Earthquake Exposure Data Form Guide

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1. APPLICATION

The Earthquake Exposure Data form (EQ form) applies to ALL property and casualty (P&C) insurers authorized to carry on activities in Quebec regardless of whether the company has earthquake exposure or not. The EQ form can be either completed on an individual insurer level or on a group level. Currency amounts should be filed in Canadian dollars.

New insurer should file the EQ form regardless of whether the insurer has earthquake exposure or not currently. The Autorité des marches financiers (the AMF)'s earthquake form is forward looking, an insurer needs to confirm it will have sufficient financial resources to cover its earthquake losses during the "exposure period being assessed" for the reporting year.

The software used to complete P&C's regulatory financial statements, which also includes an Earthquake Exposure Data Return, must be used to send us the earthquake data. The EQ form is presented in Appendix 2 of this guide for information only.

2. GENERAL INSTRUCTIONS

The following instructions are provided to assist insurers in clarifying filing requirements in selected fields. Hence instructions are not provided for every field in the EQ Form.

Contact Person

Contact person refers to the person to contact regarding any questions pertaining to the information submitted with this EQ form.

Group Filing

Client number

If the filing is done on a group level, one P&C insurer is responsible for filing the group's earthquake exposure data. Other insurers in the group are only required to provide in their EQ forms the contact person information and the client number of the insurer making the group filing.

List and Rationale

If the filing is done on a group level, the insurer that is submitting on behalf of the group must provide the rationale to support why a group level filing is appropriate and list all insurers (with their names and client numbers) included in the filing.

Category Describing the Company's[1] Exposure to Earthquake Risk

[1] If the filing is done on a group level, insurer refers to the group for the remainder of the EQ form.

Some sections of the EQ form do not apply to all insurers. Refer to options A, B and C to determine which category best describes the insurer's exposure to earthquake risk and complete applicable sections. Section 6 only applies to primary insurers and section 7 only applies to reinsurers. Insurers with both insurance contracts issued (direct) and reinsurance contracts issued (~~direct and~~ assumed) business should complete section 6. The amounts reported in section 2 should include both insurance contracts issued and reinsurance contracts issued business.

Section 2 – Elements of the Reserving Formula

The purpose of section 2 is to provide information to demonstrate that the capital adequacy requirements are met. To meet these requirements, the earthquake risk exposure, the probable maximum loss 500 (PML500) must be ≤ (Capital and surplus + Reinsurance coverage + Capital market financing + Earthquake reserves). In order to do so, here are some details regarding the filing approach:

Countrywide PML (PML500)

Countrywide PML refers to a dollar amount that includes adjustments for data quality, non-modeled exposures and model uncertainty as outlined in Guideline Sound Management and Measurement of Earthquake Exposure.

Capital and surplus

Capital and surplus correspond to a maximum of 10% of total equity for Canadian P&C insurers or worldwide capital and surplus in Canadian dollars for Canadian branches as recorded at the end of the most recent fiscal statements.

For Canadian branches, the exchange rate reported should be consistent with the currency of the insurer's home jurisdiction as reported on page 10.60 of the P&C return.

Renewal date for the catastrophe program

The entered date must be the date of the first day from which the reinsurance program in force will no longer be applicable when completing the EQ form.

Example:

For a filing date of the EQ form at May 31, 2023, in the event a P&C insurer expecting a growth of the earthquake exposure has a fiscal year-end at December 31 and the data at April 30, 2022 to estimate the PML500, ~~the Autorité des marches financiers (the AMF)~~The AMF expects the following:

- PML500 to be estimated at the fiscal year-end at December 31, 2023 by applying a factor to the PML500 to reflect the growth of the exposure between April 30, 2022 and December 31, 2023. All other factors considered in sections 4.1 to 4.3. of the EQ form must also be included in the PML500.
- The amount of recoverable reinsurance to be assessed according to the reinsurance contracts held in force at June 1st, 2023, i.e. the day immediately following the filing date of May 31st.
- The capital and surplus correspond to the maximum of 10% of total equity of this insurer at March 31, 2023, if available.
- The renewal date of the catastrophe program to be January 1, 2024 (if the reinsurance program for 2023 is in force from January 1 to December 31).

Section 2.2

Total reinsurance collectable

Total reinsurance collectable (coordinate 2204) should reconcile with the sum of catastrophe treaty collectable (coordinate 2110) and other reinsurance collectable (coordinate 2120) in section 2.1.

Section 3 – Model Selection

If one or more external models are used, specify the names and versions of the models used in section 3.1 and select Yes to indicate whether the models are operated by internal staff, reinsurance broker and/or others.~~-~~

If an internal model is used, the insurer should indicate that it is run by internal staff (coordinate 3132) and provide a brief description of the insurer's internal estimation technique or model approach in section 3.2.

Section 4 – Non-modeled Perils and Model Adjustments

Section 4.1

For each of the perils listed,

- If the peril is included directly in the model output without post-model adjustment(s), then select Yes and summarize the underlying assumptions;
- If post-model ~~adjustments are~~adjustment(s) is made to the model output, then select Yes, provide the dollar amount for each peril included in the model and describe your assumptions ~~and indicate~~or explain why the dollar ~~impact of including this peril on the PML estimate;~~ amount cannot be quantified;

- If the peril has not been considered, then select No and provide an explanation.

Refer to the GLOSSORY OF PERILS OF SECTION 4.1 at the end of the document for definitions of the perils.

Section 4.3

If post-model adjustments are made to the model output for data quality or model deficiencies, provide the dollar impact on the PML estimate that results from these adjustments. If the insurer selects Yes to the line Other, provide a brief description in the space provided.

Section 6 – Model Results for Primary Insurer

Section 6.1

If data in this section includes post-model adjustments in section 4, the PMLs are expected to reconcile with those reported in section 2.

In general, the fire following PTIV is expected to be greater than or equal to the shake PTIV; if the shake PTIV is greater than the fire following PTIV provide a brief explanation in the comments field (coordinate 6190).

For subscription contracts, the reported PTIV~~/Ground-up Losses~~ should be the pro-rated share of the total insured value~~/Ground-up Losses~~ of the property being insured.

If participating on an excess layer, the reported PTIV~~/Ground-up Losses~~ should be the excess of the attachment point.

~~**Section 6.2**~~

~~This section must be completed based on the shake risk. For instance, the Overall PTIV East of Canada (coordinate 6231) should correspond to the sum of the PTIV for East of Canada for the shake risk of the Personal property (coordinate 6110) and of Commercial property (coordinate 6113).~~

Section 6.3

Sum of PML500 from risks from insurance contracts issued (primary) and reinsurance contracts issued (~~primary and~~ assumed) ~~risks~~ is expected to reconcile with section 6.1 if data are recorded on the same basis for both sections.

Section 6.4

Provide the distribution of the level of geographic location detail that best describes how original PTIV data are recorded in the insurer's system. When more than one level of geographic location detail is applicable, the highest level of detail should be reported (i.e., each column should sum up to 100%).

Section 6.5

Provide the number of risk locations insured covered by region, property category, shake and fire following (either in the basic contract or by an endorsement).

Personal Property other than homeowners includes but not limited to tenants, rental dwelling, condominium, etc.

There are many ways to define and count risk locations. Regardless of the method used to count risk locations, once the insurer decides upon a methodology to count risk locations, ideally the insurer would continue to use the same counting methodology when completing future EQ forms.

Section 7 – Model Results for Reinsurer

In Section 7.1, if data in this section includes post-model adjustments in section 4, the PMLs are expected to reconcile with those reported in section 2.

3. ~~APPENDICE~~APPENDIX 1 - GLOSSARY OF PERILS OF SECTION 4.1

Exposure growth

Exposure growth (if > 0) that could arise between the date on which the data were coded in the insurer's systems and the end of the relevant exposure period being assessed.

Business interruption

Coverage that pays for losses suffered by a company during the reconstruction of facilities following the interruption of business operations. These losses could be significant in the event of a major catastrophe.

Claims handling expenses

Expenses related to internal or external claims handling such as the costs for claims adjusters which could increase substantially in the event of a major catastrophe.

Adequacy of insurance to value

Possible underestimation of the insurer's exposure related to the inadequacy of the insured values compared to amounts payable, for instance, due to the undervalued rebuilding cost from insurers.

Guaranteed replacement cost

Coverage available through an endorsement that indemnifies according to the effective repair or rebuilding costs without considering the applicable amount of coverage. Generally, some conditions must be met for this coverage to be applicable. For instance, the amount of coverage must be 80% or 100% of the replacement value recognized by the insurer as well as the rebuilding must be made at the same location with materials of similar quality and within reasonable delays after the loss.

Debris removal

Coverage extension that compensates for the costs incurred for the debris removal and the site clean-up before the rebuilding in the event of a major catastrophe.

Increased seismicity after a large event

Increase in the risk of having subsequent seismic tremors following a major earthquake.

Blanket coverage

Coverage providing a unique and overall amount corresponding to the sum of the coverage amount for the building, detached private structure (outbuildings), contents and the additional living expenses. Some coverage may be limited or excluded in the event of an earthquake requiring the division of coverage amounts and some adjustments.

Coverage extensions (excluding debris removal)

Extensions providing coverage for specific additional risks in the event of an earthquake. They may encompass several coverages. Here are some examples:

- Repair or replacement cost for certain part of the property or the undamaged insured premises that must be removed or pulled out in order to repair the damage caused by an insured risk;
- Loss or damage caused to trees, shreds, outdoor plants and grass on the insured premises;
- Fees charged for the fire department intervention aiming to save and protect the insured goods against loss or damage;
- Loss or damage to food in a fridge or a freezer located on the insured premises.

Demand surge

Increase in the cost of repairs and services following the strong demand for construction materials and labor in the event of a major catastrophe.

Secondary uncertainty

Uncertainty associated with the conversion from the location specific estimate of ground motion to damage levels for the PML calculation. In general, it is automatically recognized in the model outputs.

Time dependency

Model parameter enabling the earthquake probability to depend upon the elapsed time after an historical event.

4. APPENDIX 2 – EARTHQUAKE EXPOSURE DATA FORM