1996 VALUATION ACTUARY SYMPOSIUM PROCEEDINGS

SESSION 2

Life and Annuity Valuation Issues

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LIFE AND ANNUITY VALUATION ISSUES

MR. EDWARD S. SILINS: Steve Preston is going to be our first speaker. He's senior vice-president, chief actuary and controller, for Golden American Life Insurance Company. Steve currently serves on several American Academy of Actuaries (AAA) committees as cochairperson of both the Commissioner's Annuity Reserve Valuation Method (CARVM) Multiple Benefit and Minimum Guaranteed Death Benefit Reserve Work Groups, as a member of both the Annuity Valuation Task Force and Life Nonforfeiture Work Group, and as a member of the AAA Committee on Life Insurance. Steve is also cochairperson of the Society of Actuaries (SOA) Task Force on Mortality Guarantees.

The next speaker will be Ted Trenton who's an actuary with State Farm and currently the appointed actuary for three of the life subsidiaries within the State Farm organization. He's a Fellow of the Society of Actuaries (FSA), Member of the American Academy of Actuaries (MAAA), a Chartered Life Underwriter (CLU), a Chartered Financial Consultant, a Chartered Property and Casualty Underwriter (CPCU), and a Fellow of the Life Management Institute (FLMI). In addition to his statutory reporting responsibilities, Ted's involved in pricing, compliance, and regulatory activities. He's currently a member of the American Council of Life Insurance (ACLI) Task Force on Cost Illustration, the Life Office Management Association (LOMA) Research Council, and the Life Committee of the Actuarial Standards Board. Ted also was the Committee Chairperson from 1997 to 1980 for the Part 6 and 7 exam and is a member of the ACLI's Committee on Universal Life that drafted the 1983 model regulation.

I'm a principal in the Chicago office of Coopers & Lybrand. I'm Chairperson of the Life Committee of the Actuarial Standards Board and previously was a Member and Chairperson of the Committee of Life Insurance Financial Reporting (COLIFR) group. At this point, I'm going to turn it over to Steve Preston who's going to talk about some annuity and valuation issues, and then we'll go right to Ted Trenton, and I'll follow up with a few topics. Many of these, as we said

earlier, were covered in the first session, but we hope we can supplement that and fit in between this and the detailed sessions.

MR. STEPHEN J. PRESTON: Most of my discussion will focus on two topics since so much is going on in those areas. First I'll highlight some work the AAA has been doing through its CARVM Multiple Benefits Work Group to clarify Guideline 33. Second, I'll summarize some of the recent activity of the AAA's Variable Annuity Minimum Guaranteed Death Benefit Work Group and the newly drafted Guideline MMM. Also I'll touch briefly on the status of the AAA's Annuity Valuation Task Force, and close with a brief summary on recent developments in separate account surplus. I'd like to preface some of my comments with the fact that many of the issues that I'm about to discuss have actually not been resolved thoroughly, and much of what I'll be discussing will actually be discussed and recommended at the September 1996 National Association of Insurance Commissioners (NAIC) Actuarial Task Force meeting.

First, I'd like to highlight some of the work that has been done by the Academy's CARVM Multiple Benefits Working Group. Actuarial Guideline 33, which was effective December of 1995, has created quite a bit of confusion lately. Essentially, Guideline 33 applies to individual contracts subject to CARVM with multiple benefit streams and requires that the actuary consider reserves under three possible tests: the cash-value test, the annuitization test, and the other guarantees test. It's this third test that has really been causing most of the confusion. At a late 1995 NAIC Actuarial Task Force Meeting, Guideline 33 was interpreted to require consideration of integrated benefit streams. By integrated benefit streams, I mean streams that consider blends of more than one type of benefit as opposed to separate streams, which consider only one type of benefit. For example, an integrated stream would bring mortality into the picture, whereas the separate stream would not. What this seems to mean is that you can't look at separate benefits like surrenders, annuitizations, and death benefits, but you have to look at integrated combinations of these. One theoretical advantage of this integrated approach is that it increases consistency between the two types of benefits and potentially eliminates double counting of benefits. For example, there would be no need to pay death benefits after the policy is assumed to be surrendered in the CARVM calculation.

Since the NAIC Actuarial Task Force meeting, both industry and regulators have experienced significant confusion regarding how to apply integrated benefit streams. As a result, the AAA CARVM Multiple Benefits Work Group was created in March of 1996, and as Ed pointed out, I am the cochairperson of that group. Our group's formal charge was to "identify issues and suggest solutions regarding the application of Actuarial Guideline 33, Multiple Benefit Streams." This means that our role is to clarify the original intent of Guideline 33 but not to significantly change it. We've also been trying to simplify some of the issues that have been coming up, and if I've learned one thing by being cochairperson of this group, it's that there's really nothing simple about Guideline 33.

Our group has spent quite a bit of time talking to both industry representatives and regulators in trying to clarify the issues and concerns surrounding Guideline 33. It's ironic that many of these concerns relate to the need for more details and clarification, while other concerns seem to relate to the need for less details and more actuarial discretion. Here's a list of some of the topics that our working group has been addressing. First, what types of benefits need to be considered in each of the three Guideline 33 tests? Second, for which benefit types may incidence rates be based upon prescribed tables? Third, how should valuation rates be determined for the integrated benefit streams? Finally, there are various other issues such as continuous CARVM and how to deal with practical considerations. Our working group's recommendations area is a work-in-progress, so these recommendations don't reflect the official position of the Academy or the NAIC, but we hope they'll be adopted at the next couple of meetings. By the way, there are two workshops that'll follow up on this. I believe Sessions 13 and 22 will get into this in more detail.

In terms of the benefit types to be considered, the cash value and annuitization tests use terms like "independently," "separate," and "without consideration of mortality." Based on discussions with both industry and regulators, our work group believes the original intent of Guideline 33 was to consider surrenders and withdrawals in the cash-value test and annuitiziations in the annuitization test. The third, the other guarantees test, is the one that's really creating most of the confusion, and after talking with regulators and really looking at the language and some of the history of Actuarial Guideline 33, we believe that the other guarantees test requires that integrated streams need to be

considered. This would include combinations of surrenders, withdrawals, annuitizations, death benefits, accidental death benefits (ADB), disability, nursing home, unemployment and any other guaranteed benefit that the policy would provide for. Our work group has also concluded that it is necessary to make language clarifications to Actuarial Guideline 33 to reflect integrated benefit streams. Some have interpreted the language to imply that the other guarantees require consideration of separate streams. It should also be noted that mixes of withdrawals and annuitizations would need to be considered under Actuarial Guideline 33.

In order to resolve the issue of which benefit types should use utilization rates, our work group decided to look at whether a benefit was elective or nonelective. This distinction had already been made in prior AAA reports on CARVM over the last several years. We define elective benefits as those benefits that were freely elected at whatever times and conditions permitted under the contract. For example, elective benefits include surrenders, withdrawals, annuitizations, and also bailouts. Nonelective benefits are benefits that are available only after the occurrence of an insured risk specified in the contract. Nonelective benefits include death benefits, ADBs, disability, nursing home, and similar benefits.

For elective benefits, our working group will recommend that incidence rates may not be based on prescribed tables, but, instead, must be chosen to produce the greatest present value. We believe this is consistent with CARVM and will, typically, but not always, occur by assuming either 0% or 100% incidence rates. For nonelective benefits, incidence rates may be based upon prescribed incidence tables. Also, annuitant mortality should be used in all benefit streams. For example, individual annuitant mortality (IAM), or group annuity mortality (GAM) tables would be used not only to discount life contingent annuitization payments, but they also could be used to determine death benefits and to discount other benefits like surrenders and withdrawals. Finally, our work group is recommending that company or industry experience may be used, if no prescribed tables exist.

Another issue generating questions from both regulators and industry relates to what valuation rates should be used at each of these three tests. For the cash-value test, we believe that you should

determine the valuation rate based on the withdrawal characteristics appropriate for the contract. This could be a Type A, B or C, most often a C, but, for example, for market-value-adjusted annuities, it presumably could be a Type B. For the annuitization test, you should determine the valuation rate under the standard valuation law for the annuitization benefit stream being tested. Also, there has been some confusion over whether two rates over different time periods may be used in the annuitization test. Based on our discussions with regulators, it seems that Actuarial Guideline 33's original intent was that only one rate per annuitization stream should be used. For the other guarantees test, the work group believes that there should be consistency between the rates used in the cash value and the annuitization tests. This means that, if the other guarantees test is looking at surrenders, you'd use the rate that was used in the cash-value test to discount all benefits in that stream. Conversely, if you're looking at annuitizations, you'd use the valuation rate that you would use in the annuitization test. The one issue that our group has not completely resolved is whether to use one or both of these two valuation rates when looking at blends of surrenders and annuitizations. We've come up with several alternatives, and we hope to resolve this issue in time to make a recommendation at the September 1996 NAIC Actuarial Task Force meeting. Another issue creating some confusion is whether the change in fund basis can be used for each of the three tests. Since the selection of valuation basis is made for the entire contract, we believe that it's appropriate to use either the change in fund or the issue-year basis for all of the three tests, but they should be consistently applied.

Finally, there are several other issues that we've been asked to look at. Several companies seem to be confused as to whether Actuarial Guideline 33 impacts the requirements relating to continuous versus curtate CARVM. Based on discussions with several regulators, the work group believes this issue is outside the scope of Actuarial Guideline 33, and therefore, the Guideline does not change the state-specific requirement. In other words, if your state requires curtate, you should apply Actuarial Guideline 33 as an interpretation of curtate, and vice-versa for continuous. This logic would also follow when trying to decide the timing of elective benefits such as withdrawals. Additionally, we've been asked whether Actuarial Guideline 33 should provide for an explicit integration formula. Our work group concluded that this is an area where actuarial judgment is needed. Finally, we've received

several comments regarding the fact that it seems that now, based on these revised requirements, Actuarial Guideline 33 would theoretically require companies to test every single possible combination of benefits, and while this may be theoretically correct, it is unworkable in practice. Our work group concluded that the most critical element is that you don't have to actually test every combination of benefits, you only have to consider them, and that many streams may be eliminated by either deduction or one-time spreadsheet analysis. Also, some of the regulators we've talked to seem to focus on those tests that have a material impact on results. Again, this is an area where there's no substitute for good actuarial judgment.

The second topic I'd like to talk about is the work that has been going on at the AAA regarding minimum guaranteed death benefit (MGDB) reserves for variable annuities. I'll start off by giving you a brief historical perspective on MGDBs. In general, the 1990s have seen a proliferation of various types of variable annuity death benefits, and as these have developed, regulators have become more concerned about the lack of both guidance and uniformity in reserving methodologies used. In late 1994, an SOA task force was formed to study MGDBs. The task force completed an industry survey on what types of benefits were being offered in the marketplace and how they were being reserved for. Then, at the request of the Separate Accounts Working Group at the NAIC, an AAA working group was formed to develop a framework for an actuarial guideline on minimum guaranteed death benefit reserving. At the June NAIC meeting of the Separate Accounts Working Group, the Academy working group culminated a year's worth of interaction between the regulators and industry in delivering its comprehensive report on MGDBs. This report formed the basis of proposed Actuarial Guideline MMM which was recently completed, and will formally be proposed at the September Separate Accounts Working Group meeting.

I'd like to focus on the key sections of Guideline MMM, including reserve methodology, the development of immediate drops and assumed returns to be used in the calculations, reinsurance of MGDBs, and MGDB asset adequacy testing and risk-based capital requirements. I also wanted to point out that there is a workshop to follow up on this. I believe it's Session 18.

As some of you may be aware, in 1995 our group recommended an MGDB reserve method which was an add-on to the base CARVM reserve. However, based on the NAIC Actuarial Task Force interpretation of Actuarial Guideline 33 requiring integrated benefits, the work group revised the recommended methodology to be consistent with this interpretation. In general, MGDB reserve is determined by taking the difference of two independently calculated CARVM reserves, the separate account reserve less the integrated reserve. The separate account reserve is the variable annuity reserve that would be held in the absence of the MGDB, and the integrated reserve is the reserve reflecting all benefits including the MGDB. Then, once calculated, the MGDB reserve would be held in the general account.

The integrated reserve is determined by taking the greatest present value of all integrated benefit streams. The integrated benefit streams are based on blended streams of death benefits, surrenders, and all other benefits. The net amount at risk used in the integrated benefit calculation would assume an immediate drop in account value, followed by a subsequent recovery based on an assumed return. This means that the impact to death benefits must be reflected in all years of the CARVM calculation. Also, our work group concluded that the 1994 GAM Basic Table was appropriate, but with that 10% margin added, not subtracted, for conservatism. Also, projection factors for mortality improvement should not be used. This table is conservative, relative to the individual annuity valuation mortality tables. Additionally the SOA MGDB Task Force is now in the process of attempting to validate the appropriateness of this table by doing a mortality study over the next year or so.

The work group concluded that the immediate drops and assumed returns should vary by 11 variable annuity fund classifications. These are currently used in the Morningstar Variable Annuity Database. We chose the Morningstar classifications because they're widely used by writers of variable annuities, and also because the number of fund classes provide a reasonable balance between recognizing risk differentials between funds and simplification of methodology. This reserve methodology is in contrast to the variable life model regulation that requires a one-third drop in account value. Our group concluded that the one-third drop was inappropriate because it ignores the risks associated with the underlying funds. The 11 classes that we used reflect four equity funds, four bond funds,

and three other funds. Also fixed account options on variable annuities are handled by assuming an immediate drop of zero.

The work group also spent considerable time developing historical data to be used as a basis for the drops in assumed returns. This included a ten-year Morningstar Database of variable annuity monthly returns, which was supplemented by 25 additional years of data from several representative indices such as the Standard & Poor's (S&P) 500. The immediate drops were determined to produce adequate results about 83% of the time. Also, the work group concluded that correlation between funds should be ignored for conservatism and simplicity. It should be noted that the appointed actuary would ultimately be responsible for the proper fund classifications, and this means that he or she can't rely on Morningstar to determine the fund classification.

Our work group also developed formulas for MGDB reserves for reinsurance. The minimum guaranteed death benefit reserve net of reinsurance is determined by starting with the integrated reserve before reinsurance, removing the reinsured death benefits, and adding back reinsurance premiums. Ceded reserves are determined as the difference between gross and net reserves. Assumed reserves are determined by taking the greatest present value of the reinsured death benefits, less reinsurance premiums over all durations. This may result in ceded reserves at or below assumed reserve levels. Additionally, while we believe that the MGDB formula reserve requirements are reasonable, due to the complexity of this risk we believe that asset adequacy testing should be required for material MGDB risks. This has already been addressed in proposed changes to the Actuarial Opinion and Memorandum Regulation. Finally, our work group believes that a risk-based capital component is needed to supplement the reserve, and we're working with the AAA's Risk-Based Capital Task Force in this area. The idea here is to provide a reserve plus risk-based capital component to provide adequacy about 95% of the time.

Now I'd like to move on to the AAA's Task Force on Annuity Valuation. There really hasn't been much going on in this area since the project was put on hold pending resolution of the new proposed nonforfeiture law, but I'll give you a quick update on the progress that was made since the last

symposium. For those of you not familiar with this group, the task force was charged in early 1995 by the regulators to consider changes to the valuation law for annuities. Essentially, this means rewriting CARVM as it now exists. The new standard valuation law would cover all types of annuities, including those not currently covered, like group and variable annuities. The task force continued some of the work of a couple of previous committees that worked on this project in the early 1990s, and the group was asked to retain the traditional CARVM methodology as much as possible. This includes formula reserves and the greatest present value concept.

After spending much of 1995 on this project, the task force presented its findings to the regulators in October of 1995. The task force first set out some proposals to improve current CARVM if a change were to be made now. However, the task force believed that these improvements were not adequate justification to pursue a rewrite of CARVM and that instead of sprucing up the 1980 version of CARVM, a more comprehensive rewrite of CARVM for the year 2001 should be undertaken. A few major reasons were given for this recommendation. First, the task force preferred a change away from the traditional formula minimum reserves toward more responsibility on the valuation actuary for establishing reserves. The task force members also believed that several of the problems with existing CARVM could be tackled by ad hoc groups, and changes in these areas could be made via actuarial guideline, regulation, or separate law. Finally, the task force believed that further work should be deferred pending development of proposed revisions to the standard nonforfeiture law, which could necessitate further changes to the standard valuation law. The regulators seemed a bit disappointed with the recommendation at first but, after discussing the matter further, agreed with the recommendations of the task force.

As mentioned, the task force made several proposals to improve CARVM if it had to be changed now. The first area was valuation rates. The task force concluded that instead of having valuation rates based on a long-term, single-bond index, they would be based on spot rates most likely tied to a Treasury index adjusted by spreads. The task force also believed that the lag time in setting valuation rates should be minimized, and that valuation rates should be updated or refreshed over time consistent with the expected reinvestment of assets. These changes most likely would eliminate the

need for both change in fund valuation rates and the guaranteed duration concept. The task force also suggested a cap in the spread between valuation rates and guaranteed rates to address concerns relating to such items as surrender charges. The task force also concluded that the greatest present value concept should apply to basic benefits such as surrenders and annuitizations, while actuarial judgment should be used for other benefits. Also, the task force concluded that, if these changes were to be made, it would also be appropriate to require a continuous CARVM approach. As mentioned, the task force believed that many outstanding issues that are present could be addressed by ad hoc groups. As discussed earlier, variable annuity MGDB reserves and Actuarial Guideline 33 are being addressed already. Other potential areas are CARVM for variable annuities, modified guaranteed annuities, guaranteed separate account products, and indexed annuities.

To finish up I'd like to make a few comments on separate account surplus. Typically, for variable products, separate account surplus is generated by the fact that separate account assets are equal to the full account value, but the CARVM reserve liability is normally lower than the account value. This difference, or the so-called CARVM allowance, was determined in 1995 by the Separate Accounts Working Group at the NAIC to be legitimate surplus, and therefore, could be run through the general account income statement. The Separate Accounts Working Group also concluded that the CARVM allowance should be treated as an amount due from the separate account, rather than surplus in the separate account or a negative Exhibit 8 liability. In 1996 the Separate Accounts Working Group published guidelines for these companies that are changing their accounting methodology as a result of these new requirements.

Another issue addressed by the regulators was the risk-based capital level that should be required for the CARVM allowance. The approach, which was recently adopted at the June 1996 Task Force meeting of the Risk-Based Capital Group of the NAIC, was to require an RBC component of 2% of the CARVM allowance if the CARVM allowance doesn't vary with separate account fund performance and the account value exceeds the premium. Otherwise, an RBC component of 10% would be required. For example, 2% would be required if the CARVM allowance is based on

surrender charges that are a percentage of premium. Now I'd like to turn the podium over to Ted Trenton, who will talk about XXX and other valuation issues.

MR. THADDEUS W. TRENTON: Among the four topics I'm going to discuss are equity-indexed annuities, the annuity mortality regulation, the model illustration regulation, and XXX. On the equity indexed annuities, the first quarter Life Insurance Marketing and Research Association (LIMRA) figures show that, even though total annuity sales were flat or down slightly, the fixed portion of annuity sales were down 50%. I haven't seen the second quarter figures yet, but there's no reason to believe that fixed sales have turned around. My company also is experiencing sales down around 50% on fixed annuities. Going along with the sales being down, we're also seeing our surrenders being up 30-50% over 1995 rates at this time. The major hot product in the annuity market right now is equity-indexed annuities. In July 1996, there was an SOA seminar in Chicago, and it was reported that there are about 15-20 products out on the street, and nearly double that amount being developed. Also in the equity indexed annuity area, the NAIC Life/Health Actuarial Task Force has asked Tillinghast to provide background information on these annuities, including experience in the U.K.

The usual format of these annuities is, if you give the company a thousand dollars, the company's going to guarantee 3% growth on 90% of that premium over a period of five, seven, ten years. This just coincides with the standard nonforfeiture law for single premium deferred annuities requirement of 3% minimum interest rate and 90% of the premium credited. The other part of the annuity gives a return based on the performance of a stock market index reflecting 100% of this premium. Of the various product designs out in the marketplace, some may give the growth from the start of the annuity period to the end of the annuity period. Whatever percentage the S&P increased over that five-year period, you receive that growth over the five-year period. Some credit annual growth rates if they're positive. If they're negative, they're entered into the equation as zero. So it's sort of a stair-step function. It may go up for the year; it may stay level; but it never goes down. Some others look at the highest anniversary value over the five- or seven-year period, and the policyholder is credited with that highest value at the end of the contract. Another design looks at the average of the S&P index each year; the change in the average from one year to the average of the next year is the rate

you are credited. With these contracts, you usually have a participatory rate. Instead of receiving 100% of the S&P index, you may typically receive something ranging from 70% to 100%. I think there's one contract that actually goes up to 110% of the S&P index. Some of these contracts cap the annual increase on the S&P index. For contract, that has a participating rate over 100%, you receive only the first 14% of the increase to the S&P index for that year.

CARVM doesn't really fit the definition of how to value these products. We don't really have a good terminal value of the thing. If we look for guidance, we can go to the interest indexed annuity contracts model regulation that was passed in 1988. It sort of goes along with the universal life model regulation. The company describes at the time of filing its interest crediting method and its investment policy, and an actuarial opinion is required with this model. If you're not really familiar with the regulation, it's probably not surprising because no state has ever adopted it. Some companies apparently carry the current value of the contract without any future increases in the index. Others carry the current value plus the amortized cost of the call options. Some carry the current value plus the market value of the future call options calculated using the Black-Scholes method. The methodology that companies should be choosing for this product should reflect their asset valuation for this product. There's obviously a need for cash-flow testing.

On the model illustration regulation, this regulation was adopted by the NAIC in December 1995. This regulation and its companion, the AAA Standard of Practice No. 24, attempt to place some restraints on sales illustrations and the values that are shown to clients.

Unlike the partial exclusion for liability that we enjoy as valuation actuaries, the model regulation has no exclusion for your liability as the illustration actuary. The illustration actuary has to certify that the disciplined current scale used in the illustration conforms with the standard of practice. This has to be done annually for all policy forms. He or she has to do this on a date chosen by the company, and needs to do this before a new policy form is issued. There is another section of model law that says your company should identify the policy forms that will be sold with and without an illustration and to notify the commissioner before the effective date of the regulation as to this list.

There's a list of questions and answers being compiled by the NAIC, and in the July 24 answers the NAIC has sort of put a little different twist on this. The NAIC says all policy forms, whether existing on the effective date of the regulation or developed later, shall not be illustrated until the certification has been filed with the commissioner. I think a lot of people were expecting to do the work next summer when things were a little bit slow, having tested out the policies, but not being ready to provide the certification as of the first of the year. Given the guidance of that question in the NAIC questions and answers, it looks as if the certification will have to be done in the states that have adopted the regulation before January 1997.

The disciplined current scale is based on the recent historical experience of the company. That means no projecting of trends out into the future. You can project the trend. If you did a mortality study two years ago, you can project the mortality results to date, but you can't project out into the future any mortality improvements. The interest rate can either be portfolio, new money, or whatever method the company used to actually allocate investment income to the policy. So, how ever you're allocating investment income to the policies, is how you'd choose your interest factor.

As far as expenses, the original draft said that companies could only use fully allocated expenses. The industry asked for relief. The relief that was there would be a generally recognized expense table compiled from industry data. The company could always use fully allocated expenses. Companies could use marginal expenses if their marginal expenses are greater than the generally recognized expense table. They could not use marginal if their marginal expenses were less than the generally recognized expense table. Tim Harris chaired a group that developed the generally recognized expense table. This table was approved at the September 1996 NAIC meeting.

And with respect to expense allocation, one of the requirements in the model regulation is that the company will have to provide information to its agents about the expense allocation method used to allocate expenses for their policies.

Even though the regulation has requirements for new sales illustrations and in-force policy illustrations, if the regulation goes into effect January 1 of 1997 in a state, any policies sold in 1996 are not affected by any provisions of the regulations or any provisions of the standard of practice. The regulation requires that the disciplined current scale be self-supporting, and that's defined in the standard of practice and the regulation as: the accumulated value of all policy cash flows has to be greater than or equal to the policyholder value available to the policyholder, and this is for all policy years starting with year 15 and later. Because of the low margins built into second-to-die policies, this test has to be met for durations 20 and later for second-to-die policies.

There was also a provision against lapse support, with lapse support defined as the self-support test with the actual company persistency rates for the first five years and 100% persistency thereafter. And the little bit of relief for term writers is that some of the term companies came in and said that for a ten-year term policy, at the end of ten years, our rates go up quite a bit for renewal, we have a lot of people not renewing, and we experience high mortality. Is it fair to require the high mortality to be used on the policy, and the 100% persistency rates? One exclusion in the model regulation was that term policies without nonforfeiture values were exempted from the lapse support test. They still have to meet the self-support test but not the lapse-support test.

The format for providing these illustrations include some identifying information, which would be things such as the company's name, the insured's name, and the amount in insurance applied for. The insured is also provided with a narrative summary, which is basically a description of the coverage that is being applied for on the illustration. There's also a numeric summary that shows values at the end of five, ten, and twenty years, and at attained age 70, and this shows premiums, death benefits, and cash values on three bases, those being the guaranteed basis, the current illustrated basis, and an intermediate basis. Normally the format for these illustrations are left pretty much to the discretion of the company, but on the numeric summary, there also are two signed acknowledgments. One is signed by the client stating that he has been told that these values are not guaranteed and can change any time, and another acknowledgment is signed by the agent saying that he has not presented any values that differ from or are in violation of the disciplined current scale. What's also provided is a

tabular detail page that shows, again, premiums, cash values, and death benefits. This is provided for policy years one to ten, and every five policy years, out to age 100.

This regulation is in effect for January 1, 1997 in North Carolina, North Dakota, and Utah. It has been proposed as law in California, New York, and Pennsylvania, and Donna said it was on the governor's desk to be signed in Pennsylvania. California may or may not be passed this year. New York looks very unlikely. The regulation is at various stages of proposal in Iowa, Louisiana, Ohio, Texas, Alaska, Nebraska, Nevada, and Wisconsin.

Texas came out with its version of this regulation earlier this year, which was horrendous, unfortunately. The first requirement in there was, rather than using the company's interest experience, you would use an interest rate in the illustration that was tied to the nonforfeiture rate applicable to that year. The nonforfeiture rate seems to have no relationship to the rate that the company is currently earning since it's really based on the Moody's 12- or 36-month moving average. If that Texas regulation had remained unchanged, it would have been in conflict with the standards of practice, and there have been numerous hearings and discussions with the Texas Department. Texas has apparently pulled back on that requirement, but it does have a couple of other troublesome requirements that still exist in the proposed regulation. Texas wants a disclaimer different from the one that's specified in the model regulation. The Texas disclaimer would say the numbers on this illustration should never be considered or relied upon as a representation of future policy performance. It probably doesn't say much more than what's in the model regulation.

The main problem with Texas is with the illustration format. Texas just doesn't want the premiums, death benefits, and cash values shown. It wants all the charges, especially on a universal life policy, itemized the same way as we do on an annual notice. If you had a per-policy expense charge, you would have to show a separate column of those charges. If you had a percent-of-premium charge, you would have to show a separate column of those charges. Your illustration format, under the Texas version as it sits right now, looks more like your annual notice to the policyholder than an illustration. Texas also wanted the risk class disclosed, and ranked from excellent to poor. Texas

wants the net yield to be shown if this policy was sold in comparison with an investment such as a certificate of deposit.

In addition to this activity, the model regulation exempted annuities, variable annuities, and variable life, and there are committees now working on illustration regulation for all three of these products. There's a committee working on updating the buyer's guide. One problem we had after the model regulation was drafted, a question was raised of what should we do when the agent goes out and shows the client a computer screen with the illustration of the client's home but has no facility for printing those values? The model regulation required that either the client not be shown any values or to show the client values that matched what was applied for, and to leave a copy of those values. Obviously, with a computer screen, you can't meet either of those two requirements, and in this list of NAIC answers George Coleman from Prudential has proposed an additional form, which would say I have been shown a computer screen. It was based on my name, my age, face amount, premium, and information like that. I understand that when the policy is delivered, I will receive a full copy of the proposal at that point.

Donna Claire mentioned the practice notes on the illustration regulation. Also Actuarial Standard of Practice No. 15 is being reviewed for revision because it refers to dividend determination and illustration. The revised wording would eliminate any reference to the illustration in states that have the model regulation. So, it would be drafted, I guess, with revised wording to apply in states that don't have the model regulation. For states with the model regulation, the actuary should go to Actuarial Standard of Practice No. 24 to look for guidance on illustrations and illustrated dividends.

Should an actuary be able to take a ten-year term policy, and by just extending the term period and increasing ultimate premiums, be able to lower the reserves for the first ten-year term period, i.e., should the actuary be able to play games with unitary reserves in order to lower reserves? This is the regulators' rationale for XXX. Some of the critics would say that no life company has ever become insolvent due to underpriced term insurance and that the mortality standards, even though they've

been updated in XXX to reflect 1983 to 1986 experience, are still outdated by current standards, since they don't recognize the trend towards preferred underwriting.

Guideline 4 which applied to 1958 Commissioners Standard Ordinary (CSO) business basically required for term insurance to value the current period of term insurance under the 1958 CSO table, and set up deficiency reserves for future periods based on a modern CSO or 1980 CSO table. This guideline only applies to 1958 CSO business. Earlier this year everybody received letters from California listing valuation actuary requirements. It also referred to California Bulletin 74-11 applying to this year-end valuation and for the future. The actuary was given a choice of either certifying compliance with 74-11 or having done cash-flow testing on the term insurance products. Every time I've read 74-11, I thought that this specified the unitary method, since it had wording in there that over the entire period for which renewal is guaranteed, was to be taken into account in the reserves. It has an exemption for attained-age level-term products where the premiums depended only on attained age, which provided for that period being treated separately for valuation purposes. I thought that the 74-11 was somewhat vague, but it seemed to be a unitary approach, and it seemed to have some kind of relief for level term products.

If you look in your book for Session 12, Brian Kavanagh put together some notes, and I didn't recognize his description of California Bulletin 74-11. Apparently this is the result of discussions with the insurance department. Those notes specify that California requires testing for the uniform percentage of net to gross ratio on both the current premium scale and the guaranteed premium scale. It also contains a definition of segments stating that a new segment starts whenever the premiums change. The words in Brian's write-up on Regulation 74-11 seem to read totally different than what's in the bulletin. When 74-11 was drafted in 1974, I'm not sure indeterminate premium term products had even been introduced in the market or, if they had, they existed only in their infancy.

I pulled out the Texas directive on term insurance reserves. It's in the ACLI booklet, and it came out in 1980 or 1981. It seemed to be more of a Guideline 4 kind of approach. We need to take a look at Texas Rule 3.309 to see how that applies to term insurance.

In Iowa, even though Guideline IV applies only to 1958 CSO policies, up until a couple years ago they were apparently applying this as part of the policy filing procedure to 1980 CSO policies. I think as XXX was developed, Iowa has stopped asking for this as part of the filing process, and it's not now shown in the *Life and Health Valuation Law Manual*.

Regulation XXX affects nonlevel premium policies, nonlevel benefit policies, and universal life policies with secondary guarantees. It goes far beyond just applying to term insurance. Part of the regulation adopts 15-year select mortality factors to be applied to the 1980 CSO. These are 150% of recent mortality experience. It's an optional table that can be used for the basic reserves. There are optional 120% factors that can be used for the deficiency reserve calculation.

XXX defines reserves as being the greater of unitary, segmented, cash surrender value or the unearned cost of insurance. In XXX, the deficiency reserves are based on unitary reserves, if unitary develops the largest reserve. If segmented develops the largest reserves, then the deficiency reserves are based on the segmented approach. A new segment is created whenever the ratio of successive premiums is greater than the ratio of successive deficiency mortality rates.

There are several differences between Regulation 147 and XXX. Regulation 147 was retroactive with a five-year grade-in, and for the policies sold before 1994 it required the greater of a unitary basic reserve, a unitary alternate minimum reserve or deficiency reserve, the cash surrender value, or the unearned cost of insurance. XXX is just prospective. In Regulation 147 segments were determined using base mortality. In Regulation XXX the deficiency mortality is used in determining the segments.

Regulation 147 also had requirements for immediate payment of death claim reserves and the California method for universal life where, in lieu of calculating the Commissioners Reserve Valuation Method (CRVM) reserve for universal life, the mean of the account value and cash surrender value can be held. Both versions have exemptions for deficiency reserves in the first five years, if the first

segment is for five years or less. New York does not require an actuarial opinion, but the NAIC does require an actuarial opinion if you take advantage of this exemption from deficiency reserves. Illinois has adopted this regulation, and it's effective after states with 51% of the population adopt similar regulations. With regard to preferred underwriting, the Life Practices Council of the AAA has asked the SOA to develop experience tables based on preferred underwriting mortality. North Carolina is on schedule to adopt it as of January 1, 1997. Other states considering it for January 1, 1997 are Colorado, Kansas, Maine, Utah, and Wisconsin. West Virginia is considering for some time in 1997. Minnesota has said that it will probably adopt it, but Minnesota didn't really commit to a timetable. And Maryland has exposed the regulation for comment but has not set any timetable for adoption.

MR. SILINS: I'm going to be following up on several topics: nonforfeiture, NAIC codification, state variations, and reinsurance. First, I'll discuss nonforfeiture. When I first heard about this, I thought I'd ask a question. How does no minimum cash value sound? On first reflection my thought was about as easy as cold fusion. For those of you who don't follow physics, cold fusion has proved to be both elusive and quite difficult for physicists. I put nonforfeiture in that same category, and that's primarily due to its comprehensive basis and its far-reaching implications through all aspects of insurance company operations.

After reflecting on it for a while, it seems that other countries have systems that don't require minimum cash values, and companies in those countries are dealing with this. So, on reflection it does seem quite possible but, nevertheless, difficult. In order for the proposal to go forward, it's going to have to gain support from both the industry and regulators. I think on the industry side there are concerns because of the expense involved in implementing it, how the playing field might change after implementation, and the potential for litigation that might occur. None of those I think are insurmountable, but nevertheless, they are important concerns. On the regulators' side, I think we will have to gain acceptance because this is going to be such a new and radical way of looking at things.

If it does go forward, it's going to have a significant impact on the valuation actuary. Just how much? I have absolutely no clue, and I don't think all of the implications with regard to the valuation actuary have been thought of. In fact, there's a group that's going to be taking a look at that, but I'm convinced it's going to have far-reaching implications for the valuation actuary. There are a couple of committees that are looking at this. Both the SOA and AAA, in addition to the Actuarial Standards Board, are taking a look at it. Up until now there seems to have been what I'd call a reverse turf battle in that because of the far-reaching implications and the detail that needs to be looked into, and the amount of work, some of the committees have been reluctant to step in. Certainly, an actuarial standard of practice would be required if we're going to move forward. After his session, Tom Foley asked me to mention that, since so much work is going to be required, we're going to need volunteers. So, consider this a call for volunteers. If you're not able to volunteer, then by all means please comment and provide your opinion on the work as it goes forward.

The cornerstone of the concept is a plan, and the actuaries are going to be intimately involved in this plan. Who else but the actuary would be intimately involved in this? There will be a certification required by the "nonforfeiture" actuary. I imagine it'll be a different person from the valuation actuary. The certification and the actuaries are going to be responsible for the fair and equitable treatment of the policyholder. In other words the actuary might be sort of a policeman for the implementation and performance monitoring of this system.

As I said, there are going to be a number of reserve implications, and there are committees that are taking a look at that. A couple of things come to mind. For example, on an ordinary life policy, if you were to eliminate all cash values, estimates are that the policy gross premiums could be decreased by, say, 20% or 30%. So, unless there's some change to the deficiency reserve calculation, it seems like we'd generate very high deficiency reserves. Also, if we don't have guaranteed or formula cash values, it seems that the standard valuation law is going to have to be modified.

If we don't have guaranteed or formula cash values, then one of the questions that comes to mind is, should the plan for the cash values of the nonguaranteed elements in the plan be treated as

"guaranteed" with respect to reserves? If that were the case, then one possibility would be to end up with a GAAP reserve where the actuary might end up with best-estimate-type calculations consistent with the plan. Perhaps this might fulfill one of the early goals of the valuation actuary concept, and that is to rely on the actuary for judgment with respect to reserve calculations rather than tabular or formula reserves.

The nonforfeiture actuary is going to carry with it a lot of responsibility and create a lot of opportunity for those selling liability coverage for actuaries. Perhaps some of us might want to go into that business. I don't mean to paint that dim of a picture about this, but in the U.S. we're dealing with a very litigious society. This seems to be one more element on which responsibility can be pinned to the actuary, since there is going to be a comprehensive plan and a certification dealing with the fair and equitable treatment of policyholders with respect to cash value.

It strikes me that the plan really is a theory of everything within the life insurance company. To use another physics analogy, physicists have long been searching for a theory of everything, a unifying theory of nature that brings in all of the known current theories -- gravity, electromagnetic, and nuclear theories -- all trying to put into one theory and summarize it in some nice, smooth formula. I kind of analogize this to that theory of everything because it does deal with the comprehensive aspect of the entire operation.

Donna mentioned the NAIC codification, and I'd like to briefly talk about that as well. The genesis of the codification project, as I understand it, is that the American Institute of Certified Public Accountants (AICPA) threatened to remove statutory from the list of other comprehensive bases of accounting (OCBA). If that were the case, then CPAs would not be able to give an audit opinion on statutory statements. The reason for this would be that prescribed or permitted practices for statutory weren't well-defined enough to make them fit the definition of OCBA. So, a couple of years ago the NAIC set out to codify, through the use of papers, prescribed or permitted practices with regard to statutory accounting. As Donna pointed out along the way, the papers have done more than codify existing rules, and, in certain cases, have changed what was going on. They have changed the

prescribed or permitted accounting practices, and that has far-reaching implications. The papers consist of a statement of concepts, which forms an overall theory of what should be involved, conservatism and so forth, and there are now over 76 papers. There's going to be a manual of all these papers, and both the papers individually and the manual that's going to be adopted presumably in 1997, although it might be later, can be responded to. There are various accounting, industry, and actuarial groups that are responding to these papers.

There was a study that indicated, if you adopt all of these position papers to date, an estimate was that surplus would drop on a pretax basis by 13%. That's a significant amount of money, and certainly would drop less on an after-tax basis. The 13% was, in fact, contested as being an overestimate, but, nevertheless, there's going to be a significant impact on life company surplus. Risk-based capital ratios are going to change, and the change is not going to be uniform. It's not going to keep the playing field level. Different companies are going to be impacted in different ways. Companies and actuaries need to follow this one very closely as these papers come out, including the manual next year. The earliest possible adoption of all this is probably 1998, although I would guess it would be later than that.

The accounting items, as opposed to actuarial items, have been impacted the most. Those accounting changes that have the most impact are on the treatment of mortgage loans, that is, a requirement for loss reserve or problem loans, and how you treat affiliated companies on your balance sheet. The carrying value of electronic data processing equipment is also going to change. Goodwill from business combinations, loss contingencies, and impairment of assets requiring loss loan reserves will have the biggest impact. In general, we're adding to the level of conservatism in the statutory financial statement by virtue of these position papers, and, as I said earlier, it's going to have a big impact on company surplus, and these items don't impact the companies evenly across the board.

A couple of reserve items will have changes as well, but, as I said earlier, the implication is that they're not quite as significant in terms of the level of reserves. We've culled these couple of items as having an impact. There are probably others, and as companies go through the details, they might

find that particular papers among the others have impact as well. One of the first ones is deferred income, and that's similar to what we see in GAAP under *Statement of Financial Accounting Standard (SFAS) 97*, in that a deferred income liability would be required in addition to other statutory reserves. Deferred income would arise from, say, a front-load universal life policy. For example, the company would be required to put up this item as a reserve, and then amortize it in the future as services are provided under the contract.

Deposit type treatment is also going to be required, similar to what we find in *SFAS 97*, for investment type contracts. Premiums and other profit and loss statement items are going to be impacted as well. One of the papers called for the elimination of the cost of collection liability. It's probably a small item but, nevertheless, has been troublesome for a few companies where the cost of collection is in excess of loadings. Finally, we see some change called for with regard to the deficiency reserve calculation, and that has to do with the horizon of the calculation in that it's a longer horizon and starts from the date of the valuation as opposed to the end of the policy year. So, certain deficiency reserve calculations might show an increase.

As was mentioned earlier, the AAA, through a subgroup chaired by Henry Segal, is responding to certain of these position papers. I would encourage you to read these position papers (certainly those dealing with reserves), form your own conclusions, and provide comments to Henry so that he can forward those on a timely basis.

The next topic is state variations. There's going to be a follow-up session on this, so I'm going to quickly cover a few items. State variations are becoming an increasing burden to the valuation actuary and not what was originally hoped for or originally envisioned. Others may disagree with that, but, nevertheless, it is a significant burden, and in the opinion of many people the variation by state needs to be reduced. We need to find ways to reduce state variations, and I know that the NAIC and others are working to do that. That's going to take some time, but I would hope that this might be a tag-along to the codification project that I just discussed so that we can "codify" existing reserve requirements, and I hope reduce any variations.

Some companies have more than one blue blank. Where there are state variations, they might file one reserve calculation in State A and another one in State B, being nondomicilies. There might even be more than one variation. Sometimes rather than a whole blue blank, companies will file just a liability page or selected pages and discuss some of the differences between their state of domicile blue blank. Other companies are holding more than minimum reserves in order to avoid a problem, and meet the requirements. Holding greater-than-minimum required reserves is getting to be more and more of a burden in today's competitive environment. Companies are trying to cut back on that to the extent they can. If we reduce state variations, that would minimize this burden as well. Other companies are using qualified language in their certification, and come companies have both Section 7 and 8 opinions depending on where the statement is filed. There's an excellent article in the November 1995 *Financial Reporter* written by Shirley Shao, and I would suggest that you read that as well. She's going to be one of the panelists in a follow-up session, and she might cover some of these details. In any event, we all need to work together to reduce these variations.

The last topic is reinsurance, and there's going to be a follow-up session on this as well. One of the codification papers that I just talked about was released just this week. It's #74, and it deals with reinsurance, reserve credits, and other aspects of taking reinsurance credits. It's almost 50 pages, and I just received it, so I haven't had a chance to go through it in any great detail. If adopted, it would incorporate elements of Chapter 24 of the NAIC *Accounting Practices & Procedural Manual,* and Actuarial Guideline JJJ, which was really questions and answers for the model regulation and clarified Chapter 24. I'd encourage those of you who want to continue to take credit for reinsurance to read this and provide your comments as appropriate.

There's a group that's now researching the implications of the interest maintenance reserve (IMR) and asset valuation reserve (AVR) and the risk-based capital requirement for reinsurance. An example of something that's needed is that, for example, if you take a modified coinsurance treaty where a ceding company passes off its C-3 risks but keeps the assets, there are implications to the AVR of the ceding company. It seems like some adjustment to the AVR formula might be called for in order to accommodate that reduced C-3 risk.

With regard to the codification paper, there were two items that identified some change to current accounting. First is with respect to deposit accounting contracts that are reinsured. Those would have treatment on a statutory basis that would be different from generally accepted accounting principles (GAAP). Even though they were nonrisk-bearing-type treaties with respect to a GAAP definition, they would meet the statutory definition by virtue of having ceded the entire investment risk to the assuming company. The ceding company treatment would follow the direct on that basis, and you'd have a difference between statutory and GAAP. The other item was with respect to gains and losses to the assuming company. The change would require recognition at the inception of the contract by the assuming company of those gains and losses as opposed to any deferral.

There are several current items at the Life Committee of the Actuarial Standards Board being addressed. The first is a request to change Standard of Practice No. 11 to include focusing on the credit for reinsurance independently of everything else that's going on in the statement. Currently, the actuarial standard of practice calls for the actuary to take a look at the net liability as opposed to the pieces, the direct, and the ceded. So we've received a request to take a look at focusing in on the ceded piece separately, and we have done that and have had some dialogue. I'm not sure if something will come forth in an actuarial standard of practice or through the NAIC channels directly as an actuarial guideline. The other item was to take a look at nonproportional reinsurance in a more thorough manner. The concern is that some nonproportional reinsurance treaties are providing surplus relief, and we need some standard of practice to take a look at that.

MR. R. THOMAS HERGET: Ed, as I understand the codification process, there will be one set of guidelines for setting up reserves that would be the prevailing NAIC model regulations, or we've seen some position papers that say you'll do this on cost of collection, and so on. Wouldn't that preempt the states' ability to set their own rules, which is something they're fiercely proud of. How would you see that playing out in the ability to get codification established?

MR. SILINS: As I understand it, if we do have a codification, and there are a prescribed set of rules that would compose an OCBA, then an accounting firm would be able to certify and opine on that

rule. If there were a state that insisted on having something different, whether it be on an accounting issue or an actuarial issue, then there would be no prescribed basis for that state, and there might have to be an exception opinion or a separate opinion with a qualification in order to perform that certification.

MR. HERGET: Steve, when the Multiple Benefits Work Group is done with its report, what will be the status of it? Does it go to the Life and Health Actuarial Task force, which would approve it, ask for more work, then make it official? How will that play out?

MR. PRESTON: That's a good question. Our group was created by the NAIC Actuarial Task Force in response to confusion from the industry and regulators in interpreting Guideline 33. So we report to the task force members with respect to giving them updates at every quarterly meeting. We will be making a recommendation at the September 1996 meeting of the task force relating to all the things that we have talked about here, and we will be following that up with a comprehensive paper that outlines all these details and, if necessary, make changes to the language of Guideline 33.

MR. BRIAN KAVANAGH: I have a question for Ted in connection with California 74-11. He seemed to take some exception to my interpretation. The interpretation that is in the manual is not mine. I communicated with the Department of Insurance of California. I talked at length with Mr. Sommers and Mr. Gilchrist. I wrote my interpretation based on those conversations. I sent that information to the State of California, asked it to correct anything that was wrong in it. It has not corrected anything. I also talked with people who have filed in California, and they have explained to me the filing process for the reserving requirements. Unfortunately, I do not have the luxury of ignoring 74-11 because we have many clients requesting us to make sure they can do the evaluation correctly. The question I have for Ted: Does he have some inspiration that I don't know about on how California is going to apply 74-11? Has he had conversations? And does he think that the proper approach is, since it's big, ignore it?

MR. TRENTON: Oh, no, Brian. Maybe I didn't make myself as clear as I could have. When I read your notes there and read 74-11, they seemed to be two different things. The wording I have to 74-11 doesn't seem to support what you've been told by the California Department.

MR. KAVANAGH: I understand, but at the same time, I have a responsibility to make sure our clients can reserve correctly at the end of this year under 74-11. The problem I have with what you said, you seem to be dismissing the thing, since it's big, it can be ignored. Regulation 74-11 cannot be ignored, and people like me who have to program these things cannot just simply say it's big, therefore, I don't worry about it. I do worry about it.

MR. JOSEPH E. BRENNAN: Ed, if the new nonforfeiture regulations were enacted, when do you think we would see them? You can just give an estimate. You don't have to give a date.

MR. SILINS: That's a tough question. I don't know. I think there's a considerable effort required, and if I had to guess, I would think it would be a minimum of two to three years, but probably more than that. I noticed that Walt's next up, and perhaps he can comment on that before he goes on with any questions. Go ahead.

MR. WALTER S. RUGLAND: A comment on that last question. I guess I'm tempted to give everybody a full plate with respect to the nonforfeiture proposal. It was exactly the type of discussion that Ed just had about all the can't-can't-can't or problem-problem-problem that led us in June 1996 to say there has been enough work on this. Let's figure out what a consensus proposal might be that would sound out all the deal breakers, try to address all the deal breakers, and carry this thing forward.

There was a paper presented at this meeting that in my view made a lot of progress in that area, and I think, as Tom Foley pointed out at this meeting, there is a commitment to move forward with a proposal. I have that paper with me. It will be on Actuaries On-line next week. Throughout the summer different drafts have been on Actuaries On-line, and we've been getting some positive and

some helpful comments. I would also say we've received some unhelpful comments along the way, but that's the way Actuaries On-line works. In simplistic terms, when a contractholder initiates payment of the first premium, a deal is struck. If the premiums include significant prefunding of benefit costs, the deal includes provision for nonforfeiture benefits, and those provisions would be described in the nonforfeiture plan. At contract issue, the insurer's approach to provision of those benefits may be as simple as setting forth guarantees. That's what essentially we do now in most instances. And to the extent nonguaranteed nonforfeiture benefits are provided, the insurer confirms periodically to regulators that the nonforfeiture plan initially meets applicable regulatory requirements, and the plan is being followed. So that's basically the first step in this proposal.

A second step that I wanted to talk about has to do with the actuarial certification, and that's really the wrong word to use, it's really the insurer's certification. The proposal says, on an annual date selected by the insurer after the effective date of the law and each year thereafter on that date, the insurer shall cause the designated actuary to provide a certification that the provisions of each new plan of insurance initiated that year satisfy the law and the model regulation. On another annual date selected by the insurer and each year thereafter on that date the insurer shall provide a certification by a responsible officer that the operations of the company in the year ending 90 days prior to that date comply with the plan, including specifically a supporting certification by the designated actuary that the nonforfeiture approach used in the preceding year complies with the applicable nonforfeiture plan. That's a lot different than putting the actuary into the role of whistle-blower or any other type of role. It puts the burden on the company to confirm that it has followed regulatory provisions in setting up these plans, that the plans are being followed, and to the extent that there's an actuary's role that should be relied upon, it specifically identifies what that actuary should do as a part of the insurer's certification of the plan.

Now to get to one other point. There's a lot of concern about how can we change the fundamental structure of our insurance enterprise with one law when every other piece of the regulatory tree and, in fact, the structure, is built on this law? It has been there for 90 years. And over the course of the

summer, it became apparent to us that it needs to be an option. It needs to be an option for a while, and the proposal is that the effective date would be at the insurance company's option.

This gets us to the question of what do you do with all the other laws we have and all the other provisions we have. The proposal says all other policy forms issue prior to and after the date of enactment must comply with the standard nonforfeiture law and related laws and regulations as enacted in the state of jurisdiction unless they opt to use this new law, and in that case the new law has to basically waive the requirements of all those other laws and provisions because the new law essentially has a new structure to work from. I think Tom Foley would agree with me that what is presented to the NAIC decision makers in December 1996 is a definitive paper upon which this is the base, as the starting point right now. If that is agreed to as a concept, then the model laws and regulations start being drafted after that. I think Tom would say, from then on it's anybody's guess as to what happens, but the notion is that we allow this to be opted in that company on a company option.

MR. JOSEPH M. RAFSON: My question's for Steve. How practically can a company implement the minimum guaranteed death benefit calculations when, say, for a return of premium guarantee, each day's issues will be a different bucket with perhaps as many as 11 different calculations to be done for that day's deposits?

MR. PRESTON: The net amount at risk would be determined in aggregate, and you would look at the amounts in each of the 11 funds in total and apply the appropriate drop factors to the buckets in aggregate.

MR. RAFSON: But if the deposit comes in over time, someone who has a different excess above the minimum guarantee, the drop is going to give a different net amount at risk. Each net amount at risk calculation is going to be different by policyholder and by date. In addition, each insured will have a different age. I mean how does this work into our software?

MR. PRESTON: I guess I'm a little confused in terms of why you need to look at individual buckets for projecting the net amount at risk going forward. You have a cumulative death benefit, and you have to determine the death benefits. You're just saying that in order to determine death benefits going forward you need to look at the individual buckets.

MR. RAFSON: I would think. How else would you do it?

MR. PRESTON: Well, on a return-of-premium death benefit, I think you can aggregate the premiums and project the death benefits going forward. I don't think you need to look at the individual bucket level.

MR. RAFSON: So one policy's excess could offset another policy's deficiency?

MR. PRESTON: No. No. I mean you can use grouping methodologies where appropriate, but typically CARVM is a policy-by-policy calculation.