FINAL

CONSOLIDATED STANDARDS OF PRACTICE – PRACTICE-SPECIFIC STANDARDS FOR PENSION PLANS

COMMITTEE ON CONSOLIDATED STANDARDS OF PRACTICE

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3000 – PENSION PLANS

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3100 SCOPE

.01 The standards in this part apply to an actuary's advice on the financial position or financial condition of a pension plan which provides lifetime retirement income to its members, whether funded or not, whether registered or not, and whether in the private or public sector, except for the following:

> A plan for which no unfunded actuarial liabilities may ever exist by reason of the nature of the plan; i.e., a pure defined contribution pension plan. The standards apply, however, to any hybrid of defined contribution and defined benefit pension plans, such as modified money purchase, target benefit, floor, and cash balance pension plans.
>
> A plan whose benefits are guaranteed by a life insurer.
>
> Social security programs like the Canada Pension Plan, Québec Pension Plan, and the pension provided by the federal *Old Age Security Act*.

.02 The standards in sections 3100 through 3600 apply to all such advice, including wind-up, hypothetical wind-up and solvency valuations, while the standards in section 3700 apply only to the valuation of a pension plan registered under the *Income Tax Act* which is being wound up, fully or partially, actually or hypothetically, including a solvency valuation.

.03 An actuary's advice on the financial position or financial condition of a pension plan may relate to items such as

> its funding,
>
> the application to its funding of the limitations in the federal *Income Tax Act* and of the requirements of pension plan legislation,
>
> its solvency, as required by pension plan legislation,
>
> its financial statements,
>
> its accounting in the employer's financial statements, or
>
> the allocation or distribution of its assets if it is wound up or if all or part of the employer's operations are disposed of or shut down.

3200 METHODS

.01 *The actuary should select an asset valuation method and an actuarial cost method which are appropriate for the purpose and circumstances of the work.*

.02 *The actuary should not select a forecast actuarial cost method to value a plan's liabilities for giving advice on its funding if it is a registered pension plan under the Income Tax Act.*

.03 *The actuary should assume that the plan continues as a going concern, but may assume otherwise if wind-up liabilities exceed going concern liabilities, and should assume otherwise if wind-up is imminent.* [Effective date December 1, 2002] 1450 H3200.08H 1710

Valuation of assets

.04 For a going concern valuation, the value of assets may be any of

their market value,

their market value adjusted to moderate its volatility,

the present value of their cash flows after the calculation date, and

their value assuming a constant rate of return to maturity in the case of illiquid assets with fixed redemption values.

Actuarial cost methods

.05 For a going concern valuation, actuarial cost methods include:

Cost allocation methods, which allocate the cost of projected benefits among time periods. They include attained age actuarial cost methods, entry age actuarial cost methods, aggregate actuarial cost methods, and individual level premium actuarial cost methods.

Benefit allocation methods, which allocate cost for a time period as a function of the change in accrued benefits during the period. They include the accrued benefit actuarial cost method, the unit credit actuarial cost method and the projected unit credit actuarial cost method.

There are also forecast actuarial cost methods, which allocate cost to the forecast period based on

the liabilities at the end of the period including, if appropriate, benefits for those who become members between the calculation date and the end of the period, minus

the corresponding liabilities at the calculation date, brought forward with interest to the end of the period, plus

the benefits expected to be paid during the period, brought forward with interest to the end of the period.

.06 When using a forecast actuarial cost method, the beginning and ending liabilities may be calculated from either a wind-up or a going concern valuation. Where appropriate, the actuary would select a sufficiently long forecast period that the valuation reflects the long term cost allocation pattern.

.07 No provision is needed for expenses to be paid by the employer. In case of doubt, it would be prudent to assume that expenses are paid from the plan's assets.

Imminent wind-up

1520.02 H3700H

.08 The actuary would base advice on a wind-up valuation if there is a definitive or virtually definitive decision to wind-up the plan

made on or before the calculation date and effective after that date or

made after the calculation date and effective on or before that date.

.09 If the decision to wind up is both made and effective after the calculation date, then the actuary would decide between anticipating and not anticipating the wind-up in accordance with the recommendation for subsequent events. 1520

3300 ASSUMPTIONS

.01 *The assumptions for a going concern valuation of the liabilities of an earnings-related pension plan should include an assumption about members' earnings between the calculation date and*

> *their dates of termination of active membership in the case of a cost allocation method or benefit allocation method, and* 1700 1710 1750
>
> *at least the end of the forecast period in the case of a forecast method.*

.02 *In the case of a career average plan, that assumption about members' future earnings is needed only if it is relevant to the actuarial cost method selected by the actuary.*

.03 *The assumptions used to value liabilities should be consistent with the asset valuation method selected.* 1710 1720

.04 *The actuary should make provision for any expenses that are expected to be paid from the plan's assets.* [Effective date December 1, 2002] 1740

.05 The consistency required by paragraph .03 is achieved if the asset valuation method, when considered in conjunction with the assumed rate of investment return, can reasonably be expected to result in gains and losses which will offset each other over the long term. In assessing this consistency, the actuary may ignore any margins for adverse deviations or compensating adjustments in related assumptions.

3400 FUNDING

.01 The standards in this section apply to advice on funding a plan. Advice on funding does not necessarily include advice on the effect of a proposed change to a plan.

.02 *The actuary's advice on funding should take account of the objectives of funding and of the relationship between the plan's assets and liabilities.*

.03 *The actuary's advice on funding should take account of the plan's benefits at the calculation date, except that, subject to disclosure, that advice*

> *subject to discussion with the plan administrator, may anticipate an expected amendment to the plan which increases its benefits,*
>
> *in respect of funding between the calculation date and the effective date of a pending amendment to the plan, may disregard that amendment,*
>
> *if the law requires, may disregard certain benefits stipulated in law, but the actuary should, unless*
>
> > *the plan is a "designated plan" that has as members only persons "connected" with the employer (as those two terms are defined in the Income Tax Regulations), and*
> >
> > *the sole purpose of the valuation is to determine the maximum contributions permitted under the Income Tax Act,*
>
> *also report the funding required in accordance with accepted actuarial practice, and*
>
> *if the law permits, may disregard certain benefits stipulated by the terms of the engagement, but the actuary should also report the funding required in accordance with accepted actuarial practice.*

.04 *The actuary's advice on funding should cover at least the period between the calculation date and the next calculation date.* [Effective date December 1, 2002]

Objectives of funding

.05 The objectives of funding a plan in accordance with accepted actuarial practice are H3200.04 H H3200.08 H

> the systematic accumulation over time of dedicated assets which, without recourse to the employer's assets, secure the plan's benefits in respect of members' service already rendered, and H3400.08
>
> the orderly and rational allocation of contributions among time periods.

Range of Contributions

.06 The actuary's advice on funding may allow a range of contributions.

Anticipated funding of expected amendment

.07 The actuary's advice on funding may, subject to disclosure, anticipate an expected amendment to the plan that increases its benefits. For example:

> An amendment to take advantage of scheduled relaxation of a limitation in the federal *Income Tax Act* on the level of benefits which may be funded.
>
> An amendment in accordance with custom. For example, the plan, while nominally a career average pension plan, may effectively have been operating, and may be expected to continue to operate, as a final earnings pension plan as a result of periodic increases in accrued benefits to reflect current earnings.

Deferred funding of pending amendment

.08 If, at the calculation date, an amendment to the plan is definitive or virtually definitive, and if the effective date of the amendment is

> during the period for which the report gives advice on funding, then the advice on 1520
> funding up to that effective date may disregard the amendment, but the advice on funding thereafter would take the amendment into account, or
>
> after the period for which the report gives advice on funding, then that advice may, subject to disclosure, disregard the amendment.

.09 "Effective date of the amendment" is the date at which the amended benefits take effect, as opposed to the date at which the amendment becomes definitive.

Next calculation date

.10 The next calculation date would be the latest date which will be appropriate for the next valuation.

3500 ACCOUNTING FOR PENSION COSTS

.01 The standards in this section apply to advice on accounting for a plan's costs and obligations in the employer's or the plan's financial statements. 1410

.02 If called for by the engagement, the actuary should select methods and assumptions for the valuation of assets and liabilities that are appropriate to the basis of accounting in the employer's or plan's financial statements, as applicable.

.03 The assumptions which the actuary selects should be best estimate assumptions.

.04 With respect to the assumptions, the actuary should report one of the following

> *the preparers of the financial statements have selected the assumptions and the actuary expresses no opinion on them,*
>
> *the preparers of the financial statements have selected the assumptions and they are, or are not, in accordance with accepted actuarial practice, or*
>
> *the actuary has selected the assumptions and they are in accordance with accepted actuarial practice.* [Effective date December 1, 2002]

1720 1710

.05 The actuary would reflect the accounting standards specified by the terms of the engagement. 1750
For work in Canada, the CICA Handbook and other CICA guidance would typically be 1730.07 1730.19
specified. In particular, if the actuary is aware at the time of preparation of the report of any 1740
subsequent event that makes the entity a different entity after the calculation date, the actuary H3200.04H H3300H
would report an estimate of the financial effect of such subsequent event, or in the rare 1410
circumstance that it is impractical to make such an estimate, include a statement to that effect.

.06 If the preparers of the financial statements select the assumptions and they are not in accordance with accepted actuarial practice, rule 7 may apply. That is so whether or not the actuary expresses an opinion on the assumptions.

3600 REPORTING: EXTERNAL USER REPORT

.01 *In the case of an external user report on work which includes a valuation of assets and liabilities, the actuary should summarize the result of the valuation and should describe*

> *the source and verification of data with respect to members, plan provisions, and assets, and the date at which they were compiled,*
>
> *the data with respect to members,*
>
> *the plan's provisions, including the identification of any expected amendment that has been valued,*
>
> *the method and assumptions for valuation of the liabilities, and* 1820.02
>
> *the method to value the assets, their value, and, if available, their market value and their value in the plan's financial statements, and an explanation of any differences among them.*

.02 *If the valuation includes no provision for adverse deviations, the actuary should say so and say why.*

.03 *If the report gives advice on funding, then the actuary should*

> *describe the actuarial cost method in the case of a going concern valuation and the method to value benefits in the case of a wind-up valuation,*
>
> *if recommending contributions, then describe their determination between the calculation date and the next calculation date,*
>
> *if contributions are fixed, then either*
>
>> *report that the contributions are adequate to fund the plan, or*
>>
>> *report the required increase in contributions, the required reduction in benefits, or the combination thereof that will address the funding shortfall,*
>
> *except where*
>
>> *the plan is a "designated plan" that has as members only persons "connected" with the employer (as those two terms are defined in the Income Tax Regulations), and*
>>
>> *the sole purpose of the valuation is to determine the maximum contributions permitted under the Income Tax Act,*

disclose the amount of funding needed in accordance with accepted actuarial practice if reporting lower funding for a registered plan in accordance with law or the terms of the engagement,

name the next calculation date,

disclose any pending but definitive or virtually definitive amendment, the funding of which has been deferred beyond the next calculation date,

in the case of a going concern valuation, describe and quantify the gains and losses between the prior calculation date and the calculation date,

disclose whether or not the amount of the plan's assets would exceed the amount of its liabilities if it were wound-up on the calculation date, and

if the amount of the plan's liabilities if it were wound-up on the calculation date exceeds both

the market value of its assets and

the amount of its liabilities in a going concern valuation,

then disclose the excess of that amount of liabilities in the wind-up valuation over that market value.

.04 *If the report gives advice on accounting, then the actuary should*

describe the actuarial cost method,

describe the method and period selected in connection with any amortization of pension costs,

if the valuation is an extrapolation of an earlier valuation, then describe the method and any assumptions for, and the period of, the extrapolation,

state whether or not the valuation conforms with the accounting standards specified by the terms of the engagement, and

either opine that the assumptions used are, or are not, in accordance with accepted actuarial practice, or state that the actuary expresses no such opinion. 1820

.05 *The report should be detailed enough to enable another actuary to examine the reasonableness of the valuation.*

Statements of Opinion

.06 *If the report gives advice on funding, then the actuary should provide the following four statements of opinion, all in the same section of the report and in the following order:*

1. *a statement as to data, which should usually be as follows: "In my/our opinion, the data on which the valuation is based are sufficient and reliable for the purpose of the valuation.";* 1530

2. *a statement as to assumptions, which should usually be as follows: "In my/our opinion, the assumptions are, in aggregate, appropriate for the purpose(s) of ....";* 1730

3. *a statement as to methods, which should usually be as follows: "In my/our opinion, the methods employed in the valuation are appropriate for the purpose(s) of ...."; and*

4. *a statement as to conformation, which should be as follows: "This report has been prepared, and my/our opinions given, in accordance with accepted actuarial practice."* [Effective date December 1, 2002]

.07 Where different statements of opinion apply in respect of different purposes of the valuation, the above requirements may be modified but would be followed to the extent practicable.

.08 While a separate statement as to assumptions would generally be included in respect of each purpose of the valuation, the statements as to assumptions may be combined where the statements do not differ between some or all of the valuation's purposes. The report would clearly indicate which statement as to assumptions applies to each of the valuation's purposes.

.09 While a separate statement as to methods would generally be included in respect of each purpose of the valuation, the statements as to methods may be combined where the statements do not differ between some or all of the valuation's purposes. The report would clearly indicate which statement as to methods applies to each of the valuation's purposes.

Data

.10 The description of verification of data would include a description of the main tests of the data's sufficiency and reliability and of any assumptions in respect of insufficient or unreliable data.

Assumptions

.11 The description of assumptions would include a description of each nominal change to the assumptions of the prior valuation and a quantification of their aggregate effect. However, if a plan amendment prompts the actuary to change the assumptions, the actuary may report the combined effect of the amendment and the resultant change in assumptions. 1510.13 1750

Methods

.12 The description of the method to value the assets would include a description of any change to the method of the prior valuation and a quantification of the effect of the change.

.13 The description of the actuarial cost method would include a description of any change to the method of the prior valuation and a quantification of the effect of the change.

.14 For a funding valuation, the description of the actuarial cost method would include a description of

the effect of the selected actuarial cost method on the security of benefits and on the pattern of future contributions,

the options with respect to any shortfall or excess of assets over liabilities, and

any anticipated or deferred funding, any taking account of imminent wind-up and, in the case of anticipated or deferred funding, a quantification of its financial effect on the value of benefits and on the pattern of future contributions.

3700 WIND-UP, HYPOTHETICAL WIND-UP, OR SOLVENCY VALUATION

3710 SCOPE

.01 The standards in this section 3700 apply to the valuation of a pension plan registered under the *Income Tax Act* which is being wound-up, fully or partially, actually or hypothetically, including a solvency valuation. The standards in sections 3100 through 3600 also apply.

.02 This section is not intended to prescribe the manner in which

> the assets would be allocated between jurisdictions in the case of wind-up of a pension plan covering members in several jurisdictions,
>
> final benefit entitlements would be determined,
>
> contributions to a pension benefits guarantee fund would be determined,
>
> funding obligations would be determined, or
>
> assets would be allocated between the employer and the members or between the members themselves.

.03 Rather, those issues would be determined in accordance with law or the plan provisions, or an entity empowered thereunder to make that determination. It may, however, be appropriate to use the results of the valuation to address one or more of those issues, or to disclose their resolution in the report.

3720 WIND-UP VALUATION

Assumptions and methods

.01 *The selected assumptions should*

> *be best estimate assumptions*
>
> *be determined as at the cut-off date*
>
> *in respect of benefit entitlements that are expected to be settled by purchase of annuities, reflect single premium annuity rates, and*
>
> *in respect of benefit entitlements that are expected to be settled by lump sum transfer, reflect the recommendations respecting capitalized values.*

.02 *The actuary should either*

select and report an explicit assumption regarding the expenses of wind-up and offset the resulting expense provision against the plan's assets, or

justify the expectation that expenses will not be paid from the plan's assets.

.03 *The actuary should take subsequent events up to the cut-off date into account. The actuary should report an undertaking to produce a later report if the actuary expects that a later report date would reveal additional subsequent events.*

.04 *The plan's assets should be valued at liquidation value.*

Reporting

.05 *If the report is preliminary, then the actuary should report that the financial position at settlement may differ from that reported. If the report is final and there has been a preliminary report, then the actuary should explain the differences between the reported financial positions.*

.06 *The actuary should report*

the wind-up date, the calculation date, the cut-off date, and the report date,

a description of the events precipitating the wind-up that affect the terms of the wind-up, the benefit entitlements, or the valuation results,

if the actuary relies upon written direction concerning unclear or contentious issues,

each issue on which the actuary relies on written direction,

the identity and basis of authority of the person providing such written direction, and

the written direction relied upon or, where appropriate, a summary thereof,

the determination and amount of any claims to a pension benefit guarantee fund,

the amount of any claims to a trustee in bankruptcy,

either the detailed individual membership data or an offer to provide them on request to the employer, the plan administrator, or the regulator,

any amendments made since the last valuation report which affect the distribution of assets or benefit entitlements,

assumptions made about missing data,

where the plan participant has a choice which he/she has not yet made between a transfer value and insuring his/her benefits, the assumptions made regarding such choice,

a description of the post-wind-up contingencies which affect benefit entitlements,

any benefits that have been insured,

if applicable, the method to allocate assets among classes of liabilities, the method to distribute surplus, the justification of those methods, and their effect,

a summary of the assets by major category,

the actuary's role in calculating capitalized values, the standards for their calculation, and an opinion on whether their calculation is in accordance with accepted actuarial practice,

whether a recalculation of the value of benefit entitlements is required at settlement, and

the sensitivity of the valuation results to the plan's investment policy and to market conditions between the report date and the settlement date. [Effective date December 1, 2002]

Dates

.07 The wind-up date is the date of termination of the pension plan as determined by law, the plan provisions, the regulator, or the plan administrator, usually in that order of priority.

.08 The calculation date for the plan's financial position is usually the wind-up date. The calculation of the benefit entitlements would not be affected by the choice of the calculation date.

.09 The cut-off date is the date up to which subsequent events would be recognized in the valuation.

.10 For a particular member,

the date of calculation of benefit entitlement depends on the circumstances of the wind-up, the terms of the plan, and the law, and may be the date of termination of employment, the date of termination of membership, the wind-up date, or another date, and

the settlement date is the date of settlement of his or her benefit entitlement.

Nature of wind-ups

.11 The purpose of a wind-up valuation may be to determine, or to provide the basis for determining

the financial position of the plan,

the total value of the benefit entitlements of all plan members prior to taking account of the financial position of the plan,

any required additional funding,

the amounts and methods of settlement of benefit entitlements, including any adjustment required due to a wind-up deficit, or

the amount and method of distribution of a wind-up surplus.

.12 Plan wind-up is complex and may take a long time. Months and sometimes years elapse between the wind-up date and the settlement date. Delay creates difficulties which may require a series of reports by the actuary. Since the financial position of the plan determines whether benefit entitlements can be settled in full, the reflection of subsequent events in each report is critical.

.13 For example, between the wind-up date and the settlement date

the wind-up liabilities will fluctuate if there are fluctuations in interest rates and annuity prices, and

the surplus will fluctuate if there are fluctuations in interest rates and the assets and liabilities are not matched.

.14 The actuary would usually report the value of the benefit entitlements of all plan members and the financial position of the plan. That report would be filed with the regulator for approval. After that approval, the plan administrator would settle the benefit entitlements.

.15 The actuary may prepare or may be required to prepare a final report after settlement of all benefit entitlements. Such report, if any, would document the distribution of the plan's assets by describing those entitlements and their settlement.

Data

.16 The data are the responsibility of the plan administrator. The actuary would, however, report on the sufficiency and reliability of the data, including specifically the capitalized values included in the valuation whether or not the plan administrator was the calculator thereof.

.17 The finality of wind-up calls for the actuary to obtain precise data. The actuary may, in rare circumstances, include contingency reserves in the wind-up valuation of the pension plan with respect to missing plan members, if the actuary has reason to believe that additional members still 1340
have benefit entitlements under the pension plan but their membership information is missing.

.18 The reported membership data would include details of the amount and terms of payment of each member's benefits.

Use of another person's work

.19 Some aspects of plan wind-up may be unclear or contentious. Examples are

interpretation of the law,

the determination of the wind-up date,

the members, former members or recently terminated members to be included in the wind-up,

whether or not to assume salary increases in determining benefit entitlements,

eligibility for plant closure benefits and permanent lay-off benefits,

eligibility for benefits payable only with the consent of the employer or plan administrator,

the liquidation value of the plan's assets,

the method to allocate the plan's assets among members,

the allocation of surplus between the employer and the members, and

whether or not wind-up expenses are to be paid from the plan's assets.

.20 To decide those aspects, the actuary may rely upon written direction from another person with the necessary knowledge, such as legal counsel or the employer, or the necessary authority, such as a regulator or the plan administrator. The actuary would consider any issues of confidentiality or privilege that may arise. 1610

Settlement methods

.21 Examples of settlement methods are:

Determine the capitalized value at the wind-up date and then accumulate the result to the settlement date using the interest rate underlying the capitalized value calculation. This method is often required by law.

Determine the capitalized value at the settlement date based on the benefit entitlements at the wind-up date, but with assumptions for capitalized values at the settlement date.

Determine the percentage of the plan's assets payable at the wind-up date to each member based on the pro rata value of the member's benefit entitlements to the value of all benefit entitlements. The member's percentage is then multiplied by the actual value of the plan's assets at the settlement date. This method is sometimes referred to as the "unitization" method.

.22 Under these and other methods, adjustment would be made for benefit payments and/or contributions between the wind-up date and the settlement date.

.23 Accepted actuarial practice provides no guidance on selection of the settlement method. The actuary may rely upon written direction on its selection from the plan administrator or the regulator.

Assumptions

.24 The best estimate assumptions selected would be chosen so as not to distort, favourably or unfavourably, the value of any member's, or former member's, benefit entitlement relative to others.

.25 If a bona fide annuity quotation is unavailable, the actuary may substitute an adjusted capitalized value based on the recommendations for capitalized values. The adjustment would be made in order to more closely approximate an annuity premium by, for example,

> removing the monthly lag in economic indices in the prescribed assumptions for capitalized values,
>
> adjusting the prescribed assumptions to reflect recent historical differences between capitalized values and annuity premium rates, or
>
> adjusting for any commissions payable.

.26 If future benefits depend on continued employment (e.g., the plan is terminating but employment is not), the actuary would consider reflecting contingencies such as future salary increases and termination of employment.

.27 If the plan provides special early retirement allowances that may be reduced if the member has employment income during their term, then the wind-up valuation requires assumptions regarding the likelihood and the amount of the member's future employment income. To extrapolate the plan's historical experience as a going concern is not necessarily appropriate in selecting those assumptions. 1730.18

.28 Wind-up expenses usually include

> fees related to the actuarial wind-up report,
>
> fees imposed by a pension supervisory authority,
>
> legal fees,
>
> administration expenses, and
>
> custodial and investment management expenses.

.29 The actuary would net wind-up expenses against the plan's assets in calculating the ratio of assets to liabilities as a measure of financial security of the benefit entitlements. However, an exception may be made for future custodial and investment management expenses, which may be netted against future investment return in the treatment of subsequent events. H3720.31 H

Benefit entitlements

.30 Post-wind-up contingencies may affect benefit entitlements. Examples are

member election of optional forms of benefits,

salary increases, and

change in marital status.

Subsequent events

.31 In contrast to a going concern valuation, in a wind-up valuation all subsequent events would ideally be reflected. This ensures that the financial position of the plan is presented as fairly as possible as of the report date. However, it is impossible to recognize subsequent events right up to the report date. Accordingly, the actuary would select a cut-off date which is close to the report date.

.32 The actuary would ascertain that no subsequent events have occurred between the cut-off date and the report date that would significantly change the plan's financial position, otherwise the actuary would select a later cut-off date. For clarity, a subsequent event may be material yet not be so significant as to require selection of a later cut-off date.

.33 It may be appropriate to have more than one cut-off date. For example, the actuary may select one cut-off date for the active membership data and another cut-off date for the inactive membership data.

.34 Common subsequent events are

contributions,

expenses paid from the plan's assets,

the actual investment return on the plan's assets,

a change in annuity purchase rates,

a change in assumptions for the calculation of capitalized values,

data corrections, 1520.13

deaths of members, and

elections of optional forms of benefits by members.

.35 An accepted practice for taking account of subsequent events is to determine the liabilities as of the cut-off date and then discount such liabilities back to the calculation date at an interest rate equal to the rate of investment return, net of investment expenses, earned on the assets between the calculation date and the cut-off date. The assets would be determined at the calculation date, but adjusted for the subsequent events (such as contributions and non-investment expenses) which affect assets.

.36 There may be situations where, due to law or practical considerations, subsequent events are not recognized, at least in a preliminary report. Current examples of such situations relate to certain reports submitted to the regulator of the Ontario Pension Benefits Guarantee Fund and to reports submitted to the Québec regulator. In such reports, the effect of subsequent events may be quantified in an approximate manner provided that the financial position of the plan as indicated in the valuation report does not have a direct bearing on the members' eventual settlement. Where the effect of subsequent events is provided in a later report, it may be practical in that report to use a calculation date corresponding to the cut-off date.

3730 PARTIAL WIND-UP VALUATION

.01 A partial wind-up occurs when a subset of the members terminates membership in circumstances which require wind-up with respect to those members. Such wind-up does not apply to the continuing members, although it may be necessary for legal or other reasons to also value the benefits of the continuing members.

.02 The laws regarding partial wind-ups vary by jurisdiction. As a result, their application can cause a partial wind-up to range from an insignificant change in the plan to something similar to a total wind-up.

.03 The standards for a partial wind-up are the same as the standards for a "full" wind-up. Their application may be easier, however, when the partial wind-up applies to relatively few members. For example,

> the standard of materiality for determination of benefit entitlements may be less rigorous for continuing members than for those to whom the partial wind-up applies, and
>
> the standards for reporting may be abbreviated; for example, the reporting of immaterial wind-up expenses is unnecessary.

3740 HYPOTHETICAL WIND-UP VALUATION

.01 This subsection applies to a hypothetical wind-up valuation

> to provide an alternative funding basis to a going concern valuation (that is, wind-up is not imminent, but wind-up liabilities exceed going concern liabilities) or
>
> to illustrate the financial position of the plan if it were wound up.

.02 The standards for a wind-up valuation apply to a hypothetical wind-up valuation except

> as superseded by the following recommendations and
>
> detailed individual membership data need not be reported.

.03 *The actuary should determine benefit entitlements on the premise that the pension plan has neither a surplus nor a deficit.*

.04 *The actuary should include contingent wind-up benefits in the valuation when the valuation is to illustrate the financial position of the plan if it were wound-up.*

.05 *The actuary should assume that the wind-up date, the calculation date and the settlement date are coincident.*

.06 *The actuary should report any explicit assumption of expenses payable from the plan's assets required to wind-up the plan, including any assumptions with respect to the solvency of the employer in deriving the expense assumption.* [Effective date December 1, 2002]

Membership data H3740.09

.07 The precision of the data on plan membership is less critical for a hypothetical wind-up valuation than for an actual wind-up valuation.

.08 Since an actual wind-up is not occurring, pertinent membership data may not be available (e.g., actual final average earnings). The actuary would make appropriate assumptions regarding such missing data. For example, it may be appropriate to retroject current earnings based on aggregate historical pay increases in order to estimate final average earnings.

Contingent wind-up benefits

.09 Contingent wind-up benefits are those benefit entitlements which depend on the circumstances of the wind-up. For instance, some benefit entitlements may apply only if the plan wind-up is concurrent with the closure of a plant or if employment continues. Accordingly, the effect of contingent wind-up benefits on the valuation may depend on the scenario that the actuary postulates. The actuary may postulate any internally consistent scenario, except that a scenario which maximizes wind-up liabilities would be used if the purpose of the valuation is to illustrate the financial position of the plan if it were wound-up.

Subsequent Events

.10 The actuary may reflect subsequent events in the valuation provided that doing so either increases the liabilities or reduces the assets of the plan.

Valuation of assets

.11 It is not necessary to determine the value of assets whose market value is not readily available, unless the value of these assets has a material effect on the financial position of the pension plan.

.12 The actuary may use a reasonable approximation for the market value and disclose the approximation in the valuation report.

Wind-up expenses

.13 Since the actuary would assume that the plan has neither a surplus nor a deficit, wind-up expenses related to the resolution of surplus or deficit issues need not be considered.

3750 SOLVENCY VALUATION

.01 A solvency valuation is a hypothetical wind-up valuation which is prescribed by legislation and which imposes a floor to required contributions and a ceiling on what may be transferred out of the plan's assets upon termination of membership.

.02 The actuary would apply to a solvency valuation the standards for a hypothetical wind-up valuation unless

otherwise required by legislation or

otherwise permitted by legislation and if called for by the terms of the engagement.

.03 For example, in some jurisdictions,

the actuary may opine that the plan is solvent without making the valuation, but the actuary would then report the assumptions that he or she would use if making the valuation,

the actuary may reflect smoothing in the valuation of the plan's assets or the selection of the investment return assumption, or

the actuary may assume that wind-up does not trigger contingent wind-up benefits, provided that is consistent with the scenario that the actuary postulates and that the actuary also reports the scenario that would result in the highest wind-up liabilities, including a quantification of those liabilities.

.04 Wind-up expenses may be ignored altogether in a solvency valuation if their inclusion would not decrease the solvency ratio below 100%. If included in the valuation, wind-up expenses would be deducted from the plan's assets in calculating the solvency ratio. 1310 1320 HH3740.09HH