

Educational Note

Regulatory Capital Filing Certification

Committee on Risk Management and Capital Requirements

May 2006

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Educational Notes do not constitute standards of practice. They are intended to assist actuaries in applying standards of practice in respect of specific matters. Responsibility for the manner of application of standards in specific circumstances remains that of the practitioner.

Memorandum

To: All Fellows, Affiliates, Associates and Correspondents of the Canadian Institute of Actuaries

From: Simon Curtis, Chairperson
Committee on Risk Management and Capital Requirements
John Brierley, Chairperson
Practice Standards Council

Date: May 24, 2006

Subject: **Educational Note – Regulatory Capital Filing Certification for Life Insurers**

The Committee on Risk Management and Capital Requirements proposed revisions to the current Standards of Practice – Practice-Specific Standards for Insurers regarding the certification of regulatory risk-based capital filings in Canada.

A statement of principles for the development of standards of practice in this area was distributed to the membership on August 10, 2005 and an exposure draft was distributed on November 30, 2005. As a result of comments received in response to the statement of principles, we have clarified through a CIA announcement, that it is the intention of the regulators to apply the certification requirement only to life insurance risk-based capital filings (i.e., not P&C). We have also revised the wording of the opinion that the actuary will sign, in order to make it clearer that the actuary is not attesting to the appropriateness of the underlying regulatory capital formula.

The supporting educational note is attached.

In accordance with the Institute’s policy for Due Process, the educational note has been approved by the Committee on Risk Management and Capital Requirements, and it has received approval from the Practice Standards Council on May 17, 2006 for distribution.

Educational notes are covered under subsection 1220 of the Standards of Practice. Subsection 1220 prescribes that “*The actuary should be familiar with relevant educational notes and other designated educational material.*” It explains further that a “*practice which the notes describe for a situation is not necessarily the only accepted practice for that situation and is not necessarily accepted actuarial practice for a different situation.*” As well, “*educational notes are intended to illustrate the application*

(but not necessarily the only application) of the standards, so there should be no conflict between them.”

The educational note has been adopted by the CIA to be effective in 2006.

JB and SC

This educational note provides guidance to the actuary providing a certification of a Regulatory Capital Filing as outlined in subsection 2480 of the CIA Standards of Practice. The note clarifies areas for regulatory capital filing certification where material judgment or discretion may be required for interpretation of the associated guidelines.

For simplicity, the remainder of this note will refer to the Minimum Continuing Capital and Surplus Requirements (MCCSR) filing but is also applicable to the Test of Adequacy of Assets in Canada and Margin Requirements (TAAM) filing as well as the corresponding provincial filing.

1. INTRODUCTION

The starting point for certification is a thorough understanding of the regulatory guideline for the Regulatory Capital Filing for which certification is to be provided (e.g., Office of the Superintendent of Financial Institutions (OSFI) Minimum Continuing Capital and Surplus Requirements (MCCSR) for Life Insurance Companies). The guidelines include the formal guideline, the filing instructions, and all relevant interpretive bulletins issued by the regulator. The appointed actuary would also have a comprehensive knowledge of the company affairs (including capital structure, all commitments and obligations, on and off balance sheet assets and liabilities).

In providing the Opinion, the actuary would satisfy himself or herself of:

- the integrity of the source data used in the MCCSR calculations,
- the appropriate application of these data to the calculation of required and available capital – that is, the completeness and accuracy of the data used in the calculation,
- the mapping of the data to the relevant MCCSR factors and formulae, the elements of the formulae where calculations are required, and
- the accuracy of the calculations.

There are two aspects to be reviewed by the appointed actuary, (a) areas where the MCCSR guidelines themselves require technical calculations that would be reviewed or validated, and (b) areas where material judgment has been applied in interpreting the MCCSR guidelines.

In addition, the actuary would prepare a memorandum to support the MCCSR certification.

2. SPECIFIC REQUIREMENTS – TECHNICAL

The MCCSR guidelines contain a number of areas where the actuary is required to perform technical calculations to support the determination of required capital. The actuary needs to validate not only the technical accuracy of the calculations, but also the application of discretion in the calculations, where the calculations require discretion to be applied. For models approved by the regulator, this means the calculations are being made consistent with parameters and other aspects of the model approved the regulator.

Areas where technical calculations would be reviewed or validated include, but are not limited to, the following:

- i. Determination of business reductions for pass-through risk
 - Review application of the reduced requirements for participating insurance (i.e., review whether the company appropriately meets the criteria of a dividend policy that clearly shows appropriate risk pass-through, and that the policy is sufficiently detailed and publicly disclosed).
 - Review calculation of C-1 credit on indexed-linked products based upon the correlation between earnings on the portfolio and interest credited to the policyholder, and ensure all conditions are met.
- ii. Use of the Total Balance Sheet approach with respect to segregated fund guarantees (e.g., fund mapping and fund performance assumptions, product classification for factor-based applications, cash flow projection modeling including policyholder behaviour and stochastic model calibration for stochastic model applications, determination of fee income offsets).
- iii. Data collection and manipulation, software processes applied in the calculation and application of appropriate factors related to Mortality Component amounts as defined by Regulatory guidelines. Calculation and aggregation approaches would need to be validated, particularly for components reflecting Volatility and Catastrophe risk. Review may be required of judgments required for approximations related to AD&D, Group blocks, and other blocks where approximations used because of lack of seriatim data, and for categorizations of business into sets of products for purposes of factor choice and calculation of components.
- iv. Processes to calculate cash value deficiencies and seriatim negative policy liability amounts and adjustment for taxes in these calculations.
- v. Determination of C-3 factors for fixed income assets not covered by published FLUX scores or exemptions.
- vi. Determination of credit for unregistered reinsurance.
- vii. Calculation of credits for swaps.
- viii. Calculation of Lapse Risk Component
- ix. Processes to allocate liability components calculated at an aggregated level to specific policies or blocks for application of MCCRSR formulae.

3. SPECIFIC REQUIREMENTS – INTERPRETATION OR JUDGMENT

The MCCRSR framework is a rules-based framework. However, as is common with any rules-based framework, the written rules in the applicable regulatory guidelines cannot envision all balance sheet and risk exposure circumstances and provide guidance on how these circumstances would be reflected in the MCCRSR calculation. In this situation, judgment must be applied. Those areas that require material interpretation or judgment would be based on accepted actuarial practice. Exercise of judgment should also reflect a

thorough understanding of the risk position of the company so that the interpretation reflected in the MCCSR calculation is appropriate and consistent with the risk position of the company.

The areas where material interpretation or judgment may be applied in interpreting the MCCSR guidelines, include, but are not limited to, the following:

- i. Classification of invested assets not explicitly covered or anticipated by rules
- ii. Classification of policy liability types not explicitly covered or anticipated by rules
- iii. Treatment of off balance sheet contingent obligations (e.g., guarantees of related party obligations)
- iv. Reinsurance guidance interpretation
 - Satisfaction of material risk transfer requirement in order for MCCSR credit to be taken.
 - Classification of reinsurance as registered versus unregistered.
- v. Treatment of related party assets
 - Potential for double leverage if investments in related parties (sister or upstream) down-streamed to a solvency related entity.
 - Recoverability of up streamed investments.
 - Assumed quality of investments, and compliance with normal third party limits.
- vi. Treatment of substantial interests/minority interests, determination of MCCSR carve outs
 - Application of deduction guidelines to downstream companies either wholly owned, or cross owned (e.g., subsidiaries downstream from carve out companies that would otherwise be consolidated).
 - Minority interests in foreign life insurers (excess capital credit).
- vii. Qualifying criteria for Tier 1 and Tier 2 capital

4. DOCUMENTATION - REQUIREMENT FOR MCCSR MEMORANDUM

- i. To support the MCCSR certification for the calculation of MCCSR components and discretionary items, an MCCSR memorandum would be prepared by the appointed actuary.
- ii. The MCCSR Memorandum would be prepared annually as a Note to file from the Appointed Actuary. Additional disclosure or filing of the memorandum will be as specified by the regulator.
- iii. The MCCSR Memorandum would be completed before the provision of a signed opinion provided pursuant to subsection 2480.

- iv. It is not intended that the MCCR memorandum be long and detailed. It is intended to be a concise summary of areas where the appointed actuary has applied material judgment and the outcomes of that judgment. Documentation in the memorandum of the rationale for the judgment could be at a high level and would focus on material items, provided the appointed actuary is satisfied that appropriate supporting documentation exists. For example, if the interpretations are following a separately documented internal policy, then reference to that policy would be sufficient.
- v. The MCCR memorandum would briefly outline areas where the appointed actuary has applied material judgment in the determination of required or available capital and would outline the specific issues, and the interpretation(s) that the actuary made, and the rationale for the interpretation. This would include areas within technical calculations where this judgment was applied.
- vi. The MCCR memorandum would inventory the material technical calculations, and would ensure that sufficient supplemental documentation of the calculations exists. Notwithstanding the supplemental documentation, the memorandum would cover any material judgment the actuary has made in doing the calculations, including any material approximations.
- vii. The MCCR memorandum would discuss the standard of materiality that has been applied in determining the components of the MCCR calculation.