# Instructions for Schedule B (Form 5500) 

## Actuarial Information

Code references are to the Internal Revenue Code. ERISA refers to the Employee Retirement Income Security Act of 1974.

## General Instructions

## Who Must File

The employer or plan administrator of a defined benefit plan that is subject to the minimum funding standards (see Code section 412 and Part 3 of Title I of ERISA) must file this schedule as an attachment to the return/report filed for this plan year.
Note: (1) For split-funded plans, the costs and contributions reported on Schedule B should include those relating to both trust funds and insurance carriers. (2) For plans with funding standard account amortization charges and credits see the instructions for lines 9c and 9j regarding attachment.

## Statement by Enrolled Actuary

An enrolled actuary must sign Schedule B. The signature of the enrolled actuary may be qualified to state that it is subject to attached qualifications. See Income Tax Regulations section 301.6059-1(d) for permitted qualifications. A stamped or machine produced signature is not acceptable. In addition, the actuary may offer any other comments related to the information contained in Schedule B.

## Specific Instructions

(References are to line items on the form. )

4a. Only certain collectively bargained plans may elect the shortfall funding method (see regulations under Code section 412). Advance approval from the IRS of the election of the shortfall method of funding is NOT required if it is first adopted for the first plan year to which Code section 412 applies. However, advance approval from IRS is required if the shortfall funding method is adopted at a later time, if a specific computation method is changed, or if the shortfall method is discontinued.

4b. Attach an explanation of the basis for the determination that the plan is in
reorganization for this plan year. Also, attach a worksheet showing for this plan year (i) the amounts considered contributed by employers, (ii) any amount waived the by IRS, (iii) the development of the minimum contribution requirement (taking into account the applicable overburden credit, cash-flow amount, contribution bases and limitation on required increases on the rate of employer contributions), and (iv) the resulting accumulated funding deficiency, if any, which is to be reported on line $\mathbf{8 e}$ in lieu of an amount from line $\mathbf{9 0}$.
5. Changes in funding methods include changes in actuarial cost method, changes in asset valuation method, and changes in the valuation date of plan costs and liabilities or of plan assets. Generally, these changes require IRS approval. If approval was granted by an individual ruling letter for this plan, attach a copy of the letter. If approval was granted pursuant to a regulation, class ruling, or revenue procedure, attach a copy of the items required by the applicable regulation, ruling, or revenue procedure.

6a. The valuation for a plan year may be as of any date in the year, including the first and last. Valuations must be performed within the period specified by ERISA section 103(d) and Code section 412(c)(9).

6b. In computing current liability, certain service may be disregarded under Code section $412(1)(7)(D)$, and ERISA section 302(d)(7)(D). If the plan has participants to whom those provisions apply, only a percentage of the years of service before such individual became a participant in the plan is taken into account, unless the employer has elected otherwise.
$\mathbf{6 c}$. Enter the current value of total assets as of the beginning of the plan year, as shown on Form 5500 or Form $5500-\mathrm{C} / \mathrm{R}$. Contributions designated for 1993 should not be included in this amount.

6d, 6e, and $6 \mathbf{6}$. All plans regardless of the number of participants must provide the information indicated in accordance with these instructions.
With the exception of the interest rate, each actuarial assumption used in calculating the current liability reported in line 12 should reflect the best estimate of the plan's future experience solely with respect to that assumption applicable to the plan on an ongoing (rather than a terminating) basis. The actuary must take into account rates of early retirement and the plan's early retirement provisions as they relate to benefits, where these would significantly affect the results. With the exception of line 6 e , no salary scale projections should be used in computing the present values.
The interest rate used to compute the current liability must be in accordance with guidelines issued by the IRS.
The current liability must be computed in accordance with guidelines issued by the IRS.
Omit from lines 6d, 6e, and $\mathbf{6 f}$ liabilities fully funded by annuity and insurance contracts other than any contract funds not allocated to individuals.

6d. Enter the current liability as of the beginning of the plan year. Do not include the liability attributable to benefits accruing during the plan year.
Column (1)-If the valuation date is not the beginning of the plan year, enter the number of participants as of the most recent valuation date.
Column (2)- Include only the portion of the current liability attributable to vested benefits.

Column (3)- Include the current liability attributable to all benefits, both vested and nonvested.
6e. Enter the amount by which the current liability is expected to increase due to benefits accruing during the plan year. One year's salary scale may be reflected. This amount is included in the full funding limitation calculation.

6f. Enter the amount of benefit payments expected to be paid during the plan year.
$\mathbf{6 g}(\mathbf{i})$. Check "Yes" if line $\mathbf{6 c}$, the current value of total assets as of the beginning of the plan year, is less than $70 \%$ of line 6d(iv), column (3), the total current liability as of the beginning of the plan year.
$\mathbf{6 g}(\mathrm{ii})$. Enter the percentage if line $\mathbf{6 c}$ is less than $70 \%$ of line $\mathbf{6 d}$ (iv), column (3). Enter "N/A" on this line if the percentage is $70 \%$ or more.
7. Show all employer and employee contributions for the plan year, and employer contributions made not later than $2 \frac{1}{2}$ months (or the later date allowed under Code section 412(c)(10) and ERISA section 302(c)(10)) after the end of the plan year. Show only contributions actually made to the plan by the date Schedule B is signed. Certain employer contributions must be made in quarterly installments, see Code section 412 (m).

Add the amounts in both columns (b) and (c) and enter the result on the total line.

8a. If the attained age normal, aggregate, frozen initial liability, or other method that does not develop an accrued liability is used, enter "N/A."

8b. Enter the value of assets determined in accordance with Code section 412(c)(2) or ERISA section 302(c)(2). Contributions designated for 1993 should not be included in this amount.
$\mathbf{8 d}$ (ii). For the methods to be used to determine the shortfall gain (loss), see the regulations under Code section 412.

8e. Enter amount from line 90. However, if the alternative method is elected and line 10h is smaller than line 90 , enter the amount from line 10 h . Multiemployer plans in reorganization, see instruction 4b. File Form 5330 with the IRS to pay the $10 \%$ excise tax (5\% in the case of a multiemployer plan) on the funding deficiency.
9. Under the shortfall method of funding, the normal cost in the funding standard account is the charge per unit of production (or per unit of service) multiplied by the actual number of units of production (or units of service) which occurred during the plan year. Each amortization installment in the funding standard account is similarly calculated.

9c and 9j. If there are any amortization charges or credits, attach the maintenance schedule of funding standard account base. The attachment should clearly indicate the type of base (i.e., original unfunded liability, amendments, actuarial losses, etc.), the outstanding balance of each base, the number of years remaining in the amortization period, and the amortization amount.

The outstanding balance may be as of any day in this plan year.

9c(i). Amortization for waivers must be based on the mandated interest rate.
$\mathbf{9 c}$ (ii). If a credit described in 91(ii) was entered on the prior year's Schedule B, establish a new base equal to the amount of the credit and amortize the base over a 10-year period at the valuation rate.

9e. Enter the required additional funding charge from line $13 r$ (or $13 q$ if $13 r$ does not apply). Enter " $N / A$ " if line 13 is not applicable.

For corporations described in section 806(b) of the Steel Import Stabilization Act, enter the smaller of line $13 r$ and the transition charge provided under Act section 9303(e) of OBRA 1987. Include an attachment outlining the calculation of the transition charge.

9f. Interest is charged for the entire period of underpayment. Refer to IRS Notice 89-52, 1989-1, C.B. 692, for a description of how this amount is calculated.
Note: Notice 89-52 was issued prior to the amendment of section $412(\mathrm{~m})(1)$ by the Revenue Reconciliation Act of 1989. Rather than using the rate in the Notice, the applicable interest rate for this purpose is the greater of (1) $175 \%$ of the Federal mid-term rate at the beginning of the plan year or (2) the rate used to determine the current liability. All other descriptions of the additional interest charge contained in Notice 89-52 still apply.

91(i). Enter the excess, if any, of the accumulated funding deficiency, disregarding the credit balance, if any, over the full funding limitation (FFL) before reflecting the $150 \%$ current liability component.

91(ii). If the full funding limitation after reflecting the $150 \%$ current liability component is less than the full funding limitation before reflecting the $150 \%$ current liability component, enter the amount which, absent the $150 \%$ current liability component, would have been required.
Note: The sum of lines 91(i) and 91(ii) is the excess of the accumulated funding deficiency over the full funding limitation (i.e., the full funding credit under Code section 412(c)(6)).
91(iii). Enter a credit for a waived funding deficiency for the current plan year (Code section 412 (b)(3)(C)). If a waiver of a funding deficiency is pending, do not report it as a credit but as a funding deficiency. If the waiver is granted, file an amended Schedule B (Form 5500) to report it.

9p. The reconciliation account is comprised of those components that upset the balance equation of Income Tax Regulations section 1.412(c)(3)-1(b). Valuation assets should not be adjusted by the reconciliation account balance
when computing the required minimum funding.
$\mathbf{9 p}(\mathbf{i})$. The accumulation of additional funding charges for prior plan years must be included. Enter the sum of line $9 p$ (i) (increased by 1 year's interest at the valuation rate) and line 9 e , both from the prior year's Schedule B (Form 5500).
Example. Enter the 1991 additional charge with 1 year's interest plus the 1992 additional funding charge.
$\mathbf{9 p}$ (ii). The accumulation of additional interest charges due to late or unpaid quarterly installments for prior plan years must be included. Enter the sum of line $9 p$ (ii) (increased with 1 year's interest at the valuation rate) and line $9 f$, both from the prior year's Schedule B (Form 5500).
Example. For 1993, enter the 1991 additional interest charges with 1 year's interest at the valuation rate, plus the 1992 additional interest charges.
$\mathbf{9 p}$ (iii)(a). If a waived funding deficiency is being amortized at an interest rate that differs from the valuation rate, enter the prior year's "reconciliation waiver outstanding balance" increased with 1 year's interest at the valuation rate and decreased with the year end amortization amount based on the mandated interest rate.

This amount must be as of the same date entered in line 9(c)(i).
$\mathbf{9 p}$ (iv). Enter the sum of lines (i), (ii), and (iii)(b) (each adjusted with interest at the valuation rate, if necessary).
Note: The net outstanding balance of amortization charges and credits minus the prior year's credit balance minus the amount on line $9 p$ (iv) (each adjusted with interest at the valuation rate, if necessary) must equal the unfunded liability.
10a. If the entry age normal cost method was not used to determine the entries on line 9 , the alternative minimum funding standard account may not be used.

10d. The value of accrued benefits should exclude benefits accrued for the current plan year. The market value of assets should be reduced by the amount of any contributions for the current plan year.
11. Enter only the primary method used. If the plan uses one actuarial cost method in 1 year as the basis of establishing an accrued liability for use under the frozen initial liability method in subsequent years, answer as if the frozen initial liability method were used in all years.

For a modified individual level premium method for which actuarial gains and losses are spread as a part of future normal cost, check the box for 11 g and describe the cost method. For the shortfall funding method, check the appropriate box for the underlying
actuarial cost method used to determine the annual computation charge.
12. If gender-based statistics are used in developing plan costs, enter those rates where appropriate in line 12. Note that requests for gender-based cost information do not suggest that gender-based benefits are legal. Complete all blanks. Enter "N/A" if not applicable.

If unisex tables are used, enter the values in both the "Male" and "Female" columns.

Attach a statement of actuarial assumptions (if not fully described by line 12), and actuarial methods used to calculate: (i) the figures shown in lines 8, 9 , and 10 (if not fully described by line 11), and (ii) the value of assets shown on line 8 b . Also attach a summary of the principal eligibility and benefit provisions on which the valuation was based, an identification of benefits not included in the valuation, a description of any significant events that occurred during the year, a summary of any changes in principal eligibility or benefit provisions since the last valuation, a description (or reasonably representative sample) of plan early retirement factors, and any change in actuarial assumptions or cost methods and justifications for any such change. Also, include any other information needed to fully and fairly disclose the actuarial position of the plan.
Note: See the 1993 Instructions for Form 5500 or $5500-\mathrm{C} / \mathrm{R}$ (item 15a of Form 5500, item 15a of Form 5500-C, or item 12a of Form 5500-R), for a suggested format and instructions to provide the information on the distribution of active employees by age and service groupings with average compensation data.

12a. Check "Yes," if the rates in the contract were used (e.g., purchase rates at retirement).

12b. Enter the mortality table code as follows:

| Table |  |  |  |  | Code |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1937 Standard Annuity | . | . | . | . | . |
| a-1949 Table | . | 1 |  |  |  |
| Progressive Annuity Table | . | . | . | . | 2 |
| 1951 Group Annuity | . | . | . | . | . |
| 1971 Group Annuity Mortality | . | . | . | 4 |  |
| 1971 Individual Annuity M ortality | . | . | 6 |  |  |
| UP-1984 . | . | . | . | . | . |

[^0]follow the code with "P" and the year of projection (omit the year if the projection is unrelated to a single calendar year); the identity of the projection scale should be omitted. When an age setback or setforward is used, indicate with "-" or " + " and the years. For example, if for females the 1951 Group Annuity Table with Projection C to 1971 is used with a 5 -year setback, enter "4P71-5." If the table is not one of those listed, enter "10" with no further notation. If the valuation assumes a maturity value to provide the post-retirement income without separately identifying the mortality, interest and expense elements, under "post-retirement," enter on line $12 b$ the value of $\$ 1.00$ of monthly pension beginning at the age shown on line 12d, assuming the normal form of annuity for an unmarried person; in this case enter " $N / A$ " on lines 12 c and 12 e .
$\mathbf{1 2 c}$ (i). Enter the interest rate used to determine the current liability on line 6. The rate used must be in accordance with the guidelines issued by the IRS. See Notice 90-11, 1990-1 C.B. 319.

12c (ii). Enter the assumption as to the expected interest rate (investment return) used to determine all other calculated values with the exception of current liability and liabilities determined under the alternative minimum funding standard (line 10). If the assumed rate varies with the year, enter the weighted average of the assumed rate for 20 years following the valuation date.
12d. If each participant is assumed to retire at his/her normal retirement age, enter the age specified in the plan as normal retirement age; do not enter "NRA." Otherwise, enter the assumed retirement age. If the valuation uses rates of retirement at various ages, enter the nearest whole age that is the weighted average retirement age. On an attachment to Schedule B, list the rate of retirement at each age and describe the methodology used to compute the weighted average retirement age, including a description of the weight applied at each potential retirement age.

12e. If there is no expense loading, enter -0 -. If there is a single expense loading not separately identified as pre-retirement or post-retirement, enter it under pre-retirement and enter " $\mathrm{N} / \mathrm{A}$ " under post-retirement. Where expenses are assumed other than as a percent of plan costs or liabilities, enter the assumed expense as a percent of the calculated normal cost.

12f. Enter rates to the nearest $0.1 \%$. If select and ultimate rates that vary with both age and years of service are used, enter the rates for a new participant at the age shown and enter " S " before the rate.

12g. Enter the salary ratio for the age indicated to the nearest $1 \%$.

12h. Enter the estimated rate of return on the actuarial value of plan assets for the 1-year period ending on the valuation date. For this purpose, the rate of return is determined by using the formula $2 I /(A+B-I)$, where $I$ is the dollar amount of investment return under the asset valuation method used for the plan, $A$ is the actuarial value of the assets 1 year ago, and $B$ is the actuarial value of the assets on the current valuation date.
Note: If the actuary feels that the result of using the formula above does not represent the true estimated rate of return on the actuarial value of plan assets for the 1 -year period ending on the valuation date, line 12 h should still be completed according to the instructions above, and the actuary may attach a statement to Schedule B showing both the actuary's estimate of the rate of return and the actuary's calculations of that rate.
13. Multiemployer plans or plans with NO unfunded current liability or plans with 100 or fewer participants should check this box and skip lines 13a through 13 r.
A plan has 100 or fewer participants only if there were 100 or fewer participants (both active participants and nonactive participants) on each day of the preceding plan year taking into account participants in all defined benefit plans maintained by the same employer who are also employees of such employer.

13a. Enter the current liability as of the valuation date. If the valuation date is the beginning of the plan year, this amount is the same as line $6 d$ (iv), column (3) "total benefits." Otherwise, adjust the current liability by interest (at the rate used to determine current liability).

13b. Enter the actuarial value of assets (reduced by the prior year's credit balance) as of the valuation date. If the prior year's credit balance (line 9h) was determined at a date other than the valuation date, adjust the balance with the appropriate interest adjustment before subtracting. Do not make any adjustment to reflect a prior year's funding deficiency.

13c. Enter the adjusted actuarial value of assets expressed as a percentage of current liability. Round off to two decimal places (e.g., 28.72\%).

13e. Enter the outstanding balance of the unfunded old liability as of the valuation date.
Note: In the case of a collectively bargained plan, this amount must be increased by the unamortized portion of any "unfunded benefit increase liability" in accordance with Code section 412(I)(3)(C).
13f. Enter the liability with respect to any unpredictable contingent event
benefit that was included on line 13a, whether or not such event has occurred.
$\mathbf{1 3 g}$. This amount is the unfunded new liability. It will be recalculated each year. If the result is negative, enter $-0-$.

13h. If the unfunded new liability is zero, enter $\$ 0$ for unfunded new liability amount. If the unfunded new liability amount is greater than zero, calculate the amortization percentage as follows:

1. If the funded current liability percentage (line 13c) is less than or equal to $35 \%$, enter $30 \%$.
2. If the funded current liability percentage exceeds $35 \%$, reduce $30 \%$ by the product of $25 \%$ and the amount of such excess; round off to two decimal places, and enter the resulting percentage.

The unfunded new liability amount is equal to the above-calculated percentage of the unfunded new liability.

13i. Enter the amortization of the outstanding balance of the unfunded old liability as of the valuation date (line 13e). In the case of a collectively bargained plan, the unfunded old liability amount to be entered on line 13i must include the amortization of any unfunded existing benefit increase liability calculated in accordance with Code section $412(1)(3)(C)$ (ii). On a separate attachment show the breakdown of the various liabilities being amortized, the outstanding balance of each liability, the number of years remaining in the amortization period, and the amortization amount.

Any such amortization amount must be determined based on: (1) the current liability interest rate in effect at the beginning of the plan year, and (2) use the valuation date as the due date of the amortization payment. The amortization period must be the remainder of the original 18-year period that applies when the amortization began.

Any such amortization amount must be redetermined each year based on the outstanding balance (line 13e). If the plan becomes fully funded as a current liability basis, the unfunded old liability
(including any arising from collectively bargained plans) will be considered fully amortized.

13j. Enter the sum of lines 13 h and 13i. This amount is the deficit reduction contribution at the valuation date.

13k. When entering the net amortization amounts for certain bases include only charges (included on line 9 c ) and credits (included on line 9j) attributable to original unfunded liability, amendments, funding waivers, charges resulting from a "switchback" arising from the utilization of the alternative minimum, and "offsetable bases" as described in Announcement 90-87, 1990-30 I.R.B. 23 , which were shown as an attachment to your 1989 Schedule B.
If a base resulted from combining and/or offsetting pre-existing bases among which were bases not designated in the preceding paragraph, then such resulting base may not be included in this line 13k.

Regardless of how the attachment (schedule of bases described in the instructions for lines 9c and 9 j ) is prepared, enter the amount assuming the payment was on the valuation date.
13I. Item I does not apply to the unpredictable contingent event benefits (and liabilities attributable thereto) for which the event occurred before the first plan year beginning after December 31, 1988.

131(i). Enter the total of all benefits paid during the plan year that were paid solely because the unpredictable contingent event occurred.

131(ii). Enter 100\% minus the funded current liability percentage (line 13c).

131(iii). Enter 20\% for plan years beginning in 1993. (See Code section 412(I)(5)(B).)

131(v). Amortization should be based on the current liability interest rate and assume beginning of year payments for a 7 -year period.
Note: Alternative calculation of unpredictable contingent event amount is available for the first year of amortization. Refer to Code section

412(I)(5)(D) for a description. If alternative is used, include an attachment describing the calculation.

13p. Enter the applicable amount of interest, based on the current liability interest rate, to bring the additional funding charge (line 130) to the end of the plan year.

13r. If the plan had 150 or more participants on each day of the preceding plan year, enter N/A. If the plan had less than 150 participants but more than 100 participants on each day of the preceding plan year, only an applicable percentage of line $13 q$ is charged to the funding standard account. The same aggregation rule described in the instructions for line 13 applies.

The applicable percentage is calculated as follows:
a. Determine the excess of the greatest number of participants during the preceding plan year over 100.
b. The applicable percentage is $2 \%$ of such excess.

This amount (or line $13 q$, if line $13 r$ is $N / A$ ) will also be entered on line $9 e$.
14. Generally, if the actuary signs the required certification statement on the actuarial report, but "materially qualifies" that statement, the certification is invalid. However, Income Tax Regulations section 301.6059-1(d) lists certain qualifying statements that the actuary is allowed to make. Among them is a statement that in his or her opinion, the report fully reflects the requirements of the statute, but does not conform to the requirements of a regulation or ruling that the actuary believes is contrary to that statute (Income Tax Regulations section 301.6059-1(d)(5)).

Check the "Yes" box on line 14 if the report is being signed subject to this qualification. If a funding deficiency or a disallowed contribution would have resulted for this plan year had the report conformed to the requirements of a regulation or ruling under the subject statute, the actuary must state that on an attachment to Schedule B.


[^0]:    Where an indicated table consists of separate tables for males and females, add $F$ to the female table (e.g., 4F). When a projection is used with a table,

