E)(1 + i') - {}_{t+1}q_x * F_{t+1} + E * (1 + i') * ({}_{t+1}q_x)}{1 - {}_{t+1}q_x}$$

Using the retrospective method of calculating the SNFL minimum policy value for duration t+1, we have:

$$(11) \quad {}_{t+1}CV^M = \frac{(CV^M + P_{t+1}^A)(1 + i) - q_{x+t} * {}_{t+1}F}{1 - q_{x+t}}$$

The SNFL formula (11) is the same as the FPAVL formula (10) except for the monthly versus annual time period, and except for the expense charge term, which is a level expense charge and does not appear in the formula for minimum cash values under SNFL.

Upon surrender of the Flexible Premium Adjustable Variable Life Policy, a surrender charge is applied against the policy value. The surrender charge is determined by multiplying (d) times 90% of the lesser of (a), (b), and (c) where:

- (a) total premium paid in first 12 months after policy issue;
- (b) the Maximum Surrender Charge Premium;
- (c) \$45.00 per thousand of Specified Amount;
- (d) a factor based on policy year as follows:

<u>Policy Year</u>	<u>Factor</u>
1	1.00
2	.89
3	.78
4	.67
5	.56
6	.45
7	.34
8	.23
9	.12
10+	0

Given we calculated the Flexible Premium Adjustable Variable Life policy values using the minimum interest rate of 2% and the maximum monthly cost of insurance rates, the cash surrender values will be greater than the minimum policy values required by the SNFL, provided that the surrender charge can never be greater than the unamortized and unused portion of the maximum first year expense allowance under the SNFL.

The formula for the SNFL maximum allowance is:

$$E = (1.25 * H) + 10$$

where H is the minimum value of P or 40. [P is the Net Level Annual Premium].

Table 2 summarizes the maximum SNFL first year expense allowance age-by-age for comparison versus the maximum surrender charge. The nonforfeiture interest rate used is the maximum rate allowed by law (5%). Using a rate in excess of the policy's guarantee rate produces a smaller SNFL maximum first year expense allowance which is conservative when demonstrating compliance with SNFL.

As shown in Table 2, for each age, the maximum surrender charge plus the first year expense charge is less than the SNFL maximum first year expense allowance.

Table 3 shows, for various issue ages, the run off of the unamortized first year expense allowance versus the surrender charge. Note that in the ten years after issue and in the ten years following an increase, there is an annualized expense charge per \$1,000 of Specified Amount that varies by issue age or the age at the time of increase. The unamortized expense allowance reflects this charge. Table 4 contains the Maximum Surrender Charge Premiums and Table 5 contains the monthly expense charges per \$1,000 of Specified Amount.

A comment should be made about the consistency between the adjusted premiums ( $P^A$ ) in the SNFL formulas and the net premiums less level expense charge (P-E) in the FPAVL policy value formulas. The present value of adjusted premiums is equal to the present value of future benefits plus the first year expense allowance ( $E^1$ ) at time of issue in the SNFL formula. Likewise, the present value of net premiums less level expense charge (P-E) (where P equals 92.5% of gross premiums and E equals \$9.00) is equal to the present value of future benefits, using the minimum 2% interest rate and maximum cost of insurance rates, which are based on the appropriate 2001 CSO mortality table. Effectively, the SNFL formula and the FPAVL cash policy value formula amortize the first year expense charges over the premium paying period of the policy, and the first year expense allowance in the SNFL formula is greater than the policy surrender charge in the FPAVL policy value formula. Thus the FPAVL cash surrender value must be greater than the minimum SNFL value by the unamortized portion of the excess first year expenses.

The method of calculating policy values is described in the policy form and annually the Company will furnish the insured a statement showing the current policy values.

#### IV. VALUATION BASIS

The Standard Valuation Law requires minimum reserves to be computed under the Commissioner's Reserve Valuation Method (CRVM). The statutory reserve of this policy will be calculated as the greater of the following: the CRVM method; the reserve for the no-lapse guarantee; or the cash surrender value (see attached Statutory Reserves memo).

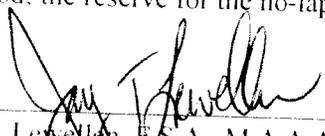
  
Jay T. Lewellen, F.S.A., M.A.A.A.  
AVP and Actuary

Table 2

UNISEX PREFERRED PLUS NONTOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.48	13.10						
1	2.68	13.18	1.44	0.68	0.76			
2	2.84	13.29	1.44	0.68	0.76	2.83	3.68	9.61
3	2.73	13.42	1.44	0.68	0.76	3.00	3.75	9.64
4	2.84	13.58	1.56	0.74	0.82	3.08	3.84	9.68
5	2.96	13.89	1.56	0.74	0.82	3.17	3.99	9.66
6	3.07	13.84	1.56	0.74	0.82	3.26	4.07	9.62
7	3.20	14.00	1.56	0.74	0.82	3.34	4.18	9.68
8	3.33	14.16	1.56	0.74	0.82	3.43	4.25	9.78
9	3.48	14.33	1.56	0.74	0.82	3.51	4.33	9.83
10	3.61	14.51	1.56	0.74	0.82	3.60	4.42	9.91
11	3.75	14.69	1.56	0.74	0.82	3.69	4.51	10.00
12	3.91	14.89	1.56	0.74	0.82	3.77	4.59	10.10
13	4.07	15.08	1.56	0.74	0.82	3.86	4.68	10.21
14	4.23	15.29	1.56	0.74	0.82	3.94	4.76	10.32
15	4.40	15.50	1.56	0.74	0.82	4.02	4.85	10.44
16	4.58	15.72	1.56	0.74	0.82	4.11	4.93	10.67
17	4.76	15.94	1.56	0.74	0.82	4.29	5.11	10.61
18	4.93	16.17	1.56	0.74	0.82	4.47	5.29	10.66
19	5.12	16.40	1.56	0.74	0.82	4.65	5.47	10.70
20	5.31	16.64	1.56	0.74	0.82	4.83	5.65	10.78
21	5.52	16.90	1.56	0.74	0.82	4.82	5.64	11.00
22	5.73	17.17	1.56	0.74	0.82	4.96	5.78	11.12
23	5.96	17.45	1.56	0.74	0.82	5.10	5.92	11.25
24	6.19	17.74	1.66	0.74	0.82	5.24	6.06	11.39
25	6.44	18.05	1.56	0.74	0.82	5.38	6.20	11.64
26	6.70	18.37	1.61	0.76	0.85	5.52	6.34	11.71
27	6.97	18.71	1.66	0.78	0.87	5.61	6.65	11.72
28	7.25	19.07	1.70	0.81	0.90	5.69	6.96	11.75
29	7.55	19.44	1.75	0.83	0.92	5.77	7.28	11.79
30	7.87	19.83	1.80	0.85	0.95	5.85	7.59	11.85
31	8.20	20.25	1.85	0.88	0.97	5.95	7.90	11.94
32	8.56	20.69	1.90	0.90	1.00	6.05	8.21	12.04
33	8.92	21.16	1.94	0.92	1.02	6.15	8.52	12.17
34	9.32	21.65	1.99	0.94	1.05	6.25	8.83	12.32
35	9.73	22.16	2.04	0.97	1.07	6.35	9.14	12.50
36	10.17	22.71	2.14	1.01	1.13	6.45	9.45	12.71
37	10.63	23.28	2.24	1.06	1.18	6.55	10.06	12.66
38	11.11	23.89	2.34	1.11	1.23	6.65	10.66	12.64
39	11.62	24.52	2.43	1.16	1.28	6.75	11.24	12.66
40	12.16	25.20	2.53	1.20	1.33	6.85	11.84	12.69
41	12.72	25.91	2.63	1.25	1.38	6.95	12.44	12.76
42	13.32	26.65	2.73	1.29	1.44	7.05	13.03	12.88
43	13.95	27.44	2.83	1.34	1.49	7.15	13.63	13.03
44	14.62	28.27	2.93	1.39	1.54	7.25	14.22	13.22
45	15.31	29.14	3.02	1.43	1.59	7.35	14.82	13.45
						13.82	15.42	13.73

Table 2

UNISEX PREFERRED PLUS NONTOBACCO								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.06	30.06						
47	16.82	31.03	3.10	1.47	1.63			
48	17.64	32.06	3.17	1.60	1.67	14.67	16.30	13.78
49	18.60	33.13	3.26	1.64	1.71	15.52	17.19	13.83
50	19.43	34.28	3.32	1.67	1.75	16.37	18.08	13.96
51	20.41	35.51	3.40	1.81	1.79	17.22	18.97	14.16
52	21.46	36.81	3.47	1.64	1.83	18.07	19.86	14.42
53	22.66	38.18	3.54	1.68	1.87	18.92	20.76	14.76
54	23.71	39.64	3.62	1.71	1.90	19.77	21.64	15.17
55	24.96	41.18	3.69	1.75	1.94	20.62	22.63	15.66
56	26.25	42.81	3.77	1.78	1.98	21.47	23.41	16.23
57	27.62	44.63	3.88	1.84	2.04	22.32	24.30	16.88
58	29.08	46.36	3.99	1.89	2.10	23.87	25.91	16.90
59	30.63	48.28	4.11	1.98	2.16	25.42	27.52	17.01
60	32.28	50.35	4.22	2.00	2.22	26.97	29.13	17.22
61	34.04	52.66	4.33	2.08	2.28	28.52	30.74	17.66
62	35.92	54.89	4.44	2.11	2.34	30.07	32.38	18.01
63	37.90	57.37	4.66	2.16	2.40	31.61	33.98	18.60
64	40.00	60.00	4.67	2.21	2.46	33.16	35.56	19.33
65	42.23	60.00	4.78	2.27	2.52	34.71	37.17	20.20
66	44.60	60.00	4.90	2.32	2.58	36.28	38.78	21.22
67	47.13	60.00	4.92	2.33	2.59	37.81	40.39	19.61
68	49.84	60.00	4.98	2.34	2.60	39.39	41.98	18.02
69	52.76	60.00	4.98	2.36	2.62	40.50	43.10	16.90
70	55.92	60.00	5.00	2.37	2.63	40.50	43.12	16.88
71	59.33	60.00	5.03	2.38	2.65	40.50	43.13	16.87
72	63.01	60.00	5.08	2.39	2.66	40.50	43.15	16.85
73	66.96	60.00	5.08	2.41	2.67	40.50	43.16	16.84
74	71.18	60.00	5.11	2.42	2.69	40.50	43.17	16.83
75	75.74	60.00	5.13	2.43	2.70	40.50	43.19	16.81
76	80.68	60.00	5.16	2.44	2.72	40.50	43.20	16.80
77	86.02	60.00	5.16	2.44	2.72	40.50	43.22	16.78
78	91.80	60.00	5.16	2.44	2.72	40.50	43.22	16.78
79	98.03	60.00	5.16	2.44	2.72	40.50	43.22	16.78
80	104.70	60.00	5.16	2.44	2.72	40.50	43.22	16.78
81	111.87	60.00	5.16	2.44	2.72	40.50	43.22	16.78
82	119.47	60.00	5.16	2.44	2.72	40.50	43.22	16.78
83	127.58	60.00	5.16	2.44	2.72	40.50	43.22	16.78
84	136.25	60.00	5.16	2.44	2.72	40.50	43.22	16.78
85	145.60	60.00	5.16	2.44	2.72	40.50	43.22	16.78

Table 2

## UNISEX PREFERRED NONTOBACCO

ISSUE AGE	(1) NET LEVEL ANNUAL PREMIUM	(2) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(3) FIRST YEAR EXPENSE CHARGE	(4) AVERAGE RENEWAL EXPENSE CHARGE	(5) (2) + (3) INITIAL ACQUIS EXPENSE CHARGE	(6) MAXIMUM SURRENDER CHARGE	(7) (4) + (5) TOTAL CHARGES	(8) (1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.48	13.10						
1	2.58	13.18	1.44	0.68	0.76			
2	2.64	13.29	1.44	0.68	0.76	2.83	3.58	9.61
3	2.73	13.42	1.44	0.68	0.76	2.91	3.67	9.51
4	2.84	13.56	1.44	0.68	0.76	3.00	3.75	9.54
5	2.95	13.69	1.56	0.74	0.82	3.08	3.84	9.58
6	3.07	13.84	1.56	0.74	0.82	3.17	3.99	9.56
7	3.20	14.00	1.56	0.74	0.82	3.25	4.07	9.62
8	3.33	14.16	1.56	0.74	0.82	3.34	4.16	9.68
9	3.46	14.33	1.56	0.74	0.82	3.43	4.25	9.75
10	3.61	14.51	1.56	0.74	0.82	3.51	4.33	9.83
11	3.75	14.69	1.56	0.74	0.82	3.60	4.42	9.91
12	3.81	14.89	1.56	0.74	0.82	3.69	4.51	10.00
13	4.07	15.08	1.56	0.74	0.82	3.77	4.59	10.10
14	4.23	15.29	1.56	0.74	0.82	3.86	4.68	10.21
15	4.40	15.50	1.56	0.74	0.82	3.94	4.76	10.32
16	4.58	15.60	1.56	0.74	0.82	4.02	4.86	10.44
17	4.75	16.72	1.56	0.74	0.82	4.11	4.93	10.67
18	4.93	15.94	1.56	0.74	0.82	4.29	5.11	10.61
19	4.93	16.17	1.56	0.74	0.82	4.47	5.29	10.61
20	5.12	16.40	1.56	0.74	0.82	4.65	5.47	10.65
21	5.31	16.64	1.56	0.74	0.82	4.83	5.65	10.70
22	5.52	16.90	1.56	0.74	0.82	4.88	5.65	10.75
23	5.73	17.17	1.56	0.74	0.82	4.88	5.70	10.84
24	5.96	17.45	1.56	0.74	0.82	5.03	5.85	11.05
25	6.19	17.74	1.56	0.74	0.82	5.18	6.00	11.16
26	6.44	18.05	1.56	0.74	0.82	5.33	6.15	11.30
27	6.70	18.37	1.61	0.78	0.85	5.49	6.31	11.43
28	6.97	18.71	1.61	0.78	0.85	5.63	6.46	11.59
29	7.25	19.07	1.70	0.81	0.90	5.91	6.76	11.61
30	7.56	19.44	1.70	0.81	0.90	6.19	7.07	11.65
31	7.87	19.83	1.75	0.83	0.92	6.47	7.37	11.70
32	8.20	20.25	1.80	0.88	0.95	6.75	7.67	11.77
33	8.55	20.69	1.85	0.88	0.97	7.03	7.98	11.86
34	8.92	21.16	1.90	0.90	1.00	7.31	8.28	11.97
35	9.32	21.66	1.94	0.92	1.02	7.59	8.59	12.10
36	9.73	21.86	1.99	0.94	1.05	7.87	8.89	12.26
37	10.17	22.16	2.04	0.97	1.07	8.15	9.20	12.45
38	10.63	22.71	2.14	1.01	1.13	8.43	9.50	12.66
39	11.11	23.28	2.24	1.06	1.18	8.99	10.12	12.59
40	11.62	23.89	2.34	1.11	1.23	9.55	10.73	12.55
41	12.16	24.52	2.43	1.15	1.28	10.12	11.35	12.54
42	12.72	25.20	2.53	1.20	1.33	10.68	11.96	12.56
43	13.32	25.91	2.63	1.25	1.38	11.25	12.58	12.62
44	13.95	26.66	2.73	1.29	1.44	11.81	13.19	12.72
45	14.62	27.44	2.83	1.34	1.49	12.37	13.81	12.84
46	15.31	28.27	2.93	1.39	1.54	12.93	14.42	13.02
		29.14	3.02	1.43	1.59	13.50	15.04	13.23
						14.06	15.65	13.49

Table 2

UNISEX PREFERRED NONTOBACCO								
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.06	30.06	3.10					
47	16.82	31.03	3.17	1.47	1.63	14.91	16.58	13.61
48	17.64	32.05	3.26	1.50	1.67	15.76	17.43	13.69
49	18.50	33.13	3.32	1.54	1.71	16.62	18.33	13.72
50	19.43	34.28	3.40	1.57	1.75	17.47	19.22	13.81
51	20.41	35.51	3.47	1.61	1.79	18.33	20.11	14.17
52	21.45	36.81	3.54	1.64	1.83	19.18	21.00	14.50
53	22.55	38.18	3.62	1.68	1.87	20.03	21.90	14.91
54	23.71	39.64	3.69	1.71	1.90	20.88	22.79	15.40
55	24.95	41.18	3.69	1.75	1.94	21.74	23.68	15.98
56	26.25	42.81	3.77	1.78	1.98	22.59	24.57	16.61
57	27.62	44.53	3.88	1.84	2.04	24.19	26.23	16.67
58	29.08	46.35	3.99	1.89	2.10	25.79	27.89	16.84
59	30.63	48.28	4.11	1.95	2.16	27.39	29.55	16.80
60	32.28	50.35	4.22	2.00	2.22	28.99	31.20	17.08
61	34.04	52.56	4.33	2.05	2.28	30.59	32.87	17.49
62	35.92	54.89	4.44	2.11	2.34	32.18	34.52	18.03
63	37.90	57.37	4.56	2.16	2.40	33.78	36.18	18.71
64	40.00	60.00	4.67	2.21	2.48	35.38	37.84	19.54
65	42.23	60.00	4.78	2.27	2.52	36.98	39.50	20.50
66	44.60	60.00	4.90	2.32	2.58	38.57	41.15	18.85
67	47.13	60.00	4.92	2.33	2.59	40.16	42.75	17.25
68	49.84	60.00	4.95	2.34	2.60	40.50	43.10	16.90
69	52.76	60.00	4.98	2.38	2.62	40.50	43.12	16.88
70	55.92	60.00	5.00	2.37	2.63	40.50	43.13	16.87
71	59.33	60.00	5.03	2.38	2.65	40.50	43.15	16.85
72	63.01	60.00	5.05	2.39	2.66	40.50	43.16	16.84
73	66.95	60.00	5.08	2.41	2.67	40.50	43.17	16.83
74	71.18	60.00	5.11	2.42	2.69	40.50	43.19	16.81
75	75.74	60.00	5.13	2.43	2.70	40.50	43.20	16.80
76	80.68	60.00	5.16	2.44	2.72	40.50	43.22	16.78
77	86.02	60.00	5.16	2.44	2.72	40.50	43.22	16.78
78	91.80	60.00	5.16	2.44	2.72	40.50	43.22	16.78
79	98.03	60.00	5.16	2.44	2.72	40.50	43.22	16.78
80	104.70	60.00	5.16	2.44	2.72	40.50	43.22	16.78
81	111.87	60.00	5.16	2.44	2.72	40.50	43.22	16.78
82	119.47	60.00	5.16	2.44	2.72	40.50	43.22	16.78
83	127.58	60.00	5.16	2.44	2.72	40.50	43.22	16.78
84	136.25	60.00	5.16	2.44	2.72	40.50	43.22	16.78
85	145.50	60.00	5.16	2.44	2.72	40.50	43.22	16.78

Table 2

UNISEX NONTOBACCO		(1)	(2)	(3)	(4)	(5)	(6)	(7)
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.48	13.10	1.44	0.68	0.76			
1	2.58	13.18	1.44	0.68	0.76	2.83	3.59	9.61
2	2.64	13.29	1.44	0.68	0.76	2.91	3.67	9.61
3	2.73	13.42	1.44	0.68	0.76	3.00	3.76	9.64
4	2.84	13.56	1.56	0.74	0.82	3.08	3.84	9.68
5	2.96	13.69	1.56	0.74	0.82	3.17	3.99	9.68
6	3.07	13.84	1.56	0.74	0.82	3.26	4.07	9.62
7	3.20	14.00	1.56	0.74	0.82	3.34	4.16	9.68
8	3.33	14.16	1.56	0.74	0.82	3.43	4.26	9.76
9	3.48	14.33	1.56	0.74	0.82	3.51	4.33	9.63
10	3.61	14.51	1.56	0.74	0.82	3.60	4.42	9.91
11	3.76	14.69	1.56	0.74	0.82	3.69	4.61	10.00
12	3.91	14.89	1.56	0.74	0.82	3.77	4.69	10.10
13	4.07	15.08	1.56	0.74	0.82	3.86	4.68	10.21
14	4.23	15.29	1.56	0.74	0.82	3.94	4.76	10.32
15	4.40	15.50	1.56	0.74	0.82	4.02	4.86	10.44
16	4.58	15.72	1.56	0.74	0.82	4.11	4.93	10.67
17	4.76	15.94	1.56	0.74	0.82	4.29	5.11	10.61
18	4.93	16.17	1.56	0.74	0.82	4.47	5.29	10.68
19	5.12	16.40	1.56	0.74	0.82	4.66	5.47	10.70
20	5.31	16.64	1.56	0.74	0.82	4.83	5.66	10.76
21	5.52	16.90	1.56	0.74	0.82	5.00	5.83	10.82
22	5.73	17.17	1.56	0.74	0.82	5.18	6.00	10.89
23	5.96	17.46	1.56	0.74	0.82	5.36	6.18	10.98
24	6.19	17.74	1.56	0.74	0.82	5.54	6.36	11.09
25	6.44	18.05	1.56	0.74	0.82	5.72	6.54	11.20
26	6.70	18.37	1.61	0.76	0.86	5.90	6.72	11.33
27	6.97	18.71	1.66	0.78	0.87	6.16	7.00	11.37
28	7.26	19.07	1.70	0.81	0.90	6.42	7.29	11.43
29	7.56	19.44	1.75	0.83	0.92	6.67	7.67	11.50
30	7.87	19.83	1.80	0.86	0.96	6.93	7.86	11.68
31	8.20	20.25	1.86	0.88	0.97	7.19	8.14	11.69
32	8.56	20.69	1.90	0.90	1.00	7.46	8.42	11.83
33	8.92	21.16	1.94	0.92	1.02	7.71	8.71	11.98
34	9.32	21.66	1.99	0.94	1.06	7.97	8.99	12.16
35	9.73	22.18	2.04	0.97	1.07	8.23	9.28	12.37
36	10.17	22.71	2.14	1.01	1.13	8.49	9.56	12.60
37	10.63	23.28	2.24	1.06	1.18	9.06	10.18	12.63
38	11.11	23.89	2.34	1.11	1.23	9.63	10.80	12.48
39	11.62	24.62	2.43	1.16	1.28	10.20	11.43	12.46
40	12.16	25.20	2.53	1.20	1.33	10.77	12.06	12.48
41	12.72	25.91	2.63	1.26	1.38	11.34	12.67	12.63
42	13.32	26.66	2.73	1.29	1.44	11.91	13.29	12.62
43	13.96	27.44	2.83	1.34	1.49	12.48	13.91	12.74
44	14.62	28.27	2.93	1.39	1.54	13.04	14.63	12.91
45	15.31	29.14	3.02	1.43	1.59	13.62	15.16	13.11
46						14.18	15.78	13.37

Table 2

UNISEX NONTOBACCO		(1)	(2)	(3)	(4)	(5)	(6)	(7)
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.06	30.06	3.10	1.47	1.63	15.04	16.68	13.38
47	16.82	31.03	3.17	1.50	1.67	15.90	17.57	13.46
48	17.64	32.06	3.25	1.54	1.71	16.77	18.47	13.67
49	18.50	33.13	3.32	1.57	1.75	17.63	19.37	13.78
50	19.43	34.28	3.40	1.61	1.79	18.49	20.27	14.01
51	20.41	35.51	3.47	1.64	1.83	19.35	21.17	14.34
52	21.45	36.81	3.54	1.68	1.87	20.21	22.07	14.74
53	22.55	38.18	3.62	1.71	1.90	21.07	22.97	15.21
54	23.71	39.64	3.69	1.75	1.94	21.93	23.87	15.77
55	24.95	41.18	3.77	1.78	1.98	22.79	24.77	16.41
56	26.25	42.81	3.88	1.84	2.04	24.46	26.50	16.31
57	27.62	44.53	3.99	1.89	2.10	26.13	28.23	16.30
58	29.08	46.35	4.11	1.95	2.16	27.79	29.96	16.39
59	30.63	48.28	4.22	2.00	2.22	29.46	31.68	16.60
60	32.28	50.35	4.33	2.06	2.28	31.13	33.41	16.84
61	34.04	52.55	4.44	2.11	2.34	32.80	35.14	17.41
62	35.92	54.89	4.56	2.16	2.40	34.47	36.87	18.03
63	37.90	57.37	4.67	2.21	2.46	36.14	38.59	18.78
64	40.00	60.00	4.78	2.27	2.52	37.81	40.32	19.68
65	42.23	60.00	4.90	2.32	2.58	39.47	42.05	17.95
66	44.60	60.00	4.92	2.33	2.59	40.50	43.09	16.91
67	47.13	60.00	4.95	2.34	2.60	40.50	43.10	16.90
68	49.84	60.00	4.98	2.36	2.62	40.50	43.12	16.88
69	52.78	60.00	5.00	2.37	2.63	40.50	43.13	16.87
70	56.02	60.00	5.03	2.38	2.65	40.50	43.15	16.85
71	59.33	60.00	5.06	2.39	2.66	40.50	43.16	16.84
72	63.01	60.00	5.08	2.41	2.67	40.50	43.17	16.83
73	66.96	60.00	5.11	2.42	2.69	40.50	43.19	16.81
74	71.18	60.00	5.13	2.43	2.70	40.50	43.20	16.80
75	75.74	60.00	5.16	2.44	2.72	40.50	43.22	16.78
76	80.68	60.00	5.16	2.44	2.72	40.50	43.22	16.78
77	86.02	60.00	5.16	2.44	2.72	40.50	43.22	16.78
78	91.80	60.00	5.16	2.44	2.72	40.50	43.22	16.78
79	98.03	60.00	5.16	2.44	2.72	40.50	43.22	16.78
80	104.70	60.00	5.16	2.44	2.72	40.50	43.22	16.78
81	111.87	60.00	5.16	2.44	2.72	40.50	43.22	16.78
82	119.47	60.00	5.16	2.44	2.72	40.50	43.22	16.78
83	127.58	60.00	5.16	2.44	2.72	40.50	43.22	16.78
84	136.25	60.00	5.16	2.44	2.72	40.50	43.22	16.78
85	145.50	60.00	5.16	2.44	2.72	40.50	43.22	16.78

Table 2

UNISEX PREFERRED TOBACCO								
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	(1)	(2)	(3)	(4)	(5)	(6)	(7)
		MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.48	13.10	1.44	0.68	0.76	2.83	3.58	9.51
1	2.56	13.18	1.44	0.68	0.76	2.91	3.67	9.51
2	2.64	13.29	1.44	0.68	0.76	3.00	3.75	9.54
3	2.73	13.42	1.44	0.68	0.76	3.08	3.84	9.58
4	2.84	13.56	1.56	0.74	0.82	3.17	3.99	9.56
5	2.95	13.69	1.56	0.74	0.82	3.25	4.07	9.62
6	3.07	13.84	1.57	0.75	0.83	3.34	4.17	9.67
7	3.20	14.00	1.60	0.76	0.84	3.43	4.27	9.73
8	3.33	14.16	1.62	0.77	0.85	3.51	4.36	9.80
9	3.46	14.33	1.64	0.78	0.86	3.60	4.46	9.87
10	3.61	14.51	1.66	0.79	0.88	3.69	4.56	9.94
11	3.75	14.69	1.69	0.80	0.89	3.77	4.65	10.04
12	3.91	14.89	1.71	0.81	0.90	3.86	4.75	10.13
13	4.07	15.08	1.73	0.82	0.91	3.94	4.85	10.23
14	4.23	15.29	1.75	0.83	0.92	4.02	4.95	10.34
15	4.40	15.50	1.78	0.84	0.93	4.11	5.05	10.46
16	4.58	15.72	1.78	0.84	0.94	4.20	5.23	10.49
17	4.75	15.94	1.79	0.85	0.94	4.47	5.41	10.83
18	4.93	16.17	1.80	0.85	0.95	4.65	5.59	10.67
19	5.12	16.40	1.80	0.85	0.95	4.83	5.78	10.62
20	5.31	16.64	2.00	0.96	1.06	5.32	6.38	10.62
21	5.52	16.90	2.04	0.97	1.07	5.56	6.63	10.27
22	5.73	17.17	2.04	0.97	1.07	5.80	6.88	10.27
23	5.96	17.45	2.04	0.97	1.07	6.04	7.11	10.29
24	6.19	17.74	2.04	0.97	1.07	6.28	7.36	10.33
25	6.44	18.05	2.04	0.97	1.07	6.52	7.60	10.38
26	6.70	18.37	2.10	0.99	1.11	6.87	7.97	10.48
27	6.97	18.71	2.16	1.02	1.14	7.21	8.36	10.40
28	7.25	19.07	2.22	1.06	1.17	7.55	8.72	10.37
29	7.56	19.44	2.28	1.08	1.20	7.90	9.10	10.34
30	7.87	19.83	2.34	1.11	1.23	8.24	9.47	10.34
31	8.20	20.25	2.40	1.14	1.26	8.59	9.85	10.36
32	8.55	20.69	2.46	1.17	1.29	8.93	10.22	10.40
33	8.92	21.16	2.52	1.19	1.33	9.28	10.60	10.47
34	9.32	21.65	2.58	1.22	1.36	9.62	10.98	10.55
35	9.73	22.16	2.64	1.25	1.39	9.96	11.35	10.67
36	10.17	22.71	2.74	1.30	1.44	10.53	11.97	10.81
37	10.63	23.29	2.84	1.35	1.50	11.09	12.59	10.73
38	11.11	23.89	2.94	1.39	1.55	11.66	13.21	10.69
39	11.62	24.52	3.04	1.44	1.60	12.22	13.82	10.68
40	12.16	25.20	3.14	1.49	1.65	12.79	14.44	10.70
41	12.72	25.91	3.24	1.54	1.71	13.35	15.06	10.75
42	13.32	26.65	3.35	1.58	1.76	13.92	15.68	10.85
43	13.95	27.44	3.45	1.63	1.81	14.48	16.29	10.97
44	14.62	28.27	3.55	1.68	1.87	15.06	16.91	11.15
45	15.31	29.14	3.65	1.73	1.92	15.61	17.53	11.38

Table 2

UNISEX PREFERRED TOBACCO								
ISSUE AGE	(1) NET LEVEL ANNUAL PREMIUM	(2) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(3) FIRST YEAR EXPENSE CHARGE	(4) AVERAGE RENEWAL EXPENSE CHARGE	(5) (2) + (3) INITIAL ACQUIS EXPENSE CHARGE	(6) MAXIMUM SURRENDER CHARGE	(7) (4) + (5) TOTAL CHARGES	(8) (1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.06	30.06	3.74	1.77	1.97	18.66	18.62	11.64
47	16.82	31.03	3.84	1.82	2.02	17.60	19.52	11.51
48	17.64	32.06	3.94	1.88	2.07	18.44	20.61	11.63
49	18.50	33.13	4.03	1.91	2.12	19.39	21.61	11.62
50	19.43	34.28	4.13	1.96	2.17	20.33	22.60	11.78
51	20.41	36.61	4.22	2.00	2.22	21.28	23.60	12.01
52	21.46	38.81	4.32	2.06	2.27	22.22	24.49	12.31
53	22.66	38.18	4.42	2.09	2.32	23.17	25.49	12.69
54	23.71	39.64	4.51	2.14	2.37	24.11	26.49	13.16
55	24.96	41.18	4.61	2.18	2.43	25.06	27.48	13.70
56	26.26	42.81	4.75	2.25	2.50	26.75	29.25	13.68
57	27.62	44.63	4.89	2.31	2.57	28.46	31.02	13.61
58	29.08	46.36	5.03	2.38	2.66	30.14	32.79	13.66
59	30.63	48.28	5.16	2.46	2.72	31.84	34.56	13.73
60	32.28	50.36	5.30	2.51	2.79	33.53	36.33	14.03
61	34.04	52.66	5.44	2.58	2.86	35.23	38.09	14.46
62	36.92	54.89	5.68	2.64	2.94	36.93	39.86	15.03
63	37.90	57.37	5.72	2.71	3.01	38.62	41.63	15.74
64	40.00	60.00	5.86	2.78	3.08	40.32	43.40	16.60
65	42.23	60.00	6.00	2.84	3.16	40.50	43.66	16.34
66	44.60	60.00	6.12	2.90	3.22	40.50	43.72	16.28
67	47.13	60.00	6.24	2.96	3.28	40.50	43.78	16.22
68	49.84	60.00	6.36	3.01	3.35	40.50	43.85	16.16
69	52.76	60.00	6.48	3.07	3.41	40.50	43.91	16.09
70	55.92	60.00	6.60	3.13	3.47	40.50	43.97	16.03
71	59.33	60.00	6.72	3.18	3.54	40.50	44.04	15.96
72	63.01	60.00	6.84	3.24	3.60	40.50	44.10	15.90
73	66.96	60.00	6.96	3.30	3.66	40.50	44.16	15.84
74	71.18	60.00	7.08	3.36	3.73	40.50	44.23	15.77
75	76.74	60.00	7.20	3.41	3.79	40.50	44.29	15.71
76	80.68	60.00	7.20	3.41	3.79	40.50	44.29	15.71
77	86.02	60.00	7.20	3.41	3.79	40.50	44.29	15.71
78	91.80	60.00	7.20	3.41	3.79	40.50	44.29	15.71
79	98.03	60.00	7.20	3.41	3.79	40.50	44.29	15.71
80	104.70	60.00	7.20	3.41	3.79	40.50	44.29	15.71
81	111.87	60.00	7.20	3.41	3.79	40.50	44.29	15.71
82	119.47	60.00	7.20	3.41	3.79	40.50	44.29	15.71
83	127.58	60.00	7.20	3.41	3.79	40.50	44.29	15.71
84	136.26	60.00	7.20	3.41	3.79	40.50	44.29	15.71
85	145.60	60.00	7.20	3.41	3.79	40.50	44.29	15.71

Table 2

UNISEX TOBACCO		(1)	(2)	(3)	(4)	(5)	(6)	(7)
ISSUE AGE	NET LEVEL ANNUAL PREMIUM	MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	FIRST YEAR EXPENSE CHARGE	AVERAGE RENEWAL EXPENSE CHARGE	(2) + (3) INITIAL ACQUIS EXPENSE CHARGE	MAXIMUM SURRENDER CHARGE	(4) + (5) TOTAL CHARGES	(1) - (6) UNUSED EXPENSE ALLOWANCE
0	2.48							
1	2.56	13.10	1.44	0.68	0.76	2.83	3.58	
2	2.64	13.18	1.44	0.68	0.76	2.91	3.67	9.51
3	2.73	13.29	1.44	0.68	0.76	3.00	3.75	9.54
4	2.84	13.42	1.44	0.68	0.76	3.08	3.84	9.58
5	2.96	13.55	1.56	0.74	0.82	3.17	3.99	9.56
6	3.07	13.69	1.56	0.74	0.82	3.25	4.07	9.62
7	3.20	13.84	1.57	0.75	0.83	3.34	4.17	9.67
8	3.33	14.00	1.60	0.76	0.84	3.43	4.27	9.73
9	3.46	14.16	1.62	0.77	0.85	3.51	4.36	9.80
10	3.61	14.33	1.64	0.78	0.86	3.60	4.46	9.87
11	3.75	14.51	1.66	0.79	0.88	3.69	4.56	9.94
12	3.91	14.69	1.69	0.80	0.89	3.77	4.65	10.04
13	4.07	14.89	1.71	0.81	0.90	3.86	4.75	10.13
14	4.23	15.08	1.73	0.82	0.91	3.94	4.85	10.23
15	4.40	15.29	1.75	0.83	0.92	4.02	4.95	10.34
16	4.58	15.50	1.78	0.84	0.93	4.11	5.06	10.46
17	4.76	15.72	1.78	0.84	0.94	4.29	5.23	10.49
18	4.93	15.94	1.79	0.85	0.94	4.47	5.41	10.63
19	5.12	16.17	1.80	0.85	0.95	4.65	5.59	10.67
20	5.31	16.40	1.80	0.85	0.95	4.83	5.78	10.62
21	5.52	16.64	2.00	0.95	1.06	5.34	6.39	10.25
22	5.73	16.90	2.04	0.97	1.07	5.58	6.66	10.24
23	5.96	17.17	2.04	0.97	1.07	5.83	6.90	10.26
24	6.19	17.45	2.04	0.97	1.07	6.08	7.15	10.30
25	6.44	17.74	2.04	0.97	1.07	6.32	7.39	10.36
26	6.70	18.06	2.04	0.97	1.07	6.56	7.64	10.41
27	6.97	18.37	2.10	0.99	1.11	6.91	8.01	10.36
28	7.25	18.71	2.16	1.02	1.14	7.25	8.39	10.32
29	7.55	19.07	2.22	1.06	1.17	7.60	8.77	10.30
30	7.87	19.44	2.28	1.08	1.20	7.94	9.14	10.30
31	8.20	19.83	2.34	1.11	1.23	8.29	9.62	10.32
32	8.55	20.25	2.40	1.14	1.26	8.63	9.89	10.36
33	8.92	20.69	2.46	1.17	1.29	8.97	10.27	10.42
34	9.32	21.16	2.52	1.19	1.33	9.32	10.64	10.51
35	9.73	21.65	2.58	1.22	1.36	9.66	11.02	10.62
36	10.17	22.16	2.64	1.25	1.39	10.01	11.40	10.77
37	10.63	22.71	2.74	1.30	1.44	10.59	12.03	10.68
38	11.11	23.28	2.84	1.35	1.50	11.16	12.66	10.62
39	11.62	23.89	2.94	1.39	1.55	11.74	13.29	10.60
40	12.16	24.52	3.04	1.44	1.60	12.32	13.92	10.60
41	12.72	25.20	3.14	1.49	1.65	12.90	14.56	10.65
42	13.32	25.91	3.24	1.54	1.71	13.47	15.18	10.72
43	13.95	26.65	3.35	1.58	1.76	14.05	15.81	10.84
44	14.62	27.44	3.45	1.63	1.81	14.63	16.44	11.00
45	15.31	28.27	3.55	1.68	1.87	15.21	17.08	11.19
		29.14	3.65	1.73	1.92	15.79	17.71	11.44

Table 2

UNISEX TOBACCO								
ISSUE AGE	(1) NET LEVEL ANNUAL PREMIUM	(2) MAXIMUM FIRST YEAR EXPENSE ALLOWANCE	(3) FIRST YEAR EXPENSE CHARGE	(4) AVERAGE RENEWAL EXPENSE CHARGE	(5) (2) + (3) INITIAL ACQUIS EXPENSE CHARGE	(6) MAXIMUM SURRENDER CHARGE	(7) (4) + (5) TOTAL CHARGES	(8) (1) - (6) UNUSED EXPENSE ALLOWANCE
46	16.06	30.06	3.86	1.82	2.03			
47	16.82	31.03	4.06	1.92	2.13	16.76	18.78	11.28
48	17.64	32.06	4.26	2.01	2.24	17.71	19.84	11.18
49	18.50	33.13	4.46	2.11	2.34	18.68	20.91	11.13
50	19.43	34.28	4.66	2.21	2.46	19.64	21.98	11.16
51	20.41	35.51	4.86	2.30	2.56	20.60	23.06	11.23
52	21.46	36.81	5.06	2.40	2.66	21.56	24.12	11.39
53	22.56	38.18	5.26	2.49	2.77	22.53	25.19	11.62
54	23.71	39.64	5.46	2.59	2.87	23.49	26.26	11.93
55	24.95	41.18	5.66	2.68	2.98	24.46	27.33	12.31
56	26.26	42.81	5.86	2.78	3.09	25.42	28.40	12.79
57	27.62	44.53	6.06	2.84	3.16	26.42	29.48	12.83
58	29.08	46.35	6.26	2.90	3.22	27.43	30.56	12.87
59	30.63	48.28	6.46	2.97	3.29	28.44	31.64	12.90
60	32.28	50.35	6.66	3.03	3.36	29.46	32.72	12.96
61	34.04	52.56	6.86	3.09	3.42	30.48	33.80	13.02
62	35.92	54.89	7.06	3.15	3.49	31.50	34.88	13.08
63	37.90	57.37	7.26	3.21	3.56	32.52	35.96	13.14
64	40.00	60.00	7.46	3.27	3.62	33.54	37.04	13.20
65	42.23	60.00	7.66	3.33	3.69	34.56	38.12	13.26
66	44.60	60.00	7.86	3.39	3.75	35.58	39.20	13.32
67	47.13	60.00	8.06	3.45	3.82	36.60	40.28	13.38
68	49.84	60.00	8.26	3.51	3.88	37.62	41.36	13.44
69	52.76	60.00	8.46	3.57	3.95	38.64	42.44	13.50
70	55.92	60.00	8.66	3.63	4.01	39.66	43.52	13.56
71	59.33	60.00	8.86	3.69	4.08	40.68	44.60	13.62
72	63.01	60.00	9.06	3.75	4.14	41.70	45.68	13.68
73	66.96	60.00	9.26	3.81	4.21	42.72	46.76	13.74
74	71.18	60.00	9.46	3.87	4.27	43.74	47.84	13.80
75	75.74	60.00	9.66	3.93	4.34	44.76	48.92	13.86
76	80.68	60.00	9.86	3.99	4.40	45.78	50.00	13.92
77	86.02	60.00	10.06	4.05	4.47	46.80	51.08	13.98
78	91.80	60.00	10.26	4.11	4.53	47.82	52.16	14.04
79	98.03	60.00	10.46	4.17	4.60	48.84	53.24	14.10
80	104.70	60.00	10.66	4.23	4.66	49.86	54.32	14.16
81	111.87	60.00	10.86	4.29	4.73	50.88	55.40	14.22
82	119.47	60.00	11.06	4.35	4.79	51.90	56.48	14.28
83	127.58	60.00	11.26	4.41	4.86	52.92	57.56	14.34
84	136.25	60.00	11.46	4.47	4.92	53.94	58.64	14.40
85	145.60	60.00	11.66	4.53	5.00	54.96	59.72	14.46

Table 3

Age: 20 Unisex Nontobacco

Initial Expense Allowance: 16.64  
 Total Initial Acquisition Exp Chg: 0.82

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	20	15.82		
2	21	15.75	15.82	5.00
3	22	15.67	15.75	4.45
4	23	15.59	15.67	3.90
5	24	15.51	15.59	3.35
			15.51	2.80
6	25	15.43		
7	26	15.34	15.43	2.25
8	27	15.25	15.34	1.70
9	28	15.15	15.25	1.15
10	29	15.05	15.15	0.60
			15.05	-
11	30	14.95		
12	31	14.84	14.95	
13	32	14.73	14.84	
14	33	14.62	14.73	
15	34	14.50	14.62	
			14.50	
16	35	14.37		
21	40	13.68	14.37	
26	45	12.88	13.68	
31	50	11.97	12.88	
36	55	10.92	11.97	
			10.92	
41	60	9.79		
46	65	8.58	9.79	
51	70	7.34	8.58	
56	75	6.06	7.34	
61	80	4.84	6.06	
			4.84	
66	85	3.77		
71	90	2.92	3.77	
76	95	2.28	2.92	
81	100	1.83	2.28	
86	105	1.41	1.83	
			1.41	
91	110	1.07		
96	115	0.83	1.07	
97	116	0.79	0.83	
98	117	0.75	0.79	
99	118	0.72	0.75	
100	119	0.69	0.72	
101	120	-	0.69	
			-	

**Table 3**

**Age: 35 Unisex Nontobacco**

Initial Expense Allowance: 22.16  
 Total Initial Acquisition Exp Chg: 1.07

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	35	21.09		
2	36	20.90	21.09	8.49
3	37	20.70	20.90	7.55
4	38	20.50	20.70	6.62
5	39	20.29	20.50	5.69
			20.29	4.75
6	40	20.08		
7	41	19.86	20.08	3.82
8	42	19.63	19.86	2.89
9	43	19.39	19.63	1.95
10	44	19.15	19.39	1.02
			19.15	-
11	45	18.90		
12	46	18.65	18.90	
13	47	18.38	18.65	
14	48	18.12	18.38	
15	49	17.84	18.12	
			17.84	
16	50	17.56		
21	55	16.03	17.56	
26	60	14.37	16.03	
31	65	12.60	14.37	
36	70	10.77	12.60	
			10.77	
41	75	8.90		
46	80	7.10	8.90	
51	85	5.52	7.10	
56	90	4.29	5.52	
61	95	3.35	4.29	
			3.35	
66	100	2.69		
71	105	2.07	2.69	
76	110	1.57	2.07	
81	115	1.22	1.57	
82	116	1.16	1.22	
83	117	1.10	1.16	
84	118	1.05	1.10	
85	119	1.02	1.05	
86	120	-	1.02	
			-	

**Table 3**

**Age: 65 Unisex Nontobacco**

Initial Expense Allowance: 60.00  
 Total Initial Acquisition Exp Chg: 2.58

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	65	57.42		
2	66	55.79	57.42	39.47
3	67	54.14	55.79	35.13
4	68	52.47	54.14	30.79
5	69	50.79	52.47	26.45
			50.79	22.11
6	70	49.09		
7	71	47.38	49.09	17.76
8	72	45.66	47.38	13.42
9	73	43.96	45.66	9.08
10	74	42.26	43.96	4.74
			42.26	-
11	75	40.57		
12	76	38.89	40.57	
13	77	37.22	38.89	
14	78	35.57	37.22	
15	79	33.95	35.57	
			33.95	
16	80	32.36		
21	85	25.19	32.36	
26	90	19.57	25.19	
31	95	15.28	19.57	
36	100	12.25	15.28	
			12.25	
41	105	9.43		
46	110	7.17	9.43	
51	115	5.57	7.17	
52	116	5.29	5.57	
53	117	5.02	5.29	
54	118	4.79	5.02	
55	119	4.63	4.79	
56	120	-	4.63	
			-	

**Table 3**

**Age: 85 Unisex Nontobacco**

Initial Expense Allowance: 60.00  
 Total Initial Acquisition Exp Chg: 2.72

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	85	57.28	57.28	40.50
2	86	54.39	54.39	36.05
3	87	51.64	51.64	31.59
4	88	49.07	49.07	27.14
5	89	46.69	46.69	22.68
6	90	44.50	44.50	18.23
7	91	42.47	42.47	13.77
8	92	40.45	40.45	9.32
9	93	38.46	38.46	4.86
10	94	36.54	36.54	-
11	95	34.75	34.75	-
12	96	33.16	33.16	-
13	97	31.74	31.74	-
14	98	30.54	30.54	-
15	99	29.21	29.21	-
16	100	27.86	27.86	-
21	105	21.44	21.44	-
26	110	16.30	16.30	-
27	111	15.49	15.49	-
28	112	14.76	14.76	-
29	113	14.08	14.08	-
30	114	13.33	13.33	-
31	115	12.67	12.67	-
32	116	12.04	12.04	-
33	117	11.42	11.42	-
34	118	10.88	10.88	-
35	119	10.54	10.54	-
36	120	-	-	-

Table 3

Age: 20 Male Nontobacco

Initial Expense Allowance: 16.87  
 Total Initial Acquisition Exp Chg: 0.82

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	20	16.05		
2	21	15.97	16.05	5.18
3	22	15.89	15.97	4.61
4	23	15.81	15.89	4.04
5	24	15.73	15.81	3.47
			15.73	2.90
6	25	15.64		
7	26	15.55	15.64	2.33
8	27	15.45	15.55	1.76
9	28	15.35	15.45	1.19
10	29	15.25	15.35	0.62
			15.25	-
11	30	15.15		
12	31	15.04	15.15	
13	32	14.92	15.04	
14	33	14.80	14.92	
15	34	14.68	14.80	
			14.68	
16	35	14.55		
21	40	13.83	14.55	
26	45	12.99	13.83	
31	50	12.04	12.99	
36	55	10.96	12.04	
			10.96	
41	60	9.78		
46	65	8.52	9.78	
51	70	7.23	8.52	
56	75	5.92	7.23	
61	80	4.66	5.92	
			4.66	
66	85	3.56		
71	90	2.71	3.56	
76	95	2.11	2.71	
81	100	1.67	2.11	
86	105	1.36	1.67	
			1.36	
91	110	1.08		
96	115	0.85	1.08	
97	116	0.80	0.85	
98	117	0.76	0.80	
99	118	0.72	0.76	
100	119	0.71	0.72	
101	120	-	0.71	

**Table 3**

**Age: 35 Male Nontobacco**

Initial Expense Allowance: 22.53  
 Total Initial Acquisition Exp Chg: 1.07

Policy Year	Attained Age	Unamortized and Unused Expense Allowance		Surrender Charge
		New Issue	Increase	
1	35	21.46		
2	36	21.26	21.46	8.73
3	37	21.06	21.26	7.77
4	38	20.85	21.06	6.81
5	39	20.63	20.85	5.85
			20.63	4.89
6	40	20.40	20.40	
7	41	20.17	20.17	3.93
8	42	19.93	19.93	2.97
9	43	19.68	19.68	2.01
10	44	19.43	19.68	1.05
			19.43	-
11	45	19.17	19.17	
12	46	18.90	18.90	
13	47	18.63	18.63	
14	48	18.35	18.35	
15	49	18.07	18.07	
16	50	17.77		
21	55	16.17	17.77	
26	60	14.42	16.17	
31	65	12.57	14.42	
36	70	10.67	12.57	
			10.67	
41	75	8.73		
46	80	6.87	8.73	
51	85	5.26	6.87	
56	90	3.99	5.26	
61	95	3.11	3.99	
			3.11	
66	100	2.47		
71	105	2.00	2.47	
76	110	1.60	2.00	
81	115	1.25	1.60	
82	116	1.19	1.25	
83	117	1.13	1.19	
84	118	1.07	1.13	
85	119	1.04	1.07	
86	120	-	1.04	

**Table 4 - Form SLTI-08(U)**  
**Flexible Premium Adjustable Life**  
**Maximum Surrender Charge Premiums**

<u>Issue Age</u>	<u>Preferred Plus NT</u>	<u>Preferred NT</u>	<u>Nontobacco</u>	<u>Preferred Tobacco</u>	<u>Tobacco</u>
0	3.14	3.14	3.14	3.14	3.14
1	3.24	3.24	3.24	3.24	3.24
2	3.33	3.33	3.33	3.33	3.33
3	3.43	3.43	3.43	3.43	3.43
4	3.52	3.52	3.52	3.52	3.52
5	3.61	3.61	3.61	3.61	3.61
6	3.71	3.71	3.71	3.71	3.71
7	3.81	3.81	3.81	3.81	3.81
8	3.90	3.90	3.90	3.90	3.90
9	4.00	4.00	4.00	4.00	4.00
10	4.10	4.10	4.10	4.10	4.10
11	4.19	4.19	4.19	4.19	4.19
12	4.28	4.28	4.28	4.28	4.28
13	4.38	4.38	4.38	4.38	4.38
14	4.47	4.47	4.47	4.47	4.47
15	4.57	4.57	4.57	4.57	4.57
16	4.77	4.77	4.77	4.77	4.77
17	4.97	4.97	4.97	4.97	4.97
18	5.16	5.16	5.16	5.16	5.16
19	5.36	5.36	5.36	5.36	5.36
20	5.35	5.42	5.56	5.91	5.93
21	5.51	5.58	5.76	6.18	6.20
22	5.67	5.76	5.96	6.45	6.48
23	5.82	5.92	6.16	6.71	6.75
24	5.98	6.10	6.35	6.98	7.02
25	6.14	6.26	6.55	7.25	7.29
26	6.45	6.57	6.84	7.63	7.68
27	6.77	6.88	7.13	8.01	8.06
28	7.09	7.19	7.42	8.39	8.44
29	7.41	7.50	7.70	8.78	8.82
30	7.72	7.81	7.99	9.16	9.21
31	8.04	8.12	8.28	9.54	9.59
32	8.36	8.43	8.57	9.92	9.97
33	8.68	8.74	8.85	10.31	10.35
34	8.99	9.05	9.14	10.69	10.74
35	9.31	9.37	9.43	11.07	11.12
36	9.92	9.99	10.06	11.70	11.76
37	10.52	10.62	10.70	12.32	12.40
38	11.13	11.25	11.33	12.96	13.05
39	11.73	11.87	11.96	13.58	13.69
40	12.34	12.50	12.60	14.21	14.33
41	12.94	13.12	13.23	14.83	14.97
42	13.55	13.75	13.86	15.46	15.61
43	14.15	14.37	14.49	16.09	16.26
44	14.76	15.00	15.13	16.72	16.90
45	15.36	15.62	15.76	17.34	17.54

**Table 4 - Form SLTI-08(U)**  
**Flexible Premium Adjustable Life**  
**Maximum Surrender Charge Premiums**

<u>Issue Age</u>	<u>Preferred Plus NT</u>	<u>Preferred NT</u>	<u>Nontobacco</u>	<u>Preferred Tobacco</u>	<u>Tobacco</u>
46	16.30	16.57	16.72	18.39	18.61
47	17.25	17.52	17.67	19.44	19.68
48	18.19	18.47	18.63	20.49	20.75
49	19.14	19.41	19.58	21.54	21.82
50	20.08	20.36	20.54	22.59	22.89
51	21.02	21.31	21.50	23.64	23.96
52	21.97	22.26	22.45	24.69	25.03
53	22.91	23.20	23.41	25.74	26.10
54	23.86	24.16	24.36	26.79	27.17
55	24.80	25.10	25.32	27.84	28.24
56	26.52	26.88	27.17	29.72	30.14
57	28.24	28.65	29.03	31.61	32.04
58	29.96	30.43	30.88	33.49	33.94
59	31.68	32.20	32.74	35.38	35.84
60	33.41	33.98	34.59	37.26	37.74
61	35.13	35.76	36.44	39.14	39.64
62	36.85	37.54	38.30	41.03	41.54
63	38.57	39.31	40.15	42.91	43.44
64	40.29	41.09	42.01	44.80	45.00
65	42.01	42.86	43.86	45.00	45.00
66	43.77	44.62	45.00	45.00	45.00
67	45.00	45.00	45.00	45.00	45.00
68	45.00	45.00	45.00	45.00	45.00
69	45.00	45.00	45.00	45.00	45.00
70	45.00	45.00	45.00	45.00	45.00
71	45.00	45.00	45.00	45.00	45.00
72	45.00	45.00	45.00	45.00	45.00
73	45.00	45.00	45.00	45.00	45.00
74	45.00	45.00	45.00	45.00	45.00
75	45.00	45.00	45.00	45.00	45.00
76	45.00	45.00	45.00	45.00	45.00
77	45.00	45.00	45.00	45.00	45.00
78	45.00	45.00	45.00	45.00	45.00
79	45.00	45.00	45.00	45.00	45.00
80	45.00	45.00	45.00	45.00	45.00
81	45.00	45.00	45.00	45.00	45.00
82	45.00	45.00	45.00	45.00	45.00
83	45.00	45.00	45.00	45.00	45.00
84	45.00	45.00	45.00	45.00	45.00
85	45.00	45.00	45.00	45.00	45.00

**Table 5 - Form SLTI-08(U)**  
**Flexible Premium Adjustable Life**  
**Monthly Per \$1,000**  
**of Specified Amount Charges**

<u>Issue Age</u>	<u>Preferred Plus NT</u>	<u>Preferred NT</u>	<u>Nontobacco</u>	<u>Preferred Tobacco</u>	<u>Tobacco</u>
0	0.120	0.120	0.120	0.120	0.120
1	0.120	0.120	0.120	0.120	0.120
2	0.120	0.120	0.120	0.120	0.120
3	0.120	0.120	0.120	0.120	0.120
4	0.130	0.130	0.130	0.130	0.130
5	0.130	0.130	0.130	0.130	0.130
6	0.130	0.130	0.130	0.131	0.131
7	0.130	0.130	0.130	0.133	0.133
8	0.130	0.130	0.130	0.135	0.135
9	0.130	0.130	0.130	0.137	0.137
10	0.130	0.130	0.130	0.139	0.139
11	0.130	0.130	0.130	0.141	0.141
12	0.130	0.130	0.130	0.142	0.142
13	0.130	0.130	0.130	0.144	0.144
14	0.130	0.130	0.130	0.146	0.146
15	0.130	0.130	0.130	0.148	0.148
16	0.130	0.130	0.130	0.149	0.149
17	0.130	0.130	0.130	0.149	0.149
18	0.130	0.130	0.130	0.150	0.150
19	0.130	0.130	0.130	0.150	0.150
20	0.130	0.130	0.130	0.167	0.167
21	0.130	0.130	0.130	0.170	0.170
22	0.130	0.130	0.130	0.170	0.170
23	0.130	0.130	0.130	0.170	0.170
24	0.130	0.130	0.130	0.170	0.170
25	0.130	0.130	0.130	0.170	0.170
26	0.134	0.134	0.134	0.175	0.175
27	0.138	0.138	0.138	0.180	0.180
28	0.142	0.142	0.142	0.185	0.185
29	0.146	0.146	0.146	0.190	0.190
30	0.150	0.150	0.150	0.195	0.195
31	0.154	0.154	0.154	0.200	0.200
32	0.158	0.158	0.158	0.205	0.205
33	0.162	0.162	0.162	0.210	0.210
34	0.166	0.166	0.166	0.215	0.215
35	0.170	0.170	0.170	0.220	0.220
36	0.178	0.178	0.178	0.228	0.228
37	0.186	0.186	0.186	0.237	0.237
38	0.195	0.195	0.195	0.245	0.245
39	0.203	0.203	0.203	0.254	0.254
40	0.211	0.211	0.211	0.262	0.262
41	0.219	0.219	0.219	0.270	0.270
42	0.227	0.227	0.227	0.279	0.279
43	0.236	0.236	0.236	0.287	0.287
44	0.244	0.244	0.244	0.296	0.296
45	0.252	0.252	0.252	0.304	0.304

**Table 5 - Form SLTI-08(U)**  
**Flexible Premium Adjustable Life**  
**Monthly Per \$1,000**  
**of Specified Amount Charges**

<u>Issue Age</u>	<u>Preferred Plus NT</u>	<u>Preferred NT</u>	<u>Nontobacco</u>	<u>Preferred Tobacco</u>	<u>Tobacco</u>
46	0.258	0.258	0.258	0.312	0.321
47	0.264	0.264	0.264	0.320	0.338
48	0.271	0.271	0.271	0.328	0.354
49	0.277	0.277	0.277	0.336	0.371
50	0.283	0.283	0.283	0.344	0.388
51	0.289	0.289	0.289	0.352	0.405
52	0.295	0.295	0.295	0.360	0.422
53	0.302	0.302	0.302	0.368	0.438
54	0.308	0.308	0.308	0.376	0.455
55	0.314	0.314	0.314	0.384	0.472
56	0.323	0.323	0.323	0.396	0.499
57	0.333	0.333	0.333	0.407	0.526
58	0.342	0.342	0.342	0.419	0.554
59	0.352	0.352	0.352	0.430	0.581
60	0.361	0.361	0.361	0.442	0.608
61	0.370	0.370	0.370	0.454	0.635
62	0.380	0.380	0.380	0.465	0.662
63	0.389	0.389	0.389	0.477	0.690
64	0.399	0.399	0.399	0.488	0.717
65	0.408	0.408	0.408	0.500	0.744
66	0.410	0.410	0.410	0.510	0.761
67	0.412	0.412	0.412	0.520	0.778
68	0.415	0.415	0.415	0.530	0.794
69	0.417	0.417	0.417	0.540	0.811
70	0.419	0.419	0.419	0.550	0.828
71	0.421	0.421	0.421	0.560	0.845
72	0.423	0.423	0.423	0.570	0.862
73	0.426	0.426	0.426	0.580	0.878
74	0.428	0.428	0.428	0.590	0.895
75	0.430	0.430	0.430	0.600	0.912
76	0.430	0.430	0.430	0.600	0.912
77	0.430	0.430	0.430	0.600	0.912
78	0.430	0.430	0.430	0.600	0.912
79	0.430	0.430	0.430	0.600	0.912
80	0.430	0.430	0.430	0.600	0.912
81	0.430	0.430	0.430	0.600	0.912
82	0.430	0.430	0.430	0.600	0.912
83	0.430	0.430	0.430	0.600	0.912
84	0.430	0.430	0.430	0.600	0.912
85	0.430	0.430	0.430	0.600	0.912

**Statutory Reserves**  
**Form SLTI-08(U)**

For the Enhanced Coverage Rider, the reserves will be the greater of the sum of the reserve calculated under the Commissioner's Reserve Valuation Method (CRVM) for Flexible Premium Adjustable Variable Life and the reserve calculated using Actuarial Guideline XXXVII (AG37) methodology or the Cash Surrender Value. The description and demonstration of the AG37 reserve can be found in the attachment to this memorandum.

The following items will be calculated at time of policy issue.

**Guaranteed Maturity Premium (GMP)** - The GMP is the level annual gross premium paid to age 121, which will endow the policy at age 121. The GMP is calculated based on the underwriting classification, plan of insurance purchased and policy guarantees including expense charges, interest rates and mortality charges.

**Guaranteed Maturity Fund (GMF)** - The GMF is an accumulation fund value defined for each duration using guaranteed expense charges, interest rates and mortality charges, and assuming the GMP's are paid.

**Future Benefits (FB)** - The FB are the Death Benefits associated with each of the GMF values, defined for all policy durations. These Future Benefits are based on the Death Benefit Option (Specified Amount includes Policy Value or Specified Amount does not include Policy Value) and the percentage of Policy Value factors in Section 12 of Form VU-08(U), if applicable.

**Present Value of Future Benefits (PVFB<sub>T</sub>)** - The PVFB at issue is the value of the future benefits, discounted for interest and mortality that correspond to the valuation basis for the year of issue. The mortality used is based on the 2001 CSO Sex Distinct Composite Mortality Table, Age Nearest Birthday.

$$PVFB_T = \frac{1 * \sum_{t=1}^{121-x} [ (l_{x+t-1} - l_{x+t}) * FB_t ]}{l_x \sum_{k=1}^t (1+i_k)}$$

where:

x = issue age

$l_{x+t}$  = number of lives at age x+t using valuation mortality

$i_k$  = valuation interest rate for duration k

SA = Specified Amount at issue

**CRVM Expense Allowance ( $E^{CRVM}$ )** - The  $E^{CRVM}$  is equal to (a)-(b) where:

(a) is (i) the net level annual premium for the contract as if issued at an age one year older with premiums payable one year less and maturing at the same age, but not greater than (ii) a net level annual premium for a 19 pay whole life contract issued at an age one year older.

$$(i) \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_jP_{x+1} * q_{x+j+1} + FB_{(121-x)} * v^{(121-x)-1} * {}_{121-x-1}P_{x+1}}{\sum_{j=0}^{(121-x)-2} v^j * {}_jP_{x+1}}$$

$$(ii) ELRA * 19P_{x+1}$$

where, ELRA is the Equivalent Level Renewal Amount

$$ELRA = \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_jP_{x+1} * q_{x+j+1}}{A_{x+1}}$$

and,

$$19P_{x+1} = A_{x+1} / a_{x+1:19}$$

(b) is the net one year term insurance premium for the benefit provided in the first year.

$$FB_1 * A_{x:1}$$

The following items will be calculated at each valuation date.

Cash Value ( $CV_m$ ) - The  $CV_m$  is the accumulated fund value of the policy, at the time of valuation.

Net Surrender Value ( $CSV_m$ ) - The  $CSV_m$  is the cash value of the policy less the surrender charge, if any, at the time of valuation.

Ratio ( $r$ ) - equals  $CV_m$  divided by  $GMF_m$ .

If the ratio  $r$  is less than zero or greater than one, then it should be set equal to one.

Future Benefits ( $FB$ ) - Using the greater of  $CV_m$  or  $GMF_m$  as a starting value on the valuation date, future benefits are calculated assuming guaranteed interest, mortality and expense charges, with GMP's paid on the policy anniversaries.

Present Value of Future Benefits ( $PVFB_m$ ) - The  $PVFB$  at the time of valuation is the value of the Future Benefits, discounted for interest and mortality using the valuation basis.

Net Level Premium Reserves ( $NLR_m$ ) - The net level premium reserves are equal to  $((A) - (B)) * r$  where:

(A) is  $PVFB_m$

(B) is  $PVNLP = NLP * a_{x+m}$   
where  $NLP = PVFB_1 / a_x$

$r$  is the ratio defined above.

CRVM Reserve ( $CRVM_m$ ) - The  $CRVM$  at time of valuation  $m$  is defined as follows:

$$CRVM_m = NLR_m - (E^{CRVM} * \frac{a_{x+m}}{a_x} * r)$$

**STATUTORY RESERVES  
FORM SLTI-08(U)  
SAMPLE CALCULATION**

Age 35, Nonsmoker  
\$100,000 Specified Amount  
Issue Date = 5/1/08

Guaranteed Maturity Premium (GMP) = 1,735.27

Guaranteed Maturity Fund (GMF) - see attached Table

Future Benefits (FB) - see attached Table

Present Value of Future Benefits (PVFB<sub>T</sub>) - using 4% interest and the 2001 CSO Nonsmoker Mortality Table, the PVFB<sub>T</sub> = 20,624.54

CRVM Expense Allowance (E<sup>CRVM</sup>) -

(a) (i) the net level annual premium issued one year older = \$1,042.27

$$(ii) ELRA * 19P_{x+1} = \$1,588.91$$

$$ELRA = \$100,000$$

$$19P_{x+1} = .0158891$$

(b) is the net one year term insurance premium

$$FB_1 * A_{x:1} = \$55.81$$

$$FB_1 = 100,000$$

$$A_{x:1} = .0005581$$

$$E^{CRVM} = (a) - (b) = 1,042.27 - 55.81 = 986.46$$

Using a valuation date of 12/31/08, m=8.

Cash Value (CV<sub>m</sub>) - Assuming an actual premium of \$1,735.27, actual interest credited at 2%, and current cost of insurance rates, CV<sub>m</sub> = \$1,514.15.

Net Surrender Value = 665.45

Ratio (r) - CV<sub>m</sub> / GMF<sub>m</sub>

$$GMF_m = 1,332.19$$

$$r = 1,514.15 / 1,332.19 > 1, \text{ therefore } r = 1.00$$

Present Value of Future Benefits (PVFB<sub>m</sub>) -

$$PVFB_8 = 21,164.24$$

Net Level Premium Reserves (NLR<sub>m</sub>) -

$$((A) - (B)) * r$$

$$(A) \text{ is } PVFB_9 = 21,164.24$$

$$(B) \text{ is } PVNLP = NLP * a_{x+m}$$

$$\begin{aligned}
 \text{where NLP} &= \text{PVFB}_I / a_x \\
 &= 20,624.54 / 20.73 \\
 &= 994.69
 \end{aligned}$$

$$a_{x+m} = 20.27$$

$$\text{PVNLP} = 994.69 * 20.27 = 20,157.54$$

$$\text{NLR}_m = (21,164.24 - 20,157.54) * 1.00 = 1,006.70$$

CRVM Reserve ( $\text{CRVM}_m$ ) -

$$\begin{aligned}
 \text{CRVM}_m &= \text{NLR}_m - (E^{\text{CRVM}} * \frac{a_{x+m}}{a_x} * r) \\
 &= 1,006.70 - 986.46 * 20.27 / 20.73 * 1.00 \\
 &= 42.57
 \end{aligned}$$

$$\text{AG37 Reserve (tTV}_{[x]} \text{ from Attachment)} = 257.38$$

$$\text{Statutory Reserve} = \text{MAX} (\text{CSV}_m, \text{CRVM}_m + \text{tTV}_{[x]}) = \text{MAX}(665.45, 42.57 + 257.38) = 665.45$$

## Actuarial Guideline XXXVII Reserves for Secondary Guarantee on Form SLTI-08(U)

### Description

Actuarial Guideline XXXVII describes a two step process to calculate the reserves on a variable universal life policy that guarantees the coverage to remain in force as long as the accumulation of premiums paid satisfy the secondary guarantee requirement.

AG37 reserves are held in addition to basic reserves unless the appointed actuary provides satisfactory documentation to the state of domicile insurance department stating why such reserves are redundant. Basic reserves include the reserve held for death benefits provided in the absence of a GMDB. AG37 reserves provide for the contingency of death occurring when the guaranteed minimum death benefit exceeds the death benefit that would be paid in the absence of the guarantee. If a contract has multiple guarantee periods, a reserve should be determined for each guarantee and the greatest of the AG37 reserves should be held.

The first step is to calculate the One Year Term (OYT) reserve which is calculated by projecting the policy value following a 1/3-Asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

In step two, the Attained Age Level Reserve (AALR) is calculated. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee. The AALR reserve component cannot be less than zero and will be equal to the "residue", as described below, of the prior year's AALR increased or decreased by a "payment", also described below.

The AG37 reserve is the greater of the OYT reserve and the AALR reserve. The final reserve is equal to the sum of the AG37 reserve and the Base reserve.

### Definitions and Notation

Secondary Guarantee Period (n) – the period for which policyholder can maintain the policy in force due to the provisions of the secondary guarantee.

Minimum Gross Premium (GP) – the minimum premium to keep the secondary guarantee in force. This amount is calculated as the minimum premium that can be paid at the beginning of the policy year to keep the guarantee in force at the end of the year.

Present Value of Future Benefits (PVFB) – Value of future benefits discounted for interest, mortality and lapses. For Minimum reserves, PVFB is determined using an interest rate of 4% and Minimum Mortality. The maximum lapses allowed are used in the present value calculation.

Minimum Mortality - is defined as 2001 CSO Male/Female Composite S & U Mortality.

Attained Age Level Reserve (AALR) – The AALR is a methodology described in the 1983 and 1989 revisions to the Variable Life Insurance Model Regulation. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee.

One-year Term (OYT) Reserve – The OYT reserve covers a period of no more than one year following a 1/3-asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

Total AG37 Reserve ( $tTV_{(s)}$ ) – The total reserve held, which is equal to the maximum of the OYT reserve and AALR reserve.

### Formulas

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ \text{AALR}_t \text{ payment} &= [\text{PV}_{[x]+t} - \text{AALR}_t \text{ residue}] / (d_{[x]+t:n-t-1}) \\ \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ {}_t \text{TV}_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \end{aligned}$$

where:

$q_{[x]+t}$  includes only applicable mortality

$x$  = issue age of insured

$n$  = secondary guarantee period

$j$  = length of current segment

$$v = 1 / (1+i)$$

$i$  = valuation interest rate

${}^{\text{GM}}\text{BD}_{[x]+t}$  = guaranteed minimum death benefit at duration  $t$

$\text{BD}_{[x]+t}$  = death benefit at duration  $t$  assuming an immediate one-third depreciation

${}^{\text{C}}\text{BD}_{[x]+t}$  = death benefit at duration  $t$

$\text{PV}_{[x]+t}$  = present value at duration  $t$  of the excess of the guaranteed minimum death benefit over the death benefit payable in absence of the guaranteed minimum death benefit

### Sample Calculation

Insured: Age 35, Nonsmoker  
Specified Amount: \$100,000  
Target Premium: \$943  
Issue Date: 05/01/2008  
Valuation Date: 12/31/2008  
 $i = 4.0\%$   
Account Value (12/31/08): \$1,514.15  
Premium Paid since Issue: \$1,735.27

### Actuarial Guideline XXXVII Reserve

Secondary Guarantee Period = 20 years

Specified Premium = 366.00

$$\begin{aligned} \text{OYT}_t &= v * q_{[x]+t} * [{}^{\text{GM}}\text{BD}_{[x]+t} - \text{BD}_{[x]+t}] \\ &= (1.04^{-1/12}) * (1 - .999899) * [100,000 - 100,000] = 0 \end{aligned}$$

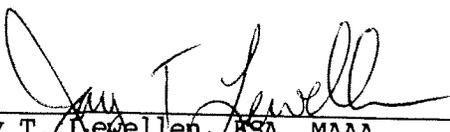
$$\begin{aligned} \text{AALR}_t \text{ residue} &= [\text{AALR}_{t-1} * (1+i) - ({}^{\text{GM}}\text{BD}_{[x]+t} - {}^{\text{C}}\text{BD}_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ &= [0 * (1.04) - (100,000 - 100,000) * (1 - .999899)] / (.999899) = 0 \end{aligned}$$

$$PV_{[x]+t} = 5,193.25 - 467.38 = 4,725.87$$

$$\begin{aligned} \text{AALR}_t \text{ payment} &= [\text{PV}_{[x]+t} - \text{AALR}_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t}^{-}) \\ &= [4,725.87 - 0] / (18.36189) \\ &= 257.38 \end{aligned}$$

$$\begin{aligned} \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ &= \text{Max}(0, 0 + 257.38) = 257.38 \end{aligned}$$

$$\begin{aligned} {}_t \text{TV}_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \\ &= \text{Max}(0, 257.38) = 257.38 \end{aligned}$$

  
\_\_\_\_\_  
Jay T. Dewellen, ASA, MAAA  
Assistant Vice President and Actuary

April 30, 2008

Age 35 NonSmoker

Guaranteed Interest = 2%

Guaranteed COI = 2001 CSO (80) Composite

Specified Amount = \$100,000 (includes Policy Value)

Form SLTI-08(U)

GMP = \$1,735.27

<u>Duration</u>	<u>GMF</u>	<u>FB</u>	<u>Duration</u>	<u>GMF</u>	<u>FB</u>
1	1,194	100,000	44	71,016	100,000
2	2,407	100,000	45	72,454	100,000
3	3,640	100,000	46	73,841	100,000
4	4,889	100,000	47	75,165	100,000
5	6,157	100,000	48	76,431	100,000
6	7,546	100,000	49	77,644	100,000
7	8,952	100,000	50	78,801	100,000
8	10,376	100,000	51	79,894	100,000
9	11,815	100,000	52	80,927	100,000
10	13,267	100,000	53	81,885	100,000
11	14,865	100,000	54	82,768	100,000
12	16,480	100,000	55	83,578	100,000
13	18,113	100,000	56	84,325	100,000
14	19,772	100,000	57	85,064	100,000
15	21,455	100,000	58	85,783	100,000
16	23,160	100,000	59	86,468	100,000
17	24,884	100,000	60	87,106	100,000
18	26,622	100,000	61	87,671	100,000
19	28,371	100,000	62	88,180	100,000
20	30,128	100,000	63	88,620	100,000
21	31,888	100,000	64	89,094	100,000
22	33,651	100,000	65	89,575	100,000
23	35,417	100,000	66	90,033	100,000
24	37,193	100,000	67	90,490	100,000
25	38,979	100,000	68	90,942	100,000
26	40,769	100,000	69	91,383	100,000
27	42,556	100,000	70	91,805	100,000
28	44,334	100,000	71	92,200	100,000
29	46,099	100,000	72	92,569	100,000
30	47,851	100,000	73	92,911	100,000
31	49,591	100,000	74	93,230	100,000
32	51,323	100,000	75	93,523	100,000
33	53,051	100,000	76	93,789	100,000
34	54,774	100,000	77	94,034	100,000
35	56,496	100,000	78	94,267	100,000
36	58,208	100,000	79	94,512	100,000
37	59,909	100,000	80	94,737	100,000
38	61,579	100,000	81	94,961	100,000
39	63,222	100,000	82	95,201	100,000
40	64,840	100,000	83	95,492	100,000
41	66,432	100,000	84	95,968	100,000
42	67,997	100,000	85	97,067	100,000
43	69,528	100,000	86	100,000	100,000

**Statutory Reserves**  
**CVER-08 for issue on a sex distinct basis.**

For the Cash Value Enhancement Rider, the reserves will be the greater of the sum of the reserve calculated under the Commissioner's Reserve Valuation Method (CRVM) for Flexible Premium Adjustable Variable Life and the reserve calculated using Actuarial Guideline XXXVII (AG37) methodology or the Cash Surrender Value. The description and demonstration of the AG37 reserve can be found in the attachment to this memorandum.

The following items will be calculated at time of policy issue.

Guaranteed Maturity Premium (GMP) - The GMP is the level annual gross premium paid to age 121, which will endow the policy at age 121. The GMP is calculated based on the underwriting classification, plan of insurance purchased and policy guarantees including expense charges, interest rates and mortality charges.

Guaranteed Maturity Fund (GMF) - The GMF is an accumulation fund value defined for each duration using guaranteed expense charges, interest rates and mortality charges, and assuming the GMP's are paid.

Future Benefits (FB) - The FB are the Death Benefits associated with each of the GMF values, defined for all policy durations. These Future Benefits are based on the Death Benefit Option (Specified Amount includes Policy Value or Specified Amount does not include Policy Value) and the percentage of Policy Value factors in Section 12 of Form VU-08(S), if applicable.

Present Value of Future Benefits (PVFB<sub>I</sub>) - The PVFB at issue is the value of the future benefits, discounted for interest and mortality that correspond to the valuation basis for the year of issue. The mortality used is based on the 2001 CSO Sex Distinct Composite Mortality Table, Age Nearest Birthday.

$$PVFB_I = \frac{1 * \sum_{t=1}^{121-x} [ (l_{x+t-1} - l_{x+t}) * FB_t ]}{l_x \sum_{k=1}^t v^k (1+i_k)}$$

where:

x = issue age

$l_{x+t}$  = number of lives at age x+t using valuation mortality

$i_k$  = valuation interest rate for duration k

SA = Specified Amount at issue

CRVM Expense Allowance (E<sup>CRVM</sup>) - The E<sup>CRVM</sup> is equal to (a)-(b) where:

(a) is (i) the net level annual premium for the contract as if issued at an age one year older with premiums payable one year less and maturing at the same age, but not greater than (ii) a net level annual premium for a 19 pay whole life contract issued at an age one year older.

$$(i) \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_j p_{x+1} * q_{x+j+1} + FB_{(121-x)} * v^{(121-x)-1} * {}_{121-x-1} p_{x+1}}{\sum_{j=0}^{(121-x)-2} v^j * {}_j p_{x+1}}$$

(ii)  $ELRA * 19P_{x+1}$

where, ELRA is the Equivalent Level Renewal Amount

$$ELRA = \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * jP_{x+1} * q_{x+j+1}}{A_{x+1}}$$

and,

$$19P_{x+1} = A_{x+1} / a_{x+1:19}$$

(b) is the net one year term insurance premium for the benefit provided in the first year.

$$FB_1 * A_{x:1}$$

The following items will be calculated at each valuation date.

Cash Value ( $CV_m$ ) - The  $CV_m$  is the accumulated fund value of the policy, at the time of valuation.

Net Surrender Value ( $CSV_m$ ) - The  $CSV_m$  is the cash value of the policy less the surrender charge, if any, at the time of valuation.

Ratio ( $r$ ) - equals  $CV_m$  divided by  $GMF_m$ .

If the ratio  $r$  is less than zero or greater than one, then it should be set equal to one.

Future Benefits ( $FB$ ) - Using the greater of  $CV_m$  or  $GMF_m$  as a starting value on the valuation date, future benefits are calculated assuming guaranteed interest, mortality and expense charges, with GMP's paid on the policy anniversaries.

Present Value of Future Benefits ( $PVFB_m$ ) - The  $PVFB$  at the time of valuation is the value of the Future Benefits, discounted for interest and mortality using the valuation basis.

Net Level Premium Reserves ( $NLR_m$ ) - The net level premium reserves are equal to  $((A) - (B)) * r$  where:

(A) is  $PVFB_m$

(B) is  $PVNLP = NLP * a_{x+m}$   
where  $NLP = PVFB_I / a_x$

$r$  is the ratio defined above.

CRVM Reserve ( $CRVM_m$ ) - The  $CRVM$  at time of valuation  $m$  is defined as follows:

$$CRVM_m = NLR_m - (E^{CRVM} * \frac{a_{x+m}}{a_x} * r)$$

STATUTORY RESERVES  
FORM CVER-08(S)  
SAMPLE CALCULATION

Male, Age 35, Nonsmoker  
\$100,000 Specified Amount  
Issue Date = 5/1/08

Guaranteed Maturity Premium (GMP) = 1,884.98

Guaranteed Maturity Fund (GMF) - see attached Table

Future Benefits (FB) - see attached Table

Present Value of Future Benefits (PVFB<sub>I</sub>) - using 4% interest and the 2001 CSO Nonsmoker Mortality Table, the PVFB<sub>I</sub> = 20,624.54

CRVM Expense Allowance (E<sub>CRVM</sub>) -

(a) (i) the net level annual premium issued one year older = \$1,042.27

(ii) ELRA \*  ${}_{19}P_{x+1}$  = \$1,588.91

ELRA = \$100,000

${}_{19}P_{x+1}$  = .0158891

(b) is the net one year term insurance premium

$FB_1 * A_{x:1}$  = \$55.81

$FB_1$  = 100,000

$A_{x:1}$  = .0005581

$E_{CRVM}$  = (a) - (b) = 1,042.27 - 55.81 = 986.46

Using a valuation date of 12/31/08, m=8.

Cash Value (CV<sub>m</sub>) - Assuming an actual premium of \$1,884.98, actual interest credited at 2%, and current cost of insurance rates, CV<sub>m</sub> = \$1,450.74.

Net Surrender Value = 1,921.89

Ratio (r) - CV<sub>m</sub> / GMF<sub>m</sub>

GMF<sub>m</sub> = 1,259.75

$r = 1,450.74/1,259.75 > 1$ , therefore  $r = 1.00$

Present Value of Future Benefits (PVFB<sub>m</sub>) -

PVFB<sub>8</sub> = 21,180.16

Net Level Premium Reserves (NLR<sub>m</sub>) -

((A) - (B)) \* r

(A) is PVFB<sub>8</sub> = 21,180.16

(B) is PVNLP = NLP \*  $a_{x+m}$

$$\begin{aligned} \text{where NLP} &= \text{PVFB}_I / a_x \\ &= 20,624.54 / 20.73 \\ &= 994.69 \end{aligned}$$

$$a_{x+m} = 20.27$$

$$\text{PVNLP} = 994.69 * 20.27 = 20,157.54$$

$$\text{NLR}_m = (21,180.16 - 20,157.54) * 1.00 = 1,022.62$$

CRVM Reserve ( $\text{CRVM}_m$ ) -

$$\begin{aligned} \text{CRVM}_m &= \text{NLR}_m - (E^{\text{CRVM}} * \frac{a_{x+m}}{a_x} * r) \\ &= 1,022.62 - 986.46 * 20.27 / 20.73 * 1.00 \\ &= 58.49 \end{aligned}$$

AG37 Reserve ( $t\text{TV}_{[x]}$  from Attachment) = 259.43

Statutory Reserve = MAX ( $\text{CSV}_m, \text{CRVM}_m + t\text{TV}_{[x]}$ ) = MAX(1,921.89, 58.49 + 259.43) = 1,921.89

## Actuarial Guideline XXXVII Reserves for Secondary Guarantee on Form CVER-08 for issue on a sex distinct basis

### Description

Actuarial Guideline XXXVII describes a two step process to calculate the reserves on a variable universal life policy that guarantees the coverage to remain in force as long as the accumulation of premiums paid satisfy the secondary guarantee requirement.

AG37 reserves are held in addition to basic reserves unless the appointed actuary provides satisfactory documentation to the state of domicile insurance department stating why such reserves are redundant. Basic reserves include the reserve held for death benefits provided in the absence of a GMDB. AG37 reserves provide for the contingency of death occurring when the guaranteed minimum death benefit exceeds the death benefit that would be paid in the absence of the guarantee. If a contract has multiple guarantee periods, a reserve should be determined for each guarantee and the greatest of the AG37 reserves should be held.

The first step is to calculate the One Year Term (OYT) reserve which is calculated by projecting the policy value following a 1/3-Asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

In step two, the Attained Age Level Reserve (AALR) is calculated. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee. The AALR reserve component cannot be less than zero and will be equal to the "residue", as described below, of the prior year's AALR increased or decreased by a "payment", also described below.

The AG37 reserve is the greater of the OYT reserve and the AALR reserve. The final reserve is equal to the sum of the AG37 reserve and the Base reserve.

### Definitions and Notation

Secondary Guarantee Period (n) – the period for which policyholder can maintain the policy in force due to the provisions of the secondary guarantee.

Minimum Gross Premium (GP) – the minimum premium to keep the secondary guarantee in force. This amount is calculated as the minimum premium that can be paid at the beginning of the policy year to keep the guarantee in force at the end of the year.

Present Value of Future Benefits (PVFB) – Value of future benefits discounted for interest, mortality and lapses. For Minimum reserves, PVFB is determined using an interest rate of 4% and Minimum Mortality. The maximum lapses allowed are used in the present value calculation.

Minimum Mortality - is defined as 2001 CSO Male/Female Composite S & U Mortality.

Attained Age Level Reserve (AALR) – The AALR is a methodology described in the 1983 and 1989 revisions to the Variable Life Insurance Model Regulation. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee.

One-year Term (OYT) Reserve – The OYT reserve covers a period of no more than one year following a 1/3-asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

Total AG37 Reserve ( $tTV_{[x]}$ ) – The total reserve held, which is equal to the maximum of the OYT reserve and AALR reserve.

## Formulas

$$\begin{aligned}OYT_t &= v * q_{[x]+t} * [{}^{GM}BD_{[x]+t} - BD_{[x]+t}] \\AALR_t \text{ residue} &= [AALR_{t-1} * (1+i) - ({}^{GM}BD_{[x]+t} - {}^C BD_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\AALR_t \text{ payment} &= [PV_{[x]+t} - AALR_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\AALR_t &= \text{Max}(0, AALR_t \text{ residue} + AALR_t \text{ payment}) \\{}_t TV_{[x]} &= \text{Max}(OYT_t, AALR_t)\end{aligned}$$

where:

$q_{[x]+t}$  includes only applicable mortality

x = issue age of insured

n = secondary guarantee period

j = length of current segment

$$v = 1 / (1+i)$$

i = valuation interest rate

${}^{GM}BD_{[x]+t}$  = guaranteed minimum death benefit at duration t

$BD_{[x]+t}$  = death benefit at duration t assuming an immediate one-third depreciation

${}^C BD_{[x]+t}$  = death benefit at duration t

$PV_{[x]+t}$  = present value at duration t of the excess of the guaranteed minimum death benefit over the death benefit payable in absence of the guaranteed minimum death benefit

## Sample Calculation

Insured: Age 35, Nonsmoker  
Specified Amount: \$100,000  
Target Premium: \$943  
Issue Date: 05/01/2008  
Valuation Date: 12/31/2008  
i = 4.0%  
Account Value (12/31/08): \$1,414.36  
Premium Paid since Issue: \$1,845.59

## Actuarial Guideline XXXVII Reserve

Secondary Guarantee Period = 20 years

Specified Premium = 366.00

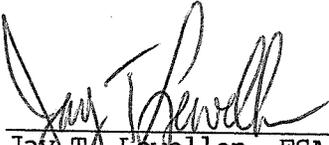
$$\begin{aligned}OYT_t &= v * q_{[x]+t} * [{}^{GM}BD_{[x]+t} - BD_{[x]+t}] \\ &= (1.04^{-1/12}) * (1 - .999899) * [100,000 - 100,000] = 0 \\AALR_t \text{ residue} &= [AALR_{t-1} * (1+i) - ({}^{GM}BD_{[x]+t} - {}^C BD_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ &= [0 * (1.04) - (100,000 - 100,000) * (1 - .999899)] / (.999899) = 0\end{aligned}$$

$$PV_{[x]+t} = 5,203.62 - 418.02 = 4,785.60$$

$$\begin{aligned} \text{AALR}_t \text{ payment} &= [\text{PV}_{[x]+t} - \text{AALR}_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\ &= [4,785.60 - 0] / (18.36189) \\ &= 260.63 \end{aligned}$$

$$\begin{aligned} \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ &= \text{Max}(0, 0 + 260.63) = 260.63 \end{aligned}$$

$$\begin{aligned} {}_t \text{TV}_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \\ &= \text{Max}(0, 260.63) = 260.63 \end{aligned}$$



Jay T. Lewellen, FSA, MAAA  
Assistant Vice President and Actuary

4/29/08

Date

Age 35 NonSmoker

Form CVER-08(U)

Guaranteed Interest = 2%

Guaranteed COI = 2001 CSO (80) Composite

Specified Amount = \$100,000 (includes Policy Value)

GMP = \$1,845.59

<u>Duration</u>	<u>GMF</u>	<u>FB</u>	<u>Duration</u>	<u>GMF</u>	<u>FB</u>
1	983	100,000	44	70,925	100,000
2	1,980	100,000	45	72,373	100,000
3	2,992	100,000	46	73,770	100,000
4	4,016	100,000	47	75,101	100,000
5	5,054	100,000	48	76,374	100,000
6	6,408	100,000	49	77,593	100,000
7	7,779	100,000	50	78,755	100,000
8	9,166	100,000	51	79,853	100,000
9	10,567	100,000	52	80,890	100,000
10	11,980	100,000	53	81,851	100,000
11	13,635	100,000	54	82,736	100,000
12	15,306	100,000	55	83,548	100,000
13	16,994	100,000	56	84,298	100,000
14	18,707	100,000	57	85,037	100,000
15	20,443	100,000	58	85,757	100,000
16	22,199	100,000	59	86,444	100,000
17	23,974	100,000	60	87,082	100,000
18	25,761	100,000	61	87,648	100,000
19	27,559	100,000	62	88,157	100,000
20	29,362	100,000	63	88,597	100,000
21	31,168	100,000	64	89,072	100,000
22	32,975	100,000	65	89,552	100,000
23	34,782	100,000	66	90,010	100,000
24	36,600	100,000	67	90,467	100,000
25	38,425	100,000	68	90,918	100,000
26	40,253	100,000	69	91,358	100,000
27	42,077	100,000	70	91,780	100,000
28	43,889	100,000	71	92,174	100,000
29	45,687	100,000	72	92,542	100,000
30	47,471	100,000	73	92,883	100,000
31	49,242	100,000	74	93,201	100,000
32	51,003	100,000	75	93,493	100,000
33	52,758	100,000	76	93,758	100,000
34	54,506	100,000	77	94,002	100,000
35	56,252	100,000	78	94,234	100,000
36	57,987	100,000	79	94,478	100,000
37	59,709	100,000	80	94,702	100,000
38	61,399	100,000	81	94,926	100,000
39	63,060	100,000	82	95,166	100,000
40	64,695	100,000	83	95,458	100,000
41	66,302	100,000	84	95,937	100,000
42	67,881	100,000	85	97,046	100,000
43	69,425	100,000	86	100,000	100,000

Statutory Reserves  
CVER-08 for issue on a unisex basis

For the Cash Value Enhancement Rider, the reserves will be the greater of the sum of the reserve calculated under the Commissioner's Reserve Valuation Method (CRVM) for Flexible Premium Adjustable Variable Life and the reserve calculated using Actuarial Guideline XXXVII (AG37) methodology or the Cash Surrender Value. The description and demonstration of the AG37 reserve can be found in the attachment to this memorandum.

The following items will be calculated at time of policy issue.

Guaranteed Maturity Premium (GMP) - The GMP is the level annual gross premium paid to age 121, which will endow the policy at age 121. The GMP is calculated based on the underwriting classification, plan of insurance purchased and policy guarantees including expense charges, interest rates and mortality charges.

Guaranteed Maturity Fund (GMF) - The GMF is an accumulation fund value defined for each duration using guaranteed expense charges, interest rates and mortality charges, and assuming the GMP's are paid.

Future Benefits (FB) - The FB are the Death Benefits associated with each of the GMF values, defined for all policy durations. These Future Benefits are based on the Death Benefit Option (Specified Amount includes Policy Value or Specified Amount does not include Policy Value) and the percentage of Policy Value factors in Section 12 of Form VU-08(U), if applicable.

Present Value of Future Benefits (PVFB<sub>I</sub>) - The PVFB at issue is the value of the future benefits, discounted for interest and mortality that correspond to the valuation basis for the year of issue. The mortality used is based on the 2001 CSO Sex Distinct Composite Mortality Table, Age Nearest Birthday.

$$PVFB_I = \frac{1 * \sum_{t=1}^{121-x} [ (l_{x+t-1} - l_{x+t}) * FB_t ]}{\sum_{k=1}^t (1+i_k)}$$

where:

x = issue age

$l_{x+t}$  = number of lives at age x+t using valuation mortality

$i_k$  = valuation interest rate for duration k

SA = Specified Amount at issue

CRVM Expense Allowance (E<sup>CRVM</sup>) - The E<sup>CRVM</sup> is equal to (a)-(b) where:

(a) is (i) the net level annual premium for the contract as if issued at an age one year older with premiums payable one year less and maturing at the same age, but not greater than (ii) a net level annual premium for a 19 pay whole life contract issued at an age one year older.

$$(i) \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * {}_j p_{x+1} * q_{x+j+1} + FB_{(121-x)} * v^{(121-x)-1} * {}_{121-x-1} p_{x+1}}{\sum_{j=0}^{(121-x)-2} v^j * {}_j p_{x+1}}$$

(ii)  $ELRA * 19P_{x+1}$

where, ELRA is the Equivalent Level Renewal Amount

$$ELRA = \frac{\sum_{j=0}^{(121-x)-2} FB_{j+2} * v^{j+1} * jP_{x+1} * q_{x+j+1}}{A_{x+1}}$$

and,

$$19P_{x+1} = A_{x+1} / a_{x+1:19}$$

(b) is the net one year term insurance premium for the benefit provided in the first year.

$$FB_1 * A_{x:1}$$

The following items will be calculated at each valuation date.

Cash Value ( $CV_m$ ) - The  $CV_m$  is the accumulated fund value of the policy, at the time of valuation.

Net Surrender Value ( $CSV_m$ ) - The  $CSV_m$  is the cash value of the policy less the surrender charge, if any, at the time of valuation.

Ratio ( $r$ ) - equals  $CV_m$  divided by  $GME_m$ .

If the ratio  $r$  is less than zero or greater than one, then it should be set equal to one.

Future Benefits ( $FB$ ) - Using the greater of  $CV_m$  or  $GME_m$  as a starting value on the valuation date, future benefits are calculated assuming guaranteed interest, mortality and expense charges, with GMP's paid on the policy anniversaries.

Present Value of Future Benefits ( $PVFB_m$ ) - The  $PVFB$  at the time of valuation is the value of the Future Benefits, discounted for interest and mortality using the valuation basis.

Net Level Premium Reserves ( $NLR_m$ ) - The net level premium reserves are equal to  $(A) - (B) * r$  where:

(A) is  $PVFB_m$

(B) is  $PVNLP = NLP * a_{x+m}$   
where  $NLP = PVFB_I / a_x$

$r$  is the ratio defined above.

CRVM Reserve ( $CRVM_m$ ) - The  $CRVM$  at time of valuation  $m$  is defined as follows:

$$CRVM_m = NLR_m - (E^{CRVM} * \frac{a_{x+m}}{a_x} * r)$$

STATUTORY RESERVES  
FORM CVER-08 (U)  
SAMPLE CALCULATION

Age 35, Nonsmoker  
\$100,000 Specified Amount  
Issue Date = 5/1/08

Guaranteed Maturity Premium (GMP) = 1,845.59

Guaranteed Maturity Fund (GMF) - see attached Table

Future Benefits (FB) - see attached Table

Present Value of Future Benefits (PVFB<sub>T</sub>) - using 4% interest and the 2001 CSO Nonsmoker Mortality Table, the PVFB<sub>T</sub> = 20,624.54

CRVM Expense Allowance (E<sup>CRVM</sup>) -

(a) (i) the net level annual premium issued one year older = \$1,042.27

(ii) ELRA \*  ${}_{19}P_{x+1}$  = \$1,588.91

ELRA = \$100,000

${}_{19}P_{x+1}$  = .0158891

(b) is the net one year term insurance premium

FB<sub>1</sub> \* A<sub>x:1</sub> = \$55.81

FB<sub>1</sub> = 100,000

A<sub>x:1</sub> = .0005581

E<sup>CRVM</sup> = (a) - (b) = 1,042.27 - 55.81 = 986.46

Using a valuation date of 12/31/08, m=8.

Cash Value (CV<sub>m</sub>) - Assuming an actual premium of \$1,845.59, actual interest credited at 2%, and current cost of insurance rates, CV<sub>m</sub> = \$1,414.36.

Net Surrender Value = 1,878.24

Ratio (r) - CV<sub>m</sub> / GMF<sub>m</sub>

GMF<sub>m</sub> = 1,226.05

r = 1,414.36/1,226.05 > 1, therefore r = 1.00

Present Value of Future Benefits (PVFB<sub>m</sub>) -

PVFB<sub>8</sub> = 21,163.26

Net Level Premium Reserves (NLR<sub>m</sub>) -

((A) - (B)) \* r

(A) is PVFB<sub>8</sub> = 21,163.26

(B) is PVNLP = NLP \* a<sub>x+m</sub>

$$\begin{aligned}
 \text{where NLP} &= \text{PVFB}_1 / a_x \\
 &= 20,624.54 / 20.73 \\
 &= 994.69
 \end{aligned}$$

$$a_{x+m} = 20.27$$

$$\text{PVNLP} = 994.69 * 20.27 = 20,157.54$$

$$\text{NLR}_m = (21,163.26 - 20,157.54) * 1.00 = 1,005.72$$

CRVM Reserve ( $\text{CRVM}_m$ ) -

$$\begin{aligned}
 \text{CRVM}_m &= \text{NLR}_m - (E^{\text{CRVM}} * \frac{a_{x+m}}{a_x} * r) \\
 &= 1,005.72 - 986.46 * 20.27 / 20.73 * 1.00 \\
 &= 41.59
 \end{aligned}$$

$$\text{AG37 Reserve (tTV}_{[x]}\text{ from Attachment)} = 260.63$$

$$\text{Statutory Reserve} = \text{MAX} (\text{CSV}_m, \text{CRVM}_m + \text{tTV}_{[x]}) = \text{MAX}(1,878.24, 41.59 + 260.63) = 1,878.24$$

**Actuarial Guideline XXXVII Reserves for Secondary Guarantee on Form CVER-08  
for issue on a unisex basis**

**Description**

Actuarial Guideline XXXVII describes a two step process to calculate the reserves on a variable universal life policy that guarantees the coverage to remain in force as long as the accumulation of premiums paid satisfy the secondary guarantee requirement.

AG37 reserves are held in addition to basic reserves unless the appointed actuary provides satisfactory documentation to the state of domicile insurance department stating why such reserves are redundant. Basic reserves include the reserve held for death benefits provided in the absence of a GMDB. AG37 reserves provide for the contingency of death occurring when the guaranteed minimum death benefit exceeds the death benefit that would be paid in the absence of the guarantee. If a contract has multiple guarantee periods, a reserve should be determined for each guarantee and the greatest of the AG37 reserves should be held.

The first step is to calculate the One Year Term (OYT) reserve which is calculated by projecting the policy value following a 1/3-Asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

In step two, the Attained Age Level Reserve (AALR) is calculated. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee. The AALR reserve component cannot be less than zero and will be equal to the "residue", as described below, of the prior year's AALR increased or decreased by a "payment", also described below.

The AG37 reserve is the greater of the OYT reserve and the AALR reserve. The final reserve is equal to the sum of the AG37 reserve and the Base reserve.

**Definitions and Notation**

**Secondary Guarantee Period (n)** – the period for which policyholder can maintain the policy in force due to the provisions of the secondary guarantee.

**Minimum Gross Premium (GP)** – the minimum premium to keep the secondary guarantee in force. This amount is calculated as the minimum premium that can be paid at the beginning of the policy year to keep the guarantee in force at the end of the year.

**Present Value of Future Benefits (PVFB)** – Value of future benefits discounted for interest, mortality and lapses. For Minimum reserve PVFB is determined using an interest rate of 4% and Minimum Mortality. The maximum lapses allowed are used in the present value calculation.

**Minimum Mortality** - is defined as 2001 CSO Male/Female Composite S & U Mortality.

**Attained Age Level Reserve (AALR)** – The AALR is a methodology described in the 1983 and 1989 revisions to the Variable Life Insurance Model Regulation. This reserve component exists only until the end of the guarantee period if, on any prior valuation date, projected policy values resulted in guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee.

**One-year Term (OYT) Reserve** – The OYT reserve covers a period of no more than one year following a 1/3-asset drop. The reserve equals the present value of guaranteed minimum death benefits in excess of death benefits that would be provided in absence of such guarantee, if any, prior to the end of one full year or the end of the guaranteed period if sooner.

**Total AG37 Reserve ( $tTV_{[n]}$ )** – The total reserve held, which is equal to the maximum of the OYT reserve and AALR reserve.

## Formulas

$$\begin{aligned}OYT_t &= v * q_{[x]+t} * [{}^{GM}BD_{[x]+t} - BD_{[x]+t}] \\AALR_t \text{ residue} &= [AALR_{t-1} * (1+i) - ({}^{GM}BD_{[x]+t} - {}^C BD_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\AALR_t \text{ payment} &= [PV_{[x]+t} - AALR_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\AALR_t &= \text{Max} (0, AALR_t \text{ residue} + AALR_t \text{ payment}) \\{}_t TV_{[x]} &= \text{Max} (OYT_t, AALR_t)\end{aligned}$$

where:

$q_{[x]+t}$  includes only applicable mortality

$x$  = issue age of insured

$n$  = secondary guarantee period

$j$  = length of current segment

$v = 1 / (1+i)$

$i$  = valuation interest rate

${}^{GM}BD_{[x]+t}$  = guaranteed minimum death benefit at duration  $t$

$BD_{[x]+t}$  = death benefit at duration  $t$  assuming an immediate one-third depreciation

${}^C BD_{[x]+t}$  = death benefit at duration  $t$

$PV_{[x]+t}$  = present value at duration  $t$  of the excess of the guaranteed minimum death benefit over the death benefit payable in absence of the guaranteed minimum death benefit

## Sample Calculation

Insured: Age 35, Nonsmoker  
Specified Amount: \$100,000  
Target Premium: \$943  
Issue Date: 05/01/2008  
Valuation Date: 12/31/2008  
 $i = 4.0\%$   
Account Value (12/31/08): \$1,414.36  
Premium Paid since Issue: \$1,845.59

## Actuarial Guideline XXXVII Reserve

Secondary Guarantee Period = 20 years

Specified Premium = 366.00

$$\begin{aligned}OYT_t &= v * q_{[x]+t} * [{}^{GM}BD_{[x]+t} - BD_{[x]+t}] \\ &= (1.04^{-(1/12)}) * (1 - .999899) * [100,000 - 100,000] = 0 \\AALR_t \text{ residue} &= [AALR_{t-1} * (1+i) - ({}^{GM}BD_{[x]+t} - {}^C BD_{[x]+t}) * q_{[x]+t}] / (1 - q_{[x]+t}) \\ &= [0 * (1.04) - (100,000 - 100,000) * (1 - .999899)] / (.999899) = 0\end{aligned}$$

Age 35 NonSmoker

Form CVER-08(U)

Guaranteed Interest = 2%

Guaranteed COI = 2001 CSO (80) Composite

Specified Amount = \$100,000 (includes Policy Value)

GMP = \$1,845.59

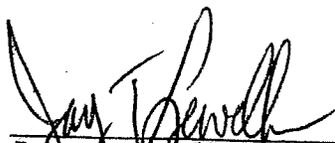
<u>Duration</u>	<u>GMF</u>	<u>FB</u>	<u>Duration</u>	<u>GMF</u>	<u>FB</u>
1	983	100,000	44	70,925	100,000
2	1,980	100,000	45	72,373	100,000
3	2,992	100,000	46	73,770	100,000
4	4,016	100,000	47	75,101	100,000
5	5,054	100,000	48	76,374	100,000
6	6,408	100,000	49	77,593	100,000
7	7,779	100,000	50	78,755	100,000
8	9,166	100,000	51	79,853	100,000
9	10,567	100,000	52	80,890	100,000
10	11,980	100,000	53	81,851	100,000
11	13,635	100,000	54	82,736	100,000
12	15,306	100,000	55	83,548	100,000
13	16,994	100,000	56	84,298	100,000
14	18,707	100,000	57	85,037	100,000
15	20,443	100,000	58	85,757	100,000
16	22,199	100,000	59	86,444	100,000
17	23,974	100,000	60	87,082	100,000
18	25,761	100,000	61	87,648	100,000
19	27,559	100,000	62	88,157	100,000
20	29,362	100,000	63	88,597	100,000
21	31,168	100,000	64	89,072	100,000
22	32,975	100,000	65	89,552	100,000
23	34,782	100,000	66	90,010	100,000
24	36,600	100,000	67	90,467	100,000
25	38,425	100,000	68	90,918	100,000
26	40,253	100,000	69	91,358	100,000
27	42,077	100,000	70	91,780	100,000
28	43,889	100,000	71	92,174	100,000
29	45,687	100,000	72	92,542	100,000
30	47,471	100,000	73	92,883	100,000
31	49,242	100,000	74	93,201	100,000
32	51,003	100,000	75	93,493	100,000
33	52,758	100,000	76	93,758	100,000
34	54,506	100,000	77	94,002	100,000
35	56,252	100,000	78	94,234	100,000
36	57,987	100,000	79	94,478	100,000
37	59,709	100,000	80	94,702	100,000
38	61,399	100,000	81	94,926	100,000
39	63,060	100,000	82	95,166	100,000
40	64,695	100,000	83	95,458	100,000
41	66,302	100,000	84	95,937	100,000
42	67,881	100,000	85	97,046	100,000
43	69,425	100,000	86	100,000	100,000

$$PV_{[x]+t} = 5,203.62 - 418.02 = 4,785.60$$

$$\begin{aligned} \text{AALR}_t \text{ payment} &= [PV_{[x]+t} - \text{AALR}_t \text{ residue}] / (\ddot{a}_{[x]+t:n-t-1}) \\ &= [4,785.60 - 0] / (18.36189) \\ &= 260.63 \end{aligned}$$

$$\begin{aligned} \text{AALR}_t &= \text{Max}(0, \text{AALR}_t \text{ residue} + \text{AALR}_t \text{ payment}) \\ &= \text{Max}(0, 0 + 260.63) = 260.63 \end{aligned}$$

$$\begin{aligned} {}_tTV_{[x]} &= \text{Max}(\text{OYT}_t, \text{AALR}_t) \\ &= \text{Max}(0, 260.63) = 260.63 \end{aligned}$$

---

Jay T. Lewellen, FSA, MAAA  
Assistant Vice President and Actuary

4/29/08  
Date

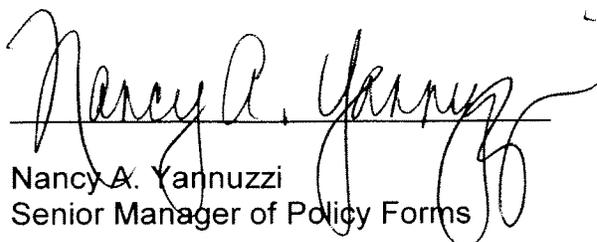
**The Penn Mutual Life Insurance Company**

**CERTIFICATION**

"This is to certify that the form listed below is in compliance with the requirements of Ark. Stat. Ann. 66-3251 through 66-3258, cited as the Life and Disability Insurance Policy Language Simplification Act."

<u>Form No.</u>	<u>Title</u>	<u>Flesch Score</u>
VU-08(S)(AR)	Flexible Premium Adjustable Indexed Variable Life Insurance Policy	50.0
VU-08(U)(AR)	Flexible Premium Adjustable Indexed Variable Life Insurance Policy	50.1
ENLG-08(S)	Rider – Extended No-Lapse Guarantee Agreement	51.5
ENLG-08(U)	Rider – Extended No-Lapse Guarantee Agreement	51.7
SLTI-08(S)	Supplemental Term Insurance Agreement	50.2
SLTI-08(U)	Supplemental Term Insurance Agreement	50.6
CVER-08	Rider – Cash Value Enhancement	50.7
PM0304-R2	Supplemental Application	*

\* Meets the minimum score of 40 achieved when combined with the appropriate policy forms.

  
Nancy A. Yannuzzi  
Senior Manager of Policy Forms

May 6, 2008



April 28, 2008

Department of Insurance  
1200 W. Third Street  
Little Rock, AR 72201

NAIC Company Code:  
850-67644

Dear Commissioner,

The Penn Mutual Life Insurance Company is submitting the following forms for your review and approval:

<u>Form</u>	<u>Title</u>	<u>Form Replaced</u>
VU-08(S)(AR)	Flexible Premium Adjustable Indexed Variable Life Insurance Policy	None
VU-08(U)(AR)	Flexible Premium Adjustable Indexed Variable Life Insurance Policy	None
ENLG-08(S)	Rider - Extended No-Lapse Guarantee Agreement	None
ENLG-08(U)	Rider - Extended No-Lapse Guarantee Agreement	None
SLTI-08(S)	Supplemental Term Insurance Agreement	None
SLTI-08(U)	Supplemental Term Insurance Agreement	None
CVER-08	Rider – Cash Value Enhancement	None
PM0304-R2	Supplemental Application	None

Forms VU-08(S)(AR) and VU-08(U)(AR) are flexible premium adjustable indexed variable universal life insurance policies. VU-08(S)(AR) is a sex-distinct version of the policy. VU-08(U)(AR) is a unisex version of the policy and will only be used in those situations where, in Penn Mutual's opinion, the Norris decision is applicable.

Forms SLTI-08(S) and SLTI-08(U) are riders that provide supplemental term insurance for a period chosen at the time of application of the rider. SLTI-08 (S) is the sex distinct version of the policy forms and SLTI-08(U) is the unisex version of the rider and will be used when attached to the unisex policy.

Forms ENLG-08(S) and ENLG-08(U) are riders that guarantee that the policy will remain in force and a death benefit will be payable regardless of the sufficiency of the net cash surrender value of the policy. ENLG-08(S) is a sex distinct version of the rider and ENLG-08(U) is a unisex version of the form and will only be used, when, in Penn Mutual's opinion, the Norris decision is applicable.

Form CVER-08 is a rider that provides a cash value enhancement benefit as by way of a termination credit, unless the policy terminates under a non-qualifying termination.

Form PM0304-R2, enclosed for approval, will be used with policy application, form number PM1 143, approved by your state on January 26, 2006 which will also be used with the enclosed policy forms.

The enclosed Statement of Variability shows the information in the policy and on the policy specifications that the Company has bracketed as variable. It is our understanding that the policy forms will not have to be re-filed for approval when this variable information changes according to the Statement of Variability.

It is our intention to make the enclosed riders available on the above referenced policies, as well as other flexible premium adjustable life insurance policies that will be approved in the future by your Department.

Should you have any questions, please call Rita Bellew **by phone** at (215) 956-8290, by **e-mail** at: [bellew.rita@pennmutual.com](mailto:bellew.rita@pennmutual.com), or **fax** at (215)956-8145.

Sincerely,



Nancy A. Yannuzzi  
Senior Manager of Policy Filing

**Life, Accident & Health, Annuity, Credit Transmittal Document**

<b>1.</b>	<b>Prepared for the State of</b>	Arkansas
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<b>2.</b>	<b>Department Use Only</b>	
	<b>State Tracking ID</b>	

<b>3.</b>	<b>Insurer Name &amp; Address</b>	<b>Domicile</b>	<b>Insurer License Type</b>	<b>NAIC Group #</b>	<b>NAIC #</b>	<b>FEIN #</b>	<b>State #</b>
	Penn Mutual Life Insurance Co. VIM: C3G Philadelphia, Pa 19172	PA	Life, Variable Contract	850	67644	23-0952300	

<b>4.</b>	<b>Contact Name &amp; Address</b>	<b>Telephone #</b>	<b>Fax #</b>	<b>E-mail Address</b>
	Rita Bellew Penn Mutual Life Insurance Co. VIM: C3G Philadelphia, Pa 19172	215-956-8290	215-956-8145	bellew.rita@pennmutual.com

<b>5.</b>	<b>Requested Filing Mode</b>	<input checked="" type="checkbox"/> Review & Approval <input type="checkbox"/> File & Use <input type="checkbox"/> Informational Combination (please explain): _____ Other (please explain): _____
-----------	------------------------------	--

<b>6.</b>	<b>Company Tracking Number</b>	VU-08(S)(AR), etc
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<b>7.</b>	<b>X New Submission</b>	<b>Resubmission</b>	Previous file # _____
-----------	-------------------------	---------------------	-----------------------

<b>8.</b>	<b>Market</b>	<input checked="" type="checkbox"/> Individual Group <input type="checkbox"/> Franchise Small                      Large                      Small and Large Employer                  Association Blanket Discretionary              Trust Other: _____
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<b>9.</b>	<b>Type of Insurance</b>	L06I Individual Life – Variable
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<b>10.</b>	<b>Product Coding Matrix Filing Code</b>	L06I.002
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<b>11.</b>	<b>Submitted Documents</b>	<p><b><u>X FORMS</u></b>  <input checked="" type="checkbox"/> Policy                      Outline of Coverage                      Certificate                  Application/Enrollment              X Rider/Endorsement                      Advertising                  Schedule of Benefits                      Other</p> <p><b><u>Rates</u></b>                  New Rate                      Revised Rate  <b>FILING OTHER THAN FORM OR RATE:</b>                  Please explain: _____</p> <p><b><u>SUPPORTING DOCUMENTATION</u></b>                  Articles of Incorporation                      Third Party Authorization                  Association Bylaws                              Trust Agreements  <input checked="" type="checkbox"/> Statement of Variability                      X Certifications  <input checked="" type="checkbox"/> Actuarial Memorandum                  Other _____</p>
------------	----------------------------	--

12.	<b>Filing Submission Date</b>	<b>April 29, 2008</b>	
13	<b>Filing Fee (If required)</b>	Amount _____	Check Date _____
		Retaliatory    Yes    No	Check Number _____
14.	<b>Date of Domiciliary Approval</b>	<b>Filed in Domicile state of PA on April 29, 2008 and is pending approval</b>	

**15.  
Filing Description:**

The Penn Mutual Life Insurance Company is submitting the following forms for your review and approval:

<u>Form</u>	<u>Title</u>	<u>Form Replaced</u>
VU-08(S)(AR)	Flexible Premium Adjustable Indexed Variable Life Insurance Policy	None
VU-08(U)(AR)	Flexible Premium Adjustable Indexed Variable Life Insurance Policy	None
ENLG-08(S)	Rider - Extended No-Lapse Guarantee Agreement	None
ENLG-08(U)	Rider - Extended No-Lapse Guarantee Agreement	None
SLTI-08(S)	Supplemental Term Insurance Agreement	None
SLTI-08(U)	Supplemental Term Insurance Agreement	None
CVER-08	Rider – Cash Value Enhancement	None
PM0304-R2	Supplemental Application	None

Forms VU-08(S)(AR) and VU-08(U)(AR) are flexible premium adjustable indexed variable universal life insurance policies. VU-08(S)(AR) is a sex-distinct version of the policy. VU-08(U)(AR) is a unisex version of the policy and will only be used in those situations, where in Penn Mutual's opinion, the Norris decision is applicable.

Forms SLTI-08(S) and SLTI-08(U) are riders that provide supplemental term insurance for a period chosen at the time of application of the rider. SLTI-08 (S) is the sex distinct version of the policy forms and SLTI-08(U) is the unisex version of the rider and will be used when attached to the unisex policy.

Forms ENLG-08(S) and ENLG-08(U) are riders that guarantee that the policy will remain in force and a death benefit will be payable regardless of the sufficiency of the net cash surrender value of the policy. ENLG-08(S) is a sex distinct version of the rider and ENLG-08(U) is a unisex version of the form and will only be used, when, in Penn Mutual's opinion, the Norris decision is applicable.

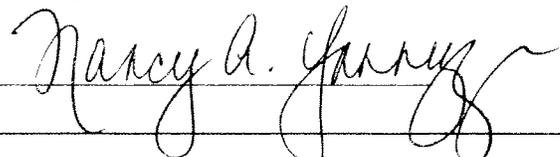
Form CVER-08 is a rider that provides a cash value enhancement benefit as by way of a termination credit, unless the policy terminates under a non-qualifying termination.

Form PM0304-R2, enclosed for approval, will be used with policy application, form number PM1143, approved by your state on January 26, 2006, which will also be used with the enclosed forms.

The enclosed Statement of Variability shows the information in the policy and on the policy specifications that the Company has bracketed as variable. It is our understanding that the policy forms will not have to be re-filed for approval when this variable information changes according to the Statement of Variability.

It is our intention to make the enclosed riders available on the above referenced policies, as well as other flexible premium adjustable life insurance policies that will be approved in the future, by your Department.

Should you have any questions, please call Rita Bellew **by phone** at (215) 956-8290, by **e-mail** at: [bellew.rita@pennmual.com](mailto:bellew.rita@pennmual.com), or **fax** at (215)956-8145.

16.	<b>Certification (If required)</b>
<b>I HEREBY CERTIFY</b> that I have reviewed the applicable filing requirements for this filing, and the filing complies with all applicable statutory and regulatory provisions for the state of Arkansas.	
Print Name	<b>Nancy A. Yannuzzi</b> Title <b>Senior Manager of Policy Forms</b>
Signature	 Date: <b>04/29/08</b>

17.	<b>Form Filing Attachment</b>	
This filing transmittal is part of company tracking number		VU-08(S)(AR), etc.
This filing corresponds to rate filing company tracking number		

	<b>Document Name</b>	<b>Form Number</b>		<b>Replaced Form Number</b>
	<b>Description</b>			<b>Previous State Filing Number</b>
01	<b>Flexible Premium Adjustable Indexed Variable Life Insurance Policy</b>	VU-08(S)(AR)	X Initial Revised Other	N/A
02	<b>Flexible Premium Adjustable Indexed Variable Life Insurance Policy</b>	VU-08(U)(AR)	X Initial Revised Other	N/A
03	<b>Rider – Extended No-Lapse Guarantee Agreement</b>	ENLG-08(S)	X Initial Revised Other	N/A
04	<b>Rider – Extended No-Lapse Guarantee Agreement</b>	ENLG-08(U)	Initial Revised Other	N/A
05	<b>Supplemental Term Insurance Agreement</b>	SLTI-08(S)	Initial Revised Other	N/A
06	<b>Supplemental Term Insurance Agreement</b>	SLTI-08(U)	Initial Revised Other	N/A
07	<b>Rider – Cash Value Enhancement</b>	CVER-08	Initial Revised Other	N/A
08	<b>Supplemental Application</b>	PM0304-R2	Initial Revised Other	N/A
09			Initial Revised Other	
10			Initial Revised Other _____	
11			Initial Revised Other _____	

LH FFA-1

18.	Rate Filing Attachment			
This filing transmittal is part of company tracking number		VU-08(S)(AR), etc.		
This filing corresponds to form filing company tracking number				
Overall percentage rate indication (when applicable)				
Overall percentage rate impact for this filing		%		
	Document Name	Affected Form Numbers		Previous State Filing Number
	Description			
01			New Revised Request + ___% - ___% Other	
02			New Revised Request + ___% - ___% Other	
03			New Revised Request + ___% - ___% Other	
04			New Revised Request + ___% - ___% Other	
05			New Revised Request + ___% - ___% Other	
06			New Revised Request + ___% - ___% Other	
07			New Revised Request + ___% - ___% Other	
08			New Revised Request + ___% - ___% Other	
09			New Revised Request + ___% - ___% Other	
10			New Revised Request + ___% - ___% Other	

LH RFA-1

## STATEMENT OF VARIABILITY

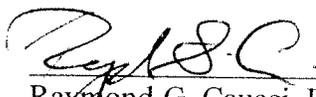
Form Number(s): VU-08(S), VU-08(U).

Any use of variability shall be administered in a uniform and non-discriminatory manner.

<u>Section</u>	<u>Page Number</u>	<u>Description</u>
Policy Specifications	Pg 3, Front Cover	(A) - Specified Amount, Initial Premium and Planned Premium will vary based on the owner's financial objective.
Policy Specifications & Add'l Policy Specs	Pg 3, Pg 26 (cont'd)	(B) - Male will vary based on the insured's gender (if applicable). If this were a unisex policy, nothing would print (neither male nor female).
Policy Specifications & Add'l Policy Specs	Pg 3, Pg 26 (cont'd)	(C) - Rate Class will vary based on the insured's rate classification from one of the following: Standard Nontobacco, Standard Tobacco, Special Nontobacco, Special Tobacco, Preferred Plus Nontobacco, Preferred Plus Tobacco.
Policy Specifications	Pg 3	(D) - The Maturity Date will vary based on the insured's issue age.
Policy Specifications	Pg 3	(E) - The Initial Allocation and The Allocation Date will vary based on the term of the Free Look provision (front cover of policy).
Policy Specifications	Pg 3	(F) - The Schedule of Benefits will change based on the benefit selection of the policy owner.
Policy Specifications	Pg 3	(G) - The Beginning premium payment date will vary based on when the policy owner chooses to make a payment.
Policy Specifications	Pg 3	(H) - The No-Lapse Premium will vary based on the specified amount, the addition, deletion or change of any supplemental agreements to the policy, or a change in the rate class of the insured before the No-Lapse Date.
Policy Specifications	Pg 3	(I) - The No-Lapse Date and The Extended No Lapse Date will vary based on the policy issue date and the age of the insured at issue.
Policy Specifications	Pg 3 (cont'd)	(J) - The Maximum Surrender Charge Premium and The Initial Maximum Surrender Charge will vary based on the specified amount of the policy and the issue date.
Policy Specifications	Pg 3 (cont'd)	(K) - The Maximum Percent of Premium load and the Maximum per policy monthly expense Charge will vary in the event the Company would wish to change this information. Any changes would be filed with the state and would only apply to new issues.
Policy Specifications & Add'l Policy Specs	Pg 3 (cont'd), Pg 26 (cont'd)	(L) - The Maximum Mortality and Expense Risk Face Amount Charge per \$1,000 of Specified Amount (for the first 120 months following the policy date) will vary based each insured's rate class, issue age and gender (if applicable). The minimum charge is 0.120 and the maximum charge is 0.950.
Policy Specifications & Add'l Policy Specs	Pg 3 (cont'd), Pg 26 (cont'd)	(M) - The Maximum Mortality and Expense Risk Face Amount Charge per \$1,000 of Specified Amount for Supplemental Term Insurance Agreement (for the first 120 months following an increase in Specified Amount) will vary based each insured's rate class, issue age and gender (if applicable). The minimum charge is 0.120 and the maximum charge is 0.930.

## STATEMENT OF VARIABILITY (cont'd)

<u>Section</u>	<u>Page Number</u>	<u>Description</u>																								
Policy Specifications	Pg 3 (cont'd),	<b>(N)</b> - The Maximum Mortality and Expense Asset Risk Charge for Account Value has been bracketed in the event the Company would wish to change this information. Any changes would be filed with the state and would only apply to new issues.																								
Policy Specifications	Pg 3 (cont'd)	<b>(O)</b> - The Policy Value Enhancement Date and the Supplemental Term Insurance Enhancement Date will vary based on the policy issue date.																								
Policy Specifications	Pg 3 (cont'd)	<b>(P)</b> - The Cash Value Enhancement Agreement Termination Policy Year and the Termination Credit Factors will vary by sex, age and risk class. The minimum and maximums are as follows: <table border="1"> <thead> <tr> <th><u>Policy Year</u></th> <th colspan="2"><u>Termination Credit Factors</u></th> </tr> <tr> <td></td> <th><u>minimum</u></th> <th><u>maximum</u></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>83%</td> <td>97%</td> </tr> <tr> <td>2</td> <td>62%</td> <td>92%</td> </tr> <tr> <td>3</td> <td>42%</td> <td>87%</td> </tr> <tr> <td>4</td> <td>22%</td> <td>81%</td> </tr> <tr> <td>5</td> <td>2%</td> <td>76%</td> </tr> <tr> <td>6</td> <td>0%</td> <td>0%</td> </tr> </tbody> </table>	<u>Policy Year</u>	<u>Termination Credit Factors</u>			<u>minimum</u>	<u>maximum</u>	1	83%	97%	2	62%	92%	3	42%	87%	4	22%	81%	5	2%	76%	6	0%	0%
<u>Policy Year</u>	<u>Termination Credit Factors</u>																									
	<u>minimum</u>	<u>maximum</u>																								
1	83%	97%																								
2	62%	92%																								
3	42%	87%																								
4	22%	81%																								
5	2%	76%																								
6	0%	0%																								
Add'l Policy Specs	Pg 26 (cont'd)	<b>(Q)</b> - The Table of Guaranteed Maximum Monthly Cost of Insurance Rates per \$1,000 will vary based on each insured's rate class, issue age, gender (if applicable), reclassification and policy duration.																								
Add'l Policy Specs	Pg 26 (cont'd)	<b>(R)</b> - The Table of Maximum Monthly No-Lapse Premiums per 1,000 of Specified Amount and The Table of Maximum Monthly Extended No-Lapse Premiums per \$1,000 will vary based on the specified amount, insured's rate class, issue age, gender (if applicable), policy date and the death benefit option.																								
Front Cover of Policy Back Cover of Policy	Front Cover of Policy, Back Cover of Policy	<b>(S)</b> - We have placed brackets around the signatures and the Company address. The signatures may change based on the individual holding the position of authority to sign the policy form. The address may change if our home office moves to a different location, and a separate informational filing would be submitted.																								
Add'l Policy Specs	Pg 26	<b>(T)</b> - We have placed brackets around the Subaccounts in the event the Company would wish to change this information. Any changes would be filed with the state prior to use.																								

  
 Raymond G. Caucci, FSA, MAAA  
 Vice President & Life Product Actuary  
 The Penn Mutual Life Insurance Company

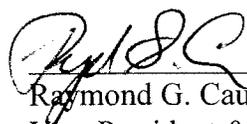
May 8, 2008

## STATEMENT OF VARIABILITY

Form Number(s) ENLG-08, SLTI-08, and CVER-08

Any use of variability shall be administered in a uniform and non-discriminatory manner.

<u>Section</u>	<u>Page Number</u>	<u>Description</u>
Last page of riders	Last page of riders	(A) - We have placed brackets around the signatures . The signatures may change based on the individual holding the position of authority to sign the policy form.



Raymond G. Caucci, FSA, MAAA  
Vice President & Life Product Actuary  
The Penn Mutual Life Insurance Company

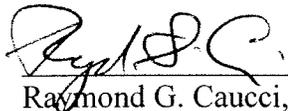
May 8, 2008

## STATEMENT OF VARIABILITY

Form Number(s): PM304-R2 – Supplemental Application

Any use of variability shall be administered in a uniform and non-discriminatory manner.

<u>Section</u>	<u>Page Number</u>	<u>Description</u>
Page 1 of 2	Page 1 of 2	<b>(A)</b> - The(VU08 ENLG Rider) has been bracketed as this may vary based on the benefit selection of the policy owner.
Page 1 of 2	Page 1 of 2	<b>(B)</b> - The Investment Options have been bracketed in the event the Company would wish to change this information. Any changes would be filed with the state.



Raymond G. Caucci, FSA, MAAA  
Vice President & Life Product Actuary  
The Penn Mutual Life Insurance Company

May 8, 2008



ARKANSAS INSURANCE DEPARTMENT

400 University Tower Building
1123 South University Ave.
Little Rock, Arkansas 72204

Lee Douglass
Insurance Commissioner

501-686-2900

ATTN: LIFE & HEALTH DIVISION, ARKANSAS INSURANCE DEPARTMENT

Company Name: Penn Mutual Life Insurance Company
Vim: C3G, Philadelphia, Pa 19172
Company NAIC Code: 67644
Company Contact Person & Telephone: Rita Bellow 215-956-8290

\*\*\*\*\*
\* INSURANCE DEPARTMENT USE ONLY \*
\* ANALYST: \_\_\_\_\_ AMOUNT: \_\_\_\_\_ ROUTE SLIP: \_\_\_\_\_ \*
\*\*\*\*\*
ALL FEES ARE PER EACH INSURER, PER ANNUAL STATEMENT LINE OF BUSINESS.
UNLESS OTHERWISE INDICATED.

FEE SCHEDULE FOR ADMITTED INSURERS

RATE/FORM FILINGS

Life and/or Disability policy form filing and review, per each policy, contract, annuity form, per each insurer, per each filing.

\* 2 x\$ 50 = 100

\*\*Retaliatory \_\_\_\_\_

Life and/or Disability - Filing and review of each rate filing or loss ratio guarantee filing, per each insurer.

\* \_\_\_\_\_ x\$ 50 = \_\_\_\_\_

\*\*Retaliatory \_\_\_\_\_

Life and/or Disability Policy, Contract or Annuity Forms: Filing and review of each certificate, rider, endorsement or application if each is filed separately from the basic form.

\* 6 x\$ 20 = 120

\*\*Retaliatory \_\_\_\_\_

Life and/or Disability: Filing and review of Insurer's advertisements, per advertisement, per each insurer.

\* \_\_\_\_\_ x\$ 25 = \_\_\_\_\_

\*\*Retaliatory \_\_\_\_\_

AMEND CERTIFICATE OF AUTHORITY

Review and processing of information to amend an Insurer's Certificate of Authority.

\* \_\_\_\_\_ x\$400 = \_\_\_\_\_

Filing to amend Certificate of Authority.

\*\*\* \_\_\_\_\_ x\$100 = \_\_\_\_\_