



## PROFESSIONAL STANDARD 310

### ACTUARIAL CERTIFICATION OF PREMIUM RATES UNDER THE NSW MOTOR ACCIDENTS SCHEME

June 2010

---

#### INDEX

1	INTRODUCTION	2
1.1	Application	2
1.2	Classification	2
1.3	Background	2
1.4	Purpose	3
1.5	Previous versions	3
1.6	Legislation and other requirements	3
2	COMMENCEMENT DATE	4
3	DEFINITIONS	4
4	PREMIUM RATE COMPONENTS	6
4.1	Premium Filing Report	6
4.2	Data	7
4.3	Claims	7
4.4	Expenses	8
4.5	Economic assumptions	10
4.6	Profit Margin	10
4.7	Derivation of Base Rate	11
5	CERTIFYING ACTUARY REPORTING REQUIREMENTS	12



## **1. INTRODUCTION**

### **1.1 Application**

This Professional Standard applies to Certifying Actuaries who are asked to provide an Actuarial Certificate to an Insurer, indicating whether the aggregate premiums proposed by the Insurer meet the Fully Funded Premium test set out in section 27(8) of MACA.

### **1.2 Classification**

- 1.2.1 This Professional Standard has been prepared in accordance with Council's Policy for Drafting Professional Standards, as varied from time to time. It must be applied in the context of the Institute's Code of Professional Conduct.
- 1.2.2 This Professional Standard is binding on Members of the Institute of Actuaries of Australia in respect of all work covered by the Professional Standard.
- 1.2.3 Non-compliance with this Professional Standard by a Member engaged in work covered by the Professional Standard may constitute Actionable Conduct and may lead to penalties under the Institute's Disciplinary Scheme.
- 1.2.4 This Professional Standard in itself defines the requirements of the Institute in respect of all work covered by the Professional Standard. If a Member believes that the Professional Standard is ambiguous or for some other reason wishes to seek clarification of it, that Member may consult the Institute's Professional Standards Committee for guidance as to the interpretation of the Professional Standard. Apart from legislation (including regulations, prudential standards, subordinate standards and rules), no other document, advice or consultation (including Practice Guidelines of the Institute) can be taken to modify or interpret the requirements of this Professional Standard.
- 1.2.5 Members who find that they cannot carry out work in a manner that complies with this Professional Standard must decline to carry out the work or terminate their agreement to do so.

### **1.3 Background**

- 1.3.1 CTP insurance has been privately underwritten in New South Wales since September 1989. The MAA, established by the Motor Accidents Act 1988 (NSW), is a statutory corporation which regulates the NSW Motor Accidents Scheme. The MAA continues to be constituted under the Motor Accidents Compensation Act 1999 (NSW).
- 1.3.2 The certification of New South Wales CTP premium rates by actuaries has previously been governed by application of a mandatory Institute



Guidance Note (Guidance Note 351 – Premium Rate Certification for the NSW Motor Accidents Scheme). This Guidance Note was last amended in February 2004. This Professional Standard replaces that Guidance Note.

## **1.4 Purpose**

- 1.4.1 The purpose for actuarial certification of the aggregate premium rates of an Insurer proposing to issue insurance business under MACA is intended to indicate to the MAA the extent to which these premium rates meet the Fully Funded Premium test under section 27(8) of MACA.
- 1.4.2 Under section 27 of MACA, the MAA may only reject an insurance premium filing if it is of the opinion that:
- (a) the premium will not fully fund (as defined in MACA) the present and likely future liability under MACA of the Insurer concerned; or
  - (b) the premium is, having regard to Actuarial Advice and to other relevant financial information available to the MAA, excessive; or
  - (c) the premium does not conform to PDGs in force; or
  - (d) the premium has been determined in a manner that contravenes section 30 of MACA (maximum commission payable to Insurers' agents).

The Certifying Actuary is only required to form an opinion on whether the premium will fully fund the present and likely future liability of the Insurer under section 27(8) of MACA, and is not required to form an opinion on any other MAA criteria for rejecting a premium filing.

- 1.4.3 This Professional Standard establishes the requirements for an Actuary in forming and communicating his or her opinion on whether or not the aggregate premium rates meet the Fully Funded Premium test to be set out in an Actuarial Certificate.

## **1.5 Previous versions**

This Professional Standard replaces Guidance Note 351. There are no previous versions of this Professional Standard.

## **1.6 Legislation and other requirements**

- 1.6.1 This Professional Standard covers the certification of premium rates required under MACA and the PDGs.
- 1.6.2 The certification of the premium rates of an Insurer must be made with regard to relevant legislation including, but not limited to, the Motor Accidents (Lifetime Care and Support) Act 2006 (NSW) and the GST Act.



- 1.6.3 The Certifying Actuary must also be familiar with the requirements of the PDGs and any circulars issued by the MAA to Insurers relating to the procedure for premium rate certification.
- 1.6.4 If there is a difference between this Professional Standard and the applicable legislation, the legislation takes precedence. In this context, legislation includes regulations, prudential standards, subordinate standards and rules.
- 1.6.5 A reference in this Professional Standard to legislation, regulations, prudential standards, subordinate standards, rules or a Professional Standard includes any modification or replacement thereof from time to time.

## 2. COMMENCEMENT DATE

This Professional Standard takes effect for premium certifications on premiums to be written from 1 October 2010.

## 3. DEFINITIONS

**'Actionable Conduct'** has the same meaning as defined in the Disciplinary Scheme contained in the Schedule to the Constitution of the Institute.

**'Actuarial Advice'** has the same meaning as defined in the Code.

**'Actuarial Certificate'** means a certificate provided for the purposes of clause 4.4 of the PDGs.

**'Average Risk Premium'** means the Central Estimate of the per vehicle future claims cost of the Insurer for the relevant filing period, after allowing for inflation, investment earnings, claims sharing, future cash flow timing and the effects of the GST Act.

**'Average Premium'** means the average gross premium charged to CTP policyholders. It consists of the Average Risk Premium: plus allowances for commissions, expenses, reinsurance premiums and Reinsurance Recoveries, profit margins, and discounting of these allowances. When the Average Premium is multiplied by the number of policies written, it is equal to the aggregate premiums which are the subject of the Fully Funded Premium test of section 27(8) of MACA.

**'Base Rate'** is the Insurer's base premium for a Class 1 vehicle located in the metropolitan area (as defined in the PDGs) and whose policyholder is not entitled to any ITC.

**'Central Estimate'** means expected value. In terms of a statistical distribution, the Central Estimate refers to the mean of the distribution.



Where section 27(8)(b) of MACA refers to a 'best estimate of the cost of claims plus claim settlement expenses', this must be interpreted to mean a Central Estimate.

**'Certifying Actuary'** means a Fellow of the Institute, not in the employ of the Insurer, who has been asked to provide an Actuarial Certificate to the Insurer expressing an opinion on the extent to which the proposed aggregate premium rates of the Insurer meet the Fully Funded Premium test of section 27(8) of MACA.

**'Certifying Actuary Report'** is the report produced by the Certifying Actuary for the Insurer.

**'Claim Payments'** has the same meaning as defined in the Institute's Professional Standard 300 – Valuation of General Insurance Claims.

**'Code'** means the Code of Professional Conduct issued by the Institute.

**'CTP'** means Compulsory Third Party insurance as defined in MACA.

**'Decreasing Adjustment'** has the same meaning as defined in the GST Act.

**'Division 11 Payment'** is a payment made by an Insurer that falls under Division 11 of the GST Act. These are payments for which an Insurer would normally have a tax invoice and would claim an ITC.

**'Division 78 Payment'** is a payment made by an Insurer that falls under Division 78 of the GST Act. These are payments for which an Insurer would normally claim a Decreasing Adjustment. Division 78 Payments relate to claims on policies commencing before 1 July 2003.

**'Division 79 Payment'** is a payment made by an Insurer that falls under Division 79 of the GST Act. These are payments that relate to claims on policies commencing on or after 1 July 2003, and for which an Insurer may or may not claim a Decreasing Adjustment, depending upon whether an ITC can be claimed on the policy premium.

**'Fully Funded Premium'** has the same meaning as defined in section 27(8) of MACA.

**'GST Act'** means the A New Tax System (Goods and Services Tax) Act 1999 (Cth).

**'Institute'** means The Institute of Actuaries of Australia (ABN 69 000 423 656).

**'Insurer'** means an entity licensed to issue, and proposing to issue, insurance under MACA.



'**ITC**' is an Input Tax Credit and has the same meaning as defined in the GST Act.

'**MAA**' means the Motor Accidents Authority of NSW.

'**MACA**' means the Motor Accidents Compensation Act 1999 (NSW).

'**Material**' means important or essential in the opinion of the Certifying Actuary. For this purpose, 'Material' does not necessarily have the same meaning as in Australian accounting standards. 'Materiality' and 'Materially' have meanings consistent with 'Material'.

'**Member**' has the same meaning as set out in the Code.

'**Nominal Defendant**' refers to the body against which claims from unidentified or uninsured vehicles are made as defined in section 32 of MACA.

'**Non-Reinsurance Recovery**' means an amount recoverable, in respect of an Insurer's Claim Payments, from (but not necessarily limited to) salvage, subrogation and sharing agreements.

'**PDGs**' means the MAA Premiums Determination Guidelines issued by the MAA under section 24 of MACA.

'**Premium Filing Report**' means the report described in clause 4.1 of the PDGs.

'**Recoveries**' are the sum of Reinsurance Recoveries and Non-Reinsurance Recoveries.

'**Reinsurance Recovery**' means an amount recoverable, in respect of an Insurer's Claim Payments, from reinsurance agreements.

'**Replicating Portfolio**' means a notional portfolio of current, observable, market-based, fixed-interest investments of highest credit rating, which has the same payment profile (including currency and term) as the relevant claims liability being valued.

'**Sharing**' refers to a sharing agreement signed by all Insurers, under which the cost of certain claims in multiple vehicle accidents is shared amongst the Insurers of the vehicles involved.

## **4. PREMIUM RATE COMPONENTS**

### **4.1 Premium Filing Report**

- 4.1.1 The PDGs require that the Insurer produce a Premium Filing Report to substantiate the premium rates that they intend to charge. This report



includes background on how each assumption implicit in the premium rates has been made. This report is the responsibility of the Insurer and is not necessarily the work of a Member of the Institute.

- 4.1.2 The Certifying Actuary need not reproduce the calculations in the Premium Filing Report, in part or in whole, provided that they are of the opinion that the Premium Filing Report (or the parts relied upon) are of an appropriate standard with regard to the data quality, methodology, assumptions and results.

## **4.2 Data**

- 4.2.1 The Certifying Actuary must be familiar with the relevant aspects of the procedures for the administration and accounting of the Insurer's New South Wales CTP claims and policies.
- 4.2.2 The Certifying Actuary must be familiar with the general characteristics of the portfolio which could be expected to materially affect the estimation of the premium rates. This includes familiarity with the contractual terms and legislated benefits payable under the policies written, changes in premium rating factors, premium rate relativities, case estimation procedures, as well as other attributes, such as reinsurance arrangements.
- 4.2.3 When considering the adequacy of New South Wales CTP rates, the Certifying Actuary must be familiar with, and make allowance for, the potentially material impacts of general economic conditions, legal, political and social trends.
- 4.2.4 It is the Certifying Actuary's responsibility to ensure that the data utilised are appropriate and sufficient for the purpose of estimating premium rates. Historical experience of the Insurer and the industry may be supplemented by other internal and external data, which may include the general direction of trends in insurance claim costs, claim frequencies, expenses and other relevant matters.
- 4.2.5 The Certifying Actuary must ensure that reasonable steps have been taken to verify the consistency, completeness and accuracy of the information, including data and reports, provided by the Insurer against the Insurer's financial and other records. Material discrepancies that cannot be resolved with the Insurer must be outlined in the Certifying Actuary's report, together with the consequent limitations of that report.

## **4.3 Claims**

- 4.3.1 The Certifying Actuary must estimate the Average Risk Premium required for the Insurer's own portfolio or, if the Certifying Actuary is relying on the Premium Filing Report (or parts thereof), then he or she must provide commentary thereon.



- 4.3.2 In estimating or commenting on the Average Risk Premium required, consideration must be given to making allowance for any apparent trends in experience and for the implications of any legislative amendments, legal precedents and changes to the claims environment that have not yet been fully reflected in the claims data.
- 4.3.3 The Certifying Actuary must consider the Insurer's own claims experience and, where the Insurer's own experience is not sufficiently credible, compare it with industry experience. This must include both claim frequency and claim size. The Certifying Actuary must consider, as far as is practicable, the extent to which the Insurer's and the industry claims experience (where a comparison is made) are influenced by:
- (a) data quality;
  - (b) claim management practices;
  - (c) portfolio mix;
  - (d) Sharing and Nominal Defendant claims;
  - (e) case estimates;
  - (f) infrequent large losses;
  - (g) random variation; and
  - (h) the historical mix of Division 11 Payments, Division 78 Payments and Division 79 Payments.
- 4.3.4 The Certifying Actuary must allow for the cost of reinsurance and the expected Reinsurance Recoveries on the Insurer's claims experience.
- 4.3.5 If the industry experience is being used, the Certifying Actuary must consider the extent to which the relativities between past claims experience for the Insurer and for the industry (adjusted for the Insurer's mix of business) are expected to persist in future. Factors to be considered include any changes in the Insurer's marketing or pricing strategies, distribution intermediaries, claims management practices and general market conditions. It is recognised that it may not be practicable for the Certifying Actuary to take into account any or all of these factors with precision.

## **4.4 Expenses**

- 4.4.1 Expenses to be included in the calculation of the Average Premium must include expenses directly incurred in the sale, underwriting, assessment and administration of policies and claims together with an appropriate allocation for overhead expenses. The expense analysis on which the expense assumptions are based must be predicated on a complete





allocation of all of the Insurer's expenses. Expense components to be considered must include:

- (a) acquisition costs;
- (b) policy administration costs;
- (c) policy alteration costs;
- (d) commission and intermediary expense allowances;
- (e) add-on benefits; and
- (f) claim administration costs.

4.4.2 It is recognised that there are limitations as to what the Certifying Actuary can do to assess the appropriateness of the loadings implied by the Insurer's expense projections. In testing the reasonableness of the Insurer's expense projections, including expense allocations and business volume forecasts, the Certifying Actuary must take into account:

- (a) how past actual experience compares with past forecasts;
- (b) how past actual experience compares with the current forecast for the Insurer;
- (c) whether such forecasts and allocations are consistent with the Certifying Actuary's understanding of the Insurer's operations and industry experience;
- (d) the expected cost of any add-on benefits or incentives that will be provided out of the pool of funds generated by this premium without specific additional charge to CTP policyholders; and
- (e) variations in expense assumptions from historical levels, and if such variations are Material, the reasons for the variations.

4.4.3 For the purposes of this clause 4.4:

- (a) non-recurring costs which may be expected to provide benefits over a number of years can be spread over more than one year where they can be reliably measured and where they are expected to give rise to economic benefit in subsequent financial years. The Certifying Actuary must consider what future period represents a likely life span for the investment in the context of matching the expenditure to future benefits; and
- (b) the Insurer's CTP commission structure (including expense allowances and other incentives), together with forecast business written from each source, must be taken into account by the



Certifying Actuary in assessing the allowance for commission in the Average Premium.

- 4.4.4 The list of issues set out in this clause 4.4 that must be considered by the Certifying Actuary is not exhaustive. The Certifying Actuary must make his or her own decisions as to items that require attention. All issues that the Certifying Actuary has decided are Material must be addressed in the Certifying Actuary's report.

## **4.5 Economic assumptions**

### **4.5.1 Future claim inflation**

The future cost of claims and expenses is affected by both economic inflation and superimposed inflation. Superimposed inflation refers to the extent to which the cost of claims escalates at a rate different from economic inflation. Considerations include the judicial environment and regulatory and legislative changes. The expected change in claims cost arising from both economic and superimposed inflation must be considered.

### **4.5.2 Investment return**

In arriving at an appropriate investment return assumption, the Certifying Actuary must consider market interest rates, the assets held by the Insurer, the Insurer's investment policy and average date of policy inception, as well as any other relevant matters.

## **4.6 Profit Margin**

- 4.6.1 The Certifying Actuary must consider the adequacy of the profit margin included in the Average Premium rate with reference to the adequacy of the return on capital.

- 4.6.2 In considering the amount of capital required to support this class of business, the Certifying Actuary must consider the minimum capital requirement for CTP obtained by using the Prescribed Method as set out in Prudential Standard GPS 110 (Capital Adequacy) issued by the Australian Prudential Regulation Authority.

- 4.6.3 In considering the adequacy of the rate of return on capital, the Certifying Actuary must consider:

- (a) the rates of return available on a Replicating Portfolio; and
- (b) the risks specific to the Insurer's own portfolio.



#### **4.7 Derivation of Base Rate**

- 4.7.1 The period over which the rates are to apply must be clearly identified, and taken into account, in the determination of the Base Rate.
- 4.7.2 The rates for individual risks vary on four accounts – industry-wide premium relativities, the GST registration status of the policyholder, the term of the policy and the Insurer's use of short-term policy loadings, and the Insurer's own use of bonus and malus.
- 4.7.3 Under the PDGs, Insurers are required to include in the Premium Filing Report the criteria they intend to use for determining the bonus and malus to be applied to the Base Rate for each risk. In arriving at a Base Rate and Average Premium rate that is consistent with the requirements of the Fully Funded Premium test in section 27(8) of MACA, the Certifying Actuary must consider the effect of the bonus and malus, and the mix of business expected to be written using these criteria. This consideration must take into account the relationship between Average Premiums actually received by the Insurer in the past and Average Premiums projected in previous rate filings.
- 4.7.4 Under the PDGs, Insurers are required to determine 'Nil ITC' premium rates for policyholders with no entitlement to any ITC for GST included in the premium. They are also required to determine 'Some ITC' premium rates based on a single loading to the corresponding 'Nil ITC' premium rates, for all policies where there is an entitlement to claim an ITC for at least some of the GST included in the premium. The Insurer is required to determine the loading, having regard to the effect of the ITC entitlement of the policies on the Insurer's entitlement to claim Decreasing Adjustments for the claims cost attributable to those policies. The Certifying Actuary must be satisfied that the methodology is appropriate, and that appropriate consideration has been given to the Insurer's mix of Division 11 Payments, Division 79 Payments, and payments to Nominal Defendant, as well as expense and profit components of the premium.
- 4.7.5 If the Insurer wishes to charge premiums calculated using assumptions which result in premiums which are lower than those recommended by the Certifying Actuary as being insufficient to meet the Fully Funded Premium test, the Certifying Actuary must determine and state in his or her report both:
  - (a) the Average Premium required to fully fund the prospective liability, on the basis of the Certifying Actuary's assumptions; and
  - (b) the Average Premium proposed by the Insurer.



## 5. CERTIFYING ACTUARY REPORTING REQUIREMENTS

5.1 The Certifying Actuary must produce a report to the Insurer, along with the Actuarial Certificate. The Certifying Actuary must sign and state the date of completion of his or her report. Statements must be provided setting out who commissioned the report, the scope and purpose of the report and the period for which the Actuarial Certificate applies.

5.2 The Certifying Actuary's report must contain documentation of the derivation of the premium rate components, the estimated Average Premium and the Base Rate for the Insurer. Taken in conjunction with the Premium Filing Report, the documentation must allow a well informed non-actuary to assess whether or not the overall assumptions and conclusions in the Certifying Actuary's report are reasonable.

It is acceptable for the Certifying Actuary to provide commentary on the Premium Filing Report's analysis of each premium rate component, the estimated Average Premium and the Base Rate for the Insurer, provided that:

- (a) the analysis and its description are of a standard that is sufficient that they meet the same standard as if they had been included in the Certifying Actuary's report; and
- (b) the Certifying Actuary is satisfied that the resulting estimates are appropriate.

If the Certifying Actuary is making this reliance, then this must be stated in his or her report, together with the Certifying Actuary's opinion that the resulting estimates are appropriate.

5.3 The PDGs describe what the MAA expects from Insurers and from the associated Premium Filing Report. The Certifying Actuary's report must include certification, in a format compatible with that required by the MAA, that either:

- (a) in aggregate, the proposed premiums satisfy the Fully Funded Premium test; or
- (b) quantifies the extent of shortfall between the Insurer's proposed premiums and those that, in aggregate, the Certifying Actuary believes would satisfy the Fully Funded Premium test.

The Certifying Actuary may use the wordings for the required certification provided in the Attachment to this Professional Standard.

5.4 The Certifying Actuary has a clear obligation to ensure that he or she is satisfied with the statement made and that any other matter considered to be crucial to the opinion is included in the wording of the Actuarial Certificate. The Actuarial Certificate must include any Material



qualification. Because of the uncertainties that are inevitably involved in estimating premiums required for CTP, a qualification that relates to these uncertainties is to be expected.

- 5.5 The Certifying Actuary must consider the implication of any guidelines the MAA may have set which allow future changes to filed premium rates by the Insurer without a full rate filing and Actuarial Certificate. In particular, if a degree of latitude has been prescribed within which the MAA will not require a full rate filing, then the Certifying Actuary must make a statement in his or her report if he or she considers the degree of latitude to be excessive for the Insurer and which, if fully exercised, may compromise the satisfaction of the Fully Funded Premium test.
- 5.6 The Certifying Actuary must take into account when satisfying paragraph 5.5 that he or she is certifying premium rates at a point in time and that the Insurer is ultimately responsible for the adequacy of premium rates in the future. The Certifying Actuary is not required to make any qualification on the grounds that circumstances may change during the filing period which might make the proposed premiums under-funded.
- 5.7 The PDGs may impose constraints upon the choice of assumptions used by the Insurer in determining the proposed premium rates. The Certifying Actuary is not to be constrained in determining assumptions for the Fully Funded Premium test.
- 5.8 The Certifying Actuary must have regard to the Code of Professional Conduct in dealing with conflicts of interest that may arise in the course of providing an Actuarial Certificate to an Insurer.

**END OF PROFESSIONAL STANDARD 310**



## **ATTACHMENT: ACTUARIAL CERTIFICATE**

### **Wording for the purposes of clause 5.3(a)**

I have examined the scale of the premium rates which [Insurer] proposes to charge for policies underwritten under the Motor Accidents Compensation Act 1999 (NSW) (as amended) ('Act') from [date]. The results of my investigation are explained in my report dated [date].

In my opinion, at the date of this certificate, the premium rates proposed, when considered in aggregate, satisfy the Fully Funded Premium test in section 27 of the Act. Future events that become known during the currency of the premium rates but after this certificate is issued may render current premium rates inadequate. Continued adequacy of the filed premiums rates is the responsibility of the Insurer and not the Certifying Actuary.

This certificate is subject to the further qualification that the level of premiums required to satisfy the Fully Funded Premium test is inevitably uncertain because it depends on the outcome of future events that cannot be predicted accurately. The degree of uncertainty is commented on in [section reference] of my report referred to above. This certificate must be considered together with that report.

### **Wording for the purposes of clause 5.3(b)**

I have examined the scale of premium rates which [Insurer] proposes to charge for policies underwritten under the Motor Accidents Compensation Act 1999 (NSW) (as amended) ('Act') from [date]. The results of my investigation are explained in my report dated [date].

My report explains that alternative estimates of the premium rates required have been calculated using both:

- (a) assumptions which [Insurer] considers appropriate; and
- (b) assumptions which I consider appropriate.

In my opinion, at the date of this certificate, the premium rates proposed, when considered in aggregate:

- (a) satisfy the Fully Funded Premium test in section 27 of the Act if the assessment of the premiums required is based on the assumptions which [Insurer] considers appropriate; but
- (b) are about [x]% of the premium rates which would satisfy the Fully Funded Premium test if the assessment of the premiums required is based on the assumptions which I consider appropriate.

Future events that become known during the currency of the premium rates but after this certificate is issued may render current premium rates inadequate.



Continued adequacy of the filed premiums rates is the responsibility of the Insurer and not the Certifying Actuary.

This certificate is subject to the further qualification that the level of premiums required to satisfy the Fully Funded Premium test is inevitably uncertain because it depends on the outcome of future events that cannot be predicted accurately. The degree of uncertainty is commented on in [section reference] of my report referred to above. This certificate must be considered together with that report.