Letter

Title	Earthquake Exposure Sound Practices - Letter (2013)
Category	Prudential Limits and Restrictions
Date	February 28, 2013
Sector	Property and Casualty Companies

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To: Federally Regulated Property and Casualty Insurance Companies

In August 2012, OSFI published Draft Guideline B-9<– Earthquake Exposure Sound Practices. OSFI received 11 submissions from industry associations and companies following the release of the draft. I would like to thank everyone who provided comments and suggestions.

Guideline B-9, which was originally issued in May of 1998, has been revised in order to:

1. Emphasize and strengthen the principles-based approach to managing earthquake exposure;
2. Remove references to outdated Default Loss Estimates;
3. Update the description of best practices in earthquake exposure management;
4. Increase OSFI's flexibility in the collection of relevant data; and

5. Remove the details of the capital formula from Guideline B-9. The Minimum Capital

Test (MCT) Guideline will include the updated capital formula. In the transitional period, please refer to Appendix A for Earthquake Reserve Requirement.

OSFI reviewed the submissions and had follow-up meetings with a number of groups. Today, OSFI is publishing the final version of Guideline B-9, as well as Appendix B to this letter, which provides a summary of public comments received and an explanation of how they were dealt with in the final guideline. As a result of a number of comments on the proposed formula to measure the financial resource requirements, OSFI agreed to continue discussions with the industry to finalize the methodology to measure earthquake exposure. The revised proposal regarding the financial resources requirements will be incorporated in the MCT Guideline.

As this guideline is an update to an existing guideline that reflects industry best practices, and there was substantial industry consultation, OSFI expects that many insurers should be well on their way to incorporating the key updated elements of this guideline. Nonetheless, there are new requirements such as data verification and model validation that may require substantial work and/or improved documentation.

All insurers are asked to complete a self-assessment of their practices compared with this guideline by September 30, 2013. Each insurer's board (or chief agent, as applicable) should review and discuss the self-assessment, together with the earthquake exposure risk management policy, prior to January 1, 2014. When a self-assessment identifies potential gaps, a plan appropriate to the insurer to respond to the gaps should be developed and presented with the self-assessment.

Each insurer should keep their OSFI Relationship Manager up-to-date on their progress on the above items, and provide the self-assessment and implementation plan on request. Each insurer should also file an approved copy of its earthquake exposure risk management policy with its designated OSFI Relationship Manager prior to January 1, 2014.

Questions concerning Guideline B-9 should be addressed to your OSFI Relationship Manager or to Mr. Chris Townsend, Actuarial Division, by e-mail at chris.townsend@osfi-bsif.gc.ca.

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Regulation Sector

Appendix A: Earthquake Reserve Required by OSFI

Earthquake Reserve Formula

ERRO = EPR + ERC

ERC = PML_{250} +N/25 (PML_{500} − PML_{250}) − Reinsurance Collectable − Retention − Approved capital market financing − EPR

where:

ERRO

earthquake reserve required by OSFI.

EPR

earthquake premium reserve, which consists of the voluntaryOSFI will monitor the build-up of earthquake premiums and consider the necessity of requiring insurers to set up an EPR. accumulation of the earthquake premiums as defined below. This EPR must be less than or equal to net PML500. Any earthquake premium contributed to the EPR must remain in the EPR unless there is a material decrease in exposure.

Earthquake Premiums:

an amount not exceeding 75 per cent of (current year's earned policyholders earthquake premiums - cost of earthquake reinsurance).

In the case of catastrophic reinsurance coverage not specifically written for earthquake risks, an allocation of the premium amount must be made. Companies should be able to demonstrate the reasonableness of their rate-making procedures.

ERC

earthquake reserve complement, the additional component (if necessary) of ERRO needed to achieve financial preparedness according to the formula. The ERC must always be greater than or equal to 0.

N

current fiscal year minus 1997.

Gross PML:

PML amount estimated after policyholders' deductibles but before reinsurance protection, based on the higher value between Quebec and British Columbia total losses on personal and commercial property caused by shake and fire.

Net PML:

PML amount estimated after policyholders' deductibles and after reinsurance protection.

PML250

gross PML estimated using a 250 year event return period at a 75 per cent damageability confidence level for deterministic models or a 250 year loss return period at a 50 per cent damageability confidence level for probabilistic models.

PML500

gross PML estimated using a 500 year event return period at a 75 per cent damageability confidence level for deterministic models or a 500 year loss return period at a 50 per cent damageability confidence level for probabilistic models.

Retention:

amount of retention the company is currently using to manage its earthquake exposure subject to a maximum of 10 per cent of Capital & Surplus as defined below.

Capital & Surplus:

total capital, surplus and reserves reported on the latest P&C-1 Annual Return for Canadian-incorporated companies (page 20.20, line 49); and worldwide capital and surplus (in Canadian dollars) reported on the latest P&C-2 Annual Return for Canadian branches of foreign insurance companies (page 10.60, line 22, column 5).

Reinsurance collectable:

amounts that would be collectible under the current reinsurance program of the company if it sustains earthquake losses that match the current year's preparedness standard. (e.g., for the year 1999: the amount of reinsurance that would be collectible by a company experiencing losses equal to PML250+2/25 (PML500 − PML250)).

Reserve Formula Specifications

- All companies must meet a test of financial preparedness for a 250 year return period earthquake event by no later than the end of fiscal year 1998. Companies already prepared for a 250 year event may in any year set aside earthquake premiums in the EPR. Preparedness for a 250 year event must remain in place after the end of fiscal year 1998, unless there is a material change in exposure. An increase in exposure would force companies to increase their preparedness while a decrease in exposure might decrease the required ERRO.
- Companies have 25 years to build their gross PML to the PML500 level. This level must be reached by the end of fiscal 2022.

Accounting and Statutory Treatment

Earthquake reserve required by OSFI (ERRO) is to be reported, as part of total reserves, on page 20.20, Line 45 of the P&C-1 returns and on page 20.20, line 55 of the P&C-2 returns. In addition, the breakdown of ERRO into ERC and EPR should be reported on page 20.40, lines 90 and 91 of the P&C-1 returns respectively and on page 20.45 lines 90 and 91 of the P&C-2 returns respectively. ERRO constitutes an amount to be added to total requirements as a minimum capital margin required for catastrophes (page 30.70, line 24 of the P&C-1 returns and page 30.80, line 24 of the P&C-2 returns).

Should an earthquake occur and trigger claims, companies would establish an unpaid claims provision as well as a provision for claims adjustment expenses. The ERRO, starting with the EPR component, would be reduced by an amount equal to the claims reserves.

Any reduction in ERRO should be brought back into unappropriated surplus immediately.

The appropriateness of the reserve formula and its related parameters will be reassessed through a dynamic process which will take into account the information gathered through appointed actuaries' reports as well as further discussions with the industry and professional associations. Special circumstances or occurrences which may have a material impact on current conditions may warrant OSFI's reassessment of reserving procedures for earthquake exposures.

Appendix B: Guideline B-9 – Summary of Consultation Comments and OSFI Responses

Industry Comments	OSFI Response
General	
Some commentators expressed concern about undue burden of the costs on small insurers with limited financial resources dedicated to catastrophe risk management	OSFI added a new sentence specifically recognizing that individual FRFIs may have differing earthquake exposure risk management depending on, among other factors: their size; ownership structure; nature, scope and complexity of operations; corporate strategy; and risk profile.
Some commentators expressed concern that a hard date for implementation of January 1, 2014 may not be achievable given the complexity of changes to systems and processes because these changes require significant investments in technology and require additional time to evaluate, approve and plan.	Insurers are being asked to self-assess their preparedness by September 30, 2013. If significant gaps are identified, they should be discussed with the insurer's Relationship Manager.
Some commentators pointed out that earthquake exposure risk management policy is best done through its incorporation with overall Enterprise Risk Management and not done independently outside such framework.	Wording has been changed to clarify that a standalone earthquake exposure risk management policy is not required when other policies clearly provide adequate coverage of the risks.
Principle 1. Earthquake Exposure Risk Management	
Some commentators questioned if the guideline creates a responsibility only when the actuarial function already exists for reviewing earthquake models and reinsurance or it mandates that the actuarial function extend to those tasks?	It was not the intention of the guideline to mandate actuarial function review of earthquake models, and OSFI has clarified the wording.
Principle 2: Earthquake Exposure Data	
It is not clear enough in the guideline what is OSFI's expectation regarding the appropriate time frame to correct any data-related issues identified in the independent external review.	The guideline clearly indicates that it is the insurer's decision to determine what it believes is an appropriate time frame based on its own risk profile.
Principle 3: Earthquake Models	

It is not appropriate to consider the performance of the vendor models compared to earthquakes in other parts of the world	This is a valid point. OSFI's objective is to ask insurers to consider the lessons learned from earthquake events throughout the world when using models.
Some commentators requested additional support from OSFI on model evaluation and strengthening vendor catastrophe model documentation.	While OSFI continues to have regular dialogue with catastrophe model vendors, it continues to believe that insurers are best placed to evaluate the strengths and weaknesses of vendor models for their unique circumstances.
Principle 4: PML Estimates	
Several commentators expressed the concern that many risks cannot, or are difficult to, be adequately considered within PML estimation. The additional loadings outlined in principle 4 require a great deal of data gathering and research and will place substantial resource and cost burden on the industry. Some commentators suggested that OSFI should work with the industry to develop appropriate guidance and standards on how to incorporate these risks, especially non-modelled exposures, into the PML. This could be done in a manner similar to the approach taken by OSFI on the range of assumptions that are to be considered when running dynamic capital adequacy testing of earthquake risk. Asking individual companies to create their own estimates and methodology will result in a wide array of approaches and treatment across the industry. However, consistent treatment across the industry will improve the quality of the estimates when incorporating these operationally challenging risks.	OSFI acknowledges that it is a challenge to include those risks in PML estimation but notes that it is each insurer's responsibility to understand its own risks. OSFI will, as part of its ongoing supervisory work, monitor the development of industry best practice and look for appropriate fora to share these approaches.
Others	
Some commentators suggested that "probable maximum loss" is replaced with "return period loss" because the PML definition in guideline is not accurate and PML has a distinct meaning in an insurance underwriting context.	The guideline clarified that PML is return period loss when probabilistic models are used.
Some commentators suggest that disclosure of earthquake filings is in the interest of Canadians and would elevate the annual earthquake filing from a compliance exercise to a statement of insurer preparedness to their policyholders.	OSFI won't release the earthquake filing to public this year but will continue to work with the industry to find an appropriate solution.

Commentators suggested numerous other small changes to specific wording.	Many of the suggestions for changes to specific wording were very useful and have been incorporated in the revised guideline.
Minimum Capital Test Guideline Concerns	
The overriding concern raised by industry was the potential increase in costs of reinsurance and/or other financial resources due to: 1. Clear articulation of countrywide basis for PML 500, 2. Clear articulation of the need to make prudent adjustments to models for data issues, unmodelled items, etc., and 3. Reduced reinsurance capacity due to the impact of the above two points on reinsures. Concerns were expressed regarding the uneven playing field that may result from the use of country-wide PML. Industry also raised the impact that the resulting primary policy price increases would have on consumers' willingness to buy the coverage, and concerns on affordability.	OSFI reiterated that its mandate is to maintain the overall confidence of the public in the system, which meant that insurers need to be able to respond to a high public profile event such as a major earthquake with a high degree of certainty. The working group includes the British Columbia Financial Institutions Commission (FICOM) and Québec's Autorité des marchés financiers (AMF). FICOM and AMF also support OSFI's view that there is little value in having the industry sell a product with the potential that policy obligations might not be met during a crisis. Follow-up discussion with a number of commentators has clarified that there is general support for prudent financial resource requirements for earthquake exposure. OSFI recommended continuing working with the industry to finalise discussions regarding financial resources as defined in Guideline B-9, which may result in a re-assessment of the PML measurement methodology. OSFI will incorporate the capital related aspects of earthquake exposure in the MCT Guideline. In the meantime, P&C insurers should continue to build their 1:500 PML reserves towards the 2022 target, as required under the current methodology.