STATEMENT OF ADDITIONAL INFORMATION

ALLIANZ HIGH FIVE℠ VARIABLE ANNUITY CONTRACT

INDIVIDUAL FLEXIBLE PURCHASE PAYMENT VARIABLE DEFERRED ANNUITY CONTRACT

Issued by

ALLIANZ LIFE® VARIABLE ACCOUNT B (the Separate Account) and

ALLIANZ LIFE INSURANCE COMPANY OF NORTH AMERICA (Allianz Life, we, us, our)

This Statement of Additional Information (SAI) is incorporated by reference into the prospectus that has been filed as Part A of the Registration Statement. This SAI should be read in conjunction with the prospectus. Definitions of capitalized terms can be found in the glossary of the prospectus. The prospectus is incorporated in this SAI by reference.

The prospectus contains important information about the Contract and Allianz Life that you ought to know before investing. For a copy of the Contract's prospectus, visit allianzlife.com/prospectuses, send an email request to contact.us@allianzlife.com, or call or write us at:

Allianz Life Insurance Company of North America
P. O. Box 561
Minneapolis, MN 55440-0561
(800) 624-0197

Dated: April 29, 2022

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ALLIANZ LIFE

Allianz Life is a stock life insurance company organized under the laws of the state of Minnesota in 1896. Allianz Life is a subsidiary of Allianz of America, Inc. (AZOA), a financial holding company. AZOA is a subsidiary of Allianz SE, a provider of integrated financial services. Allianz SE is headquartered in Munich, Germany, and has sales outlets throughout the world. We offer fixed and registered index-linked annuities and individual life insurance.

Allianz Life does not have a separate custodian for the assets owned through the Separate Account. Most mutual fund shares are not in certificated form, and as such, Allianz Life in effect acts as self custodian for the non-certificated shares we own through the Separate Account.

LEGAL OPINIONS

Erik T. Nelson, Associate General Counsel, Senior Counsel of Allianz Life, has provided legal advice on certain matters in connection with the issuance of the Contracts.

DISTRIBUTOR

Allianz Life Financial Services, LLC (ALFS), a wholly owned subsidiary of Allianz Life Insurance Company of North America, acts as the distributor of the contracts.

ALFS sells annuity contracts issued by Allianz Life primarily through "wholesaling," in which ALFS sells contracts through a large group of mostly non-affiliated broker/dealer firms. Currently, ALFS has agreements with approximately 595 retail broker/dealers to sell its contracts.

We pay commissions for the sale of our products. ALFS passes through most of the commissions it receives to the selling firms. ALFS received commissions for contracts issued under Allianz Life Variable Account B in the following amounts during the last three calendar years:

Calendar Year	Aggregate Amount of Commissions Paid to ALFS	Aggregate Amount of Commissions Retained by ALFS After Payments to Selling Firms
2019	$284,788,589.36	$0
2020	$319,676,842.37	$0
2021	$427,180,421.91	$0

As described in the prospectus, ALFS may pay marketing support payments to certain third-party firms for marketing our contracts. Currently, ALFS makes marketing support payments to approximately 67 broker-dealer firms. These payments vary in amount. In 2021, the five firms receiving the largest payments, ranging from $10,573,618.90 to $1,053,395.71 are listed below.

Firm Name

LPL Financial
Wells Fargo Advisors LLC – Wealth (ISG)
Wells Fargo Advisors LLC (PCG)
Park Avenue Securities
Securities America Inc.

ADMINISTRATIVE SERVICE FEES

Allianz Life contracts with Tata Consultancy Services (Tata) to perform certain administrative services as described in prospectus section 18, Other Information – Administration/Allianz Service Center. Allianz Life paid Tata the following amounts for these services during the last three calendar years:

Calendar Year	Total Paid to Tata
2019	$1,548,030
2020	$1,737,100
2021	$2,112,265

GUARANTEED ACCOUNT VALUE (GAV) TRANSFERS

To maintain the guarantee provided by the GAV Benefit we monitor your Contract Value daily as it relates to the GAV and periodically transfer amounts between your selected Investment Options and the FPAs (GAV Transfers). We determine the amount and timing of GAV Transfers between the Investment Options and the FPAs according to a mathematical model.

The mathematical model uses the following formula to compute *d*, the percentage of Contract Value to be allocated to the Investment Options:

$$d = \mathrm{N}\{[\ \ln (C / G) + (r + s^2 / 2) \times t] / [s \times \sqrt{t}]\}$$

where:

Notation	Description
C	Contract Value
G	Adjusted Guarantee
r	Credited Rate
s	Adjusted Volatility
t	Time Remaining
d	Percentage of Contract Value in Investment Options
N	Cumulative Standard Normal Distribution function
ln	Natural Logarithm function

Following is a more detailed discussion of the values used in the formula.

The **Contract Value** includes Contract Value both in the Investment Options and in the FPAs.

The **Adjusted Guarantee** for a given GAV is the dollar value of the GAV adjusted upward to reflect the current anticipated price of the guarantee. This adjustment takes into account the following factors: the time (in years) until the guarantee (the GAV) becomes available; the rate currently credited to the FPAs; and the current Contract Value as compared to the GAV. In mathematical terms, the adjusted guarantee (*G*) equals *g* multiplied by *w*, where *g* represents the dollar value of the GAV, and *w* is a factor that we use to incorporate the current anticipated price of the guarantee into the GAV Benefit.

- *w* is based upon a guarantee ratio, *m*, that we use to measure how "low" a Contract Value is relative to the GAV.
- *m* is the ratio of (a) the difference of the GAV minus the Contract Value, and (b) the difference of the GAV minus the present value of the GAV, discounted for the time (in years) until the GAV becomes available, at the interest rate credited to the FPAs. In mathematical terms, $m = (g - C) / [g - (g / (1 + r)^t)]$. The value of *w* and the corresponding guarantee ratio, *m*, are presented in Table 1 which appears later in this section. We established the values for *w* set forth in Table 1 on the Issue Date and they cannot change.

The **Credited Rate** is the interest rate credited to the currently available FPA. The interest rate is never less than the guaranteed rate stated in your Contract.

The **Adjusted Volatility** represents the volatility of Contract Value returns – that is, all Separate Account assets plus all general account assets that are allocated to the FPAs. We fixed this number on the Issue Date and it cannot change. You may contact our Service Center to find out the Adjusted Volatility number that applies to your Contract.

The **Time Remaining** for a given GAV is the number of years (including any fraction) which remain until that GAV is applied and any True Up based on that GAV is made.

The **Percentage of Contract Value** to be allocated to the Investment Options is computed for each future GAV. Ultimately the allocation for a Contract takes into account each future GAV, the limit on allocations to the FPAs during the first two Contract Years, and whether the allocation materially differs from previously computed allocations.

The **Cumulative Standard Normal Distribution** function assumes that random events are distributed according to the classic bell curve. For a given value it computes the percentage of such events which can be expected to be less than that value.

The **Natural Logarithm** function for a given value, computes the power to which *e* must be raised, in order to result in that value. Here, *e* is the base of the natural logarithms, or approximately 2.718282.

The mathematical model uses *d* as follows.

If you have not reset the GAV, then during the first Contract Year there is one GAV available on the fifth Contract Anniversary, during the second Contract Year there is a second GAV available on sixth Contract Anniversary, and so on. Beginning with the fifth Contract Year there are five future GAVs, each available on a different Contract Anniversary.

We compute *d* for each future GAV (which can be as many as five). We take the smallest of these *d*s and execute a GAV Transfer based on the following.

- Whether the allocation differs sufficiently from the allocation we previously computed according to a specified margin that we set on the Issue Date and cannot change. (You may contact our Service Center to find out the specified margin that applies to your Contract.)
- Whether a GAV Transfer would exceed the limit of 50% of Purchase Payments to the FPAs that exists in the first two Contract Years.
- The number of GAV Transfers which have already occurred.

If you have not reset the GAV, then:

- On the Issue Date we compute *d* and use it as a baseline for comparison with allocations we compute on subsequent Business Days.
- After the Issue Date, and before the first GAV Transfer to the FPAs, on each Business Day we compute *d* and execute a GAV Transfer to the FPAs if *d* is lower than the baseline by more than the specified margin.
- After the Issue Date, and after the first GAV Transfer to the FPAs has already occurred, on each Business Day we compute *d* and execute a GAV Transfer to the FPAs if *d* is lower than or higher than the baseline by the specified margin. If *d* is sufficiently below the baseline, the GAV Transfer is to the FPAs. If *d* is sufficiently above the baseline, the GAV Transfer is to the Investment Options.

If you have reset the GAV, then:

- On the reset date, we compute *d* and use it as a baseline for comparison with allocations we compute on subsequent Business Days.
- After the reset date, and before the first GAV Transfer to the FPAs that occurs after the reset date, on each Business Day we compute *d* and execute a GAV Transfer to the FPAs if *d* is lower than the baseline by more than the specified margin.
- After the reset date, and after the first GAV Transfer to the FPAs that occurs after the reset date, on each Business Day we compute *d* and execute a GAV Transfer to the FPAs if *d* is lower than or higher than the baseline by the specified margin. If *d* is sufficiently below the baseline, the GAV Transfer is to the FPAs. If *d* is sufficiently above the baseline, the GAV Transfer is to the Investment Options.

Example 1: We establish the baseline on the Issue Date.

You purchase a February 2007 Contract with a single Purchase Payment of $100,000. The initial GAV is $100,000, which becomes available on the fifth anniversary. Assume the following additional values.

- The interest rate credited to the ten-year FPA is 3%.
- The adjusted volatility of the Investment Options you selected is 16%.
- The specified margin is 5%.

For this example we have:

Variable	Value	Description
C	$100,000	Contract Value
g	$100,000	The dollar value of the GAV
r	0.03	Credited Rate
s	0.16	Adjusted Volatility
t	5	Time Remaining

First, we compute *m* and *w* and *G* as follows.

$m = (g - C) / [g - (g / (1 + r)^t)]$
$= ($100,000 – $100,000) / [$100,000 – ($100,000 / (1 + 0.03)^5)]$
$= 0 / [$100,000 – ($100,000 / 1.159274)]$
$= 0 / [$100,000 – $86,260.88]$
$= 0 / $13,739.12$
$= 0$

We use the value of *m* (which is zero) to look up this value of *w* in Table 1 (which appears later in this section) and find that *w* is 1.08. The Adjusted Guarantee *G* is $w \times g$; or 1.08 × $100,000 = $108,000.

Now, we compute d as follows.

$d = N\{[\ln (C / G) + (r + s^2 / 2) \times t] / [s \times \sqrt{t}]\}$
$= N\{[\ln ($100,000 / $108,000) + (0.03 + 0.16^2 / 2) \times 5] / [0.16 \times \sqrt{5}]\}$
$= N\{[\ln (0.925926) + 0.0428 \times 5] / [0.16 \times 2.236068]\}$
$= N\{[–0.076961 + 0.214] / [0.357771]\}$
$= N\{0.383036\}$
$= 0.649153$ (approximately 65%)

Thus, at issue, the mathematical model has established a baseline allocation to the Investment Options of about 65% of Contract Value.

On the Issue Date we compute *d* daily and compare it to the baseline allocation. Before the first GAV Transfer, the mathematical model calls for no allocation to the FPAs until *d* on a given day falls below the baseline by more than the specified margin of 5%.

Example 2: The first GAV Transfer to the FPAs.

Continuing Example 1, assume that 6 months after issue there have been no GAV Transfers and that the Contract Value has fallen to $96,990.

Since there have been no GAV Transfers, the baseline remains 0.649153 (approximately 65%), as computed in Example 1.

For this example we have:

Variable	Value	Description
C	$96,990	Contract Value
g	$100,000	The dollar value of the GAV
r	0.03	Credited Rate
s	0.16	Adjusted Volatility
t	4.5	Time Remaining

First, we compute *m* and *w* and *G* as follows.

$m = (g - C) / [g - (g / (1 + r)^t)]$
$= (\$100{,}000 - \$96{,}990) / [\$100{,}000 - (\$100{,}000 / (1 + 0.03)^{4.5})]$
$= \$3{,}010 / [\$100{,}000 - (\$100{,}000 / 1.142267)]$
$= \$3{,}010 / [\$100{,}000 - \$87{,}543.23]$
$= \$3{,}010 / \$12{,}454.77$
$= 0.241674$

We use the value of *m* (which is 0.241674) to look up this value of *w* in Table 1 and find that *w* is 1.08. The Adjusted Guarantee *G* is *w* × *g; or* 1.08 × $100,000 = $108,000.

Now we compute *d* as follows.

$d = N\{[\ln (C / G) + (r + s^2 / 2) \times t] / [s \times \sqrt{t}]\}$
$= N\{[\ln (\$96{,}990 / \$108{,}000) + (0.03 + 0.16^2 / 2) \times 4.5] / [0.16 \times \sqrt{4.5}]\}$
$= N\{[\ln (0.898056) + 0.0428 \times 4.5] / [0.16 \times 2.121320]\}$
$= N\{[-0.107523 + 0.1926] / [0.339411]\}$
$= N\{0.250659\}$
$= 0.598961$ (approximately 60%)

As computed, *d* is less than the baseline by 0.598961 – 0.649153 = -0.050192, or approximately -5.02%. Since there have been no previous GAV Transfers, and since *d* is lower than the baseline by more than the specified margin of 5%, the mathematical model calls for an first GAV Transfer to the FPAs.

The amount of the transfer is such that, after the transfer, the percentage Contract Value in the variable Investment Options is *d*, approximately 60%.

The mathematical model calls for 0.598961 × $96,990 = $58,093.26 to be allocated to the Investment Options and the remaining Contract Value ($96,990 – $58,093.26 = $38,896.74) to be allocated to the FPAs. The GAV Transfer to the FPAs in the amount of $38,896.74 represents approximately 40.10% (*i.e.*, $38,896.74 / $96,990) of Contract Value.

We establish a new baseline allocation for this Contract equal to *d*, or 0.598961.

Example 3: An additional GAV Transfer to the Investment Options.

Continuing Examples 1 and 2, assume that 10 months after issue the Contract Value has risen to $102,470.

The amount of the Contract Value allocated to the FPAs has grown to $41,094.47 since that of Example 2, the baseline is now 0.598961.

In this example we have:

Variable	Value	Description
C	$102,470	Contract Value
g	$100,000	The dollar value of the GAV
r	0.03	Credited Rate
s	0.16	Adjusted Volatility
t	4.166667	Time Remaining

First, we compute *m* and *w* and *G* as follows.

$m = (g - C) / [g - (g / (1 + r)^t)]$
$= (\$100{,}000 - \$102{,}470) / [\$100{,}000 - (\$100{,}000 / (1 + 0.03)^{4.166667})]$
$= -\$2{,}470 / [\$100{,}000 - (\$100{,}000 / 1.131067)]$
$= -\$2{,}470 / [\$100{,}000 - \$88{,}412.07]$
$= -\$2{,}470 / \$11{,}587.93$
$= -0.213153$

We use the value of *m* (which is –0.213153) to look up this value of *w* in Table 1 and find that *w* is 1.08. The Adjusted Guarantee *G* is *w* × *g*; or 1.08 × $100,000 = $108,000.

$d = N\{[\ln (C / G) + (r + s^2 / 2) \times t] / [s \times \sqrt{t}]\}$
$= N\{[\ln (\$102{,}470 / \$108{,}000) + (0.03 + 0.16^2 / 2) \times 4.166667] / [0.16 \times \sqrt{4.166667}]\}$
$= N\{[\ln (0.948796) + 0.0428 \times 4.166667] / [0.16 \times 2.041241]\}$

= N{[–0.052561 + 0.178333] / [0.326599]}
= N{0.385097}
= 0.649917 (approximately 65%)

As computed, *d* differs from the baseline by 0.649917 – 0.598961 = 0.050956 or approximately 5.10%. Because *d* differs from the baseline by more than the specified margin of 5%, the mathematical model calls for a GAV Transfer. Because *d* is higher than the baseline, the GAV Transfer is to the Investment Options.

The amount of the transfer is such that after the transfer the percentage of Contract Value in the variable Investment Options is *d*, namely 64.99%.

The mathematical model calls for 0.649917 × $102,470 = $66,597.02 to be allocated to the Investment Options and the remaining $102,470 – $66,597.02 = $35,872.98 to be allocated to the FPAs.

As mentioned above, the FPAs are now at $41,094.47.

The GAV Transfer to the Investment Options in the amount of $41,094.47 – $35,872.98 = $5,221.49 represents approximately 5.10% (*i.e.*, $5,221.49 / $102,470) of Contract Value.

We establish a new baseline allocation for this Contract equal to *d*, or 0.649917.

Example 4: Expanding on the computation of *w.*

In the first three examples *w* has always been 1.08. This example shows how *w* may differ from 1.08. Assume the following:

Variable	Value	Description
C	$ 85,111	Contract Value
g	$100,000	The dollar value of the GAV
r	0.03	Credited Rate
t	2	Time Remaining

In this example we compute *m* and *w* and *G* as follows.

$m = (g - C) / [g - (g / (1 + r)^{t})]$
= ($100,000 – $85,111) / [$100,000 – ($100,000 / (1 + 0.03) ^{2})]
= $14,889 / [$100,000 – ($100,000 / 1.060900)]
= $14,889 / [$100,000 – $94,259.59]
= $14,889 / $5,740.41
= 2.593718

This value of *m* falls between 2.55 and 2.60 in Table 1. Therefore, *w* falls between the two corresponding values of *w*, namely 2.0958 and 2.1558. Linear interpolation reveals *w* to be approximately 2.148261. The Adjusted Guarantee *G* is *w* × *g*; or 2.148261 × $100,000 = $214,826.10.

$d = N\{[\ln (C / G) + (r + s^2 / 2) \times t] / [s \times \sqrt{t}]\}$
= N{[ln ($85,111 / $214,826.10) + (0.03 + 0.16^2 / 2) × 2] / [0.16 × √2]}
= N{[ln (0.396186) + 0.0428 × 2] / [0.16 × 1.414214]}
= N{[–0.925873 + 0.085600] / [0.226274]}
= N{–3.713515}
= 0.000102 (approximately 0%)

This low value of *d* results both because the Contract Value of $84,111 is substantially lower than the initial GAV of $100,000, and only two years remain before this GAV becomes available. Therefore, the mathematical model calls for an allocation of 0.01% of Contract Value to the Investment Options, and an allocation of 99.99% of Contract Value to the FPAs. Note that the model does not call for a GAV Transfer unless *d* differs from the previously established baseline by more than the specified margin (in these examples, 5%). Note also that GAV Transfers to the FPAs happen more often and there may be more Contract Value allocated to the FPAs, than if we had not applied the adjustment.

In practice, it is unlikely that the Contract Value would fall so far below the GAV, because as a Contract Value falls toward and below the GAV, the mathematical model calls for increasing allocations to the FPAs. Such allocations mitigate the decline in the Contract Value relative to the decline in the values of the Investment Options. However, in the event of a

one-day market crash, a Contract Value may fall precipitously relative to the guarantee and such a low *d* could result. Additionally, when there is very little time remaining until the GAV becomes available, such a low *d* may result even if the Contract Value is not much lower than the guarantee.

TABLE 1

We compute the Adjusted Guarantee to be the product of the guarantee times *w*:

$G = g \times w$

where *w* is derived from the following table based on *m*. In turn *m* is given by:

$m = (g - C) / [g - (g / (1 + r)^t)]$

where:

Notation	Description
w	Worth Adjustment Applied to the Guarantee
m	Guarantee Ratio
G	Adjusted Guarantee
C	Contract Value
g	The dollar value of the GAV
r	Credited Rate
t	Time Remaining

For any *m* less than 0.725, use *w* = 1.08. For any *m* greater than five, use *w* = 8.6650.

m	*w*	*m*	*w*	*m*	*w*
0.000	1.0800	1.50	1.2893	3.5	3.6812
0.700	1.0800	1.55	1.3114	3.6	3.9095
0.725	1.0800	1.60	1.3349	3.7	4.1510
0.750	1.0827	1.65	1.3597	3.8	4.4060
0.775	1.0867	1.70	1.3860	3.9	4.6751
0.800	1.0909	1.75	1.4137	4.0	4.9584
0.825	1.0951	1.80	1.4430	4.1	5.2565
0.850	1.0996	1.85	1.4738	4.2	5.5696
0.875	1.1042	1.90	1.5062	4.3	5.8983
0.900	1.1089	1.95	1.5402	4.4	6.2428
0.925	1.1139	2.00	1.5760	4.5	6.6036
0.950	1.1190	2.05	1.6135	4.6	6.9811
0.975	1.1243	2.10	1.6529	4.7	7.3755
1.000	1.1298	2.15	1.6940	4.8	7.7874
1.025	1.1355	2.20	1.7371	4.9	8.2171
1.050	1.1414	2.25	1.7821	5.0	8.6650
1.075	1.1475	2.30	1.8291		
1.100	1.1538	2.35	1.8782		
1.125	1.1604	2.40	1.9294		
1.150	1.1671	2.45	1.9826		
1.175	1.1742	2.50	2.0381		
1.200	1.1814	2.55	2.0958		
1.225	1.1889	2.60	2.1558		
1.250	1.1966	2.65	2.2182		
1.275	1.2046	2.70	2.2829		
1.300	1.2129	2.75	2.3500		
1.325	1.2214	2.80	2.4196		
1.350	1.2303	2.85	2.4918		
1.375	1.2394	2.90	2.5665		
1.400	1.2487	2.95	2.6438		
1.425	1.2584	3.00	2.7238		
1.450	1.2684	3.05	2.8065		
1.475	1.2787	3.10	2.8920		
1.500	1.2893	3.15	2.9803		
		3.20	3.0714		
		3.25	3.1655		
		3.30	3.2625		
		3.35	3.3626		
		3.40	3.4657		
		3.45	3.5718		
		3.50	3.6812		

ANNUITY PAYMENTS

We base Traditional Annuity Payments on the Contract Value. We guarantee the dollar amount of fixed Annuity Payments (equal installments) and this amount does not change except as provided under Annuity Option 3. If you request fixed Annuity Payments, the amount of Contract Value or GMIB value you apply to fixed Annuity Payments is placed in our general account and does not participate in the Investment Options' performance. Fixed Annuity Payments are based on an interest rate and mortality table specified in your Contract. Your Contract's fixed Annuity Payment rates are guaranteed and we cannot use lower rates.

Variable Traditional Annuity Payments are not predetermined and the dollar amount varies with your selected Investment Options' performance. We use annuity units to determine your variable Traditional Annuity Payment amount.
Annuity Payments end upon the earliest of the following.

- Under Annuity Options 1 and 3, the death of the last surviving Annuitant.
- Under Annuity Options 2 and 4, the death of the last surviving Annuitant and the end of the guaranteed period. If we make a lump sum payment of the remaining guaranteed Annuity Payments at the death of the last surviving Annuitant, this portion of the Contract ends upon payment of the lump sum.
- Under Annuity Option 5, the death of the Annuitant and payment of any lump sum refund.
- Under Annuity Option 6, the end of the guaranteed period.
- When the Contract ends.

ANNUITY PAYMENT OPTIONS

The Annuity Payment Options are briefly described in prospectus section 13 – The Annuity Phase, and we included additional information that you may find helpful here.

Option 1. Life Annuity. We make Annuity Payments during the life of the Annuitant, and the last payment is the one that is due before the Annuitant's death. If the Annuitant dies shortly after the Income Date, the Payee may receive less than your investment in the Contract.

Option 2. Life Annuity with Payments Over 5, 10, 15 or 20 Years Guaranteed. We make Annuity Payments during the life of the Annuitant. If you take one single Full Annuitization and the Annuitant dies before the end of the selected guaranteed period, we continue to make Annuity Payments to the Payee for the rest of the guaranteed period. If the Payee and Annuitant were the same person, we make payments to the Owner. If the Payee, Annuitant and Owner were the same person, we make payments to the Beneficiary(s). Alternatively, the Owner may elect to receive a lump sum payment. Under a Partial Annuitization, if the Annuitant dies before the end of the selected guaranteed period, we make a lump sum payment to the Beneficiary. The lump sum payment is equal to the present value of the remaining guaranteed Annuity Payments as of the date we receive proof of the Annuitant's death and a payment election form at our Service Center. For variable Traditional Annuity Payments, in most states, we base the remaining guaranteed Traditional Annuity Payments on the current value of the annuity units and we use the assumed investment rate to calculate the present value. For fixed payouts, in most states, we calculate the present value of the remaining guaranteed Annuity Payments using the Statutory Calendar Year Interest Rate based on the NAIC Standard Valuation Law for Single Premium Immediate Annuities corresponding to the Income Date. However, some states require us to use different interest rates for variable and fixed payouts for the present value calculation. We require proof of the Annuitant's death and return of the Contract before we make any lump sum payment on a Full Annuitization. There are no additional costs associated with a lump sum payment. If the Annuitant dies after the selected guaranteed period ends, the last payment is the one that is due before the Annuitant's death.

Option 3. Joint and Last Survivor Annuity. We make Annuity Payments during the lifetimes of the Annuitant and the joint Annuitant. Upon the death of one Annuitant, Annuity Payments to the Payee continue during the lifetime of the surviving joint Annuitant, at a level of 100%, 75% or 50% selected by the Owner when he or she chose this Annuity Payment option. Annuity Payments stop with the last payment that is due before the last surviving joint Annuitant's death. If both Annuitants die shortly after the Income Date, the Payee may receive less than your investment in the Contract. This Annuity Option is not available under a Partial Annuitization.

Option 4. Joint and Last Survivor Annuity with Payments Over 5, 10, 15 or 20 Years Guaranteed. We make Annuity Payments during the lifetimes of the Annuitant and the joint Annuitant. Upon the death of one Annuitant, Annuity Payments continue to the Payee during the lifetime of the surviving joint Annuitant at 100% of the amount that was paid when both Annuitants were alive. However, if both joint Annuitants die before the end of the selected guaranteed period, we continue to make Annuity Payments to the Payee for the rest of the guaranteed period. If the Payee and Annuitant were the same person, we make payments to the Owner. If the Payee, Annuitant and Owner were the same person, we make payments to the Beneficiary(s). Alternatively, the Owner may elect to receive a lump sum payment equal to the present value of the remaining guaranteed Annuity Payments as of the date we receive proof of the last surviving joint Annuitant's death and a payment election form at our Service Center. For variable Traditional Annuity Payments, in most states, we base the remaining guaranteed Traditional Annuity Payments on the current value of the annuity units and we use the assumed investment rate to calculate the present value. For fixed payouts, in most states, we calculate the present value of

the remaining guaranteed Annuity Payments using the Statutory Calendar Year Interest Rate based on the NAIC Standard Valuation Law for Single Premium Immediate Annuities corresponding to the Income Date. However, some states require us to use different interest rates for variable and fixed payouts for the present value calculation. We require proof of death of both joint Annuitants and return of the Contract before we make any lump sum payment. There are no additional costs associated with a lump sum payment. If the last surviving joint Annuitant dies after the selected guaranteed period ends, the last payment is the one that is due before the Annuitant's death. This Annuity Option is not available under a Partial Annuitization.

Option 5. Refund Life Annuity. We make Annuity Payments during the lifetime of the Annuitant, and the last payment is the one that is due before the Annuitant's death. After the Annuitant's death, the Payee may receive a lump sum refund. For a fixed payout, the amount of the refund equals the amount applied to this Annuity Option minus the total paid under this option.

For variable Traditional Annuity Payments, the amount of the refund depends on the current Investment Option allocation and is the sum of refund amounts attributable to each Investment Option. We calculate the refund amount for a given Investment Option using the following formula.

(A) x {[(B) x (C) x (D)/(E)] - [(D) x (F)]}

where:

(A) = annuity unit value of the subaccount for that given Investment Option when due proof of the Annuitant's death is received at our Service Center.

(B) = The amount applied to variable Traditional Annuity Payments on the Income Date.

(C) = Allocation percentage in a given subaccount (in decimal form) when due proof of the Annuitant's death is received at our Service Center.

(D) = The number of annuity units used in determining each variable Traditional Annuity Payment attributable to that given subaccount when due proof of the Annuitant's death is received at our Service Center.

(E) = Dollar value of first variable Traditional Annuity Payment.

(F) = Number of variable Traditional Annuity Payments made since the Income Date.

We base this calculation upon the allocation of annuity units actually in force at the time due proof of the Annuitant's death is received at our Service Center. We do not pay a refund if the total refund determined using the above calculation is less than or equal to zero.

EXAMPLE

- The Contract has one Owner who is a 65-year-old male. He selects variable Traditional Annuity Payments under Annuity Option 5 based on a Contract Value of $100,000 (item "B").
- The Owner who is also the Annuitant allocates all the Contract Value to one Investment Option, so the allocation percentage in this subaccount is 100% (item "C").
- The purchase rate for the selected assumed investment rate is $6.15 per month per thousand dollars of Contract Value annuitized. Therefore, the first variable Annuity Payment is: $6.15 x ($100,000 / $1,000) = $615 (item "E").
- Assume the annuity unit value on the Income Date is $12, then the number of annuity units used in determining each Traditional Annuity Payment is: $615 / $12 = 51.25 (item "D").
- The Owner who is also the Annuitant dies after receiving 62 Traditional Annuity Payments (item "F") and the annuity unit value for the subaccount on the date the Service Center receives due proof of death is $10 (item "A").

We calculate the refund as follows:

(A) x {[(B) x (C) x (D)/(E)] – [(D) x (F)]} = 10 x {[100,000 x 1.00 x (51.25 / 615)] – [51.25 x 62]} =

10 x {[100,000 x 0.083333] – 3,177.50} = 10 x {8,333.33 – 3,177.50} = 10 x 5,155.83 = $51,558.30

Option 6. Specified Period Certain Annuity. We make Annuity Payments for a specified period of time you select, which must be a whole number of years from five to 30 for Traditional Annuity Payments, or 10 to 30 years for GMIB Payments. If the Annuitant dies before the end of the specified period certain, then we continue to make Annuity Payments to the Payee for the rest of the period certain. If the Payee and Annuitant were the same person, we make payments to the Owner. If the Payee, Annuitant and Owner were the same person, we make payments to the Beneficiary(s). If the

Annuitant dies after the selected period, the last payment is the one that is due before the Annuitant's death. This Annuity Option is not available under a Partial Annuitization. **For May 2003 Contracts and May 2006 Contracts** this is generally only available for GMIB Payments, but it continued to be available for fixed Traditional Annuity Payments in some states. Please see your Contract for information on the version of this Annuity Option that is available to you.

ANNUITY UNITS/CALCULATING VARIABLE TRADITIONAL ANNUITY PAYMENTS

The first variable Traditional Annuity Payment is equal to the Contract Value you apply to variable Traditional Annuity Payments on the Income Date, divided first by $1,000 and then multiplied by the appropriate variable annuity payout factor for each $1,000 of value for your selected Annuity Option.

We then purchase a fixed number of annuity units on the Income Date for each subaccount of the Investment Options you select. We do this by dividing the amount of the first Traditional Annuity Payment among your selected Investment Options' subaccounts according to your future Purchase Payment allocation instructions. We then divide the Annuity Payment amount in each subaccount by the subaccount's annuity unit value.

We determine the annuity unit value on each Business Day as follows:

- we multiply the annuity unit value for the immediately preceding Business Day by the net investment factor for the current Business Day; and
- divide by the assumed net investment factor for the current Business Day.

The assumed net investment factor for the current Business Day is one plus the annual assumed investment rate (AIR) adjusted to reflect the number of calendar days that lapsed since the immediately preceding Business Day. We allow an AIR of 3%, 5% or 7% based on your selection and applicable state law.

Thereafter, the number of subaccount annuity units remains unchanged unless you make a transfer. However, the number of annuity units changes if Annuity Option 3 is in effect, one Annuitant dies, and you requested Traditional Annuity Payments at 75% or 50% of the previous payment amount. All calculations appropriately reflect your selected payment frequency.

The Traditional Annuity Payment on each subsequent payment date is equal to the sum of the Traditional Annuity Payments for each subaccount. We determine the Traditional Annuity Payment for each subaccount by multiplying the subaccount's number of annuity units by the annuity unit value on the payment date.

APPENDIX A – DEATH OF THE OWNER AND/OR ANNUITANT

The following tables are intended to help you better understand what happens upon the death of any Owner and/or Annuitant under the different portions of the Contract.

UPON THE DEATH OF A SOLE OWNER

Action under any portion of the Contract that is in the Accumulation Phase

- If this is an Inherited Individual Retirement Annuity (IRA) Contract the person you designate to receive the death benefit (the Beneficiary) can either:
  - continue to receive required minimum distribution payments based on the remaining life expectancy of the deceased Owner and the Contract Value as of the Business Day we receive a Valid Claim, or
  - receive a lump sum payment of the Contract Value as of the Business Day we receive a Valid Claim.
- For all other Contracts, we pay a death benefit to the Beneficiary unless the Beneficiary is the surviving spouse and continues the Contract. If you selected the Living Guarantees the Guaranteed Account Value (GAV) Benefit continues until the Contract ends or is fully annuitized, and unless the Contract is continued by a surviving spouse/Beneficiary the Guaranteed Withdrawal Benefit (GWB) ends and the Guaranteed Minimum Income Benefit (GMIB) is no longer available. For a description of the death benefit and payout options, see prospectus section 15, Death Benefit - Death Benefit Payment Options During the Accumulation Phase.
- The death benefit is the greater of the Contract Value or the guaranteed death benefit value.
  - Under the Traditional GMDB the guaranteed death benefit value is total Purchase Payments adjusted for withdrawals.
  - Under the Enhanced GMDB the guaranteed death benefit value is the greater of total Purchase Payments adjusted for withdrawals, or the Maximum Anniversary Value (MAV).
- If a surviving spouse Beneficiary continues the Contract, as of the end of the Business Day we receive their Valid Claim:
  - we increase the Contract Value to equal the guaranteed death benefit value if greater, and the death benefit continues to be available to the surviving spouse's Beneficiary(s),
  - the surviving spouse becomes the new Owner, and
  - the Accumulation Phase continues.

Action under any portion of the Contract that is in the Annuity Phase

- The Beneficiary becomes the Payee. If we are still required to make Annuity Payments under the selected Annuity Option, the Beneficiary also becomes the new Owner.
- If the deceased was not an Annuitant, Annuity Payments to the Payee continue. No death benefit is payable.
- If the deceased was the only surviving Annuitant, Annuity Payments end or continue as follows.
  - Annuity Option 1 or 3, payments end.
  - Annuity Option 2 or 4, payments end when the guaranteed period ends, or when we pay any final lump sum.
  - Annuity Option 5, payments end and the Payee may receive a lump sum refund.
  - Annuity Option 6, payments end when the guaranteed period ends.
- If the deceased was an Annuitant and there is a surviving joint Annuitant, Annuity Payments to the Payee continue during the lifetime of the surviving joint Annuitant. No death benefit is payable.

UPON THE DEATH OF A JOINT OWNER

(NOTE: Joint Owners cannot take Partial Annuitizations)

Action under any portion of the Contract that is in the Accumulation Phase

- The surviving Joint Owner is the sole primary Beneficiary. If the Joint Owners were spouses there may also be contingent Beneficiaries.
- We pay a death benefit to the surviving Joint Owner unless he or she is the surviving spouse and continues the Contract. If you selected the Living Guarantees the GAV Benefit continues until the Contract ends or is fully annuitized, and unless the Contract is continued by the survinvng Joint Owner who is also a surviving spouse the GWB ends and the GMIB is no longer available.
- The death benefit is the greater of the Contract Value or the guaranteed death benefit value.
  - Under the Traditional GMDB the guaranteed death benefit value is total Purchase Payments adjusted for withdrawals.
  - Under the Enhanced GMDB the guaranteed death benefit value is the greater of total Purchase Payments adjusted for withdrawals, or the MAV.
- If a surviving Joint Owner who is also a surviving spouse continues the Contract, as of the end of the Business Day we receive their Valid Claim:
  - we increase the Contract Value to equal the guaranteed death benefit value if greater, and the death benefit continues to be available to the surviving spouse's Beneficiary(s),
  - the surviving Joint Owner/spouse becomes the new Owner, and
  - the Accumulation Phase continues.

Action under any portion of the Contract that is in the Annuity Phase

- If we are still required to make Annuity Payments under the selected Annuity Option, the surviving Joint Owner becomes the sole Owner.
- If the deceased was not an Annuitant, Annuity Payments to the Payee continue. No death benefit is payable.
- If the deceased was the only surviving Annuitant, Annuity Payments end or continue as follows.
  - Annuity Option 1 or 3, payments end.
  - Annuity Option 2 or 4, payments end either when the guaranteed period ends, or when we pay any final lump sum.
  - Annuity Option 5, payments end and the Payee may receive a lump sum refund.
  - Annuity Option 6, payments end when the guaranteed period ends.
- If the deceased was an Annuitant and there is a surviving joint Annuitant, Annuity Payments to the Payee continue during the lifetime of the surviving joint Annuitant. No death benefit is payable.

UPON THE DEATH OF AN ANNUITANT AND THERE IS NO SURVIVING JOINT ANNUITANT

Action under any portion of the Contract that is in the Accumulation Phase

- If the deceased Annuitant was not an Owner, and the Contract is owned only by an individual(s), we do not pay a death benefit. The Owner can name a new Annuitant subject to our approval.
- If the deceased Annuitant was a sole Owner, we pay a death benefit as discussed in the "Upon the Death of a Sole Owner" table. If the Contract is continued by a surviving spouse, the new spouse Owner can name a new Annuitant subject to our approval.
- If the deceased Annuitant was a Joint Owner, we pay a death benefit as discussed in the "Upon the Death of a Joint Owner" table. If the Contract is continued by a surviving Joint Owner who is also a surviving spouse, the surviving Joint Owner can name a new Annuitant subject to our approval.
- If the Contract is owned by a non-individual, we treat the death of the Annuitant as the death of a sole Owner, and we pay a death benefit as discussed in the "Upon the Death of a Sole Owner" table. ***NOTE: For non-individually owned Contracts, spousal continuation is only available if the Contract is Qualified, owned by a qualified plan or a custodian, and the surviving spouse is named as the sole primary beneficiary under the qualified plan or custodial account.***

Action under any portion of the Contract that is in the Annuity Phase

- If the deceased was the only surviving Annuitant, Annuity Payments end or continue as follows.
  - Annuity Option 1 or 3, payments end.
  - Annuity Option 2 or 4, payments end either when the guaranteed period ends, or when we pay any final lump sum.
  - Annuity Option 5, payments end and the Payee may receive a lump sum refund.
  - Annuity Option 6, payments end when the guaranteed period ends.
- If we are still required to make Annuity Payments under the selected Annuity Option and the deceased was a sole Owner, the Beneficiary becomes the new sole Owner.
- If we are still required to make Annuity Payments under the selected Annuity Option and the deceased was a Joint Owner, the surviving Joint Owner becomes the sole Owner.

UPON THE DEATH OF THE ANNUITANT DURING THE ANNUITY PHASE AND THERE IS A SURVIVING JOINT ANNUITANT

(NOTE: We only allow joint Annuitants on Full Annuitization, so the Accumulation Phase has ended)

- Only Annuity Options 3 and 4 allow joint Annuitants. Under Annuity Options 3, Annuity Payments to the Payee continue during the lifetime of the surviving joint Annuitant. Under Annuity Option 4, Annuity Payments to the Payee continue until either the guaranteed period ends, or when we pay any final lump sum.
- No death benefit is payable.
- If we are still required to make Annuity Payments under the selected Annuity Option and the deceased was a sole Owner, the Beneficiary becomes the new Owner.
- If we are still required to make Annuity Payments under the selected Annuity Option and the deceased was a Joint Owner, the surviving Joint Owner becomes the sole Owner.