

and tribal governments, in the aggregate, or by the private sector, of \$100,000,000 or more (adjusted annually for inflation) in any one year." The current threshold after adjustment for inflation is \$115 million, using the most current (2003) Implicit Price Deflator for the Gross Domestic Product. FDA does not expect this proposed rule to result in any 1-year expenditure that would meet or exceed this amount.

B. Environmental Impact

The agency has determined, under 21 CFR 25.31(h), that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

C. Federalism

FDA has analyzed this proposed rule in accordance with the principles set forth in Executive Order 13132. FDA has determined that the proposed rule does not contain policies that have substantial direct effects on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. Accordingly, the agency has concluded that the proposed rule does not contain policies that have federalism implications as defined in the Executive order and, consequently, a federalism summary impact statement is not required.

IV. Paperwork Reduction Act of 1995

This proposed rule contains no collections of information. Therefore, clearance by the Office of Management and Budget under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520) is not required.

V. Request for Comments

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) written or electronic comments regarding this document. Submit a single copy of electronic comments or two paper copies of any mailed comments, except that individuals may submit one paper copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

VI. References

The following references have been placed on display in the Division of Dockets Management (see **ADDRESSES**),

and may be seen by interested persons between 9 a.m. and 4 p.m., Monday through Friday.

1. Massell, B.F., L.H. Honikman, and J. Amezcua, "Rheumatic Fever Following Streptococcal Vaccination. Report of Three Cases," *Journal of the American Medical Association*, 207(6): 1115–1119, 1969.

2. Kaplan, M.H. and M. Meyerserian, "An Immunological Cross-Reaction Between Group A Streptococcal Cells and Human Heart Tissue," *Lancet*, 1:706–710, 1962.

3. Fox, E.N., L.M. Pachman, M.K. Wittner, and A. Dorfman, "Primary Immunization of Infants and Children with Group A Streptococcal M Protein," *Journal of Infectious Diseases*, 120:598–604, 1969.

List of Subjects in 21 CFR Part 610

Biologics, Labeling, Reporting and recordkeeping requirements.

Therefore, under the Federal Food, Drug, and Cosmetic Act and the Public Health Service Act, and under authority delegated by the Commissioner of Food and Drugs, it is proposed that 21 CFR part 610 be amended as follows:

PART 610—GENERAL BIOLOGICAL PRODUCTS STANDARDS

1. The authority citation for 21 CFR part 610 continues to read as follows:

Authority: 21 U.S.C. 321, 331, 351, 352, 353, 355, 360, 360c, 360d, 360h, 360i, 371, 372, 374, 381; 42 U.S.C. 216, 262, 263, 263a, 264.

§ 610.19 [Removed]

2. Remove § 610.19.

Dated: November 21, 2005.

Jeffrey Shuren,

Assistant Commissioner for Policy.

[FR Doc. 05–23545 Filed 12–1–05; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[REG-124988-05]

RIN 1545-BE72

Updated Mortality Tables for Determining Current Liability

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice of proposed rulemaking and notice of public hearing.

SUMMARY: This document contains proposed regulations under section 412(l)(7)(C)(ii) of the Internal Revenue Code (Code) and section 302(d)(7)(C)(ii) of the Employee Retirement Income Security Act of 1974 (ERISA) (Pub. L. 93–406, 88 Stat. 829). These regulations

provide the public with guidance regarding mortality tables to be used in determining current liability under section 412(l)(7) of the Code and section 302(d)(7) of ERISA. These regulations affect plan sponsors and administrators, and participants in and beneficiaries of, certain retirement plans.

DATES: Written or electronic comments and requests to speak and outlines of topics to be discussed at the public hearing scheduled for April 19, 2006, at 10 a.m., must be received by March 29, 2006.

ADDRESSES: Send submissions to: CC:PA:LPD:PR (REG-124988-05), room 5226, Internal Revenue Service, POB 7604, Ben Franklin Station, Washington, DC 20044. Submissions may be hand-delivered Monday through Friday between the hours of 8 a.m. and 4 p.m. to: CC:PA:LPD:PR (REG-124988-05), Courier's Desk, Internal Revenue Service, 1111 Constitution Avenue, NW., Washington, DC. Alternatively, taxpayers may submit comments electronically directly to the IRS Internet site at <http://www.irs.gov/regs>. The public hearing will be held in the Auditorium, Internal Revenue Building, 1111 Constitution Avenue, NW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Concerning the regulations, Bruce Perlin or Linda Marshall at (202) 622–6090 (not a toll-free number); concerning submissions and the hearing and/or to be placed on the building access list to attend the hearing, Treena Garrett at (202) 622–7180 (not toll-free numbers).

SUPPLEMENTARY INFORMATION:

Background

Section 412 of the Internal Revenue Code provides minimum funding requirements with respect to certain defined benefit pension plans.¹ Section 412(l) provides additional funding requirements for certain of these plans, based in part on a plan's unfunded current liability, as defined in section 412(l)(8).

Pursuant to section 412(c)(6), if the otherwise applicable minimum funding requirement exceeds the plan's full funding limitation (defined in section 412(c)(7) as the excess of a specified measure of plan liability over the plan assets), then the minimum funding for

¹ Section 302 of ERISA sets forth funding rules that are parallel to those in section 412 of the Code. Under section 101 of Reorganization Plan No. 4 of 1978 (43 FR 47713) and section 302 of ERISA, the Secretary of the Treasury has interpretive jurisdiction over the subject matter addressed in these proposed regulations for ERISA, as well as the Code. Thus, these proposed Treasury regulations issued under section 412 of the Code apply as well for purposes of section 302 of ERISA.

the year is reduced by that excess. Under section 412(c)(7)(E), the full funding limitation cannot be less than the excess of 90% of the plan's current liability (including the expected increase in current liability due to benefits accruing during the plan year) over the value of the plan's assets. For this purpose, the term *current liability* generally has the same meaning given that term under section 412(l)(7).

Section 412(l)(7)(C)(ii) provides that, for purposes of determining current liability in plan years beginning on or after January 1, 1995, the mortality table used is the table prescribed by the Secretary. Under section 412(l)(7)(C)(ii)(I), the initial mortality table used in determining current liability under section 412(l)(7) must be based on the prevailing commissioners' standard table (described in section 807(d)(5)(A)) used to determine reserves for group annuity contracts issued on January 1, 1993. For purposes of section 807(d)(5), Rev. Rul. 92-19 (1992-1 C.B. 227) specifies the prevailing commissioners' standard table used to determine reserves for group annuity contracts issued on January 1, 1993, as the 1983 Group Annuity Mortality Table (1983 GAM). Accordingly, Rev. Rul. 95-28 (1995-1 C.B. 74) sets forth two gender-specific mortality tables—based on 1983 GAM—for purposes of determining current liability for participants who are not entitled to disability benefits.²

Section 412(l)(7)(C)(iii)(I) specifies that the Secretary is to establish different mortality tables to be used to determine current liability for individuals who are entitled to benefits under the plan on account of disability. One such set of tables is to apply to individuals whose disabilities occur in

plan years beginning before January 1, 1995, and a second set of tables for individuals whose disabilities occur in plan years beginning on or after such date. Under section 412(l)(7)(C)(iii)(II), the separate tables for disabilities that occur in plan years beginning after December 31, 1994 apply only with respect to individuals who are disabled within the meaning of title II of the Social Security Act and the regulations thereunder. Rev. Rul. 96-7 (1996-1 C.B. 59) sets forth the mortality tables established under section 412(l)(7)(C)(iii).

Under section 412(l)(7)(C)(ii)(III), the Secretary of the Treasury is required to periodically (at least every 5 years) review any tables in effect under that subsection and, to the extent necessary, by regulation update the tables to reflect the actual experience of pension plans and projected trends in such experience. Section 412(l)(7)(C)(ii)(II) provides that the updated tables are to take into account the results of available independent studies of mortality of individuals covered by pension plans. Pursuant to section 412(l)(7)(C)(ii)(II), any new mortality tables prescribed by regulation can be effective no earlier than the first plan year beginning after December 31, 1999. Under section 412(l)(10), increases in current liability arising from the adoption of such a new mortality table generally are required to be amortized over a 10-year period.

In order to facilitate the review of the applicable mortality tables pursuant to section 412(l)(7)(C)(ii)(III), Rev. Rul. 95-28 requested comments concerning the mortality table to be used for determining current liability for plan years beginning after December 31, 1999, and information on existing or upcoming independent studies of mortality of individuals covered by pension plans. In Announcement 2000-7 (2000-1 C.B. 586), the IRS and the Treasury Department also requested comments regarding mortality tables to be used for determining current liability for plan years beginning after December 31, 1999, but indicated that it was anticipated that in no event would there be any change in the mortality tables for plan years beginning before January 1, 2001.

Notice 2003-62 (2003-2 C.B. 576) was issued as part of the periodic review by the IRS and the Treasury Department of the mortality tables used in determining current liability under section 412(l)(7). At the time the Notice 2003-62 was issued, the IRS and the Treasury Department were aware of two reviews of mortality experience for retirement plan participants undertaken by the Retirement Plans Experience Committee

of the Society of Actuaries (the UP-94 Study and the RP-2000 Mortality Tables Report),³ and commentators were invited to submit any other independent studies of pension plan mortality experience. Notice 2003-62 also requested the submission of studies regarding projected trends in mortality experience. With respect to projecting mortality improvements, the IRS and the Treasury Department requested comments regarding the advantages and disadvantages of reflecting these trends on an ongoing basis through the use of generational, modified generational, or sequentially static mortality tables.

In addition, Notice 2003-62 requested comments on whether certain risk factors should be taken into account in predicting an individual's mortality. Comments were requested as to the extent that separate mortality tables should be prescribed that take into account these factors, with particular attention paid to the administrative issues in applying such distinctions. In this regard, comments were specifically requested as to how it would be determined which category an individual fits into, the extent to which an individual, once categorized, remains in that same category, the classification of individuals for whom adequate information is unavailable, whether distinctions are applicable to beneficiaries, and the extent to which distinctions may overlap or work at cross purposes. Some examples of factors that were listed in Notice 2003-62 are the following: gender, tobacco use, job classification, annuity size, and income. Comments were also requested as to whether classification systems, if permitted, should be mandatory or optional. A number of comments were submitted regarding the issues identified in Notice 2003-62.

The IRS and the Treasury Department have reviewed the mortality tables that are used for purposes of determining current liability for participants and beneficiaries (other than disabled participants). The existing mortality table for determining current liability (1983 GAM) was compared to independent studies of mortality of individuals covered by pension plans, after reflecting projected trends for mortality improvement through 2007. The comparison indicates that the 1983

² Section 417(e)(3)(A)(ii)(I) requires the present value of certain distributions to be determined using a table prescribed by the Secretary based on the prevailing commissioners' standard table (described in section 807(d)(5)(A)) used to determine reserves for group annuity contracts issued on the date as of which present value is being determined. Thus, in contrast to the mortality table initially prescribed for determining current liability under section 412(l)(7)(C)(ii)(I), the mortality table used to determine present value under section 417(e)(3)(A)(ii)(I) is not fixed as of a specified date but, rather, must be updated when the prevailing commissioner's standard table changes. Rev. Rul. 95-6 (1995-1 C.B. 80) set forth tables under section 417(e)(3)(A)(ii)(I) based on 1983 GAM, which was the prevailing commissioner's standard table at that time. The 1994 Group Annuity Reserving Table became the prevailing commissioners' standard table under section 807(d)(5)(A) for annuities issued on or after January 1, 1999. See Rev. Rul. 2001-38 (2001-2 C.B. 124). Accordingly, Rev. Rul. 2001-62 (2001-2 C.B. 632) required plans to adopt a new mortality table (based on the 1994 Group Annuity Reserving Table) for calculating the minimum present value of distributions pursuant to section 417(e).

³ The UP-94 Study, prepared by the UP-84 Task Force of the Society of Actuaries, was published in the Transactions of the Society of Actuaries, Vol. XLVII (1995), p. 819. The RP-2000 Mortality Table Report was released in July, 2000. Society of Actuaries, RP-2000 Mortality Tables Report, at <http://www.soa.org/ccm/content/research-publications/experience-studies-tools/the-rp-2000-mortality-tables/>.

GAM is no longer appropriate for determining current liability. For example, comparing the RP-2000 Combined Healthy Mortality Table for males projected to 2007 (when this proposed regulation would take effect) with the 1983 GAM shows that a current mortality table reflects a 52% decrease in the number of expected deaths at age 50, a 26% decrease at 65, and an 19% decrease at age 80. Comparing annuity values derived under these updated mortality rates with annuity values determined under the 1983 GAM shows an increase in present value of 12% for a 35-year-old male with a deferred annuity payable at age 65, a 5% increase for a 55-year-old male with an immediate annuity, and a 7% increase for a 75-year-old male with an immediate annuity (all calculated at a 6% interest rate). Female mortality rates also changed, although with a different pattern. For females, the number of expected deaths decreased by 10% at age 50, but increased by 33% at age 65 and increased by 2% at age 80.⁴ Comparing annuity values derived under these updated mortality rates with annuity values determined under the 1983 GAM shows a decrease in present value of 3% for a 35-year-old female with a deferred annuity payable at age 65, a 2% decrease for a 55-year-old female with an immediate annuity, and a 2% decrease for a 75-year-old female with an immediate annuity (all calculated at a 6% interest rate).

Based on this review of the 1983 GAM compared to more recent mortality experience, the IRS and Treasury Department have determined that updated mortality tables should be used to determine current liability for participants and beneficiaries (other than disabled participants).⁵

Explanation of Provisions

The proposed regulations would set forth the methodology the IRS and Treasury would use to establish mortality tables to be used under section 412(l)(7)(C)(ii) to determine current liability for participants and beneficiaries (other than disabled participants). The mortality tables that would apply for the 2007 plan year are

set forth in the proposed regulations. The mortality tables that would be used for subsequent plan years would be published in the Internal Revenue Bulletin. Comments are requested regarding whether it would be desirable to publish a series of tables for each of a number of years (such as five years) along with final regulations, with tables for subsequent years to be published in the Internal Revenue Bulletin.

These new mortality tables would be based on the tables contained in the RP-2000 Mortality Tables Report. Commentators generally recommended that the RP-2000 mortality tables be the basis for the mortality tables used under section 412(l)(7)(C)(ii) (although one commentator urged that large employers be permitted to use mortality tables tailored to their actual mortality experience). The IRS and the Treasury Department have reviewed the RP-2000 mortality tables and the accompanying report published by the Society of Actuaries, and have determined that the RP-2000 mortality tables form the best available basis for predicting mortality of pension plan participants and beneficiaries (other than disabled participants) based on pension plan experience and expected trends. Accordingly, the proposed regulations would change the mortality tables used to determine current liability from tables based on 1983 GAM to updated tables based on the RP-2000 mortality tables. As under the currently applicable mortality tables, the mortality tables set forth in these proposed regulations are gender-distinct because of significant differences between expected male mortality and expected female mortality.

The proposed regulations would provide for separate sets of tables for annuitants and nonannuitants. This distinction has been made because the RP-2000 Mortality Tables Report indicates that these two groups have significantly different mortality experience. This is particularly true at typical ages for early retirees, where the number of health-induced early retirements results in a population that has higher mortality rates than the population of currently employed individuals. Under the proposed regulations, the annuitant mortality table would be applied to determine the present value of benefits for each annuitant. The annuitant mortality table is also used for each nonannuitant (*i.e.*, an active employee or a terminated vested participant) for the period after which the nonannuitant is projected to commence receiving benefits, while the nonannuitant mortality table is applied for the period before the nonannuitant

is projected to commence receiving benefits. Thus, for example, with respect to a 45-year-old active participant who is projected to commence receiving an annuity at age 55, current liability would be determined using the nonannuitant mortality table for the period before the participant attains age 55 (*i.e.*, so that the probability of an active male participant living from age 45 to the age of 55 using the mortality table that would apply in 2007 is 98.59%) and the annuitant mortality table after the participant attains age 55. Similarly, if a 45-year-old terminated vested participant is projected to commence an annuity at age 65, current liability would be determined using the nonannuitant mortality table for the period before the participant attains age 65 and the annuitant mortality table for ages 65 and above.

The mortality tables that would be established pursuant to this regulation would be based on mortality improvements through the year of the actuarial valuation and would reflect the impact of further expected improvements in mortality.

Commentators generally stated that the projection of mortality improvement is desirable because it reflects expected mortality more accurately than using mortality tables that do not reflect such projection. The IRS and Treasury agree with these comments, and believe that failing to project mortality improvement in determining current liability would tend to leave plans underfunded. The regulations would specify the projection factors that are to be used to calculate expected mortality improvement. These projection factors are from Mortality Projection Scale AA, which was also recommended for use in the UP-94 Study and RP-2000 Mortality Tables Report. The mortality tables for annuitants are generally based on a future projection period of 7 years, and the mortality tables for nonannuitants are generally based on a future projection period of 15 years. These projection periods were selected as the expected average duration of liabilities and are consistent with projection periods suggested by commentators.

The RP-2000 Mortality Tables Report did not develop mortality rates for annuitants younger than 50 years of age or for nonannuitants older than 70 years of age. The mortality tables for annuitants use the values that apply for the nonannuitant mortality tables at younger ages, with a smoothed transition to the annuitant mortality tables by age 50. Similarly, the mortality tables for both male and female nonannuitants use the values that apply

⁴ The developers of the 1983 GAM table acknowledged that the number of female lives used to develop the table had been relatively small and they recommended an age setback to the male table be used rather than a separate female table. See Development of the 1983 Group Annuity Mortality Table, Transaction of the Society of Actuaries, Vol. XXXV (1983), pp. 859, 883-84.

⁵ The IRS and Treasury are in the process of reviewing recent mortality experience and expected trends for disabled participants to determine whether updated mortality tables under section 412(l)(7)(C)(iii) are needed.

for the annuitant mortality tables at older ages (*i.e.*, ages above 70), with a smoothed transition to the nonannuitant mortality tables by age 70.

The mortality tables for annuitants applicable for the 2007 plan year would use the values that apply for the nonannuitant mortality tables at ages 40 and younger for males and at ages 44 and younger for females with a smoothed transition to the annuitant mortality tables between the ages of 41 and 49 for males and between 45 and 49 for females. Similarly, the mortality tables for both male and female nonannuitants applicable for the 2007 plan year use the values that apply for the annuitant mortality tables at ages 80 and older, with a smoothed transition to the nonannuitant mortality tables between the ages of 71 and 79.

The proposed regulations would provide an option for smaller plans (*i.e.*, plans where the total of active and inactive participants is less than 500) to use a single blended table for all healthy participants—in lieu of the separate tables for annuitants and nonannuitants—in order to simplify the actuarial valuation for these plans. This blended table would be constructed from the separate nonannuitant and annuitant tables using the nonannuitant/annuitant weighting factors published in the RP–2000 Mortality Tables Report. However, because the RP–2000 Mortality Tables Report does not provide weighting factors before age 50 or after age 70, the IRS and the Treasury Department would extend the table of weighting factors for ages 41 through 50 (ages 45–50 for females) and for ages 70 through 79 in order to develop the blended table.

The proposed regulations do not provide for the use of generational mortality tables to compute a plan's current liability. Although commentators generally stated that the use of generational mortality tables provides a more accurate prediction of participant mortality, they urged against requiring the use of generational mortality tables, arguing that many actuarial valuation systems are not currently capable of using a generational approach to mortality improvement. However, several commentators requested that the use of generational mortality tables be permitted on an optional basis. The IRS and the Treasury Department agree that the use of generational mortality tables would be preferable, but believe that the approach taken in the proposed regulations (*i.e.*, projecting liabilities for annuitants and nonannuitants to average expected duration) is appropriate because it reasonably approximates the use of

generational tables without being overly complex to apply. In light of several comments requesting that the use of generational tables be optional, the IRS and the Treasury Department are considering adopting such a rule and request comments regarding any issues that might arise in implementing an optional use of a generational table. In addition, comments are requested regarding how much lead time would be appropriate if generational mortality tables were to be required in the future.

The RP–2000 mortality tables and the accompanying report analyze differences in expected mortality based on a number of factors, including job classification, annuity size, employment status (*i.e.*, active or retired), and industry. The IRS and the Treasury Department have considered whether separate mortality tables should be provided based on any of these distinctions, or on other distinctions cited in Notice 2003–62, such as tobacco use or income level. The IRS and the Treasury Department have concluded that it is inappropriate to apply distinctions other than the annuitant and nonannuitant distinction described above. In general, these other distinctions were not made because of the complexity involved in the process. For example, no distinction was made for tobacco use because of the difficulty in obtaining, maintaining, and documenting accurate data on the extent of tobacco use.

Although several commentators recommended that separate mortality tables apply to plans that are determined to be “white collar” or “blue collar” in nature, the IRS and Treasury have not adopted this recommendation because of serious administrability concerns. Commentators recognized that it may be difficult to identify whether a specific individual falls into the category of blue collar or white collar (especially if an individual has shifted job classifications during his or her career), and suggested that the classification be based on whether the plan is primarily composed of blue collar employees or white collar employees or whether a plan covers a mixed population of blue collar and white collar employees. While the plan-wide classification may avoid the difficulties of categorizing those individuals who are hard to classify as either blue collar or white collar, it would create additional problems if a plan shifted between these categories.

More importantly, the RP–2000 Mortality Tables Report indicates that plans that are primarily blue collar in nature, but that provide large annuities, tend to have significantly better

mortality experience than the average mortality for individuals in the RP–2000 Mortality Tables Report. As a result, classifying such a plan as blue collar and allowing the plan to use a weaker mortality table will lead to systematic underfunding of the plan.⁶ Other concerns weighing against the use of separate tables for blue collar and white collar plans include the risk of anti-selection by plans in the absence of mandatory adjustments and the lack of research showing the extent to which any mortality differences attributable to blue collar or white collar status extend to beneficiaries of the plan.

As noted above, the mortality experience is significantly different for annuitants and nonannuitants. While the use of separate mortality rates for these groups of individuals will likely entail changes in programming of actuarial software, the IRS and Treasury believe that the improvement in accuracy resulting from the use of separate mortality tables for annuitants and nonannuitants more than offsets the added complexity. Furthermore, the annuitant/nonannuitant distinction does not have the same difficult administrative issues as separate tables based on collar type, annuity size, or tobacco. This is because it is usually a straightforward process to categorize an individual as an annuitant or a nonannuitant, and once an individual is categorized as an annuitant, the individual's status usually does not change again.

Proposed Effective Date

These regulations are proposed to apply to plan years beginning on or after January 1, 2007.

Special Analyses

It has been determined that this notice of proposed rulemaking is not a significant regulatory action as defined in Executive Order 12866. Therefore, a regulatory assessment is not required. It is hereby certified that these regulations will not have a significant economic impact on a substantial number of small entities. This certification is based upon the fact that these regulations provide for special rules to simplify the application of these regulations by actuaries who provide services for small entities. Therefore, a Regulatory Flexibility Analysis under the

⁶ Although some commentators suggested addressing this problem by treating some highly compensated union employees as if they were white collar workers, the developers of the RP–2000 Mortality Tables Report (and the researchers they hired to apply a multivariate analysis of the data) were unable to find a practical model to apply the combined effect of collar and annuity amount on mortality.

Regulatory Flexibility Act (5 U.S.C. chapter 6) is not required. Pursuant to section 7805(f) of the Code, this notice of proposed rulemaking will be submitted to the Chief Counsel for Advocacy of the Small Business Administration for comment on its impact on small business.

Comments and Public Hearing

Before these proposed regulations are adopted as final regulations, consideration will be given to any written (a signed original and eight (8) copies) or electronic comments that are submitted timely to the IRS. The IRS and Treasury Department specifically request comments on the clarity of the proposed regulations and how they may be made easier to understand. All comments will be available for public inspection and copying.

A public hearing has been scheduled for April 19, 2006, at 10 a.m. in the auditorium, Internal Revenue Building, 1111 Constitution Avenue, NW., Washington, DC. Due to building security procedures, visitors must use the main building entrance on Constitution Avenue. In addition, all visitors must present photo identification to enter the building. Because of access restrictions, visitors will not be admitted beyond the immediate entrance area more than 30 minutes before the hearing starts. For more information about having your name placed on the list to attend the hearing, see the **FOR FURTHER INFORMATION CONTACT** section of this preamble.

The rules of 26 CFR 601.601(a)(3) apply to the hearing. Persons who wish to present oral comments at the hearing must submit written (signed original and eight (8) copies) or electronic comments and an outline of the topics to be discussed and the time to be devoted to each topic by March 29, 2006. A period of 10 minutes will be allotted to each person for making comments. An agenda showing the scheduling of the speakers will be prepared after the deadline for receiving outlines has passed. Copies of the agenda will be available free of charge at the hearing.

Drafting Information

The principal authors of these regulations are Bruce Perlin and Linda S.F. Marshall, Office of Division Counsel/Associate Chief Counsel (Tax Exempt and Government Entities). However, other personnel from the IRS and Treasury participated in the development of these regulations.

List of Subjects in 26 CFR Part 1

Income taxes, Reporting and recordkeeping requirements.

Amendments to the Regulations

Accordingly, 26 CFR part 1 is proposed to be amended as follows:

PART 1—INCOME TAXES

Paragraph 1. The authority citation for part 1 continues to read, in part, as follows:

Authority: 26 U.S.C. 7805 * * *

Par. 2. Section 1.412(l)(7)-1 is added to read as follows:

§ 1.412(l)(7)-1 Mortality tables used to determine current liability.

(a) *General rules.* This section sets forth the basis used to generate mortality tables to be used in connection with computations under section 412(l)(7)(C)(ii) for determining current liability for participants and beneficiaries (other than disabled participants). The mortality tables, which reflect the probability of death at each age, that are to be used for plan years beginning during 2007, are provided in paragraph (e) of this section. The mortality tables to be used for later plan years are to be provided in guidance published in the Internal Revenue Bulletin. See § 601.601(d) of this chapter.

(b) *Use of the tables—(1) Separate tables for annuitants and nonannuitants.* Separate tables are provided for use by annuitants and nonannuitants. The annuitant mortality table is applied to determine the present value of benefits for each annuitant, and to each nonannuitant for the period after which the nonannuitant is projected to commence receiving benefits. For purposes of this section, an annuitant means a plan participant who is currently receiving benefits and a nonannuitant means a plan participant who is not currently receiving benefits (e.g., an active employee or a terminated vested participant). A participant whose benefit has partially commenced is treated as an annuitant with respect to the portion of the benefit which has commenced and a nonannuitant with respect to the balance of the benefit. The nonannuitant mortality table is applied to each nonannuitant for the period before the nonannuitant is projected to commence receiving benefits. Thus, for example, with respect to a 45-year-old active participant who is projected to commence receiving an annuity at age 55, current liability would be determined using the nonannuitant mortality table for the period before the participant attains age 55 (*i.e.*, so that

the probability of an active male participant living from age 45 to the age of 55 for the table that applies in plan years beginning in 2007 is 98.59%) and the annuitant mortality table for the period ages 55 and above. Similarly, if a 45-year-old terminated vested participant is projected to commence an annuity at age 65, current liability would be determined using the nonannuitant mortality table for the period before the participant attains age 65 and the annuitant mortality table for ages 65 and above.

(2) *Small plan tables.* As an alternative to the separate tables specified for annuitants and nonannuitants, a small plan can use a combined table that applies the same mortality rates to both annuitants and nonannuitants. For this purpose, a small plan is defined as a plan with fewer than 500 participants (including both active and inactive participants).

(c) *Construction of the tables—(1) Source of basic data.* The mortality tables are based on the separate mortality tables for employees and healthy annuitants under the RP-2000 Mortality Tables Report (<http://www.soa.org/ccm/content/research-publications/experience-studies-tools/the-rp-2000-mortality-tables/>), as set forth in paragraph (d) of this section.

(2) *Projected mortality improvements.* The mortality rates under the basic mortality tables are projected to improve using Projection Scale AA, as set forth in paragraph (d) of this section. The annuitant mortality rates for a plan year are based on applying the improvement factors from 2000 until 7 years after the plan year. The nonannuitant mortality rates for a plan year are based on applying the improvement factors from 2000 until 15 years after the plan year. The projection scale is applied using the following equation: Projected mortality rate = base mortality rate * $[(1 - \text{projection factor})^{\wedge}(\text{number of years projected})]$.

(3) *Treatment of young annuitants and older nonannuitants.* The mortality tables for annuitants use the values that apply for the nonannuitant mortality tables at younger ages, with a smoothed transition to the annuitant mortality tables by age 50. Similarly, the mortality tables for both male and female nonannuitants use the values that apply for the annuitant mortality tables at older ages (*i.e.*, ages above 70), with a smoothed transition to the nonannuitant mortality tables by age 70.

(4) *Construction of the combined table for small plans.* The combined table for small plans is constructed from the separate nonannuitant and annuitant tables using the nonannuitant weighting

factors as set forth in paragraph (d) of this section. The weighting factors are applied to develop this table using the following equation: Combined mortality

rate = [non-annuitant rate * (1 - weighting factor)] + [annuitant rate * weighting factor].

(d) *Tables.* As set forth in paragraph (c) of this section, the following values

are used to develop the mortality tables that are used for determining current liability under section 412(l)(7)(C)(ii) and this section.

Age	Male				Female			
	Non-annuitant table (year 2000)	Annuitant table (year 2000)	Projection scale AA ⁷	Weighting factors for small plans ⁸	Non-annuitant table (year 2000)	Annuitant table (year 2000)	Projection scale AA	Weighting factors for small plans
1	0.000637	.....	0.020	.....	0.000571	.....	0.020	.....
2	0.000430	.....	0.020	.....	0.000372	.....	0.020	.....
3	0.000357	.....	0.020	.....	0.000278	.....	0.020	.....
4	0.000278	.....	0.020	.....	0.000208	.....	0.020	.....
5	0.000255	.....	0.020	.....	0.000188	.....	0.020	.....
6	0.000244	.....	0.020	.....	0.000176	.....	0.020	.....
7	0.000234	.....	0.020	.....	0.000165	.....	0.020	.....
8	0.000216	.....	0.020	.....	0.000147	.....	0.020	.....
9	0.000209	.....	0.020	.....	0.000140	.....	0.020	.....
10	0.000212	.....	0.020	.....	0.000141	.....	0.020	.....
11	0.000219	.....	0.020	.....	0.000143	.....	0.020	.....
12	0.000228	.....	0.020	.....	0.000148	.....	0.020	.....
13	0.000240	.....	0.020	.....	0.000155	.....	0.020	.....
14	0.000254	.....	0.019	.....	0.000162	.....	0.018	.....
15	0.000269	.....	0.019	.....	0.000170	.....	0.016	.....
16	0.000284	.....	0.019	.....	0.000177	.....	0.015	.....
17	0.000301	.....	0.019	.....	0.000184	.....	0.014	.....
18	0.000316	.....	0.019	.....	0.000188	.....	0.014	.....
19	0.000331	.....	0.019	.....	0.000190	.....	0.015	.....
20	0.000345	.....	0.019	.....	0.000191	.....	0.016	.....
21	0.000357	.....	0.018	.....	0.000192	.....	0.017	.....
22	0.000366	.....	0.017	.....	0.000194	.....	0.017	.....
23	0.000373	.....	0.015	.....	0.000197	.....	0.016	.....
24	0.000376	.....	0.013	.....	0.000201	.....	0.015	.....
25	0.000376	.....	0.010	.....	0.000207	.....	0.014	.....
26	0.000378	.....	0.006	.....	0.000214	.....	0.012	.....
27	0.000382	.....	0.005	.....	0.000223	.....	0.012	.....
28	0.000393	.....	0.005	.....	0.000235	.....	0.012	.....
29	0.000412	.....	0.005	.....	0.000248	.....	0.012	.....
30	0.000444	.....	0.005	.....	0.000264	.....	0.010	.....
31	0.000499	.....	0.005	.....	0.000307	.....	0.008	.....
32	0.000562	.....	0.005	.....	0.000350	.....	0.008	.....
33	0.000631	.....	0.005	.....	0.000394	.....	0.009	.....
34	0.000702	.....	0.005	.....	0.000435	.....	0.010	.....
35	0.000773	.....	0.005	.....	0.000475	.....	0.011	.....
36	0.000841	.....	0.005	.....	0.000514	.....	0.012	.....
37	0.000904	.....	0.005	.....	0.000554	.....	0.013	.....
38	0.000964	.....	0.006	.....	0.000598	.....	0.014	.....
39	0.001021	.....	0.007	.....	0.000648	.....	0.015	.....
40	0.001079	.....	0.008	.....	0.000706	.....	0.015	.....
41	0.001142	.....	0.009	0.0045	0.000774	.....	0.015	.....
42	0.001215	.....	0.010	0.0091	0.000852	.....	0.015	.....
43	0.001299	.....	0.011	0.0136	0.000937	.....	0.015	.....
44	0.001397	.....	0.012	0.0181	0.001029	.....	0.015	.....
45	0.001508	.....	0.013	0.0226	0.001124	.....	0.016	0.0084
46	0.001616	.....	0.014	0.0272	0.001223	.....	0.017	0.0167
47	0.001734	.....	0.015	0.0317	0.001326	.....	0.018	0.0251
48	0.001860	.....	0.016	0.0362	0.001434	.....	0.018	0.0335
49	0.001995	.....	0.017	0.0407	0.001550	.....	0.018	0.0419
50	0.002138	0.005347	0.018	0.0453	0.001676	0.002344	0.017	0.0502
51	0.002288	0.005528	0.019	0.0498	0.001814	0.002459	0.016	0.0586
52	0.002448	0.005644	0.020	0.0686	0.001967	0.002647	0.014	0.0744
53	0.002621	0.005722	0.020	0.0953	0.002135	0.002895	0.012	0.0947
54	0.002812	0.005797	0.020	0.1288	0.002321	0.003190	0.010	0.1189
55	0.003029	0.005905	0.019	0.2066	0.002526	0.003531	0.008	0.1897
56	0.003306	0.006124	0.018	0.3173	0.002756	0.003925	0.006	0.2857
57	0.003628	0.006444	0.017	0.3780	0.003010	0.004385	0.005	0.3403
58	0.003997	0.006895	0.016	0.4401	0.003291	0.004921	0.005	0.3878
59	0.004414	0.007485	0.016	0.4986	0.003599	0.005531	0.005	0.4360
60	0.004878	0.008196	0.016	0.5633	0.003931	0.006200	0.005	0.4954
61	0.005382	0.009001	0.015	0.6338	0.004285	0.006919	0.005	0.5805
62	0.005918	0.009915	0.015	0.7103	0.004656	0.007689	0.005	0.6598
63	0.006472	0.010951	0.014	0.7902	0.005039	0.008509	0.005	0.7520

Age	Male				Female			
	Non-annuitant table (year 2000)	Annuitant table (year 2000)	Projection scale AA ⁷	Weighting factors for small plans ⁸	Non-annuitant table (year 2000)	Annuitant table (year 2000)	Projection scale AA	Weighting factors for small plans
64	0.007028	0.012117	0.014	0.8355	0.005429	0.009395	0.005	0.8043
65	0.007573	0.013419	0.014	0.8832	0.005821	0.010364	0.005	0.8552
66	0.008099	0.014868	0.013	0.9321	0.006207	0.011413	0.005	0.9118
67	0.008598	0.016460	0.013	0.9510	0.006583	0.012540	0.005	0.9367
68	0.009069	0.018200	0.014	0.9639	0.006945	0.013771	0.005	0.9523
69	0.009510	0.020105	0.014	0.9714	0.007289	0.015153	0.005	0.9627
70	0.009922	0.022206	0.015	0.9740	0.007613	0.016742	0.005	0.9661
71	0.024570	0.015	0.9766	.....	0.018579	0.006	0.9695
72	0.027281	0.015	0.9792	.....	0.020665	0.006	0.9729
73	0.030387	0.015	0.9818	.....	0.022970	0.007	0.9763
74	0.033900	0.015	0.9844	.....	0.025458	0.007	0.9797
75	0.037834	0.014	0.9870	.....	0.028106	0.008	0.9830
76	0.042169	0.014	0.9896	.....	0.030966	0.008	0.9864
77	0.046906	0.013	0.9922	.....	0.034105	0.007	0.9898
78	0.052123	0.012	0.9948	.....	0.037595	0.007	0.9932
79	0.057927	0.011	0.9974	.....	0.041506	0.007	0.9966
80	0.064368	0.010	1.0000	.....	0.045879	0.007	1.0000
81	0.072041	0.009	1.0000	.....	0.050780	0.007	1.0000
82	0.080486	0.008	1.0000	.....	0.056294	0.007	1.0000
83	0.089718	0.008	1.0000	.....	0.062506	0.007	1.0000
84	0.099779	0.007	1.0000	.....	0.069517	0.007	1.0000
85	0.110757	0.007	1.0000	.....	0.077446	0.006	1.0000
86	0.122797	0.007	1.0000	.....	0.086376	0.005	1.0000
87	0.136043	0.006	1.0000	.....	0.096337	0.004	1.0000
88	0.150590	0.005	1.0000	.....	0.107303	0.004	1.0000
89	0.166420	0.005	1.0000	.....	0.119154	0.003	1.0000
90	0.183408	0.004	1.0000	.....	0.131682	0.003	1.0000
91	0.199769	0.004	1.0000	.....	0.144604	0.003	1.0000
92	0.216605	0.003	1.0000	.....	0.157618	0.003	1.0000
93	0.233662	0.003	1.0000	.....	0.170433	0.002	1.0000
94	0.250693	0.003	1.0000	.....	0.182799	0.002	1.0000
95	0.267491	0.002	1.0000	.....	0.194509	0.002	1.0000
96	0.283905	0.002	1.0000	.....	0.205379	0.002	1.0000
97	0.299852	0.002	1.0000	.....	0.215240	0.001	1.0000
98	0.315296	0.001	1.0000	.....	0.223947	0.001	1.0000
99	0.330207	0.001	1.0000	.....	0.231387	0.001	1.0000
100	0.344556	0.001	1.0000	.....	0.237467	0.001	1.0000
101	0.358628	0.000	1.0000	.....	0.244834	0.000	1.0000
102	0.371685	0.000	1.0000	.....	0.254498	0.000	1.0000
103	0.383040	0.000	1.0000	.....	0.266044	0.000	1.0000
104	0.392003	0.000	1.0000	.....	0.279055	0.000	1.0000
105	0.397886	0.000	1.0000	.....	0.293116	0.000	1.0000
106	0.400000	0.000	1.0000	.....	0.307811	0.000	1.0000
107	0.400000	0.000	1.0000	.....	0.322725	0.000	1.0000
108	0.400000	0.000	1.0000	.....	0.337441	0.000	1.0000
109	0.400000	0.000	1.0000	.....	0.351544	0.000	1.0000
110	0.400000	0.000	1.0000	.....	0.364617	0.000	1.0000
111	0.400000	0.000	1.0000	.....	0.376246	0.000	1.0000
112	0.400000	0.000	1.0000	.....	0.386015	0.000	1.0000
113	0.400000	0.000	1.0000	.....	0.393507	0.000	1.0000
114	0.400000	0.000	1.0000	.....	0.398308	0.000	1.0000
115	0.400000	0.000	1.0000	.....	0.400000	0.000	1.0000
116	0.400000	0.000	1.0000	.....	0.400000	0.000	1.0000
117	0.400000	0.000	1.0000	.....	0.400000	0.000	1.0000
118	0.400000	0.000	1.0000	.....	0.400000	0.000	1.0000
119	0.400000	0.000	1.0000	.....	0.400000	0.000	1.0000
120	1.000000	0.000	1.0000	.....	1.000000	0.000	1.0000

(e) *Tables for plan years beginning during 2007.* The following tables are to

be used for determining current liability

under section 412(l)(7)(C)(ii) for plan years beginning during 2007.

Age	Male			Female		
	Non-annuitant table	Annuitant table	Optional combined table for small plans	Non-annuitant table	Annuitant table	Optional combined table for small plans
1	0.000408	0.000408	0.000408	0.000366	0.000366	0.000366
2	0.000276	0.000276	0.000276	0.000239	0.000239	0.000239
3	0.000229	0.000229	0.000229	0.000178	0.000178	0.000178
4	0.000178	0.000178	0.000178	0.000133	0.000133	0.000133
5	0.000163	0.000163	0.000163	0.000121	0.000121	0.000121
6	0.000156	0.000156	0.000156	0.000113	0.000113	0.000113
7	0.000150	0.000150	0.000150	0.000106	0.000106	0.000106
8	0.000138	0.000138	0.000138	0.000094	0.000094	0.000094
9	0.000134	0.000134	0.000134	0.000090	0.000090	0.000090
10	0.000136	0.000136	0.000136	0.000090	0.000090	0.000090
11	0.000140	0.000140	0.000140	0.000092	0.000092	0.000092
12	0.000146	0.000146	0.000146	0.000095	0.000095	0.000095
13	0.000154	0.000154	0.000154	0.000099	0.000099	0.000099
14	0.000167	0.000167	0.000167	0.000109	0.000109	0.000109
15	0.000176	0.000176	0.000176	0.000119	0.000119	0.000119
16	0.000186	0.000186	0.000186	0.000127	0.000127	0.000127
17	0.000197	0.000197	0.000197	0.000135	0.000135	0.000135
18	0.000207	0.000207	0.000207	0.000138	0.000138	0.000138
19	0.000217	0.000217	0.000217	0.000136	0.000136	0.000136
20	0.000226	0.000226	0.000226	0.000134	0.000134	0.000134
21	0.000239	0.000239	0.000239	0.000132	0.000132	0.000132
22	0.000251	0.000251	0.000251	0.000133	0.000133	0.000133
23	0.000267	0.000267	0.000267	0.000138	0.000138	0.000138
24	0.000282	0.000282	0.000282	0.000144	0.000144	0.000144
25	0.000301	0.000301	0.000301	0.000152	0.000152	0.000152
26	0.000331	0.000331	0.000331	0.000164	0.000164	0.000164
27	0.000342	0.000342	0.000342	0.000171	0.000171	0.000171
28	0.000352	0.000352	0.000352	0.000180	0.000180	0.000180
29	0.000369	0.000369	0.000369	0.000190	0.000190	0.000190
30	0.000398	0.000398	0.000398	0.000212	0.000212	0.000212
31	0.000447	0.000447	0.000447	0.000257	0.000257	0.000257
32	0.000503	0.000503	0.000503	0.000293	0.000293	0.000293
33	0.000565	0.000565	0.000565	0.000323	0.000323	0.000323
34	0.000629	0.000629	0.000629	0.000349	0.000349	0.000349
35	0.000692	0.000692	0.000692	0.000372	0.000372	0.000372
36	0.000753	0.000753	0.000753	0.000394	0.000394	0.000394
37	0.000810	0.000810	0.000810	0.000415	0.000415	0.000415
38	0.000844	0.000844	0.000844	0.000439	0.000439	0.000439
39	0.000875	0.000875	0.000875	0.000465	0.000465	0.000465
40	0.000904	0.000904	0.000904	0.000506	0.000506	0.000506
41	0.000936	0.000963	0.000936	0.000555	0.000555	0.000555
42	0.000974	0.001081	0.000975	0.000611	0.000611	0.000611
43	0.001018	0.001258	0.001021	0.000672	0.000672	0.000672
44	0.001071	0.001493	0.001079	0.000738	0.000738	0.000738
45	0.001131	0.001788	0.001146	0.000788	0.000791	0.000788
46	0.001185	0.002142	0.001211	0.000839	0.000896	0.000840
47	0.001244	0.002554	0.001286	0.000889	0.001054	0.000893
48	0.001304	0.003026	0.001366	0.000962	0.001265	0.000972
49	0.001368	0.003557	0.001457	0.001039	0.001528	0.001059
50	0.001434	0.004146	0.001557	0.001149	0.001844	0.001184
51	0.001500	0.004226	0.001636	0.001272	0.001962	0.001312
52	0.001570	0.004254	0.001754	0.001442	0.002173	0.001496
53	0.001681	0.004312	0.001932	0.001637	0.002445	0.001714
54	0.001803	0.004369	0.002134	0.001861	0.002771	0.001969
55	0.001986	0.004514	0.002508	0.002117	0.003155	0.002314
56	0.002217	0.004749	0.003020	0.002414	0.003608	0.002755
57	0.002488	0.005069	0.003464	0.002696	0.004088	0.003170
58	0.002803	0.005501	0.003990	0.002947	0.004588	0.003583
59	0.003095	0.005972	0.004529	0.003223	0.005156	0.004066
60	0.003421	0.006539	0.005177	0.003521	0.005780	0.004640
61	0.003860	0.007284	0.006030	0.003838	0.006450	0.005354
62	0.004244	0.008024	0.006929	0.004170	0.007168	0.006148
63	0.004746	0.008989	0.008099	0.004513	0.007932	0.007084
64	0.005154	0.009947	0.009159	0.004862	0.008758	0.007996
65	0.005553	0.011015	0.010377	0.005213	0.009662	0.009018
66	0.006073	0.012379	0.011951	0.005559	0.010640	0.010192
67	0.006447	0.013705	0.013349	0.005896	0.011690	0.011323
68	0.006650	0.014940	0.014641	0.006220	0.012838	0.012522
69	0.006974	0.016504	0.016231	0.006528	0.014126	0.013843
70	0.007115	0.017971	0.017689	0.006818	0.015607	0.015309

Age	Male			Female		
	Non-annuitant table	Annuitant table	Optional combined table for small plans	Non-annuitant table	Annuitant table	Optional combined table for small plans
71	0.008002	0.019884	0.019606	0.007450	0.017078	0.016784
72	0.009777	0.022078	0.021822	0.008714	0.018995	0.018716
73	0.012439	0.024592	0.024371	0.010610	0.020819	0.020577
74	0.015988	0.027435	0.027256	0.013139	0.023074	0.022872
75	0.020425	0.031057	0.030919	0.016299	0.025117	0.024967
76	0.025749	0.034615	0.034523	0.020092	0.027673	0.027570
77	0.031961	0.039054	0.038999	0.024516	0.030911	0.030846
78	0.039059	0.044018	0.043992	0.029573	0.034074	0.034043
79	0.047046	0.049617	0.049610	0.035261	0.037618	0.037610
80	0.055919	0.055919	0.055919	0.041582	0.041582	0.041582
81	0.063476	0.063476	0.063476	0.046024	0.046024	0.046024
82	0.071926	0.071926	0.071926	0.051021	0.051021	0.051021
83	0.080176	0.080176	0.080176	0.056651	0.056651	0.056651
84	0.090433	0.090433	0.090433	0.063006	0.063006	0.063006
85	0.100383	0.100383	0.100383	0.071188	0.071188	0.071188
86	0.111295	0.111295	0.111295	0.080522	0.080522	0.080522
87	0.125051	0.125051	0.125051	0.091080	0.091080	0.091080
88	0.140385	0.140385	0.140385	0.101448	0.101448	0.101448
89	0.155142	0.155142	0.155142	0.114246	0.114246	0.114246
90	0.173400	0.173400	0.173400	0.126258	0.126258	0.126258
91	0.188868	0.188868	0.188868	0.138648	0.138648	0.138648
92	0.207683	0.207683	0.207683	0.151126	0.151126	0.151126
93	0.224037	0.224037	0.224037	0.165722	0.165722	0.165722
94	0.240367	0.240367	0.240367	0.177747	0.177747	0.177747
95	0.260098	0.260098	0.260098	0.189133	0.189133	0.189133
96	0.276058	0.276058	0.276058	0.199703	0.199703	0.199703
97	0.291564	0.291564	0.291564	0.212246	0.212246	0.212246
98	0.310910	0.310910	0.310910	0.220832	0.220832	0.220832
99	0.325614	0.325614	0.325614	0.228169	0.228169	0.228169
100	0.339763	0.339763	0.339763	0.234164	0.234164	0.234164
101	0.358628	0.358628	0.358628	0.244834	0.244834	0.244834
102	0.371685	0.371685	0.371685	0.254498	0.254498	0.254498
103	0.383040	0.383040	0.383040	0.266044	0.266044	0.266044
104	0.392003	0.392003	0.392003	0.279055	0.279055	0.279055
105	0.397886	0.397886	0.397886	0.293116	0.293116	0.293116
106	0.400000	0.400000	0.400000	0.307811	0.307811	0.307811
107	0.400000	0.400000	0.400000	0.322725	0.322725	0.322725
108	0.400000	0.400000	0.400000	0.337441	0.337441	0.337441
109	0.400000	0.400000	0.400000	0.351544	0.351544	0.351544
110	0.400000	0.400000	0.400000	0.364617	0.364617	0.364617
111	0.400000	0.400000	0.400000	0.376246	0.376246	0.376246
112	0.400000	0.400000	0.400000	0.386015	0.386015	0.386015
113	0.400000	0.400000	0.400000	0.393507	0.393507	0.393507
114	0.400000	0.400000	0.400000	0.398308	0.398308	0.398308
115	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
116	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
117	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
118	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
119	0.400000	0.400000	0.400000	0.400000	0.400000	0.400000
120	1.000000	1.000000	1.000000	1.000000	1.000000	1.000000

(f) **Effective date.** The mortality tables described in this section apply for plan years beginning on or after January 1, 2007.

Mark E. Matthews,

Deputy Commissioner for Services and Enforcement.

[FR Doc. E5-6742 Filed 12-1-05; 8:45 am]

BILLING CODE 4830-01-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 51 and 96

[OAR 2003-0053; FRL-8003-7]

Rule To Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule): Reconsideration

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of reconsideration; request for comment; notice of public hearing.

SUMMARY: On May 12, 2005, EPA published in the **Federal Register** the final "Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone" (Clean Air Interstate Rule or CAIR). The CAIR requires certain upwind States to reduce emissions of nitrogen oxides (NO_x) and/or sulfur dioxide (SO₂) that significantly contribute to nonattainment of, or interfere with maintenance by,