

Note: ACG No. 1 was repealed by the ASB, effective June 16, 2003.



ACTUARIAL STANDARDS BOARD

Actuarial Compliance Guideline No. 1

**An Actuary's Guide to Compliance
with Statement of Financial
Accounting Standards No. 87**

**Developed by the
Pension Committee of the
Interim Actuarial Standards Board**

**Adopted by the
Board of Directors of the
American Academy of Actuaries**

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Actuarial Standards Board**

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TO: Members of the American Academy of Actuaries and Other Persons with an Interest in Actuarial Calculations with Respect to Statement of Financial Accounting Standards No. 87

In July 1986, the Interim Actuarial Standards Board (IASB) issued an exposure draft entitled, *Actuarial Guidelines for Compliance with Statement of Financial Accounting Standards (SFAS) No. 87*. There were a total of thirty-four responses received to the exposure draft, including extensive comments from the staff of the Financial Accounting Standards Board (FASB).

As a result of the comments, the IASB and its Pension Committee have determined that it would be appropriate to issue that material, revised to reflect the comments, as a committee report containing useful guidance for actuaries, rather than to issue it as a formal actuarial standard.

There have been significant changes made to the exposure draft as a result of the comments. Thus, the exposure draft should not be relied on. The former section 1.3, Disclosure, has been deleted. The IASB is considering what the actuary's responsibility is in this regard, and a formal actuarial standard for disclosure may be developed. The balance of section 1 has been renumbered. Other subsections that have been revised significantly are as follows:

1.2	2.21
1.4 (formerly 1.6)	2.23
2.4	2.27
2.11	2.30 (deleted)
2.15	2.31 (deleted)
2.19	3.6 (deleted)

Many other changes were made to clarify the committee's intent.

While the development of this document took place under the auspices of the IASB, it is a general publication of the Academy, and not a standards publication of the IASB. The Academy Board of Directors thanks the members of the Pension Committee of the IASB who participated in its preparation. They are as follows:

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It is our understanding that the FASB is issuing an extensive series of questions and answers on SFAS No. 87 in mid-December. There has been significant dialogue between the FASB and the Academy committee to ensure consistency between the FASB document and this booklet as both were under development. Nevertheless, readers should be aware that the final FASB document or future FASB pronouncements may create certain discrepancies with the guidance contained herein.

Thus, the Academy believes that this publication is accurate at this point in time, based on the information available to us, and will assist actuaries in preparing calculations for SFAS No. 87. However, the user's attention is directed to revised section 1.2 as regards the scope of the document.

Stephen G. Kellison
Executive Director

ACTUARIAL COMPLIANCE GUIDELINE NO. 1

AN ACTUARY'S GUIDE TO COMPLIANCE WITH STATEMENT OF FINANCIAL ACCOUNTING STANDARDS NO. 87

Section 1. General

- 1.1 Background—The Financial Accounting Standards Board (FASB) adopted SFAS No. 87, *Employers' Accounting for Pensions*, in December 1985. It made major changes in the way pension information is determined and presented in employers' financial statements (SFAS No. 87, ¶ 1–6). Much of the information required will have to be furnished by actuaries. Users of this guideline are assumed to be familiar with the content and terminology of SFAS No. 87.
- 1.2 Scope—SFAS No. 87 and pronouncements of FASB set forth required practices with respect to calculations for SFAS No. 87. This guideline does not set forth actuarial practice standards, but is believed to accurately represent current understanding of SFAS No. 87 as it pertains to actuarial calculations. In the event of a conflict between this document and SFAS No. 87 or other guidance from FASB, the actuary should rely on FASB for a definitive determination.
- 1.3 Approximations and Materiality—SFAS No. 87 allows the use of reasonable approximations (SFAS No. 87, ¶ 10). In addition, materiality is always a consideration when deciding on the amount of effort and expense that should be incurred when complying with any accounting standard.
- 1.4 Determination of Materiality—Since the actuary may not be aware of whether (1) the employer maintains other pension plans, (2) pension matters are significant relative to the employer's total operations, or (3) the employer requires a more thorough SFAS No. 87 valuation regardless of materiality, he or she should consult with the employer before determining the approximations to use when complying with SFAS No. 87.

Ultimately, the employer and the auditor are responsible for determining materiality.

- 1.5 Standard of Materiality—Actuaries are typically concerned with the valuation of a single plan. An entire plan, however, may not be material in the context of the employer's financial statements. In such a case, the actuary may be able to focus primarily on the requirements of ERISA or some other requirement of that plan, and then comply with the requirements of SFAS No. 87 in a manner that minimizes the additional effort required. Other plans will be material in total, but have relatively immaterial components of cost or disclosure. In these cases, the actuary may still be able to make use of approximations. Still other plans will be material in all respects, and the actuary should more carefully consider which approximations may be appropriate (SFAS No. 87, ¶ 10).

- 1.6 Materiality of Foreign Plans—The recommendations of sections 1.3–1.5 relating to materiality and approximations may be of special importance with respect to foreign plans. The actuary should be aware that SFAS No. 87 applies to foreign plans to the extent that they are included in U.S. financial statements prepared in accordance with Generally Accepted Accounting Principles (SFAS No. 87, ¶ 72). In most cases, valuations following local practice on these plans will not comply with the requirements of SFAS No. 87. In addition, local practice, laws, and regulations may prevent a valuation completed for compliance with SFAS No. 87 from being useful for local purposes. The actuary for the U.S. plan may be asked to make any calculations required to bring the valuations following local practice into compliance with SFAS No. 87. Even if pensions are material in the context of an employer’s financial statements, the foreign plan(s) may not be, in which case more extensive use of approximations could be appropriate (SFAS No. 87, ¶ 10). In the extreme case, the plan will not materially affect the employer’s financial statements regardless of how the valuation is done.
- 1.7 Required Information—Information on balance sheet accruals plays an important part in SFAS No. 87 calculations, as it did under Accounting Principles Board (APB) No. 8. Under APB No. 8, however, balance sheet accrual were often zero and could therefore be ignored by the actuary, since pension cost often matched pension funding year after year. Under SFAS No. 87, net periodic pension cost is not generally expected to match pension contributions, and balance sheet accruals will therefore become the rule rather than the exception. These balance sheet items should be reflected when performing SFAS No. 87 calculations.
- 1.8 Effect on Plan Financial Statements—The actuary’s calculations for the plan’s financial statements in accordance with SFAS No. 35 may be different from the computations for SFAS No. 87. Accrued contributions are generally treated as a plan asset for the plan’s accounting even if they are not treated as such for the employer’s accounting. The interest assumption may differ from the SFAS No. 87 discount rate because the former may reflect the types of assets held by the plan and the plan’s investment policy. Further, the valuation of insurance contracts may be different. In addition, the projected benefit obligation, which the employer must disclose, is not included in the plan’s disclosures.

Section 2. Actuarial Calculations for Determining Reported Net Periodic Pension Cost

- 2.1 Introduction—Under SFAS No. 87, pension cost [expense] is called *net periodic pension cost* and is composed of the following (SFAS No. 87, ¶ 20):
- a. service cost [normal cost];
 - b. interest on the projected benefit obligation [actuarial accrued liability], service cost, and distributions;
 - c. increase (reduction) for actual return on plan assets;

- d. amortization of unrecognized prior service cost [additional actuarial accrued liability due to amendments], if any;
- e. loss (gain), to the extent recognized; and
- f. amortization of unrecognized net obligation (asset) at transition.

Each of these is discussed in this section. In particular, see section 2.10.

2.2 Basis for Costs—For plans with a single uniform formula, the calculation of the service cost is substantively the same as under the Projected Unit Credit Actuarial Cost Method, with benefits prorated based on service and the plan’s accrual formula (SFAS No. 87, ¶ 21; and, for special circumstances, ¶ 40, note 8, and ¶ 42). The other elements, except for the actual return on plan assets, are determined based on the projected benefit obligation (PBO), which is the actuarial accrued liability under the cited cost method. Except as indicated, the discussion that follows assumes a situation with no significant unusual developments. All calculations should be done on the plan as it exists, including amendments necessary to implement commitments already made for future changes (SFAS No. 87, ¶ 41).

2.3 Measurement Dates—Net periodic pension cost for an employer’s fiscal year is usually determined by values calculated as of the prior fiscal year’s measurement date. SFAS No. 87 permits consistent use of any measurement date within 3 months prior to the end of the employer’s fiscal year (e.g., for an employer with a calendar fiscal year, the measurement date must be between September 30 and December 31 of the prior calendar year). The measurement period for net periodic pension cost calculations is the year between the beginning-of-year and end-of-year measurement dates. The cost for an employer’s fiscal year is determined as if that fiscal year were the year between the two measurement dates. (For example, an employer with a calendar fiscal year may elect a measurement year beginning on October 1. A change made on August 1 would be reflected for 2/12ths of a year, not 5/12ths of a year.) Service cost calculated as of a measurement date represents the value of benefits attributed to employee service in the following measurement year. There may be interim measurements during a year; these do not change the basic measurement year.

2.4 Selection of Assumptions—The typical *demographic* assumptions should be selected in accordance with established actuarial standards. The *economic* assumptions, as established for SFAS No. 87, are intended to be the employer’s best estimate (SFAS No. 87, ¶ 191). Assumptions are required to be individually reasonable (SFAS No. 87, ¶ 43), or *explicit*. A salary projection is required for both final pay and career pay plans. The calculations may involve multiple rates rather than a single rate (SFAS No. 87, ¶ 199).

- a. The *discount rate* (interest rate or settlement rate) is based on currently available rates (SFAS No. 87, ¶ 44). It is intended to be the rate at which the plan’s obligations could be effectively settled on the measurement date. It is independent

of the funding level and the plan's investments, and it is expected that the discount rate would change with each measurement if interest rates in general have changed. The discount rate is the rate used for all actuarial calculations under SFAS No. 87 except for the expected return on assets. In determining the discount rate, SFAS No. 87 permits consideration of a broad range of factors, including annuity or Pension Benefit Guaranty Corporation (PBGC) interest rates and interest rates on long-term, high-quality, fixed-income investments. Assuming no risk of default, interest rates reflect, among other things, both a time value of money and a risk component to compensate for the possibility of changes in interest rates over the relevant time period. The annuity (liability) market usually has a negative risk component (lower rates for longer durations); the bond (asset) market is typically the opposite.

- b. The *expected long-term rate of return on plan assets* is intended to be a long-term rate, suitable for projecting the return on plan assets (SFAS No. 87, ¶ 45). It reflects the expected return on assets on hand and new money to be received during the measurement year, as well as the reinvestment of those assets in later years. The present and expected asset mix may also be taken into account. Thus, many of the considerations are the same as for selection of interest rates in other pension valuations. However, the relevant time frame may be somewhat shorter, as it does not take into account assets that will be contributed after the current year.
- c. The *inflationary component of the salary scale* should be selected on a basis that is consistent with the inflation expectations underlying the discount rate (SFAS No. 87, ¶ 46 and 202), as should projected *automatic cost-of living increases, changes in Social Security-related items*, or other similar factors. Because the discount rate may change while the inflation expectation remains the same, a change in the discount rate does not automatically require a change in the salary or other economic assumptions.

2.5 Measurement of Assets—For cost purposes, a market-related [actuarial] value of plan assets is permitted (SFAS No. 87, ¶ 30). The market-related value can be fair (market) value or a formula amount. If a formula is used, spreading of changes in fair value is to be over not more than 5 years. A corridor could be used to assure that the market-related value remains reasonably related to fair value. The formula must treat positive and negative fluctuations identically. If the initial value at the time SFAS No. 87 is adopted is not fair value, special additional adjustments will be required in future years to avoid double-counting the initial difference. These calculations are discussed in section 2.29.

2.6 Service Cost—Each year's service cost is the normal cost, computed as of the measurement date (SFAS No. 87, ¶ 21). Interest on the service cost for some or all of the measurement period may be included as part of the service cost.

2.7 Interest Cost—The discount rate as of the beginning of the measurement period, applied to the PBO at that time and the service cost and expected distributions for the period,

produces the interest cost for the year (SFAS No. 87, ¶ 22). The calculations should reflect appropriate fractions of a year for amounts that are not as of the start of the measurement period. In particular, interest on the service cost must be included in the interest cost to the extent that it has not been included in the service cost.

2.8 Expected Return on Market-Related Value of Plan Assets—A reduction in plan costs for expected investment return is determined by applying the expected rate of return on plan assets as of the measurement date to the market-related value at the beginning of the period and, with appropriate fractional adjustment, to the expected contributions less distributions for the year (SFAS No. 87, ¶ 30).

2.9 Actual Return on Fair Value of Plan Assets (SFAS No. 87, ¶ 23)—At the end of the measurement period, the actual return on plan assets is determined based on beginning and ending fair values, as follows:

ending fair value - beginning fair value - (contributions - distributions).

Once this amount is calculated, a gain (loss) from return on assets is determined as follows:

actual return on fair value of plan assets - expected return on market-related value of plan assets.

2.10 Net Periodic Pension Cost (SFAS No. 87, ¶ 20)—The net periodic pension cost is computed at the beginning of the measurement period according to one formula, but it is disclosed at the end of the measurement period using a different formula that produces the same numerical result. There may be more than one measurement in a year—for example, because of a plan change. The net periodic pension cost for the balance of the year following an interim measurement must reflect the values determined as of that point in time. However, the minimum amortization of the net gain (loss) must be based upon the beginning-of-year measurement.

Computation at Beginning of Year	Disclosure at End of Year
(a) service cost	(a) service cost
(b) + interest cost	(b) + interest cost
(c) - expected return on market- related value of assets	(e) - actual return on fair value of assets
	(f) +/- gain/(loss) from expected return on assets during year
(d) +/- principal amortization payments on net obligation (asset) at transition, unrecognized prior service cost (unrecognized negative prior service cost), and unrecognized net loss (gain)	(d) +/- principal amortization payments on net obligation (asset) at transition, unrecognized prior service cost (unrecognized negative prior service cost), and unrecognized net loss (gain)

The reported net periodic pension cost is the same computed either way (and may be positive or negative). The first way permits the total to be determined relatively early in the year; the second way is the “final” allocation, which is the way SFAS No. 87 requires pension cost components to be disclosed. In disclosing the results, items (d) and (f) are combined and called *net amortization and deferral*.

- 2.11 Computation of Gain (Loss) (SFAS No. 87, ¶ 29–30)—Each year an expected year-end PBO is computed as the beginning PBO plus service cost (section 2.6) plus interest cost (section 2.7) less expected distributions plus (minus) adjustments to the PBO on account of changes in prior service cost (section 2.15) or due to events accounted for under SFAS No. 88. An expected year-end fair value is computed as starting fair value plus the expected return on market-related value (section 2.8) plus actual contributions less expected distributions. The difference can be thought of as the expected unfunded PBO. The difference between that amount and the actual unfunded PBO (year-end PBO less year-end fair value) is the gain (loss) for the year, and any required amortization will first be reflected in the following year’s cost. Note that any change in the PBO due to changes in the discount rate or other assumptions becomes part of the computed gain (loss).
- 2.12 Cumulative Unrecognized Gain (Loss) (SFAS No. 87, ¶ 32)—Each year, the previous cumulative unrecognized gain (loss) is increased by the current gain (loss) (section 2.11) and decreased by any amortization of principal (section 2.18). No interest adjustments are made in this process, since they are included in the interest cost (section 2.7).
- 2.13 Gain (Loss) Subject to Amortization (SFAS No. 87, ¶ 31)—Only a portion of the cumulative unrecognized gain (loss) computed under section 2.12 is subject to being amortized. The excess of fair value over market-related value must be subtracted from the cumulative unrecognized gain (loss) to get the amortizable amount. (See also section 2.29.)
- 2.14 Net Obligation (Asset) at Transition (SFAS No. 87, ¶ 77)—The net obligation (asset) at transition (i.e., at the initial application of SFAS No. 87) is computed as the difference between (a) the PBO and (b) the fair value of plan assets plus any accrued pension liability or less any prepaid pension cost in the employer’s balance sheet. An excess of (a) over (b) results in a net obligation which is to be amortized as a component of net periodic pension cost (section 2.17); an excess of (b) over (a) results in a net asset at transition that is also amortized. Employer contributions receivable by the plan are excluded from plan assets since they are included in the employer’s balance sheet accrual. If the measurement date precedes the financial statement date, adjustments will need to be made for accounting entries between the two dates.
- 2.15 Prior Service Cost (SFAS No. 87, ¶ 24 and 25)—Since the initial unfunded actuarial accrued liability, as adjusted for accruals, is the net obligation (asset) at transition, and since all experience variations and assumption changes are treated as losses (gains) (SFAS No. 87, ¶ 29), prior service cost consists solely of increases (decreases) in the PBO due to plan changes subsequent to transition (see example in SFAS No. 87, ¶ 48). Prior service costs should be adjusted when the commitment to make the changes is

made, even if in midyear. Bargained, adopted, or publicly announced future plan changes should be included, even if they have effective dates deferred beyond the end of the current year or are not yet in the plan. Each net periodic pension cost component reflects a proration for the fraction of a year remaining after the commitment to change is made (section 2.10).

- 2.16 Amortization Patterns—A major departure from standard actuarial practice involves the separation of amortization into principal and interest components. Thus, the amortization under SFAS No. 87 will not be determined in the same manner as for the ERISA Funding Standard Account. The previous discussion (section 2.7) includes the interest component. In general, amortization of principal is over the remaining service of those expected to receive benefits (section 2.20). Each year's amount is simply that year's amortization fraction applied to the total to be amortized; no compound interest factors are involved.
- 2.17 Amortization of Net Obligation (Asset) at Transition (SFAS No. 87, ¶ 77)—The net transition amount (section 2.14) is amortized in equal installments of principal, generally over the average future service of those who, as of the date of transition, are expected to receive benefits (section 2.20). If this period is less than 15 years, it is permissible to elect to use a 15-year period instead. Where all or almost all of a plan's participants are inactive, an average remaining life expectancy should be used (SFAS No. 87, ¶ 77).
- 2.18 Amortization of Gains (Losses) (SFAS No. 87, ¶ 32–33)—The unrecognized gain (loss) subject to amortization (section 2.13) must be divided by the larger of (a) the PBO and (b) the market-related value of assets. The result determines the smallest amount that can be amortized. If the result is not more than 10%, no amortization is required at all. If the result exceeds 10%, the smallest permissible amortization is the excess of (a) the cumulative unrecognized amount over (b) the 10% result divided by (c) the average expected future service of then-present employees expected to receive benefits (or the average remaining life expectancy for plans where all or almost all of the participants are inactive). More rapid amortization, up to full recognition of the gain (loss) in one year, is permitted, if done consistently. Note that the cumulative unrecognized amount, the 10% test, the average expected future service, and the minimum amount to be recognized are recomputed each year and are independent of prior years' amounts, so that it is possible to have amortization in one year but not in the following one.
- 2.19 Amortization of Prior Service Cost (SFAS No. 87, ¶ 25–26)—Whenever benefits for prior service are improved, a prior service cost is computed (section 2.15). An amortization program for the principal amount is established at the time the commitment is made. Each year's minimum amortization is based on the percentage of the projected future service of employees expected to receive benefits (section 2.20) which is projected to be worked in that year. Thus, if there were three employees expected to receive benefits, and one was assumed to terminate at the end of each year, there would be a total of 6 future employee-years (three in the first year, two in the second, plus one in the third); and 50% of the prior service cost principal amount would be included in the first year, 33% in the second, and 17% in the third—a total of 100%. (Again, no interest is involved.) More rapid amortization is permitted, provided the basic concept of matching

cost with the period of economic benefit is maintained. Thus, equal installments over the average projected future working lifetime of those expected to receive benefits—50% per year for 2 years in the example—is allowable. The entire amortization program is established at the time the commitment is made. Thereafter, it is only changed if a subsequent amendment reduces the PBO (in which case the change in PBO is used to reduce any existing unrecognized prior service cost) (SFAS No. 87, ¶ 28), or if SFAS No. 88 is applied (SFAS No. 88, ¶ 9, 12, and 13), or if facts and circumstances lead the employer to conclude that the expected period of economic benefit should be shortened.

2.20 Projected Future Period of Service of Those Active Employees Expected to Receive Benefits (SFAS No. 87, ¶ 25)—In order to compute SFAS No. 87 principal amortization payments, it is necessary to compute actuarially the projected future years of service of those expected to receive benefits (section 2.21). Note that the fraction of an employee expected to terminate without benefits is excluded. For a particular employee, the expected future service will be the difference between retirement age and attained age only if there are no pre-retirement decrements. It will be the present value of \$1 per year of future service at a zero interest rate only if there are benefits payable for all decrements at all durations. Otherwise, the computation for a particular employee is as follows:

$$\sum_{t=0}^{r-x-1} \left\{ \sum_{s=t}^{r-x-1} \left[{}_sP^{(T)}_x \sum_d q^{(d)}_{x+s} E^{(d)}_{x+s} \right] \right\}$$

for all decrements d^1 , where x is attained age, r is the age where the employee's probability of retirement is 1, and $E^{(d)}_{x+t} = 1$ if a positive employer-provided benefit is projected to be payable based on termination of employment by decrement d at age $x + t$ and $E^{(d)}_{x+t} = 0$ otherwise. If decreasing amortization over the entire working lifetime is contemplated (section 2.19), subtotals are required for each value of t . If level amortization over the average future years of service is contemplated (¶ 2.17–2.19), it is also necessary to compute the total number of employees expected to receive benefits. Each employee's contribution to the total is computed as follows:

$$\sum_{t=0}^{r-x-1} \left\{ \sum_d {}_tP^{(T)}_x q^{(d)}_{x+t} E^{(d)}_{x+t} \right\}$$

for all decrements d . Approximations will generally be satisfactory, especially where the decrements for which benefits are or are not payable are very small. For example, a plan

¹ Modifications to this formula and to the formula that follows are appropriate to reflect the time during each year when the decrement is assumed to occur.

might provide only a disability benefit for terminations with less than 10 years of service, and provide benefits for all terminations except unmarried deaths after 10 years of service. It would normally be acceptable to treat E for all decrements as 0 in the first 10 years and 1 thereafter under these circumstances.

- 2.21 Employees Expected to Receive Benefits—The amortization period may only recognize service at the time of a decrement where a positive employer-provided benefit is projected to be payable. Thus, for example, $E = 0$ if in a contributory plan the projected benefit is worth no more than the value attributable to employee contributions. Likewise, $E = 0$ for a “415 excess plan” where the projected benefit for an eligible employee is zero.
- 2.22 Insignificant Benefits—Where the benefit provided at termination is not significant (e.g., a \$100 severance benefit), the actuary may optionally ignore such benefit for determining the amortization (i.e., $E = 0$ for section 2.20).
- 2.23 Amortization of Related Plans—In determining the amortization periods to be used, each plan must be treated separately.
- 2.24 Treatment of IRC Section 415 Limits—(SFAS No. 87, ¶ 46, footnote 11)—Expected future increases in the IRC Section 415 limits due to indexing provided in current law must be included in the service cost and PBO if the plan provides for their automatic inclusion.
- 2.25 Routine Updating Patterns—A history of regular plan amendments may indicate a period of economic benefit shorter than the future working lifetime of the active participants (SFAS No. 87, ¶ 27). The existence of such a history does not necessarily imply that a shorter period is required. If, however, the employer determines that the period of economic benefit is shorter, then a more rapid amortization period will have to be used. There may also be substantive commitments to make future amendments (SFAS No. 87, ¶ 41). If the employer reports that such commitments exist, the calculations should reflect the commitment.
- 2.26 Projections—Typically, participant information needed as of the measurement date will not be available until some time later. Therefore, in the absence of significant changes, the actuary may be working with a projection from a prior calculation while using current economic assumptions and assets. The projections can be done by one of a number of procedures. The actuary’s goal is to minimize the difference between the projection and an actual calculation. Either the data or the present values may be projected. Possible procedures include the following:
- a. assume no change (i.e., a stationary population);
 - b. assume a one-year increase in age and service, with or without new entrants; or
 - c. assume expected experience, with or without new entrants.

The choice of method will depend on the facts and circumstances of each particular case. However it is done, the projection must give a result appropriate to the measurement date. Thus, for example, adjustments to the projection process may be required where there has been a significant change during the year, such as the closing of a large plant or salary increases that differ significantly from the assumed rates.

- 2.27 Insurance Contracts—Assets and liabilities represented by annuity contracts should generally be excluded from SFAS No. 87 computations (for exceptions, see SFAS No. 87, ¶ 57, note 14). Other insurance contracts should be valued at “fair value,” which is presumed to be the surrender value if the contract were to be terminated (SFAS No. 87, ¶ 62). The “contract value” may be the best available evidence of fair value.
- 2.28 Participating Annuities—(SFAS No. 87, ¶ 61)—SFAS No. 87 requires that plan assets include the value of the participating feature of an annuity contract. Thus, the actuary will have to consult with the insurer or make comparisons with other available information (such as PBGC annuity factors) to determine the value of the participation right. A wide variety of systematic procedures is available for reflecting this value.
- 2.29 Use of Market-Related Value for First Year’s Cost—As discussed in section 2.5, certain complications arise when a value other than fair value is used for the first year’s pension cost determination. This is because the net obligation (asset) at transition must be based on fair value. As the initial difference gets reflected in future years’ market-related values, the portion related to this initial difference will require separate treatment. Specifically, the cumulative unrecognized net loss (gain) subject to amortization (section 2.13) has to be increased (decreased) by the portion of the initial excess of market-related value over fair value which is not yet reflected in fair value. Note that this requires the actuary to be able to determine at any time how much of the initial difference has been reflected in the then-current market-related value. If the formula does not treat each year’s asset fluctuation separately, it may be necessary to make an arbitrary allocation (e.g., if the initial difference were \$100, then \$20 of the total adjustment in each of the next 5 years could be assumed to be on account of the initial difference). Once the entire initial difference is assumed to have been reflected, no further special adjustments are necessary.

Section 3. Actuarial Calculations for Disclosure and Balance Sheet Items

- 3.1 Introduction—SFAS No. 87 requires that employers disclose certain other actuarial information in addition to the net periodic pension cost and its components (SFAS No. 87, ¶ 54). Further, there may be balance sheet entries required in some circumstances (SFAS No. 87, ¶ 35–38). Much of this information is produced as a by-product of the cost determination (section 2). This section focuses on additional actuarial calculations beyond those used for calculating the cost item.

- 3.2 Measurement Date (SFAS No. 87, ¶ 52)—All disclosure and liability information is to be as of a measurement date not more than 3 months prior to the employer’s financial statement date. Assumptions and asset values as of the measurement date will be used. The results may reflect projections based on prior demographic data if the result is a reasonable reflection of the present values as of the measurement date.
- 3.3 Accumulated Benefit Obligation—The accumulated benefit obligation (ABO) is determined using the same methodology as the actuarial present value of accumulated plan benefits, which the plan is required to disclose under SFAS No. 35. It should be calculated in accordance with the calculation methodology of *Pension Plan Interpretation 2* of the American Academy of Actuaries. The discount rate used for benefits expected to be paid in any year must be the same for the ABO and PBO, but the resulting weighted average rates may be different.
- 3.4 Vested Benefit Obligation—Disclosure of the vested benefit obligation (VBO) is also required. This amount is determined using the same methodology as the value of accrued vested benefits reported for the plan in accordance with SFAS No. 35, and should be calculated in accordance with the calculation methodology of *Pension Plan Interpretation 1* of the American Academy of Actuaries. As with the ABO (section 3.3), the weighted average discount rate for the VBO may be different from that for the PBO, but the rate applied to each year’s projected benefits must be the same.
- 3.5 Contributions Not Equal to Net Periodic Pension Cost—SFAS No. 87 governs the accounting for pension costs, but does not change ERISA’s funding requirements or the accepted principles and practices for defining appropriate funding levels. A company’s financial planning may indicate that the optimum pension contribution is other than the reported pension cost. Bargaining or regulatory considerations may also limit the employer’s flexibility with respect to pension contributions. Thus, it will not be unusual for the contribution amount to be other than the net periodic pension cost.