

## **Funding-Based Benefit Limits for Single Employer Plans (IRC section 436) – Condensed Version for EA-2A**

- Requirements of IRC section 436 apply only to single employer or multiple employer plans (not multiemployer plans) and are needed to satisfy the plan qualification requirement of IRC section 401(a)(29).
- The *adjusted funding target attainment percentage* (AFTAP) for purposes of IRC section 436 is determined in a similar manner to the funding target attainment percentage (FTAP) under IRC section 430. Recall that the FTAP under IRC section 430 is equal to the ratio of the actuarial assets (reduced by the funding standard carryover and prefunding balances) to the funding target (without regard to at-risk assumptions). For purposes of the AFTAP, the actuarial assets are adjusted by adding the total amount of annuity purchases for NHCEs made during the past 2 years. A participant is deemed to be an NHCE if they are not an HCE at the time of the annuity purchase. The same addition that was made to the actuarial assets with regard to purchases of annuities is also made to the funding target.
  - Receivable contributions for the prior year cannot be included in the value of the assets if they were contributed after the date that the AFTAP is being certified.
  - The AFTAP is determined on the valuation date. Note for exam – there are currently no regulations for determination of the AFTAP in an end of year valuation, so all exam questions will involve first day valuations at this point.
  - The AFTAP is deemed to be 100% if the denominator of the AFTAP is 0.
  - AFTAP for fully funded plans
    - If the ratio of the actuarial assets (determined without reduction for the carryover and prefunding balances) to the funding target (determined without regard to the at-risk assumptions) is at least 100%, then the AFTAP is based upon the assets unreduced by the carryover and prefunding balance.

- Limitation with regard to accelerated benefit distributions
  - Benefit payments that are considered to be prohibited payments cannot be paid to participants whose annuity starting date occurs during any period for which benefit distributions are limited under IRC section 436(d).
  - A prohibited payment is defined to be:
    - Any payment in excess of a life annuity (including social security supplements) paid during a prohibited period.
    - A payment to purchase an annuity from an insurance company.
    - Any other payment to be specified under IRS regulations.
    - For EA-2A, this the prohibited payment will likely be a lump sum.
  - Prohibited payment cannot be paid after the valuation date on which:
    - AFTAP is less than 60%, or
    - AFTAP is less than 100% if the plan sponsor is in Chapter 11 bankruptcy.
  - Limited payments can be made if the AFTAP is at least 60% but less than 80%.
  - The plan sponsor **must** reduce the prefunding and/or funding standard carryover balances under IRC section 430(f)(5) to the extent that reduction would prevent this limitation from applying. This is the only restriction under IRC section 436 where there is a required reduction of the credit balance items for non-collectively bargained plans. **Important note:** The regulations under IRC section 436 state that the restriction on accelerated distributions does not apply if the plan has no form of benefit that would be subject to the restriction (such as a lump sum option). The exam general conditions state that there are no optional forms of benefit and the normal form is a life annuity. So, if an exam question does not explicitly state that there is a benefit option that would be considered an accelerated distribution, there would be no requirement to reduce the prefunding and/or funding standard carryover balance for that plan (if it is not collectively bargained).

- Note that if the ratio of the actuarial assets (unreduced by the credit balance items) to the funding target is at least 100%, then there is no deemed reduction in the prefunding or funding standard carryover balances since they have no effect on the AFTAP.
- There is no deemed reduction of the credit balances if their total elimination would still not prevent the plan from being subject to the restrictions on accelerated distributions.

### Question 436-1

Plan effective date: 1/1/2004

The plan provides for optional lump sum payments.

Funding standard carryover balance as of 1/1/2011: \$30,000

Prefunding balance as of 1/1/2011: \$60,000

There were no shortfall amortization bases prior to 2011.

Selected valuation results for 2011 and 2012:

	<u>1/1/2011</u>	<u>1/1/2012</u>
Funding target	\$700,000	\$780,000
Target normal cost	60,000	65,000
Actuarial (market) value of assets	500,000	650,000
Effective interest rate	5.3%	5.8%
Asset rate of return	6.5%	3.5%
7-year amortization factor	6.1013	6.0248
6-year amortization factor	5.3348	5.2749

The employer does not elect to credit any of the funding standard carryover and prefunding balances to the 2011 and 2012 **minimum required contribution**.

What is the **smallest amount that satisfies the minimum funding standard** for 2012 as of 1/1/2012?

## Solution to Question 436-1

The minimum required contribution is equal to the sum of the target normal cost and the amortization of the shortfall bases. The 2012 target normal cost is provided, but the shortfall amortization bases for 2011 and 2012 must be developed.

There is a lump sum option under the terms of the plan, so the AFTAP must be developed under IRC section 436 in order to determine whether the limitations of accelerated distributions under IRC section 430(d) would apply, possibly creating a required reduction in either/both the funding standard carryover balance and the prefunding balance. Recall that the AFTAP is defined as the ratio of the actuarial value of assets (reduced by the prefunding and funding standard carryover balance) to the funding target, with both the numerator and denominator increased by amounts used to purchase annuities for the NHCEs during the past two years (it can be assumed that there are none since it is not mentioned in the question). The 1/1/2011 AFTAP is:

$$1/1/2011 \text{ AFTAP} = \frac{500,000 - 30,000 - 60,000}{700,000} = 58.57\%$$

The full restriction on accelerated distributions can be avoided if the funding standard carryover balance (and, if necessary, the prefunding balance) is reduced such that the AFTAP is exactly equal to 60%. That would be the case if the funding standard carryover balance were reduced to \$20,000, resulting in a revised AFTAP of:

$$\text{Revised } 1/1/2011 \text{ AFTAP} = \frac{500,000 - 20,000 - 60,000}{700,000} = 60\%$$

Note that further reduction in the funding standard carryover balance and the prefunding balance would not bring the AFTAP up to the 80% threshold needed to completely avoid the restriction, so there is no need for further reduction in the credit balances.

The funding shortfall is equal to the excess, if any, of the funding target over the actuarial value of the assets (reduced by both the prefunding balance and the funding standard carryover balance – which has now been reduced to \$20,000).

The funding shortfall as of 1/1/2011 is:

$$\text{Funding shortfall}_{1/1/2011} = 700,000 - (500,000 - 20,000 - 60,000) = 280,000$$

There is an exemption from creating a new shortfall amortization base under IRC section 430(c)(5) in cases where the actuarial value of assets (reduced by the total pre-funding balance if the employer elects to use any part of it to reduce the minimum required contribution, which in this question the employer has elected not to do) is at least as large as the funding target. That is not the case as of 1/1/2011 (the \$700,000 funding target exceeds the \$500,000 actuarial value of assets).

The new shortfall base that must be created for 2011 is equal to the 2011 funding shortfall.

This is amortized over 7 years:  $280,000 \div 6.1013 = 45,892$

Since the funding standard carryover balance and the prefunding balance are not used to reduce the 2011 minimum required contribution, they are increased with interest to 1/1/2012 using the 2011 actual asset rate of return (6.5%).

Funding standard carryover balance<sub>1/1/2012</sub> =  $20,000 \times 1.065 = 21,300$

Prefunding balance<sub>1/1/2012</sub> =  $60,000 \times 1.065 = 63,900$

Before the 2012 valuation is performed, the AFTAP as of 1/1/2012 must be determined:

$$1/1/2012 \text{ AFTAP} = \frac{650,000 - 21,300 - 63,900}{780,000} = 72.41\%$$

The partial restriction on accelerated distributions can be avoided if the funding standard carryover balance (and, if necessary, the prefunding balance) is reduced such that the AFTAP is exactly equal to 80%. That would be the case if the funding standard carryover balance were reduced to \$0 and the prefunding balance were reduced to \$26,000 (note that the funding standard carryover balance must be reduced first), resulting in a revised AFTAP of:

$$\text{Revised } 1/1/2012 \text{ AFTAP} = \frac{650,000 - 26,000}{780,000} = 80\%$$

The 2012 funding shortfall is:

$$\text{Funding shortfall}_{1/1/2012} = 780,000 - (650,000 - 26,000) = 156,000$$

There is clearly no exemption from creating a new shortfall base because the actuarial assets are well below the funding target. The new shortfall base is equal to the difference between the funding shortfall and the outstanding balance of the 2011 shortfall base, which now has 6 years to be amortized.

$$\text{Outstanding balance of 2011 shortfall base} = 45,892 \times 5.2749 = 242,076$$

$$2012 \text{ shortfall base} = 156,000 - 242,076 = (86,076)$$

$$\text{This is amortized over 7 years: } (86,076) \div 6.0248 = (14,287)$$

$$\text{The net shortfall amortization installment is: } 45,892 - 14,287 = 31,605$$

The minimum required contribution is equal to the sum of the target normal cost and the net shortfall amortization installment:

$$65,000 + 31,605 = 96,605$$

Since the employer has elected not to use the prefunding balance to offset the minimum, that is also the smallest amount that satisfies the minimum funding standard for 2012.

## Question 436-2

Plan effective date: 1/1/2004

The plan provides for optional lump sum payments.

Prefunding balance as of 1/1/2011: \$40,000

There were no shortfall amortization bases prior to 2011.

Selected valuation results as of 1/1/2011:

Funding target	\$700,000
Target normal cost	60,000
Actuarial (market) value of assets	520,000
7-year amortization factor	5.9982

What is the **smallest amount that satisfies the minimum funding standard** for 2011 as of 1/1/2011?

## Solution to Question 436-2

The minimum required contribution is equal to the sum of the target normal cost and the amortization of the shortfall bases. The 2011 target normal cost is provided, but the shortfall amortization base for 2011 must be developed.

There is a lump sum option under the terms of the plan, so the AFTAP must be developed under IRC section 436 in order to determine whether the limitations of accelerated distributions under IRC section 430(d) would apply, possibly creating a required reduction in the prefunding balance. Recall that the AFTAP is defined as the ratio of the actuarial value of assets (reduced by the prefunding balance) to the funding target, with both the numerator and denominator increased by amounts used to purchase annuities for the NHCEs during the past two years (it can be assumed that there are none since it is not mentioned in the question). The 1/1/2011 AFTAP is:

$$1/1/2011 \text{ AFTAP} = \frac{520,000 - 40,000}{700,000} = 68.57\%$$

The partial restriction on accelerated distributions can be avoided if the prefunding balance is reduced such that the AFTAP is exactly equal to 80%. However, even if the prefunding balance was reduced to \$0, the AFTAP would only increase to 74.29% ( $520,000/700,000$ ). Therefore, there is no required reduction in the prefunding balance.

The funding shortfall is equal to the excess, if any, of the funding target over the actuarial value of the assets (reduced by the prefunding balance).

The funding shortfall as of 1/1/2011 is:

$$\text{Funding shortfall}_{1/1/2011} = 700,000 - (520,000 - 40,000) = 220,000$$

There is an exemption from creating a new shortfall amortization base under IRC section 430(c)(5) in cases where the actuarial value of assets (reduced by the total pre-funding balance if the employer elects to use any part of it to reduce the minimum required contribution, which the employer is assumed to elect according to exam general conditions) is at least as large as the funding target. That is not the case as of 1/1/2011 (the \$700,000 funding target exceeds \$480,000 – the \$520,000 actuarial value of assets reduced by the \$40,000 prefunding balance).

The new shortfall base that must be created for 2011 is equal to the 2011 funding shortfall.

This is amortized over 7 years:  $220,000 \div 5.9982 = 36,678$

The minimum required contribution is equal to the sum of the target normal cost and the net shortfall amortization installment:

$$60,000 + 36,678 = 96,678$$

This is reduced by the prefunding balance to obtain the smallest amount need to satisfy the minimum funding standard:

$$96,678 - 40,000 = 56,678$$

### Question 436-3

Plan effective date: 1/1/2004

The plan provides for optional lump sum payments.

Prefunding balance as of 1/1/2011: \$160,000

There were no shortfall amortization bases prior to 2011.

Selected valuation results as of 1/1/2011:

Funding target	\$700,000
Target normal cost	60,000
Actuarial (market) value of assets	520,000
7-year amortization factor	5.9982

What is the **smallest amount that satisfies the minimum funding standard** for 2011?

### Solution to Question 436-3

The minimum required contribution is equal to the sum of the target normal cost and the amortization of the shortfall bases. The 2011 target normal cost is provided, but the shortfall amortization base for 2011 must be developed.

There is a lump sum option under the terms of the plan, so the AFTAP must be developed under IRC section 436 in order to determine whether the limitations of accelerated distributions under IRC section 430(d) would apply, possibly creating a required reduction in the prefunding balance. Recall that the AFTAP is defined as the ratio of the actuarial value of assets (reduced by the prefunding balance) to the funding target, with both the numerator and denominator increased by amounts used to purchase annuities for the NHCEs during the past two years (it can be assumed that there are none since it is not mentioned in the question). The 1/1/2011 AFTAP is:

$$1/1/2011 \text{ AFTAP} = \frac{520,000 - 160,000}{700,000} = 51.43\%$$

The full restriction on accelerated distributions can be avoided if the prefunding balance is reduced such that the AFTAP is exactly equal to 60%. That would be the case if the funding standard carryover balance were reduced to \$100,000, resulting in a revised AFTAP of:

$$\text{Revised } 1/1/2011 \text{ AFTAP} = \frac{520,000 - 100,000}{700,000} = 60\%$$

Note that complete reduction of the prefunding balance to \$0 would not increase the AFTAP to 80% (thus avoiding the partial restriction on accelerated distributions), so it is unnecessary to make any further reduction.

The funding shortfall is equal to the excess, if any, of the funding target over the actuarial value of the assets (reduced by the prefunding balance).

The funding shortfall as of 1/1/2011 is:

$$\text{Funding shortfall}_{1/1/2011} = 700,000 - (520,000 - 100,000) = 280,000$$

There is an exemption from creating a new shortfall amortization base under IRC section 430(c)(5) in cases where the actuarial value of assets (reduced by the total pre-funding balance if the employer elects to use any part of it to reduce the minimum required contribution, which the employer is assumed to elect according to exam general conditions) is at least as large as the funding target. That is not the case as of 1/1/2011 (the \$700,000 funding target exceeds \$420,000 – the \$520,000 actuarial value of assets reduced by the \$100,000 prefunding balance).

The new shortfall base that must be created for 2011 is equal to the 2011 funding shortfall.

This is amortized over 7 years:  $280,000 \div 5.9982 = 46,681$

The minimum required contribution is equal to the sum of the target normal cost and the net shortfall amortization installment:

$60,000 + 46,681 = 106,681$

This is reduced by the prefunding balance to obtain the smallest amount need to satisfy the minimum funding standard:

$106,681 - 100,000 = 6,681$