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or REG–122917–02 after December 31, 2005. Reliance on LR–279–81, REG–122917–02, or this section must be in its entirety, and all statutory options granted during the reliance period must be treated consistently.

[T.D. 6887, 31 FR 8808, June 24, 1966, as amended by T.D. 9144, 69 FR 46419, Aug. 3, 2004; 69 FR 61310, 61311, Oct. 18, 2004; 69 FR 70551, Dec. 7, 2004; T.D. 9471, 74 FR 59087, Nov. 17, 2009]

EDITORIAL NOTE: By T.D. 9144, 69 FR 46420, Aug. 3, 2004, the Internal Revenue Service published a document in the FEDERAL REGISTER attempting to amend §1.424–1 (c)(4)(vi) and (viii). However, because of inaccurate language, this amendment could not be incorporated. For the convenience of the user, the language at 69 FR 61311, Oct. 18, 2004, is set forth as follows:

11. Section 1.424–1(c)(4)(vi), the last sentence is removed.

12. Section 1.424–1(c)(4)(viii), second sentence, the language ''Thus, for example, if the terms of an option are inadvertently changed on March 1 to extend the exercise period and the change is removed on November, then if the option is not exercised prior to November 1, the option is not considered modified under this paragraph (e).'' is removed and the language ''Thus for example, if the terms of an option are inadvertently changed on March 1 to extend the exercise period and the change is removed on November 1, then if the option is not exercised prior to November 1, the option is not considered modified under this paragraph (e).'' is added in its place.

13. Section 1.424–1(g)(2), third sentence, the language ''For statutory options granted after June 9, 2003, and before the earlier of January 1, 2006, or the first regularly scheduled stockholders meeting of the granting corporation occurring 6 months after August 3, 2004, taxpayers may rely on either the REG–122917–02 or this section.'' is removed and the language ''For statutory options granted after June 9, 2003, and before the earlier of January 1, 2006, or the first regularly scheduled stockholders meeting of the granting corporation occurring at least 6 months after August 3, 2004, taxpayers may rely on either the REG–122917–02 or this section.'' is added in its place.

§§ 1.425–1.429 [Reserved]

§ 1.430(d)–1 Determination of target normal cost and funding target.

(a) *In general*—(1) *Overview*. This section sets forth rules for determining a plan's target normal cost and funding target under sections 430(b) and 430(d), including guidance relating to the rules regarding actuarial assumptions under sections 430(h)(1), 430(h)(4), and 430(h)(5). Section 430 and this section apply to single employer defined benefit plans (including multiple employer plans as defined in section 413(c)) that are subject to section 412, but do not apply to multiemployer plans (as defined in section 414(f)). For further guidance on actuarial assumptions, *see* §1.430(h)(2)–1 (relating to interest rates) and §§1.430(h)(3)–1 and 1.430(h)(3)–2 (relating to mortality tables). *See* also §1.430(i)–1 for the determination of the funding target and the target normal cost for a plan that is in at-risk status.

(2) *Organization of regulation*. Paragraph (b) of this section sets forth certain definitions that apply for purposes of section 430. Paragraph (c) of this section provides rules regarding which benefits are taken into account in determining a plan's target normal cost and funding target. Paragraph (d) of this section sets forth the rules regarding the plan provisions that are taken into account in making these determinations, and paragraph (e) of this section provides rules on the plan population that is taken into account for this purpose. Paragraph (f) of this section provides rules relating to the actuarial assumptions and the plan's funding method that are used to determine present values. Paragraph (g) of this section contains effective/applicability dates and transition rules.

(3) *Special rules for multiple employer plans*. In the case of a multiple employer plan to which section 413(c)(4)(A) applies, the rules of section 430 and this section are applied separately for each employer under the plan, as if each employer maintained a separate plan. Thus, the plan's funding target and target normal cost are computed separately for each employer under such a multiple employer plan. In the case of a multiple employer plan to which section 413(c)(4)(A) does not apply (that is, a plan described in section 413(c)(4)(B) that has not made the election for section 413(c)(4)(A) to apply), the rules of section 430 and this section are applied as if all participants in the plan were employed by a single employer.

(b) *Definitions*—(1) *Target normal cost*—(i) *In general.* For a plan that is not in at-risk status under section 430(i) for a plan year, subject to the adjustments described in paragraph (b)(1)(iii) of this section, the *target normal cost* of the plan for the plan year is the present value (determined as of the valuation date) of all benefits under the plan that accrue during, are earned during, or are otherwise allocated to service for the plan year under the applicable rules of this section, including paragraph (c)(1)(ii)(B), (C), or (D) of this section. *See* §1.430(i)–1(d) and (e)(2) for the determination of the target normal cost for a plan that is in at-risk status.

(ii) *Benefits allocated to a plan year.* The benefits that accrue, are earned, or are otherwise allocated to service for the plan year are based on the actual benefits accrued, earned, or otherwise allocated to service for the plan year through the valuation date and benefits expected to accrue, be earned, or be otherwise allocated to service for the plan year for the period from the valuation date through the end of the plan year. The benefits that are allocated to the plan year under the rules of paragraph (c) of this section include any increase in benefits during the plan year that is attributable to increases in compensation for the current plan year even if that increase in benefits is with respect to benefits attributable to service performed in a preceding plan year. In addition, the benefits that are allocated to the plan year under the rules of paragraph (c) of this section include any increase in benefits during the plan year that arises on account of mandatory employee contributions (within the meaning of §1.411(c)–1(c)(4)) that are made during the plan year.

(iii) *Special adjustments*—(A) *In general.* The target normal cost of the plan for the plan year (determined under paragraph (b)(1)(i) of this section) is adjusted (not below zero) by adding the amount of plan-related expenses expected to be paid from plan assets during the plan year and subtracting the amount of mandatory employee contributions (within the meaning of §1.411(c)–1(c)(4)) that are expected to be made during the plan year.

(B) *Plan-related expenses.* [Reserved]

(2) *Funding target.* For a plan that is not in at-risk status under section 430(i) for a plan year, the funding target of the plan for the plan year is the present value (determined as of the valuation date) of all benefits under the plan that have been accrued, earned, or otherwise allocated to years of service prior to the first day of the plan year under the applicable rules of this section, including paragraph (c)(1)(ii)(B), (C), or (D) of this section. *See* §1.430(i)–1(c) and (e)(1) for the determination of the funding target for a plan that is in at-risk status.

(3) *Funding target attainment percentage*—(i) *In general.* Except as otherwise provided in this paragraph (b)(3), the funding target attainment percentage of a plan for a plan year is a fraction (expressed as a percentage)—

(A) The numerator of which is the value of plan assets for the plan year (determined under the rules of §1.430(g)–1) after subtraction of the prefunding balance and the funding standard carryover balance under section 430(f)(4)(B) and §1.430(f)–1(c); and

(B) The denominator of which is the funding target of the plan for the plan year (determined without regard to the at-risk rules of section 430(i) and §1.430(i)–1).

(ii) *Determination of funding target attainment percentage for plans with delayed effective dates.* If section 430 does not apply for purposes of determining the plan's minimum required contribution for a plan year that begins on or after January 1, 2008 (as is the case for a plan described in section 104, 105, or 106 of the Pension Protection Act of 2006 (PPA '06), Public Law 109–280 (120 Stat. 780)), then the funding target attainment percentage is determined for that plan year in accordance with the rules of paragraph (b)(3)(i) of this section in the same manner as for a plan to which section 430 applies to determine the plan's minimum required contribution, except that the value of plan assets that forms the numerator under paragraph (b)(3)(i)(A) of this section is determined without subtraction of the funding standard carryover balance or the credit balance under the funding standard account.

(iii) *Special rule for plans with zero funding target.* If the funding target of

the plan is equal to zero for a plan year, then the funding target attainment percentage under this paragraph (b)(3) is equal to 100 percent for the plan year.

(4) *Present value.* The present value of a benefit (including a portion of a benefit) with respect to a participant that is taken into account under the rules of paragraph (c) of this section is determined as of the valuation date by multiplying the amount of that benefit by the probability that the benefit will be paid at a future date and then discounting the resulting product using the appropriate interest rate under §1.430(h)(2)–1. The probability that the benefit will be paid with respect to the participant at such future date is determined using the actuarial assumptions that satisfy the standards of paragraph (f) of this section as to the probability of future service, advancement in age, and other events (such as death, disability, termination of employment, and selection of optional form of benefit) that affect whether the participant or beneficiary will be eligible for the benefit and whether the benefit will be paid at that future date.

(c) *Benefits taken into account*—(1) *In general*—(i) *Benefits earned or accrued.* The benefits taken into account in determining the target normal cost and the funding target under paragraph (b) of this section are all benefits earned or accrued under the plan that have not yet been paid as of the valuation date, including retirement-type and ancillary benefits (within the meaning of §1.411(d)–3(g)). The benefits taken into account are based on the participant's or beneficiary's status (such as active employee, vested or partially vested terminated employee, or disabled participant) as of the valuation date, and those benefits are allocated to the funding target or the target normal cost under paragraph (c)(1)(ii) of this section.

(ii) *Allocation of benefits*—(A) *In general.* To the extent that the amount of a participant's benefit that is expected to be paid is a function of the accrued benefit, the allocation of the benefit for purposes of determining the funding target and the target normal cost is made using the rules of paragraph (c)(1)(ii)(B) of this section. To the extent that the amount of a participant's benefit that is expected to be paid is not a function of the accrued benefit, but is a function of the participant's years of service (or is the excess of a function of the participant's years of service over a function of the participant's accrued benefit), the allocation of the benefit for purposes of determining the funding target and the target normal cost is made using the rules of paragraph (c)(1)(ii)(C) of this section. To the extent that the amount of a participant's benefit that is expected to be paid is not allocated under the rules of paragraph (c)(1)(ii)(B) or (C) of this section, the allocation of the benefit for purposes of determining the funding target and the target normal cost is made using the rules of paragraph (c)(1)(ii)(D) of this section.

(B) *Benefits that are based on accrued benefits.* If the allocation of the benefit for purposes of determining the funding target and the target normal cost is made under this paragraph (c)(1)(ii)(B), then the portion of a participant's benefit that is taken into account in the funding target for a plan year is determined by applying the function to the accrued benefit as of the first day of the plan year, and the portion of the benefit that is taken into account in determining the target normal cost for the plan year is determined by applying that function to the increase in the accrued benefit during the plan year. For example, a benefit that is assumed to be payable at a particular early retirement age in the amount of 90 percent of the accrued benefit is taken into account in the funding target in the amount of 90 percent of the accrued benefit as of the beginning of the plan year, and that benefit is taken into account in the target normal cost in the amount of 90 percent of the increase in the accrued benefit during the plan year.

(C) *Benefits that are based on service.* If the allocation of the benefit for purposes of determining the funding target and the target normal cost is made under this paragraph (c)(1)(ii)(C), then the portion of a participant's benefit that is taken into account in determining the funding target for a plan year is determined by applying the function to the participant's years of

service as of the first day of the plan year, and the portion of the benefit that is taken into account in determining the target normal cost for the plan year is determined by applying that function to the increase in the participant's years of service during the plan year. For example, if a plan provides a post-retirement death benefit of $500 per year of service, then the funding target is determined based on a death benefit of $500 multiplied by a participant's years of service at the beginning of the year, and if the participant earns or is expected to earn a full year of service during the plan year, the target normal cost is based on the additional $500 in death benefits attributable to that additional year of service.

(D) *Other benefits.* If the allocation of the benefit for purposes of determining the funding target and the target normal cost is made under this paragraph (c)(1)(ii)(D), then the portion of a participant's benefit that is taken into account in determining the funding target for a plan year is equal to the total benefit multiplied by the ratio of the participant's years of service as of the first day of the plan year to the years of service the participant will have at the time of the event that causes the benefit to be payable (whether the benefit is expected to be paid at the time of that decrement or at a future time), and the portion of the benefit that is taken into account in determining the target normal cost for the plan year is the increase in the proportionate benefit attributable to the increase in the participant's years of service during the plan year. For example, if a plan provides a Social Security supplement for a participant who retires after 30 years of service that is equal to a participant's Social Security benefit, the funding target with respect to the benefit payable beginning at a particular age (which reflects the probability of retirement at that age) is determined based on the projected Social Security benefit payable at the particular age multiplied by a fraction, the numerator of which is the participant's years of service as of the first day of the plan year and the denominator of which is the participant's projected years of service at the particular age. In such a case, if the participant earns or is expected to earn a full year of service during the plan year, the target normal cost is determined based on the projected Social Security benefit payable at the particular age multiplied by a fraction, the numerator of which is one and the denominator of which is the participant's projected years of service at the particular age.

(iii) *Application of section 436 limitations to funding target and target normal cost determination*—(A) *Effect of limitation on unpredictable contingent event benefits.* The determination of the funding target and the target normal cost of a plan for a plan year must take into account any limitation on unpredictable contingent event benefits under section 436(b) with respect to unpredictable contingent events which occurred before the valuation date, but must not take into account anticipated funding-based limitations on unpredictable contingent event benefits under section 436(b) with respect to unpredictable contingent events which are expected to occur on or after the valuation date.

(B) *Effect of limitation on applicability of plan amendments.* See paragraph (d) of this section for rules regarding the treatment of plan amendments that take effect during the plan year taking into account the restrictions under section 436(c).

(C) *Effect of limitation on prohibited payments.* The determination of the funding target and the target normal cost of a plan for a plan year must take into account any limitation on prohibited payments under section 436(d) with respect to any annuity starting date that was before the valuation date, but must not take into account any limitation on prohibited payments under section 436(d) for any annuity starting date on or after the valuation date (however, the determination must take into account benefit distributions under plan provisions that allow new annuity starting dates with respect to distributions that were limited under section 436(d)).

(D) *Effect of limitation on benefit accruals.* Except as otherwise provided in this paragraph (c)(1)(iii)(D), the determination of the funding target of a

plan for a plan year must take into account any limitation on benefit accruals under section 436(e) applicable before the valuation date. However, if the plan terms provide for the automatic restoration of benefit accruals as permitted under §1.436–1(a)(4)(ii)(B), and the restoration of benefits as of the valuation date will not be treated as resulting from a plan amendment under the rules of §1.436–1(c)(3) (because the period of limitation as of the valuation date does not exceed 12 months and the adjusted funding target attainment percentage for the plan would not be less than 60 percent taking into account the restored benefit accruals), then the determination of the funding target of a plan for a plan year must not take into account the limitation on benefit accruals under section 436(e) for that period. The determination of the target normal cost of a plan for a plan year must not take into account any limitation on benefit accruals under section 436(e). Thus, if an employer wishes to take a plan freeze into account in determining the target normal cost, the plan must be specifically amended to cease accruals.

(iv) *Effect of other limitations of benefits*—(A) *Liquidity shortfalls.* The determination of the funding target and the target normal cost of a plan for a plan year must take into account any restrictions on payments under section 401(a)(32) on account of a liquidity shortfall (as defined in section 430(j)(4)) for periods preceding the valuation date. The determination of the funding target and the target normal cost must not take into account any restrictions on payments under section 401(a)(32) on account of a liquidity shortfall or possible liquidity shortfall for any period on or after the valuation date.

(B) *High 25 limitation.* The determination of the funding target and the target normal cost of a plan for a plan year must take into account any restrictions on payments under §1.401(a)(4)–5(b) to highly compensated employees to the extent that benefits were not paid or will not be paid because of a limitation that applied prior to the valuation date. If a benefit that was otherwise restricted was paid prior to the valuation date but with suitable security (such as an escrow account) provided to the plan in the event of a plan termination, the benefit is treated as distributed for purposes of section 430 and this section. Accordingly, the funding target does not include any liability for the benefit and the plan assets do not include the security. The determination of the funding target and the target normal cost of a plan for a plan year must not take into account any restrictions on payments under §1.401(a)(4)–5(b) to highly compensated employees that are anticipated with respect to annuity starting dates on or after the valuation date on account of the funded status of the plan.

(2) *Benefits provided by insurance*—(i) *General rule.* A plan generally is required to reflect in the plan's funding target and target normal cost the liability for benefits that are funded through insurance contracts held by the plan, and to include the corresponding insurance contracts in plan assets. Paragraph (c)(2)(ii) of this section sets forth an alternative to this general approach. A plan's treatment of benefits funded through insurance contracts pursuant to this paragraph (c)(2) is part of the plan's funding method. Accordingly, that treatment can be changed only with the consent of the Commissioner.

(ii) *Separate funding of insured benefits.* As an alternative to the treatment described in paragraph (c)(2)(i) of this section, in the case of benefits that are funded through insurance contracts, the liability for benefits provided under such contracts is permitted to be excluded from the plan's funding target and target normal cost, provided that the corresponding insurance contracts are excluded from plan assets. This treatment is only available with respect to insurance purchased from an insurance company licensed under the laws of a State and only to the extent that a participant's or beneficiary's right to receive those benefits is an irrevocable contractual right under the insurance contracts, based on premiums paid to the insurance company prior to the valuation date. For example, in the case of a retired participant receiving benefits from an annuity contract in pay status under which no premiums are required on or after the

valuation date, the liability for benefits provided by the contract is permitted to be excluded from the plan's funding target provided that the value of the contract is also excluded from the value of plan assets. Similarly, in the case of an active or deferred vested participant whose benefits are funded by a life insurance or annuity contract under which further premiums are required on or after the valuation date, the liability for benefits, if any, that would be paid from the contract if no further premiums were to be paid (for example, if the contract were to go on reduced paid-up status) is permitted to be excluded from the plan's funding target and target normal cost, provided that the value of the contract is excluded from the value of plan assets. By contrast, if the plan trustee can surrender a contract to the insurer for its cash value, then the participant's or beneficiary's right to receive those benefits is not an irrevocable contractual right and, therefore, the liability for benefits provided under the contract must be taken into account in determining the plan's funding target and target normal cost and the contracts cannot be excluded from plan assets.

(d) *Plan provisions taken into account*—(1) *General rule*—(i) *Plan provisions adopted by valuation date.* Except as otherwise provided in this paragraph (d), a plan's funding target and target normal cost for a plan year are determined based on plan provisions that are adopted no later than the valuation date for the plan year and that take effect on or before the last day of the plan year. For example, in the case of a plan amendment adopted on or before the valuation date for the plan year that has an effective date occurring in the current plan year, the plan amendment is taken into account in determining the funding target and the target normal cost for the current plan year if it is permitted to take effect under the rules of section 436(c) for the current plan year, but the amendment is not taken into account for the current plan year if it does not take effect until a future plan year.

(ii) *Plan provisions adopted after valuation date.* If a plan administrator makes the election described in section 412(d)(2) with respect to a plan amendment, then the plan amendment is treated as having been adopted on the first day of the plan year for purposes of this paragraph (d). Section 412(d)(2) applies to any plan amendment adopted no later than 2½ months after the close of the plan year, including an amendment adopted during the plan year. Thus, if an amendment is adopted after the valuation date for a plan year (and no later than 2½ months after the close of the plan year), but takes effect by the last day of the plan year, the amendment is taken into account in determining the plan's funding target and target normal cost for the plan year if the plan administrator makes the election described in section 412(d)(2) with respect to such amendment.

(iii) *Determination of when an amendment takes effect.* For purposes of this paragraph (d)(1), the determination of whether an amendment that increases benefits takes effect and when it takes effect is determined in accordance with the rules of section 436(c) and §1.436–1(c)(5). For purposes of this paragraph (d)(1), in the case of an amendment that decreases benefits, the amendment takes effect under a plan on the first date on which the benefits of any individual who is or could be a participant or beneficiary under the plan would be less than those benefits would be under the pre-amendment plan provisions if the individual were on that date to satisfy the applicable conditions for the benefits. In either case, the determination of when an amendment takes effect is unaffected by an election under section 412(d)(2).

(2) *Special rule for certain amendments increasing liabilities.* In the case of a plan amendment that is not required to be taken into account under the rules of paragraph (d)(1) of this section because it is adopted after the valuation date for the plan year, the plan amendment must be taken into account in determining a plan's funding target and target normal cost for the plan year if the plan amendment—

(i) Takes effect by the last day of the plan year;

(ii) Increases the liabilities of the plan by reason of increases in benefits,

establishment of new benefits, changing the rate of benefit accrual, or changing the rate at which benefits become nonforfeitable; and

(iii) Would not be permitted to take effect under the rules of section 436(c) if those rules were applied—

(A) By treating the increase in the target normal cost for the plan year attributable to the amendment (and all other amendments that must be taken into account solely because of the application of the rules in this paragraph (d)(2)) as if the increase were an increase in the funding target for the plan year; and

(B) By taking into account all unpredictable contingent event benefits permitted to be paid for unpredictable contingent events that occurred during the current plan year and all plan amendments that took effect in the current plan year (including all amendments to which this paragraph (d)(2) applies for the plan year).

(3) *Allocation of benefits attributable to plan amendments.* If a plan amendment is taken into account for a plan year under the rules of this paragraph (d), then the allocation of benefits that is used to determine the funding target and the target normal cost for that plan year is based on the plan as amended. Thus, if an amendment that is taken into account for a plan year increases a participant's accrued benefit for service prior to the beginning of the plan year, then the present value of that increase is included in the funding target for the plan year.

(e) *Plan population taken into account*—(1) *In general.* In making any determination of the funding target or target normal cost under paragraph (b) of this section, the plan population is determined as of the valuation date. The plan population must include three classes of individuals—

(i) Participants currently employed in the service of the employer;

(ii) Participants who are retired under the plan or who are otherwise no longer employed in the service of the employer; and

(iii) All other individuals currently entitled to benefits under the plan.

(2) *Assumption regarding rehiring of former employees*—(i) *Special exclusion for ''rule of parity'' cases.* Certain individuals may be excluded from the class of individuals described in paragraph (e)(1)(ii) of this section. The excludable individuals are those former employees who, prior to the valuation date for the plan year, have terminated service with the employer without vested benefits and whose service might be taken into account in future years because the ''rule of parity'' of section 411(a)(6)(D) does not permit that service to be disregarded. However, if the plan's experience as to separated employees returning to service has been such that the exclusion described in this paragraph (e)(2) would be unreasonable, then no such exclusion is permitted.

(ii) *Application to partially vested participants.* Whether former employees who are terminated with partially vested benefits are assumed to return to service is determined under the same rules that apply to former employees without vested benefits under paragraph (e)(2)(i) of this section.

(3) *Anticipated future participants.* In making any determination of the funding target or target normal cost under paragraph (b) of this section, the actuarial assumptions and funding method used for the plan must not anticipate the affiliation with the plan of future participants not employed in the service of the employer on the plan's valuation date. However, any such determination may anticipate the affiliation with the plan of current employees who have not yet satisfied the participation (age and service) requirements of the plan as of the valuation date.

(f) *Actuarial assumptions and funding method used in determination of present value*—(1) *Selection of actuarial assumptions and funding method*—(i) *General rules.* The determination of any present value or other computation under section 430 and this section must be made on the basis of actuarial assumptions and a funding method. Except as otherwise specifically provided (for example, in § 1.430(h)(2)–1(b)(6) or section 4006(a)(3)(E)(iv) of the Employee Retirement Income Security Act of 1974, as amended (ERISA)), the same actuarial assumptions and funding method must be used for all computations

under sections 430 and 436. For example, the actuarial assumptions and the funding method used in making a certification of the adjusted funding target attainment percentage for a plan year must be the same as those disclosed on the actuarial report under section 6059 (Schedule SB, ''Single-Employer Defined Benefit Plan Actuarial Information'' of Form 5500, ''Annual Return/Report of Employee Benefit Plan'').

(ii) *Changes in actuarial assumptions and funding method.* Actuarial assumptions established for a plan year cannot subsequently be changed for that plan year unless the Commissioner determines that the assumptions that were used are unreasonable. Similarly, a funding method established for a plan year cannot subsequently be changed for that plan year unless the Commissioner determines that the use of that funding method for that plan year is impermissible.

(iii) *Procedures for establishing actuarial assumptions and funding method.* For purposes of this paragraph (f)(1), in the case of a plan for which an actuarial report under section 6059 (Schedule SB of Form 5500) is required to be filed for a plan year, actuarial assumptions and the funding method are established by the filing of the actuarial report if it is filed no later than the due date (with extensions) for the report. In the case of a plan for which an actuarial report for a plan year is not required to be filed, actuarial assumptions and the funding method are established by the delivery of the completed report to the employer if it is delivered no later than what would be the due date (with extensions) for filing the actuarial report were such a filing required. If the actuarial report is not filed or delivered by the applicable date described in the two preceding sentences, then the same actuarial assumptions (such as the same interest rate and mortality table elections) and funding method as were used for the preceding plan year apply for all computations under sections 430 and 436 for the current plan year, unless the Commissioner permits or requires other actuarial assumptions or another funding method permitted under section 430 to be used for the current plan year.

(iv) *Scope of funding method.* A plan's funding method includes not only the overall funding method used by the plan but also each specific method of computation used in applying the overall method. However, the choice of which actuarial assumptions are appropriate to the overall method or to the specific method of computation is not a part of the funding method. The assumed earnings rate used for purposes of determining the actuarial value of assets under section 430(g)(3)(B) is treated as an actuarial assumption, rather than as part of the funding method.

(2) *Interest and mortality rates.* Section 430(h)(2) and §1.430(h)(2)–1 set forth the interest rates, and section 430(h)(3) and §§1.430(h)(3)–1 and 1.430(h)(3)–2 set forth the mortality tables, that must be used for purposes of determining any present value under this section. However, notwithstanding the requirement to use the mortality tables, in the case of a plan which has fewer than 100 participants and beneficiaries who are not in pay status, the actuarial assumptions may assume no pre-retirement mortality, but only if that assumption would be a reasonable assumption.

(3) *Other assumptions.* In the case of actuarial assumptions other than those specified in sections 430(h)(2), 430(h)(3), and 430(i), each of those actuarial assumptions must be reasonable (taking into account the experience of the plan and reasonable expectations). In addition, the actuarial assumptions (other than those specified in sections 430(h)(2), 430(h)(3), and 430(i)) must, in combination, offer the plan's enrolled actuary's best estimate of anticipated experience under the plan based on information determined as of the valuation date. *See* paragraph (f)(4)(iii) of this section for special rules for determining the present value of a single-sum and similar distributions.

(4) *Probability of benefit payments in single sum or other optional forms*—(i) *In general.* This paragraph (f)(4) provides rules relating to the probability that benefit payments will be paid as single sums or other optional forms under a plan and the impact of that probability on the determination of the present value of those benefit payments under section 430.

(ii) *General rules of application.* Any determination of present value or any other computation under this section must take into account—

(A) The probability that future benefit payments under the plan will be made in the form of any optional form of benefit provided under the plan (including single-sum distributions), determined on the basis of the plan's experience and other related assumptions, in accordance with paragraph (f)(3) of this section; and

(B) Any difference in the present value of future benefit payments that results from the use of actuarial assumptions in determining the amount of benefit payments in any such optional form of benefit that are different from those prescribed by section 430(h).

(iii) *Single-sum and similar distributions*—(A) *Distributions using section 417(e) assumptions.* In the case of a distribution that is subject to section 417(e)(3) and that is determined using the applicable interest rates and applicable mortality table under section 417(e)(3), for purposes of applying paragraph (f)(4)(ii) of this section, the computation of the present value of that distribution is treated as having taken into account any difference in present value that results from the use of actuarial assumptions that are different from those prescribed by section 430(h) (as required under paragraph (f)(4)(ii)(B) of this section) if and only if the present value of the distribution is determined in accordance with this paragraph (f)(4)(iii).

(B) *Substitution of annuity form.* Except as otherwise provided in this paragraph (f)(4)(iii), the present value of a distribution is determined in accordance with this paragraph (f)(4)(iii) if that present value is determined as the present value, using special actuarial assumptions, of the annuity (either the deferred or immediate annuity) which is used under the plan to determine the amount of the distribution. Under these special assumptions, for the period beginning with the expected annuity starting date for the distribution, the current applicable mortality table under section 417(e)(3) that would apply to a distribution with an annuity starting date occurring on the valuation date is substituted for the mortality table under section 430(h)(3) that would otherwise be used. In addition, under these special assumptions, the valuation interest rates under section 430(h)(2) are used for purposes of discounting the projected annuity payments from their expected payment dates to the valuation date (as opposed to the interest rates under section 417(e)(3) which the plan uses to determine the amount of the benefit).

(C) *Optional application of generational mortality and phase-in of interest rates.* In determining the present value of a distribution under this paragraph (f)(4)(iii), if a plan uses the generational mortality tables under §1.430(h)(3)–1(a)(4) or §1.430(h)(3)–2, the plan is permitted to use a 50–50 male-female blend of the annuitant mortality rates under the §1.430(h)(3)–1(a)(4) generational mortality tables in lieu of the applicable mortality table under section 417(e)(3) that would apply to a distribution with an annuity starting date occurring on the valuation date. Similarly, a plan is permitted to make adjustments to the interest rates in order to reflect differences between the phase-in of the section 430(h)(2) segment rates under section 430(h)(2)(G) and the adjustments to the segment rates under section 417(e)(3)(D)(iii).

(D) *Distributions subject to section 417(e)(3) using other assumptions.* In the case of a distribution that is subject to section 417(e)(3) but that is determined on a basis other than using the applicable interest rates and the applicable mortality table under section 417(e)(3), for purposes of applying paragraph (f)(4)(ii)(B) of this section, the computation of present value must take into account the extent to which the present value of the distribution is different from the present value determined using the rules of paragraph (f)(4)(iii)(B) of this section, based on actuarial assumptions that satisfy the requirements of paragraph (f)(3) of this section. If the plan provides that the amount of the benefit is based on a comparison of the section 417(e)(3) benefit (that is, the benefit determined using the applicable interest rates and the applicable mortality table under section 417(e)(3)) with another benefit determined using some other basis,

then paragraph (f)(4)(ii)(B) of this section is applied as of the valuation date by comparing the present value of the section 417(e)(3) benefit determined under the rules of paragraph (f)(4)(iii)(B) of this section with the present value of the other benefit. The rule of this paragraph (f)(4)(iii)(D) applies, for example, where a distribution that is subject to section 417(e)(3) is determined as the greater of the benefit determined using the applicable interest rates and the applicable mortality table under section 417(e)(3) and the benefit determined using some other basis, or where the amount of a distribution that is subject to section 417(e)(3) is determined using an interest rate other than the applicable interest rates as required under section 415(b)(2)(E)(ii) (*see* §1.417(e)–1(d)(1)).

(5) *Distributions from applicable defined benefit plans under section 411(a)(13)(C)*—(i) *In general.* In the case of an applicable defined benefit plan described in section 411(a)(13)(C), if the amount of a future distribution is based on an interest adjustment applied to the current accumulated benefit, then the amount of that distribution is determined by projecting the future interest credits or equivalent amount under the plan's interest crediting rules using actuarial assumptions that satisfy the requirements of paragraph (f)(3) of this section. Thus, if a plan provides for a single-sum distribution equal to the balance of a participant's hypothetical account under a cash balance plan, then the amount of that future distribution is equal to the projected account balance at the expected date of payment determined using actuarial assumptions that satisfy the requirements of paragraph (f)(3) of this section.

(ii) *Annuity distributions*—(A) *General rule.* In the case of an applicable defined benefit plan described in section 411(a)(13)(C), if the amount of an annuity distribution is based on either the balance of a hypothetical account maintained for a participant or the accumulated percentage of a participant's final average compensation, then the amount of that annuity distribution is calculated by converting the projected account balance (or accumulated percentage of final average compensation), in accordance with paragraph (f)(5)(i) of this section, to an annuity by applying the plan's annuity conversion provisions using the rules of this paragraph (f)(5)(ii).

(B) *Use of current annuity factors.* Except as otherwise provided in paragraph (f)(5)(ii)(C) of this section, if the plan bases the conversion of the projected account balance (or accumulated percentage of final average compensation) to an annuity using the applicable interest rates and applicable mortality table under section 417(e)(3), then the amount of the annuity distribution is determined by dividing the projected account balance (or accumulated percentage of final average compensation) by an annuity factor corresponding to the assumed form of payment using, for the period beginning with the annuity starting date, the current applicable mortality table under section 417(e)(3) that would apply to a distribution with an annuity starting date occurring on the valuation date (in lieu of the mortality table under section 430(h)(3) that would otherwise be used) and the valuation interest rates under section 430(h)(2) (as opposed to the interest rates under section 417(e)(3) which the plan uses to determine the amount of the annuity).

(C) *Optional application of generational mortality and phase-in of segment rates.* In determining the amount of an annuity distribution under paragraph (f)(5)(ii)(B) of this section, a plan is permitted to apply the options described in paragraph (f)(4)(iii)(C) of this section.

(D) *Distributions using assumptions other than assumptions under section 417(e)(3).* In applying this paragraph (f)(5)(ii), in the case of a plan that determines an annuity using a basis other than the applicable interest rates and applicable mortality table under section 417(e)(3), the amount of the annuity distribution must be based on actuarial assumptions that satisfy the requirements of paragraph (f)(3) of this section.

(6) *Unpredictable contingent event benefits.* Any determination of present value or any other computation under this section must take into account, based on information as of the valuation date, the probability that future

benefits (or increased benefits) will become payable under the plan due to the occurrence of an unpredictable contingent event (as described in §1.436–1(j)(9)). For this purpose, this probability with respect to an unpredictable contingent event may be assumed to be zero if there is not more than a de minimis likelihood that the unpredictable contingent event will occur.

(7) *Reasonable techniques permitted*—(i) *Determination of benefits to be paid during the plan year.* Any reasonable technique can be used to determine the present value of the benefits expected to be paid during a plan year, based on the interest rates and mortality assumptions applicable for the plan year. For example, the present value of a monthly retirement annuity payable at the beginning of each month can be determined—

(A) Using the standard actuarial approximation that reflects 13/24ths of the discounted expected payments for the year as of the beginning of the year and 11/24ths of the discounted expected payments for the year as of the end of the year;

(B) By assuming a uniform distribution of death during the year; or

(C) By assuming that the payment is made in the middle of the year.

(ii) *Determination of target normal cost.* In the case of a participant for whom there is a less than 100 percent probability that the participant will terminate employment during the plan year, for purposes of determining the benefits expected to accrue, be earned, or otherwise allocated to service during the plan year which are used to determine the target normal cost, it is permissible to assume the participant will not terminate during the plan year, unless using this method of calculation would be unreasonable.

(8) *Approval of significant changes in actuarial assumptions for large plans*—(i) *In general.* Except as otherwise provided in paragraph (f)(8)(iii) of this section, any actuarial assumptions used to determine the funding target of a plan for a plan year during which the plan is described in paragraph (f)(8)(ii) of this section cannot be changed from the actuarial assumptions that were used for the preceding plan year without the approval of the Commissioner if the changes in assumptions result in a decrease in the plan's funding shortfall (within the meaning of section 430(c)(4)) for the current plan year (disregarding the effect on the plan's funding shortfall resulting from changes in interest and mortality assumptions under sections 430(h)(2) and (h)(3)) that either exceeds $50,000,000, or exceeds $5,000,000 and is 5 percent or more of the funding target of the plan before such change.

(ii) *Affected plans.* A plan is described in this paragraph (f)(8)(ii) for a plan year if—

(A) The plan is a defined benefit plan (other than a multiemployer plan) to which title IV of ERISA applies; and

(B) The aggregate unfunded vested benefits used to determine variable-rate premiums for the plan year (as determined under section 4006(a)(3)(E)(iii) of ERISA) of the plan and all other plans maintained by the contributing sponsors (as defined in section 4001(a)(13) of ERISA) and members of such sponsors' controlled groups (as defined in section 4001(a)(14) of ERISA) which are covered by title IV of ERISA (disregarding multiemployer plans and disregarding plans with no unfunded vested benefits) exceed $50,000,000.

(iii) *Automatic approval to resume use of previously used assumptions upon exiting at-risk status during phase-in.* A plan that is not in at-risk status for the current plan year and that was in at-risk status for the prior plan year (but not for a period of 5 or more consecutive plan years) is granted automatic approval to use the actuarial assumptions that were applied before the plan entered at-risk status and that were used in combination with the required at-risk assumptions during the period the plan was in at-risk status.

(9) *Examples.* The following examples illustrate the rules of this section. Unless otherwise indicated, these examples are based on the following assumptions: The normal retirement age is 65, the minimum required contribution for the plan is determined under the rules of section 430 starting in 2008, the plan year is the calendar year, the valuation date is January 1, no plan-related expenses are paid or expected to be paid from plan assets, and the plan does not

provide for mandatory employee contributions. The examples are as follows:

Example 1. (i) Plan P provides an accrued benefit equal to 1.0% of a participant's highest 3-year average compensation for each year of service. Plan P provides that an early retirement benefit can be received at age 60 equal to the participant's accrued benefit reduced by 0.5% per month for early commencement. On January 1, 2010, Participant A is age 60 and has 12 years of past service. Participant A's compensation for the years 2007 through 2009 was $47,000, $50,000, and $52,000, respectively. Participant A's rate of compensation at December 31, 2009, is $54,000 and A's rate of compensation for 2010 is assumed not to increase at any point during 2010. Decrements are applied at the beginning of the plan year.

(ii) Participant A's annual accrued benefit as of January 1, 2010, is $5,960 [0.01 × 12 × ($47,000 + $50,000 + $52,000) ÷ 3]. Participant A's expected benefit accrual for 2010 is $800 [0.01 × 13 × ($50,000 + $52,000 + $54,000) ÷ 3 − $5,960], to the extent that Participant A is expected to continue in employment for the full 2010 plan year.

(iii) Because the early retirement benefit is a function of the participant's accrued benefit, the allocation of the benefit for purposes of determining the target normal cost and funding target is made under paragraph (c)(1)(ii)(B) of this section. Accordingly, for Participant A, the early retirement benefit that is taken into account with respect to the decrement at age 60 when determining the 2010 funding target is $4,172 [$5,960 accrued benefit × (1 − 0.005 × 60 months)]. The expected accrual of the early retirement benefit during 2010 that is taken into account for Participant A with respect to the decrement at age 60 when determining the 2010 target normal cost is zero, because in this example the age-60 decrement would be applied as of January 1, 2010, before Participant A would earn any additional benefits. (But see paragraph (f)(7)(ii) of this section for an alternative approach for determining the expected accrual with respect to the decrement at age 60.)

(iv) The early retirement benefit for Participant A with respect to the decrement at age 61 that is taken into account in determining the funding target for the 2010 plan year is $4,529.60 [$5,960 accrued benefit × (1 − 0.005 × 48 months)]. The portion of the early retirement benefit that is taken into account for Participant A with respect to the decrement at age 61 that is taken into account in determining the target normal cost for the 2010 plan year is $608 [$800 expected annual accrual × (1 − 0.005 × 48 months)].

Example 2. (i) The facts are the same as in *Example 1.* In addition, the plan offers a $500 temporary monthly supplement to participants who complete 15 years of service and retire from active employment after attaining age 60. The temporary supplement is payable until the participant turns age 62. In addition, the supplement is limited so that it does not exceed the participant's Social Security benefit payable at age 62. On January 1, 2010, Participant B is age 55 and has 20 years of past service, and Participant C is age 60 and has 14 years of past service. For Participants B and C, the projected Social Security benefit is greater than $500 per month.

(ii) Because the temporary supplement is not a function of the participant's accrued benefit or service, the allocation of the benefit for purposes of determining the target normal cost and funding target is made under paragraph (c)(1)(ii)(D) of this section. The portion of the annual temporary supplement for Participant B with respect to the early retirement decrement occurring at age 60 that is taken into account in determining the funding target for the 2010 plan year is $4,800 [($500 × 12 months) × 20 years of past service ÷ 25 years of service at assumed early retirement age]. The portion of the annual temporary supplement for Participant B with respect to the early retirement decrement occurring at age 61 that is taken into account in determining the funding target for the 2010 plan year is $4,615 [($500 × 12 months) × 20 years of past service ÷ 26 years of service at assumed early retirement age]. In each case, the allocable portion of the benefit is assumed to be payable until age 62 (or the participant's death, if earlier).

(iii) For Participant B, the portion of the annual temporary supplement with respect to the early retirement decrement occurring at age 60 that is taken into account in determining the target normal cost for the 2010 plan year is $240 [($500 × 12 months) × 1 year of service expected to be earned during the plan year ÷ 25 years of service at assumed early retirement age]. The portion of the annual temporary supplement with respect to the early retirement decrement occurring at age 61 that is taken into account in determining the target normal cost for the 2010 plan year is $230.77 [($500 × 12 months) × 1 year of service expected to be earned during the plan year ÷ 26 years of service at assumed early retirement age]. The present value of these amounts reflects a payment period beginning with the decrement at age 60 or 61, as applicable, until age 62 (or assumed death, if earlier).

(iv) For Participant C, the portion of the annual temporary supplement with respect to the early retirement decrement occurring at age 61 (when the participant is first eligible for the benefit) that is taken into account in determining the funding target for the 2010 plan year is $5,600 [($500 × 12 months) × 14 years of past service ÷ 15 years of service at assumed early retirement age]. The

present value of this amount reflects a payment period beginning with the decrement at age 61 until age 62 (or death if earlier).

Example 3. (i) The facts are the same as in *Example 1.* The plan also provides a single-sum death benefit (in addition to the qualified pre-retirement spouse's benefit) equal to the greater of the participant's annual accrued benefit at the time of death, or $10,000. The benefit is limited as necessary to ensure that the plan meets the incidental death benefit requirements of section 401(a).

(ii) The determination of the portion of the death benefit that is taken into account in determining the target normal cost and funding target is made under paragraph (c)(1)(ii)(B) of this section to the extent that it is a function of the participant's accrued benefit and under paragraph (c)(1)(ii)(D) of this section to the extent that it relates to the part of the death benefit that is not a function of the participant's accrued benefit.

(iii) The portion of the single-sum death benefit corresponding to the accrued benefit, or $5,960, is taken into account when determining the 2010 funding target for Participant A.

(iv) The excess of the death benefit over Participant A's accrued benefit is $4,040 (that is, $10,000 − $5,960). Because this part of the death benefit is not a function of the participant's accrued benefit nor is it a function of service, the determination of the corresponding portion of the death benefit taken into account in determining the target normal cost and funding target for 2010 is made under paragraph (c)(1)(ii)(D) of this section. For example, for Participant A, the portion of this benefit with respect to the death decrement occurring at age 64 that is taken into account for purposes of determining the funding target for the 2010 plan year is $3,030 ($4,040 × 12 years of past service ÷ 16 years of service at assumed age of death).

(v) The total single-sum death benefit for Participant A with respect to the death decrement at age 64 that is taken into account in determining the funding target for the 2010 plan year is $8,990 ($5,960 + $3,030).

(vi) Similarly, the portion of the single-sum death benefit for Participant A that is taken into account in determining the target normal cost for the 2010 plan year is equal to the sum of the expected increase in the accrued benefit during 2010, and the expected change in the allocable portion of the excess death benefit attributable to service during 2010 as determined in accordance with paragraph (c)(1)(ii)(D) of this section. As described in *Example 1,* the expected increase in Participant A's accrued benefit during 2010 is $800, to the extent that Participant A is expected to continue in employment for the full 2010 plan year.

(vii) At the end of 2010, Participant A's accrued benefit is expected to be $6,760 ($5,960 + $800). The excess portion of the single-sum death benefit to be allocated in accordance with paragraph (c)(1)(ii)(D) of this section is $3,240 ($10,000 − $6,760), and the allocable portion of the excess benefit for Participant A as of December 31, 2010, with respect to the death decrement at age 64, is $2,632.50 ($3,240 × 13 years of service as of December 31, 2010 ÷ 16 years of service at assumed age of death). The change in the allocable portion of Participant A's excess death benefit due to an additional year of service, with respect to the death decrement at age 64, is a decrease of $397.50. Therefore, the target normal cost for the 2010 plan year attributable to Participant A, with respect to the death decrement at age 64, will reflect a single-sum death benefit of $402.50 ($800 expected increase in Participant A's accrued benefit minus a $397.50 expected decrease in the allocable portion of the death benefit in excess of the accrued benefit).

Example 4. (i) The facts are the same as in *Example 3,* except that the plan provides a single-sum death benefit equal to the greater of the present value of the qualified pre-retirement survivor annuity or 100 times the amount of the participant's monthly retirement benefit with service projected to normal retirement age. The valuation is based on the assumption that all surviving spouses choose to receive their benefit in the form of a single sum. For Participant A, the value of the qualified pre-retirement survivor annuity is less than 100 times Participant A's projected monthly retirement benefit.

(ii) The allocation of the death benefit that is a function of Participant A's accrued benefit is based on service and compensation to the first day of the plan year for purposes of determining the funding target, and the allocation of the death benefit that is a function of the increase in Participant A's accrued benefit during the plan year for purposes of determining the target normal cost is made in accordance with paragraph (c)(1)(ii)(B) of this section. As described in *Example 1,* Participant A's accrued benefit based on service and compensation as of January 1, 2010, is $5,960, or $496.67 per month. Accordingly, the portion of the single-sum death benefit corresponding to the accrued benefit, or $49,667 (100 times $496.67), is taken into account when determining the 2010 funding target for Participant A.

(iii) In addition, the funding target and the target normal cost reflect a portion of Participant A's death benefit in excess of the amount based on Participant A's accrued benefit. Based on Participant A's average compensation as of the first day of the plan year, Participant A's accrued benefit with service projected to normal retirement is $8,443 [.01 × 17 years of service at age 65 × ($47,000 + $50,000 + $52,000) ÷ 3], or $703.61 per month. The corresponding death benefit is $70,361.

(iv) The excess of the death benefit over Participant A's accrued benefit as of January 1, 2010, is $20,694 (that is, $70,361 − $49,667). Because this part of the death benefit is not a function of Participant A's accrued benefit or service, the portion that is taken into account in determining the funding target is determined under paragraph (c)(1)(ii)(D) of this section. For Participant A, the portion of this benefit with respect to the death decrement occurring at age 64 that is taken into account when determining the funding target for the 2010 plan year is $15,521 ($20,694 × 12 years of past service ÷ 16 years of service at assumed age of death). The total single-sum death benefit for Participant A with respect to the death decrement at age 64 reflected in the funding target for the 2010 plan year is $65,188 ($49,667 + $15,521).

(v) Similarly, the portion of the single-sum death benefit for Participant A that is taken into account when determining the target normal cost for 2010 is equal to the sum of the death benefit based on the expected increase in the accrued benefit during 2010 and the expected change in the allocable portion of the excess death benefit attributable to service during 2010 as determined in accordance with paragraph (c)(1)(ii)(D) of this section.

(vi) At the end of 2010, Participant A's accrued benefit is expected to be $6,760 ($5,960 + $800), or $563.33 per month, and the associated death benefit is $56,333. The expected increase in the amount of the death benefit attributable to the increase in Participant A's accrued benefit is therefore $6,666 ($56,333 − $49,667).

(vii) Participant A's projected accrued benefit at normal retirement based on average compensation as of the end of 2010 is $8,840 [.01 × 17 years of service at age 65 × ($50,000 + $52,000 + $54,000) ÷ 3], or $736.67 per month. The corresponding death benefit is $73,667. The excess portion of the single-sum death benefit to be allocated in accordance with paragraph (c)(1)(ii)(D) of this section is $17,334 ($73,667 − $56,333), and the allocable portion of the excess benefit for Participant A as of December 31, 2010, with respect to the death decrement at age 64, is $14,084 ($17,334 × 13 years of service as of December 31, 2010 ÷ 16 years of service at assumed age of death).

(viii) The change in the allocable portion of Participant A's excess death benefit during 2010, with respect to the death decrement at age 64, is a decrease of $1,437 ($14,084 − $15,521). Therefore, the target normal cost for the 2010 plan year attributable to Participant A, with respect to the death decrement at age 64, will reflect a single-sum death benefit of $5,229 ($6,666 expected increase in Participant A's death benefit based on the expected increase in the accrued benefit, minus an expected decrease of $1,437 in the amount of the death benefit in excess of the amount attributable to the accrued benefit).

Example 5. (i) The facts are the same as in *Example 1*. In addition, the plan provides a disability benefit to participants who become disabled after completing 15 years of service. The disability benefit is payable at normal retirement age or an earlier date if elected by a participant. For purposes of calculating the disability benefit, service continues to accrue until normal retirement age (unless recovery or commencement of retirement benefits occurs earlier). Further, compensation is deemed to continue at the same rate as when the disability began.

(ii) Participant A will be eligible for the disability benefit at age 63 after completion of 15 years of service. Participant A's annual disability benefit at normal retirement age is $9,180 (that is, 1% of highest 3-year average compensation of $54,000 multiplied by 17 years of deemed service at normal retirement age).

(iii) The portion of the disability benefit based on the participant's accrued benefit as of the valuation date that is taken into account in determining the target normal cost and funding target is determined in accordance with paragraph (c)(1)(ii)(B) of this section. Accordingly, the portion of the disability benefit corresponding to Participant A's accrued benefit as of January 1, 2010, or $5,960, is taken into account when determining the 2010 funding target.

(iv) The excess of Participant A's disability benefit over the accrued benefit as of January 1, 2010, is $3,220 ($9,180 − $5,960). Because this portion of the disability benefit is not based on Participant A's accrued benefit or service, the portion that is taken into account in determining the funding target is determined under paragraph (c)(1)(ii)(D) of this section. The portion of Participant A's excess disability benefit with respect to the disability decrement occurring at age 63 that is taken into account when determining the 2010 funding target is $2,576 [$3,220 × (12 years of past service ÷ 15 years of service at assumed date of disability)]. The total disability benefit for Participant A, with respect to the disability decrement occurring at age 63, that is taken into account in determining the funding target for the 2010 plan year is $8,536 ($5,960 + $2,576).

(v) The portion of Participant A's disability benefit with respect to the disability decrement occurring at age 64 that is taken into account when determining the 2010 funding target is $8,375 [$5,960 + $3,220 × (12 years of past service ÷ 16 years of service at assumed date of disability)].

(vi) If in fact Participant A becomes disabled at age 63, the funding target will reflect the full disability benefit to which Participant A will be entitled at normal retirement age, based on service projected to normal retirement age (17 years) and final average compensation reflecting compensation projected to normal retirement age at the rate Participant A was earning at the time of disablement.

Example 6. (i) The facts are the same as in *Example 5,* except that the disability benefit is based on the accrued benefit calculated using service and compensation earned to the date of disability.

(ii) Because the disability benefit is a function of the participant's accrued benefit, the portion of Participant A's disability benefit that is taken into account when determining the funding target for the 2010 plan year is Participant A's annual accrued benefit as of January 1, 2010, or $5,960, as determined in *Example 1.* This amount is taken into account for both the disability decrement occurring at age 63 and the disability decrement occurring at age 64.

(iii) Similarly, the benefit accrual for Participant A with respect to the disability decrements occurring at age 63 and age 64 that is taken into account when determining the target normal cost for the 2010 plan year is equal to Participant A's expected benefit accrual for 2010 determined in *Example 1,* or $800.

Example 7. (i) Retiree D, a participant in Plan P, is a male age 72 and is receiving a $100 monthly straight life annuity. The 2009 actuarial valuation is performed using the segment rates applicable for September 2008 (determined without regard to the transition rule of section 430(h)(2)(G)), and the 2009 annuitant and nonannuitant (male and female) mortality tables (published in Notice 2008–85). See §601.601(d)(2) relating to objectives and standards for publishing regulations, revenue rulings and revenue procedures in the Internal Revenue Bulletin.

(ii) The present value of Retiree D's straight life annuity on the valuation date is $10,535.79. This is equal to the sum of: $5,029.99, which is the present value of payments expected to be made during the first 5 years, using the first segment interest rate of 5.07%; $5,322.26, which is the present value of payments expected to be made during the next 15 years, using the second segment interest rate of 6.09%; and $183.54, which is the present value of payments expected to be made after 20 years, using the third segment interest rate of 6.56%.

Example 8. (i) The facts are the same as in *Example 7.* Plan P does not provide for early retirement benefits or single-sum distributions. The actuary assumes that no participants terminate employment prior to age 50 (other than by death), there is a 5% probability of withdrawal at age 50, and that those participants who withdraw receive a deferred annuity starting at age 65. Participant E is a male age 46 on January 1, 2009, and has an annual accrued benefit of $23,000 beginning at age 65.

(ii) Before taking into account the 5% probability of withdrawal, the funding target associated with Participant E's assumed age 50 withdrawal benefit in the 2009 actuarial valuation is $68,396.75. This is equal to the sum of: $6,925.29, which is the present value of payments expected to be made during the year the participant turns age 65 (the 20th year after the valuation date), using the second segment interest rate of 6.09%; and $61,471.46, which is the present value of payments expected to be made after the 20th year, using the third segment interest rate of 6.56%.

(iii) Taking the 5% probability of withdrawal into account, the funding target for the 2009 plan year associated with Participant E's assumed age 50 withdrawal benefit is $3,419.84 ($68,396.75 × 5%).

Example 9. (i) The facts are the same as in *Example 8,* except the plan offers a single-sum distribution payable at normal retirement age (age 65) determined based on the applicable interest rates and the applicable mortality table under section 417(e)(3). The actuary assumes that 70% of the participants will elect a single sum upon retirement and the remaining 30% will elect a straight life annuity.

(ii) Before taking into account the 5% probability of withdrawal or the 70% probability of electing a single-sum payment, the portion of the 2009 funding target that is attributable to Participant E's assumed single-sum payment, deferred to age 65, is $70,052.30. This is calculated in the same manner as the present value of annuity payments, except that, for the period after the annuity starting date, the 2009 applicable mortality rates are substituted for the 2009 male annuitant mortality rates. This portion of the funding target for the 2009 plan year is equal to the sum of: $6,929.00, which is the present value of annuity payments expected to be made between age 65 and 66 (during the 20th year after the valuation date), using the second segment interest rate of 6.09%; and $63,123.30, which is the present value of annuity payments expected to be made after the 20th year following the valuation date, using the third segment interest rate of 6.56%. These present value amounts reflect the 2009 male nonannuitant mortality rates prior to the assumed commencement of benefits at age 65 and the 100% probability of retiring at age 65.

(iii) Taking the 5% probability of withdrawal and the 70% probability of electing a single-sum payment into account, the portion of the 2009 funding target attributable to Participant E's assumed single-sum payment based on withdrawal at age 50 is

$2,451.83 ($70,052.30 × 5% × 70%). After taking into account the 5% probability of withdrawal and the 30% probability of electing a straight life annuity, the portion of the 2009 funding target that is attributable to Participant E's assumed straight life annuity (based on assumed withdrawal at age 50), deferred to age 65, is equal to 30% of the result obtained in *Example 8*.

Example 10. (i) The facts are the same as in *Example 9*, except the plan offers an immediate single sum upon withdrawal at age 50 determined based on the applicable interest rates and the applicable mortality table under section 417(e)(3). The actuary assumes that 70% of the participants will elect to receive a single-sum distribution upon withdrawal.

(ii) Before taking into account the 5% probability of withdrawal and the 70% probability of electing a single-sum payment, the portion of the funding target for the 2009 plan year that is attributable to Participant E's assumed single-sum payment based on withdrawal at age 50 is $68,908.39. This is calculated in the same manner as the present value of annuity payments, except that the 2009 applicable mortality rates are substituted for the 2009 male annuitant and nonannuitant mortality rates after the annuity starting date. This portion of the 2009 funding target is equal to the sum of $6,815.85, which is the present value of annuity payments expected to be made between age 65 and 66 (during the 20th year after the valuation date), using the second segment interest rate of 6.09%, and $62,092.54, which is the present value of annuity payments expected to be made after the 20th year following the valuation date, using the third segment interest rate of 6.56%. These present value amounts reflect the 2009 male nonannuitant mortality rates prior to the assumed single-sum distribution age of 50.

(iii) Applying the 5% probability of withdrawal at age 50 and the 70% probability of electing a single-sum payment, the portion of the funding target for the 2009 plan year that is attributable to Participant E's assumed single-sum payment (based on withdrawal at age 50) is $2,411.79 ($68,908.39 × 5% × 70%).

Example 11. (i) The facts are the same as in *Example 8*, except that the plan sponsor elects under section 430(h)(2)(D)(ii) to use the monthly corporate bond yield curve instead of segment rates. The enrolled actuary assumes payments are made monthly throughout the year and uses the interest rate from the middle of the monthly corporate bond yield curve because this mid-year yield rate most closely matches the average timing of benefits paid. In accordance with § 1.430(h)(2)–1(e)(4), the applicable monthly corporate bond yield curve is the yield curve derived from December 2008 rates.

(ii) Before taking into account the 5% probability of withdrawal, the funding target associated with Participant E's assumed age 50 withdrawal benefit in the 2009 actuarial valuation is $67,394.12. This reflects the sum of each year's expected payments, discounted at the yield rates described in paragraph (i) of this *Example 11*, as shown below:

Age	Maturity	Yield rate	Present value
65	19.5	6.97%	$5,897.88
66	20.5	6.90%	5,524.69
67	21.5	6.84%	5,164.63
68 and over	Varies	Varies	50,806.92
Total			67,394.12

(iii) Applying the 5% probability of withdrawal, the portion of the funding target for the 2009 plan year attributable to Participant E's assumed withdrawal at age 50 is $3,369.71 ($67,394.12 × 5%).

Example 12. (i) The facts are the same as in *Example 10*, except that the plan determines the amount of the immediate single-sum distribution upon withdrawal at age 50 based on the applicable interest rates under section 417(e)(3) or an interest rate of 6.25%, whichever produces the higher amount. The applicable mortality table under section 417(e)(3) is used for both calculations.

(ii) Before taking into account the 5% probability of withdrawal and the 70% probability of electing a single-sum payment, the present value of Participant E's single-sum distribution as of January 1, 2009, using an interest rate of 6.25%, based on withdrawal at age 50, is $77,391.88. This amount is determined by calculating the projected single-sum distribution at age 50 using the applicable mortality rate under section 417(e)(3) and an interest rate of 6.25%, or $94,789.10, and discounting the result to the January 1, 2009, valuation date using the first segment rate of 5.07% (because the single-sum distribution is assumed to be paid 4 years after the valuation date) and the male non-annuitant mortality rates for 2009.

(iii) Before taking into account the 5% probability of withdrawal and the 70% probability of electing a single-sum payment, the present value as of January 1, 2009, of Participant E's age-50 single-sum distribution using the applicable interest rates and applicable mortality table under section 417(e)(3)

is $68,908.39, as developed in *Example 10*. Corresponding to plan provisions, the present value reflected in the funding target is the larger of this amount or the present value of the amount based on a 6.25% interest rate, or $77,391.88.

(iv) Applying the 5% probability of withdrawal at age 50 and the 70% probability of electing a single-sum payment, the portion of the funding target for the 2009 plan year that is attributable to Participant E's assumed single-sum payment (based on withdrawal at age 50) is $2,708.72 ($77,391.88 × 5% × 70%).

Example 13. (i) Plan Q is a cash balance plan that permits an immediate payment of a single sum equal to the participant's hypothetical account balance upon termination of employment. Plan Q's terms provide that the hypothetical account is credited with interest at a market-related rate, based on a specified index. The January 1, 2009, actuarial valuation is performed using the 24-month average segment rates applicable for September 2008 (determined without regard to the transition rule of section 430(h)(2)(G)). Participant F is a male age 61 on January 1, 2009, and has a hypothetical account balance equal to $150,000 on that date. In the 2009 actuarial valuation, the enrolled actuary assumes that the hypothetical account balances will increase with annual interest credits of 7% until the participant commences receiving his or her benefit, corresponding to the actuary's best estimate of future interest rates credited under the terms of the plan. The actuary also assumes that all participants will retire on the first day of the plan year in which they attain age 65 (that is, no participant will terminate employment prior to age 65 other than by death), and that 100% of participants will elect a single sum upon retirement.

(ii) Participant F's hypothetical account balance projected to January 1, 2013 (the plan year in which F attains age 65) is $196,619.40 based on the assumed annual interest crediting rate of 7%. The funding target for the 2009 plan year attributable to Participant F's benefit at age 65 is $158,525.81, which is calculated by discounting the projected hypothetical account balance of $196,619.40 using the first segment rate of 5.07% and the male non-annuitant mortality rates.

Example 14. (i) The facts are the same as in *Example 13*, except that the actuary assumes that 10% of the participants will choose to collect their benefits in the form of a straight life annuity. The plan provides that the participant's account balance at retirement is converted to an annuity using the applicable interest rates and applicable mortality table under section 417(e)(3).

(ii) Participant F's hypothetical account balance projected to January 1, 2013 (the plan year in which F attains age 65) is $196,619.40, as outlined in *Example 13*. This amount is converted to an annuity payable commencing at age 65 by dividing the projected account balance by an annuity factor based on the applicable mortality table for 2009 under section 417(e)(3) (corresponding to the valuation date) and the interest rates used for the valuation. The resulting annuity factor is 10.8321, reflecting one year of interest at the first segment rate (5.07%) corresponding to the first year of the expected annuity payments (the fifth year after the valuation date), 15 years of interest at the second segment rate (6.09%) and all remaining years at the third segment rate (6.56%). The projected future annuity is therefore $196,619.40 divided by 10.8321, or $18,151.55 per year.

(iii) Before taking into account the 10% probability that the participant will elect to take the distribution in the form of a lifetime annuity, the funding target associated with the future annuity payout for Participant F is $149,120.41. This is equal to the sum of $14,242.79, which is the present value of the annuity payment expected to made during the year the participant turns age 65 (the 5th year after the valuation date), using the first segment interest rate of 5.07%; $116,321.72, which is the present value of payments expected to be made during the 6th through the 20th years following the valuation date, using the second segment interest rate of 6.09%; and $18,555.90, which is the present value of payments expected to be made after the 20th year following the valuation date, using the third segment interest rate of 6.56%.

(iv) Applying the 10% probability of electing a lifetime annuity, the portion of the 2009 funding target attributable to Participant F's assumed lifetime annuity payable at age 65 is $14,912.04. The portion of the 2009 funding target attributable to Participant F's assumed single-sum payment is 90% of the result obtained in *Example 13*.

Example 15. (i) Plan H provides a monthly benefit of $50 times service for all participants. Plan H has a funding target of $1,000,000 and an actuarial value of assets of $810,000 as of January 1, 2010. No annuity contracts have been purchased, and Plan H has no funding standard carryover balance or prefunding balance as of January 1, 2010. The enrolled actuary certifies that the January 1, 2010, AFTAP is 81%. Effective July 1, 2010, Plan H is amended on June 14, 2010, to increase the plan's monthly benefit to $55 for years of service earned on or after July 1, 2010. The present value of the increase in plan benefits during 2010 (reflecting benefit accruals attributable to the six months between July 1, 2010, and December 31, 2010) is $25,000.

(ii) The amendment increases benefits for future service only, and so the funding target is unaffected. Since section 436(c) only

restricts plan amendments that increase plan liabilities, the plan amendment can take effect.

(iii) If the $25,000 present value of the increase in plan benefits during 2010 were included in Plan H's funding target of $1,000,000, the total would be $1,025,000, and the AFTAP would be 79.02% (that is, $810,000/$1,025,000). Since this is less than 80%, the amendment would not have been permitted to take effect if the 2010 increase were included in the funding target instead of target normal cost.

(iv) Because the amendment was adopted after the January 1, 2010, valuation date, the plan sponsor would generally have the option of deciding whether to reflect this amendment in the January 1, 2010, valuation or defer recognition of the amendment to the January 1, 2011, valuation. However, under paragraph (d)(2) of this section, because the plan amendment would not have been permitted to take effect under the provisions of section 436 if the increase in the target normal cost for the plan year had been taken into account in the funding target, the actuary must take into account the amendment in the January 1, 2010, valuation for purposes of section 430. Thus, the target normal cost for the plan year includes the $25,000 that results from the plan amendment.

(g) *Effective/applicability dates and transition rules*—(1) *Statutory effective date/applicability date*—(i) *In general.* Section 430 generally applies to plan years beginning on or after January 1, 2008. The applicability of section 430 for purposes of determining the minimum required contribution is delayed for certain plans in accordance with sections 104 through 106 of PPA '06.

(ii) *Applicability of special adjustments.* The special adjustments of paragraph (b)(1)(iii) of this section (relating to adjustments to the target normal cost for plan-related expenses and mandatory employee contributions) apply to plan years beginning after December 31, 2008. In addition, a plan sponsor may elect to make the special adjustments of paragraph (b)(1)(iii) of this section for a plan year beginning in 2008. This election must take into account both adjustments described in paragraph (b)(1)(iii) of this section. This election is subject to the same rules that apply to an election to add an amount to the plan's prefunding balance pursuant to §1.430(f)–1(f), and it must be made in the same manner as the election made under §1.430(f)–1(f). Thus, the election can be made no later than the last day for making the minimum required contribution for the plan year to which the election relates.

(2) *Effective date/applicability date of regulations.* This section applies to plan years beginning on or after January 1, 2010, regardless of whether section 430 applies to determine the minimum required contribution for the plan year. For plan years beginning before January 1, 2010, plans are permitted to rely on the provisions set forth in this section for purposes of satisfying the requirements of section 430.

(3) *Approval for changes in funding method*—(i) *2008 plan year.* Any changes in a plan's funding method that are made for the first plan year beginning in 2008 that are not inconsistent with the requirements of section 430 are treated as having been approved by the Commissioner and do not require the Commissioner's specific prior approval.

(ii) *Application of this section*—(A) *First plan year for which regulations are effective.* Except as otherwise provided in paragraph (g)(3)(ii)(B) of this section, any change in a plan's funding method for the first plan year that begins on or after January 1, 2010, is treated as having been approved by the Commissioner and does not require the Commissioner's specific prior approval.

(B) *Optional earlier application of regulations.* For the first plan year that a plan applies all the provisions of this section, §§1.430(f)–1, 1.430(g)–1, 1.430(i)–1, and 1.436–1, any change in a plan's funding method for that plan year is treated as having been approved by the Commissioner and does not require the Commissioner's specific prior approval. For example, if the change in funding method includes a change in the valuation software, the change in the valuation software is treated as having been approved by the Commissioner and does not require the Commissioner's specific prior approval. If that plan year begins before January 1, 2010, the automatic approval for a change in funding method under paragraph (g)(3)(ii)(A) of this section does not apply to the plan.

(C) *Special rule for changes in allocation.* Any change in a plan's funding method for a plan year earlier than the first plan year beginning on or after January 1, 2010, that is necessary to

apply the rules of paragraph (c)(1)(ii) of this section is treated as having been approved by the Commissioner and does not require the Commissioner's specific prior approval.

(iii) *First plan year for which section 430 applies to determine minimum funding.* For a plan for which the minimum required contribution is not determined under section 430 for the first plan year that begins on or after January 1, 2008, pursuant to sections 104 through 106 of PPA '06, any change in a plan's funding method for the first plan year to which section 430 applies to determine the plan's minimum required contribution is treated as having been approved by the Commissioner and does not require the Commissioner's specific prior approval.

(4) *Approval for changes in actuarial assumptions.* The Commissioner's specific prior approval is not required with respect to any actuarial assumptions that are adopted for the first plan year for which section 430 applies to determine the minimum required contribution for the plan and that are not inconsistent with the requirements of section 430.

(5) *Transition rule for determining funding target attainment percentage for the 2007 plan year*—(i) *In general.* For purposes of the first plan year beginning on or after January 1, 2008, the funding target attainment percentage for the plan's prior plan year (the 2007 plan year) is determined as the fraction (expressed as a percentage), the numerator of which is the value of plan assets determined under paragraph (g)(5)(ii) of this section, and the denominator of which is the plan's current liability determined pursuant to section 412(l)(7) (as in effect prior to amendment by PPA '06) as of the valuation date for the 2007 plan year.

(ii) *Determination of value of plan assets*—(A) *In general.* The value of plan assets for the 2007 plan year under this paragraph (g)(5)(ii)(A) is determined as the value of plan assets as described in paragraph (g)(5)(ii)(B) of this section, reduced by the plan's funding standard account credit balance for the 2007 plan year as described in paragraph (g)(5)(iii)(A) of this section except to the extent provided in paragraph (g)(5)(iii)(B) of this section.

(B) *Value of plan assets.* The value of plan assets for the 2007 plan year under this paragraph (g)(5)(ii)(B) is determined under section 412(c)(2) as in effect for the 2007 plan year, except that the value of plan assets prior to subtracting the plan's funding standard account credit balance described in paragraph (g)(5)(iii)(A) of this section must be adjusted so that it is neither less than 90 percent of the fair market value of plan assets nor greater than 110 percent of the fair market value of plan assets on the valuation date for that plan year. If the value of plan assets prior to adjustment under this paragraph (g)(5)(ii)(B) is less than 90 percent of the fair market value of plan assets on the valuation date, then the value of plan assets under this paragraph (g)(5)(ii)(B) is equal to 90 percent of the fair market value of plan assets. If the value of plan assets determined under this paragraph (g)(5)(ii)(B) is greater than 110 percent of the fair market value of plan assets on the valuation date, then the value of plan assets under this paragraph (g)(5)(ii)(B) is equal to 110 percent of the fair market value of plan assets.

(iii) *Subtraction of credit balance*—(A) *In general.* If a plan has a funding standard account credit balance as of the valuation date for the 2007 plan year, then, except as described in paragraph (g)(5)(iii)(B) of this section, that balance is subtracted from the value of plan assets described in paragraph (g)(5)(ii)(B) of this section as of that valuation date to determine the value of plan assets for the 2007 plan year. However, the value of plan assets is not reduced below zero.

(B) *Effect of funding standard carryover balance reduction for the 2008 plan year.* Notwithstanding the rules of paragraph (g)(5)(iii)(A) of this section, for the first plan year beginning in 2008, if the employer has made an election to reduce some or all of the funding standard carryover balance as of the first day of that year in accordance with §1.430(f)–1(e), then the present value (determined as of the valuation date for the 2007 plan year using the valuation interest rate for that 2007 plan year) of the amount so reduced is not treated as part of the funding standard account credit balance when

that balance is subtracted from the value of plan assets pursuant to paragraph (g)(5)(iii)(A) of this section.

[T.D. 9467, 74 FR 53035, Oct. 15, 2009]

§ 1.430(f)–1 Effect of prefunding balance and funding standard carryover balance.

(a) *In general*—(1) *Overview.* This section provides rules relating to the application of prefunding and funding standard carryover balances under section 430(f). Section 430 and this section apply to single employer defined benefit plans (including multiple employer plans) that are subject to section 412, but do not apply to multiemployer plans (as defined in section 414(f)). Paragraph (b) of this section sets forth rules regarding a plan's prefunding balance and a plan sponsor's election to maintain a funding standard carryover balance. Paragraph (c) of this section provides rules under which those balances must be subtracted from plan assets. Paragraph (d) of this section describes a plan sponsor's election to use those balances to offset the minimum required contribution. Paragraph (e) of this section describes a plan sponsor's election to reduce those balances (which will affect the determination of the value of plan assets for purposes of sections 430 and 436). Paragraph (f) of this section sets forth rules regarding elections under this section. Paragraph (g) of this section contains examples. Paragraph (h) of this section contains effective/applicability dates and transition rules.

(2) *Special rules for multiple employer plans.* In the case of a multiple employer plan to which section 413(c)(4)(A) applies, the rules of this section are applied separately for each employer under the plan, as if each employer maintained a separate plan. Thus, each employer under such a multiple employer plan may have a separate funding standard carryover balance and a prefunding balance for the plan. In the case of a multiple employer plan to which section 413(c)(4)(A) does not apply (that is, a plan described in section 413(c)(4)(B) that has not made the election for section 413(c)(4)(A) to apply), the rules of this section are applied as if all participants in the plan were employed by a single employer.

(b) *Maintenance of balances*—(1) *Prefunding balance*—(i) *In general.* A plan sponsor is permitted to elect to maintain a prefunding balance for a plan. A prefunding balance maintained for a plan consists of a beginning balance of zero, increased by the amount of excess contributions to the extent the employer elects to do so as described in paragraph (b)(1)(ii) of this section, and decreased to the extent provided in paragraph (b)(1)(iii) of this section. The plan sponsor's initial election to add to the prefunding balance under paragraph (b)(1)(ii) of this section constitutes an election to maintain a prefunding balance. The prefunding balance is adjusted further for investment return and interest as provided in paragraphs (b)(3) and (b)(4) of this section.

(ii) *Increases*—(A) *In general.* If the plan sponsor of a plan elects to add to the plan's prefunding balance, as of the first day of a plan year following the first effective plan year for the plan, the prefunding balance is increased by the amount so elected by the plan sponsor for the plan year. The amount added to the prefunding balance cannot exceed the present value of the excess contributions for the preceding plan year determined under paragraph (b)(1)(ii)(B) of this section, increased for interest in accordance with paragraph (b)(1)(iv)(A) of this section.

(B) *Present value of excess contribution.* The present value of the excess contribution for the preceding plan year is the excess, if any, of—

(*1*) The present value (determined under the rules of paragraph (b)(1)(iv)(B) of this section) of the employer contributions (other than contributions to avoid or terminate benefit limitations described in §1.436–1(f)(2)) to the plan for such preceding plan year; over

(*2*) The minimum required contribution for such preceding plan year.

(C) *Treatment of unpaid minimum required contributions.* For purposes of this paragraph (b)(1)(ii), a contribution made during a plan year to correct an unpaid minimum required contribution (within the meaning of section 4971(c)(4)) for a prior plan year is not