

NEW ZEALAND SOCIETY OF ACTUARIES INC.

PROFESSIONAL STANDARD NO. 40

ACTUARIAL REPORTING FOR SUPERANNUATION SCHEMES

MANDATORY STATUS

EFFECTIVE DATE – 31 MARCH 2003

CONTENTS

- 1. Introduction**
- 2. Application**
- 3. Identification**
- 4. The Trust Deed**
- 5. Data Used in the Investigation**
- 6. Actuarial Valuations Method**
- 7. Actuarial Assumptions**
- 8. The Results of the Evaluation**
- 9. Certification**

1. INTRODUCTION

Standard

1.1 This Professional Standard is dated 31st March 2003.

Commentary

- 1.2 This Professional Standard No 2 – Actuarial Reporting for Superannuation Schemes (“this Standard”) deals with actuarial reporting for superannuation schemes. This Standard replaces the 1 November 1998 Standard which replaced the Guidance Note on Actuarial Reporting For Defined Benefit Superannuation Schemes originally adopted by the Society on 31 August 1987.
- 1.3 Actuarial reporting standards are paragraphs in bold type-face in this Standard. Where appropriate, interpretative paragraphs in plain type-face follow the actuarial reporting standards.
- 1.4 Actuaries must be aware that a breach of any standards, as elaborated by the applicable commentary, could well put the actuary in jeopardy.

2. APPLICATION

Standard

- 2.1 This Standard applies to actuarial reports prepared for the purposes of the Superannuation Schemes Act 1989 (the Act) or any subsequent re-enactment of that Act, where the date as at which the investigation report is made is on or after 31 March 2003.
- 2.2 The actuary must comply with this Standard in full except in exceptional circumstances, when the actuary is convinced, on reasonable grounds, that full compliance with the Standard would be inappropriate. If the actuary does not comply in full, the actuary must specify the extent and reasons for any non-compliance in the certification in paragraph 9.1.
- 2.3 This Standard applies whether an actuary is acting as an individual, as a partner, as a director in a corporate body or in the course of employment.

Commentary

- 2.4 The Act requires that a superannuation scheme that is registered under the Act, and operates on the principle of unallocated funding or provides benefits that are dependent on contingencies of human life, and the risks associated with those benefits are not fully insured with a

company engaged in the business of life insurance, must have its financial position examined by an actuary as at dates that are not more than three years apart.

- 2.5 An actuary may prepare a report on the financial condition of a superannuation scheme whether or not the report is required by legislation, whether or not the scheme is for the time being registered under the Act, whether or not the scheme is set up on a defined benefit basis or a defined contribution basis or a hybrid basis, and whether or not the scheme is funded on an allocated or an unallocated basis. Although compliance with this Standard may not be required in the particular circumstances, the actuary preparing the report is advised to pay heed to the principles which underlie the Standard.
- 2.6 When preparing any report on the financial condition of a superannuation scheme an actuary must exercise professional judgement in determining the extent of the investigation, the funding method and the underlying assumptions.
- 2.7 In this Standard the main purposes of an actuarial report are to examine the financial position of the scheme and to recommend the contributions to be made in future.
- 2.8 The amounts and the timing of benefit payments from a superannuation scheme cannot be known precisely in advance. They will depend on such things as salary increases and the incidence of deaths, disablements and resignations. Recommended contribution rates are based on estimates, in accordance with a particular method of funding, of the payments to be made to the scheme that, together with the scheme's investments and other revenue or contributions (if any), will meet the costs of benefits and expenses.
- 2.9 The funding methods used by actuaries require assumptions about future economic and demographic factors. These funding methods and assumptions must take into account every aspect of significance, including the security of the scheme's benefits, the operating environment of the scheme's sponsor and the manner in which discretions are likely to be exercised. The appropriate funding method and elements in the set of assumptions adopted will vary between schemes, and may vary over time for a given scheme.
- 2.10 There is no single correct contribution rate for a superannuation scheme funded on an unallocated basis. Similarly there can be no single answer as to the value of assets sufficient to adequately secure members' entitlements. These are matters of judgement requiring the professional expertise of an actuary.
- 2.11 In this Standard the phrase "administration expenses" includes all expenses other than those categorised as "investment expenses". For example actuarial and legal fees would be included as "administration expenses".

- 2.12 An actuary who believes that full compliance with the Standard would be inappropriate is recommended to discuss the reasons for non-compliance with the Government Actuary prior to completing the report.

3. IDENTIFICATION

Standard

- 3.1 The report must include the following information:
- 3.1.1 The name of the scheme.
 - 3.1.2 To whom the report is addressed.
 - 3.1.3 The purpose(s) for which the investigation is made and the report is prepared.
 - 3.1.4 The dates as at which the current investigation and the immediately preceding investigation (if any) were made.
 - 3.1.5 A statement of whether there are any conflicts of interest for the actuary and, if so, what they are.
 - 3.1.6 The name, professional qualifications and signature of the actuary.
 - 3.1.7 The date the report is signed.

Commentary

- 3.2 Advice to a client must be unaffected by interests other than those of the client
- 3.3 Where there is or might appear to be a conflict of interest involving an actuary or a member of his or her firm and the client, the actuary must consider the extent of the conflict and whether it is such as to make it improper for the actuary to act. If the actuary is satisfied that it is proper to act there should be a full disclosure to the client of the conflict of interest before acting.

4. THE TRUST DEED

Standard

- 4.1 The report must include at least the following information in respect of the trust deed:

4.1.1 The date of the latest trust deed governing the scheme and the dates of any subsequent amendments.

4.1.2 A summary of material provisions relating to benefits and contributions, including the benefits paid if the scheme is wound up.

5. DATA USED IN THE INVESTIGATION

Standard

5.1 The report must include at least the following information in respect of the membership:

5.1.1 The source of the membership data.

5.1.2 A summary of the membership data for each category of membership, subject to any restrictions implied by the Privacy Act 1993 and any subsequent re-enactments.

5.1.3 A reconciliation of the number of members at the date of the current investigation with the number of members at the date of the immediately preceding investigation.

5.1.4 Comment on the sufficiency and reliability of the membership data.

Commentary

5.2 Separate categories of membership may for example include contributing members, pensioners and members entitled to deferred benefits. The summary would normally include, but is not limited to, number of members, average salary, average past membership and average age. Actuaries preparing reports in respect of larger schemes are expected to give more detailed breakdowns of the membership data within each category eg by sex or age bands. The reconciliation should show the number of new members and the number of members exiting for each type of exit (retirement, death, etc).

5.3 Attention must be paid to the requirements of the Privacy Act 1993 and any subsequent re-enactments when providing information on the membership. Care should also be taken when presenting data in a summary form so that individuals cannot be identified.

Standard

5.4 The report must include at least the following information in respect of the assets of the scheme:

- 5.4.1 The source of the asset and revenue data.
- 5.4.2 A summary of the investment strategy of the scheme. If the scheme does not have an investment strategy, the actuary must recommend that an investment strategy be adopted.
- 5.4.3 A description of the assets, and the names of the investment manager(s).
- 5.4.4 A reconciliation between the value of the scheme's assets at the date of the current investigation and the date of the immediately preceding investigation, including the principal items of income and outgo for the period between investigations.
- 5.4.5 Comment on whether the investment strategy is appropriate in relation to the form and incidence of the expected liabilities.
- 5.4.6 Comment on whether or not the assets are invested in accordance with the investment strategy.
- 5.4.7 Comment on any material risks posed by the assets of which the actuary is aware.
- 5.4.8 Comment on the sufficiency and reliability of the data relating to the scheme's assets and revenue.
- 5.4.9 A statement of contingent liabilities and whether they have been allowed for in determining the value of the scheme's assets at the date of the current investigation.

Commentary

- 5.5 The term "investment strategy" refers to a benchmark asset allocation and ranges for the scheme, including currency hedging strategy.
- 5.6 The description of the assets in paragraph 5.4.3 may be either an analysis of investment sector allocations or a complete listing of the actual investments at the discretion of the actuary.
- 5.7 Attention must be paid to the requirements of the Privacy Act 1993 and any subsequent re-enactments when providing the information in paragraph 5.4.4.
- 5.8 Contingent liabilities in paragraph 5.4.9 may include the estimated cost of disputed disablement claims or the estimated cost of notified litigation against the trustees.
- 5.9 In paragraph 5.4, where relevant and significant, attention should be drawn to aspects such as concentration of assets, liquidity, currency mismatching and levels of self-investment.

Standard

- 5.10 The report must include at least the following information in respect of matters affecting the scheme that have occurred between the date of the immediately preceding investigation and the date of the current investigation:
- 5.10.1 The contribution rates recommended by the actuary and the contribution rates paid.
 - 5.10.2 Any discrepancy between the trust deed and the trustee's practice, of which the actuary is aware, and which has a material bearing on the results of the investigation.
 - 5.10.3 Comment on any material developments in the scheme.
 - 5.10.4 Comment on external events that have had a material effect on the results of the investigation.
 - 5.10.5 Where significant to the liabilities of the scheme, for persons who were members at the dates of the current and immediately preceding investigation, a statement of the average annual rate of increase in salary or pensionable salary.
 - 5.10.6 A statement of the average annual rate of investment earnings, and how this has been calculated.
 - 5.10.7 A statement of the average annual rate of administration expenses and how this has been calculated.
 - 5.10.8 Comment on how investment expenses have been allowed for.
 - 5.10.9 If significant to the scheme's financial position, where the interest rate applied to an accumulation of contributions is different from the annual rate of investment earnings shown in paragraph 5.9.6, a statement of the impact of the difference on the scheme's financial position.
- 5.11 The report must include comment, and if appropriate a recommendation that expert opinion be sought, if the actuary becomes aware of any problem that may affect the financial condition of the scheme.

Commentary

- 5.12 The actuary may comment if the trust deed may need to be amended due to changes in legislation.
- 5.13 Consideration of taxation, investment expenses and administration expenses in paragraphs 5.10.6 to 5.10.8 should be consistent with the way in which allowance was made in the valuation assumptions at the previous actuarial investigation.

- 5.14 Examples of when 5.11 may apply are if the actuary is concerned about the prudential management of the scheme's investments or about material transactions between the scheme and any other entity.
- 5.15 The actuary should make appropriate adjustments to the requirements of this section 5 in the case of a new or changed scheme for which there is no preceding investigation.

6. ACTUARIAL VALUATION METHOD

Standard

- 6.1 The report must include at least the following information in respect of the actuarial funding objectives and valuation method used by the actuary:
 - 6.1.1 An explanation of the funding objectives and the valuation method used to achieve those objectives.
 - 6.1.2 An explanation of the implications of the funding objectives and the valuation method in terms of the stability of future contribution rates and future funding levels.
 - 6.1.3 A statement as to whether or not there has been any change in the funding objectives, or the valuation method, or both, since the date of the report on the immediately preceding investigation, and, if so, an explanation of the effect of such changes.

7. ACTUARIAL ASSUMPTIONS

- 7.1 The report must include at least the following information relating to any assumptions used by the actuary for the purposes of each of paragraphs 8.1, 8.5 and 8.7:
 - 7.1.1 A statement of the assumptions made to value the liabilities, including specifically the allowance for administration expenses and comment on how investment expenses have been allowed for.
 - 7.1.2 A description of the benefits valued in calculating the actuarial present value of the benefits (refer paragraph 8.1), and any differences in the benefits valued in calculating the actuarial present value of the vested benefits (refer paragraph 8.5) and a description of the manner in which the assets have been assumed to be allocated amongst members and other parties on wind up (refer paragraph 8.7).

7.1.3 If there has been a practice of discretionary increases in benefits of which the actuary is aware, a statement of the extent to which this practice has been assumed to continue.

7.1.4 A statement as to which are the most financially significant assumptions and, for these, an explanation of how the values for these assumptions were derived. This explanation shall include at least:

- If the investment earnings assumption is one of the most financially significant assumptions, an explanation of the relationship between the investment earnings assumption and the current investment strategy of the scheme, any changes assumed in the future to the investment strategy and the allowances made for each of future investment expenses, administration expenses and taxation, and
- If the pensioner mortality assumption is one of the most financially significant assumptions, a statement of the provision made for future improvement in mortality.

7.1.5 A statement of the methods and assumptions used in valuing the assets.

7.1.6 Comment on the compatibility of the basis of valuing the assets with the basis of valuing the liabilities.

7.2 The report must include a statement of any changes since the date of the immediately preceding valuation in the assumptions used to calculate the value of the assets or the assumptions used to calculate the actuarial present value of the accrued benefits, or the type, or amount of benefits, the reason(s) for those changes and an explanation of the financial effects of those changes.

Commentary

7.3 The assumptions described in paragraph 7.1. would normally include some or all of the following as appropriate to the particular scheme and the particular valuation method:

7.3.1 Financial and economic assumptions such as: rates of investment earnings, rates of tax, salary increases, increases in pensions, and rates of increase in the Consumers Price Index (or other measure of inflation), National Average Wage and New Zealand Superannuation.

7.3.2 Demographic assumptions such as: rates of in-service mortality, disability, resignation, retirement and pensioner's mortality. Where a choice of benefits, such as taking a lump sum or pension, gives rise to different values, the proportion assumed to be making each choice should be stated. Where published tables are used, reference should be made to the published

table and any adjustments made to it or examples of the rates at yearly or five yearly intervals given. Where published tables are not used, examples of the rates at yearly or five yearly intervals should be given.

- 7.4 It is expected that the actuary will identify a small number of assumptions as being the most financially significant assumptions. The most financially significant assumptions will often include the rate of investment earnings, the rate of salary increases and future pensioner mortality. An explanation may be given of how the values were derived for the assumptions other than the most financially significant assumptions.
- 7.5 It will normally be appropriate to use different assumptions when valuing liabilities for different purposes.
- 7.6 The allowance for future administration expenses may be expressed as, for example, a dollar amount per member or a percentage of some other amount, for example future salaries, future contributions or assets.
- 7.7 The allowance for investment expenses would normally be expressed as a percentage of assets.
- 7.8 The description of the benefits valued (refer paragraph 7.1.2) may refer back to the summary of material provisions relating to benefits or be included in the summary of material provisions relating to benefits (refer paragraph 4.1.2).
- 7.9 The value of the assets would normally be the net current value but there may be circumstances when an adjusted value is more appropriate.

8. THE RESULTS OF THE INVESTIGATION

Standard

- 8.1 The report must:
 - 8.1.1 Compare the actuarial present value of accrued benefits to the actuarial value of the assets, as at the date of the current investigation.
 - 8.1.2 State how this relationship is likely to change over the period until the date of the next investigation if the assumptions used to calculate the actuarial present value of accrued benefits are borne out in practice.
 - 8.1.3 Show a summary of the actuarial present value of the benefits valued according to the nature of the benefit (retirement etc), the actuary's allowance for future administration expenses (if any),

members' future contributions (if any) and the sponsor's future contributions (if any), where these items are relevant to the funding method.

- 8.2 The report must include an explanation of the financial effect on the results of the current investigation caused by variations between the principal actuarial assumptions used to calculate the actuarial present value of the accrued benefits in the immediately preceding investigation, and the scheme's actual experience as regards those assumptions.

Commentary

- 8.3 The actuarial value of accrued benefits means the present value of expected future payments based on membership of the scheme up to the date of the current investigation including any amount that the actuary considers appropriate for benefits that are not based on length of membership.
- 8.4 The extent of the investigations and explanations for paragraphs 8.2 are likely to depend on the size of the scheme. The investigations may include, for example, the gain (or loss) because the scheme's actual investment earnings rate was higher (or lower) than that assumed by the actuary. Any comparisons between the actual and assumed earnings rates should be consistent in their allowance for tax, investment expenses and administration expenses.

Standard

- 8.5 The report must:
- 8.5.1 Compare the actuarial present value of the vested benefits of all members with the value of the assets as at the date of the current investigation.
- 8.5.2 State how this relationship is expected to change by the date of the next investigation if the assumptions used to calculate the actuarial present value of the accrued benefits are borne out in practice.

Commentary

- 8.6 Vested benefits means, in respect of a member who is in service, the benefits the member would be entitled to if he or she voluntarily left service on the date of the investigation and, in respect of a member who is not in service, a continuation of the benefits to which he or she is already entitled.

Standard

- 8.7 The report must comment on the likely sufficiency of the assets, allowing for their allocation amongst the various classes of members,

in the event that the scheme were wound up as at the date of the current investigation. This must include comment on the following:

- in respect of members entitled to pensions at the date of the current investigation, the relationship between the annual amounts of those pensions and the annual amounts of annuity payments which would be likely to be purchased with the appropriate wind-up proceeds;
- in respect of members who would be entitled to a pension if they left service on the date of the current investigation, the relationship between the annual amounts of the pensions to which the members would be entitled and the annual amounts of annuity payments which would be likely to be purchased with the appropriate wind-up proceeds;
- in respect of members who are entitled to a lump sum benefit, or who would be entitled to a lump sum benefit if they left service on the date of the current investigation, the relationship between those benefit entitlements and the appropriate wind-up proceeds.

Commentary

- 8.8 The intention of paragraph 8.7 is to provide comment on the broad consequences to members of the distribution of the assets amongst various classes of members on wind-up, including the impact of any requirement to pay different classes of members in some order of priority. If the annual amounts of the pension and/or the lump sum to which each member is entitled are clearly less than the amount the member is likely to receive if the scheme were wound up as at the date of the current investigation, a statement indicating this is sufficient. If not, an indication of the level of the deficiency is expected for each major class of members.
- 8.9 Paragraph 8.7 applies regardless of whether the scheme's trust deed allows the scheme to be continued as a closed scheme on wind-up. Where such a continuation is possible, the actuary may wish to comment on whether, in his or her opinion, it is likely that the scheme would continue as a closed scheme, and the implications of this.
- 8.10 The annuity market in New Zealand is small. Where appropriate, the actuary is expected to make a reasonable estimate of the cost of purchasing annuities, based on publicly available information. The actuary is not expected to seek quotations from the market.
- 8.11 In the comparison of the annual amounts of pension payments and the annual amounts of annuity payments in paragraph 8.7, guaranteed increases and contingent benefits need to be allowed for.
- 8.12 The actuary may wish to comment on the impact of wind up on members nearing the age at which they can retire as of right, or where there is a history of discretionary benefit payments (e.g. pension increases).
- 8.13 There may be discretion in the manner in which assets are allocated amongst various classes of members. The actuary will need to select

at least one distribution. The actuary should select a reasonable distribution. The actuary may comment on other distributions.

- 8.14 There will be expenses associated with a wind-up. Those expenses should be taken into consideration in comments made in respect of paragraph 8.7.

Standard

- 8.15 The report must include comments on material events, of which the actuary is aware, which have occurred subsequent to the date of the current investigation and prior to the date of signature of the report that may significantly affect the financial position of the scheme.

- 8.16 The report must include a recommendation of the date as at which the next actuarial investigation should be carried out and, if applicable, the circumstances that could cause the trustees to seek an earlier actuarial investigation of the scheme.

- 8.17 The report must include at least the following information in respect of the contribution rates:

8.17.1 The contribution rate(s) determined by the actuary according to the valuation method and assumptions used.

8.17.2 The contribution rate(s) recommended by the actuary payable until the date of the next actuarial investigation. If the contribution rate(s) recommended by the actuary imply a change in the contribution rate(s) after the date of the next actuarial investigation, an indication of the extent and the timing of the change(s).

8.17.3 Whether the contribution rate(s) is(are) inclusive or exclusive of Specified Superannuation Contribution Withholding Tax or any similar tax.

Commentary

- 8.18 The report may also include comment, if appropriate, on:

8.18.1 Contribution holidays, or amortisation of any actuarial surplus or deficiency.

8.18.2 Contribution rates for new members.

8.18.3 The sensitivity of the results to changes in the principal actuarial assumptions.

Standard

- 8.19 The report must include comment on the adequacy or otherwise of the arrangements made to protect the scheme against excessive losses arising from the payment of benefits on death or disability.

9. CERTIFICATION

Standard

- 9.1 Subject to paragraph 2.2, the report must contain the following statement:

“This report was prepared in accordance with Professional Standard Number 2 - Actuarial Reporting for Superannuation Schemes - issued by the New Zealand Society of Actuaries. The valuation method and the financial, economic and demographic assumptions have been determined in accordance with the professional judgement of the actuary preparing the report.”