Part I

Section 412.---Minimum Funding Standards

26 CFR 1.412(c)(3)-1: Reasonable funding methods.

Rev. Rul. 2003-83

ISSUE

Does the aggregate entry age normal funding method constitute a reasonable funding method within the meaning of § 412(c)(3) of the Internal Revenue Code and § 1.412(c)(3)-1 of the Income Tax Regulations?

FACTS

**Situation 1**. Plan M uses the following version of the aggregate entry age normal funding method. The normal cost under Plan M equals the product of the normal cost per participant and the number of active participants under the latest assumed retirement age. The normal cost per participant is equal to A divided by B, where A is the sum, for all active participants under the latest assumed retirement age, of the present value (as of each participant's entry age) of the participant's projected benefits and B is the sum, for all active participants under the latest assumed retirement age, of the present value (as of each participant's entry age) of a level annuity of 1 per year payable from the participant's entry age until the participant's retirement age. The accrued liability for the plan as of any valuation date is equal to the excess of C over D, where C is the sum, for all participants, of the present value (as of the participant's attained age) of the participant's projected benefits and D is the present value of future normal costs. The present value of future normal costs is equal to the product of the normal cost per participant and the present value of future lives. The present value of future lives is the sum, for all active participants under the latest assumed retirement age, of the present values (determined as of each participant's attained age) of an annuity of 1 per year payable from the participant's attained age until the participant's retirement age. The valuation date for Plan M for each plan year is January 1, the first day of the plan year, and the actuarial value of the assets is determined as the fair market value of the assets.

**Situation 2**. Plan N uses the following version of the aggregate entry age normal funding method. The normal cost under Plan N equals the product of the normal cost accrual rate and the total current compensation of all active participants under the latest assumed retirement age. The normal cost accrual rate is equal to A divided by B,

where A is the sum, for all active participants under the latest assumed retirement age, of the present value (as of each participant's entry age) of the participant's projected benefits and B is the sum, for all active participants under the latest assumed retirement age, of the present value (as of each participant's entry age) of each participant's compensation beginning with the assumed compensation as of the participant's entry age (determined by retroactively applying the pay increase factor to the participant's current compensation) until the participant's retirement age. The accrued liability for the plan as of any valuation date is equal to the excess of C over D, where C is the sum, for all participants, of the present value (as of each participant's attained age) of the participant's projected benefits and D is the present value of future normal costs. The present value of future normal costs is equal to the product of the normal cost accrual rate and the present value of future compensation. The present value of future compensation is defined as the sum, for all active participants under the latest assumed retirement age, of the present value (determined as of each participant's attained age) of the participant's future compensation from the participant's attained age until the participant's retirement age. The valuation date for Plan N for each plan year is January 1, the first day of the plan year, and the actuarial value of the assets is determined as the fair market value of the assets.

APPLICABLE LAW

Section 412(c)(3) of the Internal Revenue Code requires that all costs and liabilities of a pension plan be determined on the basis of assumptions and methods that are reasonable. Section 1.412(c)(3)-1 of the Income Tax Regulations prescribes rules for determining whether or not, in the case of an ongoing plan, a funding method is reasonable for purposes of § 412(c)(3). Section 1.412(c)(3)-1(c)(2) provides that a funding method is reasonable only if it produces no experience gains and losses when each actuarial assumption is exactly realized.

Rev. Rul. 81-213, 1981-2 C.B. 101, provides guidelines for the determination of experience gains and losses, including separate rules for immediate gain type funding methods and spread gain type funding methods. Under section 2.02 of Rev. Rul. 81-213, an immediate-gain type funding method is a funding method that directly calculates an accrued liability.

Rev. Rul. 81-13, 1981-1 C.B. 229, provides that an accrued liability can be directly calculated under the funding method used for the plan if the following three conditions are met: (1) the accrued liability may be determined solely from the computations with respect to the liabilities (without reference to plan assets); (2) the accrued liability is an integral part of the funding method used; and (3) the accrued liability satisfies the definition of section 3(29) of the Employee Retirement Income Security Act of 1974 (ERISA). In order for the accrued liability to be an integral part of the funding method used for the plan, such accrued liability or both the present value of future benefits and the present value of future normal costs must be calculated as part of the funding method and must be used to determine plan costs. In order to satisfy the definition of section 3(29) of ERISA, the accrued liability must be equal to the present

value of future benefits less the present value of future normal costs. The normal costs that are so used are the plan's anticipated future normal costs under the funding method as of the valuation date.

Section 5.01 of Rev. Rul. 81-213 provides that the "actual unfunded liability" as of any valuation date is the excess, if any, of the accrued liability over the actuarial value of assets as of that date. Section 6.01 of Rev. Rul. 81-213 provides that, in general, for an immediate gain type funding method, there is an experience gain if the expected unfunded liability as of a valuation date exceeds the actual unfunded liability as of that date. Conversely, there is an experience loss if the actual unfunded liability at a valuation date exceeds the expected unfunded liability as of that date. Section 6.02 of Rev. Rul. 81-213 generally defines the "expected unfunded liability" for an immediate-gain type funding method as (1) the actual unfunded liability as of the prior valuation date, plus (2) the normal cost, minus (3) contributions, all adjusted with interest to the valuation date.

ANALYSIS

In Situation 1, the accrued liability under Plan M's version of the aggregate entry age normal funding method is determined solely from the computations with respect to the liabilities under Plan M, without reference to plan assets. In addition, the accrued liability is an integral part of Plan M's funding method (i.e., the accrued liability is calculated as part of the funding method and is used to determine plan costs). Furthermore, the accrued liability under Plan M's funding method satisfies the definition of section 3(29) of ERISA (i.e., the accrued liability is equal to the present value of future benefits less the present value of the plan's anticipated future normal costs determined under the funding method). Therefore, Plan M's version of the aggregate entry age normal funding method directly calculates an accrued liability. Accordingly, Plan M's version of the aggregate entry age normal funding method is an immediate gain method for purposes of applying the rules of Rev. Rul. 81-213 for computing experience gains and losses.

In Plan M's version of the aggregate entry age normal funding method, both the numerator and the denominator of the fraction used to determine the normal cost per participant are equal to the sum of several present values, with each present value being determined as of a given participant's entry age. For participants with different entry ages, these present values are calculated as of different points in time and this inconsistency will cause the normal cost under Plan M to follow a pattern over time that is different than the pattern of the expected number of active plan participants (i.e., the normal cost per participant will not remain level over subsequent valuation dates). In turn, this failure of the normal cost per participant to remain level will cause the method to produce experience gains or losses even if all actuarial assumptions are exactly realized. This phenomenon is illustrated by the following simplified example. The actuarial assumptions used in this example were chosen to simplify the illustration and are not necessarily reasonable actuarial assumptions for an actual plan.

As of January 1, 2003, (the valuation date for the plan year beginning January 1, 2003), a plan using the method described in situation 1 has 20 active participants, 10 of whom are age 35, and 10 of whom are age 55. There are no inactive participants. The participants who are age 35 all entered the plan at age 35 and have projected annual retirement benefits of $12,000. The participants who are age 55 all entered the plan at age 30 and have projected annual retirement benefits of $10,000. The expected retirement age for all participants is 65. Under the actuarial assumptions used by the plan, the present value as of age 65 of an annual retirement benefit of 1 is 10.000. The pre-retirement interest rate is 7%. There are no pre-retirement decrements other than at age 35 (for which the probability of remaining an active participant until age 36 is 50%), and there are no benefits payable under the plan on account of a decrement at age 35. For funding purposes, the plan sets the value of assets equal to their fair market value. As of January 1, 2003, the value of the plan's assets is $450,000.

The actuarial valuation results for the 2003 plan year are as follows:

The sum, for all active participants, of the present value (as of each participant's entry age) of the participant's projected benefits is $125,651.72. The sum, for all active participants, of the present value (as of each participant's entry age) of a level annuity of 1 per year payable from the participant's entry age until the participant's retirement age is 166.1594. Accordingly, the normal cost per participant is $756.21 ($125,651.72 divided by 166.1594), and the normal cost for the plan is $756.21 × 20 (the number of participants), or $15,124.24.

The present value of projected benefits (as of January 1, 2003) is $587,169.50 and the present value of future lives is 146.5407. Therefore, the present value of future normal costs (as of January 1, 2003) is $110,815.82 (equal to $756.21 × 146.5407) and the accrued liability as of the valuation date is $476,353.69.

The actual unfunded liability for the current year is $26,353.69 (equal to the excess of the accrued liability over the asset value of $450,000). Assuming the employer makes a single contribution of $20,000 at the end of the year, the expected unfunded liability at the next valuation is $24,381.39 (equal to $26,353.69 × 1.07 + $15,124.24 × 1.07 - $20,000).

During 2003, all actuarial assumptions are exactly realized and there are no new hires. Thus, all 10 of the participants aged 55 remain active participants at age 56, 5 of the participants aged 35 remain active participants at age 36 and the value of assets on January 1, 2004, is equal to $501,500 ($450,000 × 1.07 + $20,000).

As of January 1, 2004, the actuarial valuation results are as follows:

The sum, for all active participants, of the present value (as of each participant's entry age) of the participant's projected benefits is $86,241.59. The sum, for all active participants, of the present value (as of each participant's entry age) of a level annuity of 1 per year payable from the participant's entry age until the participant's retirement age

is 130.4652. Accordingly, the normal cost per participant is $661.03 ($86,241.59 divided by 130.4652), and the normal cost for the plan is $661.03 × 15 (the number of participants), or $9,915.47.

The present value of projected benefits (as of January 1, 2004) is $628,271.38 and the present value of future lives is 135.3986. Accordingly, the present value of future normal costs (as of January 1, 2004) is $89,502.70 (which is equal to $661.03 × 135.3986) and the accrued liability is $538,768.69.

The actual unfunded liability as of January 1, 2004, is $37,268.69 (equal to the excess of the accrued liability over the asset value of $501,500).

As noted above, the expected unfunded liability as of January 1, 2004 is equal to $24,381.38, but the actual unfunded liability as of that date is $37,268.69. Thus, despite the fact the actuarial assumptions were exactly realized during 2003, the plan has experienced an actuarial loss for 2003 of $12,887.31 (equal to the difference between the actual unfunded liability and the expected unfunded liability).

In Situation 2, the funding method used by Plan N is similar to that used by Plan M in Situation 1, in that both the numerator and the denominator of the fraction used to determine the normal cost accrual rate (which is analogous to the normal cost per participant in Situation 1) are equal to the sum of several present values, with each present value calculated as of the respective participants' entry ages. For participants with different entry ages, these present values are calculated as of different points in time and this inconsistency will cause the normal cost under Plan M to follow a different pattern over time than the expected aggregate compensation of active plan participants (i.e., the normal cost accrual rate will not remain level over time). In turn, this failure of the normal cost to remain level as a percent of compensation will cause the method to produce experience gains or losses even if all actuarial assumptions are exactly realized.

HOLDING

Because it can create experience gains or losses even if all actuarial assumptions are exactly realized, the aggregate entry age normal funding method that determines the normal cost per plan participant by dividing the sum of the present values (determined as of each participant's entry age) of each participant's projected benefits by the sum of the present values (determined as of each participant's entry age) of an annuity for each participant equal to 1 per year payable from the participant's entry age until the participant's retirement age does not constitute a reasonable funding method within the meaning of § 1.412(c)(3)-1 of the regulations.

Because it can create experience gains or losses even if all actuarial assumptions are exactly realized, the aggregate entry age normal funding method that determines the normal cost accrual rate by dividing the sum of the present values (determined as of each participant's entry age) of each participant's projected benefits

by the sum of the present values (determined as of each participant's entry age) of future compensation from the participant's entry age until the participant's retirement age does not constitute a reasonable funding method within the meaning of § 1.412(c)(3)-1 of the regulations.

## EFFECTIVE DATE AND TRANSITION RULE

This ruling will be effective for valuations performed for plan years beginning after December 31, 2003. For plans that are currently using a funding method as described in this revenue ruling, the funding method may be changed to a reasonable funding method by following the procedures set forth in Rev. Proc. 2000-40, 2000-2 C.B. 357 or Rev. Proc. 2000-41, 2000-2 C.B. 371.

## DRAFTING INFORMATION

The principal author of this revenue ruling is James E. Holland, Jr. of the Employee Plans, Tax Exempt and Government Entities Division. For further information regarding this revenue ruling, contact the Employee Plans taxpayer assistance telephone service between the hours of 8:00 a.m. and 6:30 p.m. Eastern Time, Monday through Friday, by calling (877) 829-5500 (a toll-free number). Mr. Holland may be reached at (202) 283-9699 (not a toll-free number).