RMS

CORPORATE
HEADQUARTERS

7575 Gateway Blvd.
Newark, CA 94560
Tel: 1.510.505.2500
Fax: 1.510.505.2501

EUROPEAN
HEADQUARTERS

Risk Management
Solutions Ltd
Peninsular House
30 Monument Street
London EC3R 8NB UK
Tel: 44.20.7444.7600
Fax: 44.20.7444.7601

www.rms.com

February 12, 2014

Lori Medders, Chair
Florida Commission on Hurricane Loss Projection Methodology
c/o Donna Sirmons
Florida State Board of Administration
1801 Hermitage Boulevard, Suite 100
Tallahassee, Florida 32308

Re: Request for Functional Equivalence of RiskLink 13.0 (Build 1515).

Dear Dr. Medders:

On June 19, 2013, the commission found RiskLink 13.0 (Build 1509) to be acceptable for projecting hurricane loss costs and probable maximum loss levels for residential rate filings. On August 8, 2013, RiskLink 13.0 (Build 1515) was found to be functionally equivalent to Build 1509. We are requesting functional equivalence for RiskLink 13.1 (Build 1526). A number of changes unrelated to residential wind losses in Florida have been made to the software package, resulting in new version and build numbers. The changes are related to:

1. China and Hong Kong typhoon
2. US and Canada Severe Convective Storm
3. US Earthquake Casualty

None of these changes affect residential loss costs or probable maximum losses in the state of Florida, analyzed with the model settings as specified in the FCHLPM Certified Hurricane Losses DLM profile.

In accordance with the Process for Determining the Acceptability of a Computer Simulation Model, Section VI.G. (pages 54 and 55) in the current Report of Activities, we have prepared the following forms for the Commission's review:

1. Form A-4 (Output Ranges)
2. Form A-8 (Probable Maximum Loss for Florida)
3. Form S-5 (Average Annual Statewide Loss Costs – Historical versus Modeled)

The forms have been provided for the current model and the revised version of the model, and a percentage change comparison demonstrates there is no change in output in between the two versions. RMS would like to request that the commission review the provided material and determine that RiskLink 13.1 (Build 1526) is functionally equivalent to RiskLink 13.0 (Build 1509) and RiskLink 13.0 (Build 1515).

Please feel free to contact me with any questions about the enclosed materials.

Respectfully,

Kay Cleary
Kay.Cleary@rms.com
Office: 850-386-5292
Mobile: 850-368-4392

Enclosures: RMS11FormA4_Delta_RL131; RMS11FormA8_Delta_RL131; RMS1RMS11FormS5_Delta_RL131

Lori Medders, Chair
Florida Commission on Hurricane Loss Projection Methodology
c/o Donna Sirmons
Florida State Board of Administration
1801 Hermitage Boulevard, Suite 100
Tallahassee, Florida 32308

Re: Request for Additional Information Related to Functional Equivalence

Dear Dr. Medders:

We are requesting functional equivalence of version 13.1, Build 1526 to our currently acceptable model versions. The request was originally sent February 12, 2014.

In response to the email received from Donna Sirmons on February 25, we are providing the additional requested information to "**detail the nature of the software updates/revisions, the effect to the underlying acceptable model, and the effect on the model results**."

1. Nature of the software updates/revisions.

   The RiskLink software version 13.1 has been updated with changes to three models that are unrelated to the North Atlantic Hurricane Model. The details of each model update are as follows:

   a) China and Hong Kong typhoon model
      The RiskLink 13.1 China and Hong Kong Typhoon model update incorporates market experience, significant new insurance industry data, and new typhoon modeling techniques. There are changes to both the hazard and vulnerability modules that impact modeled losses in the geographic areas covered by the model Changes to the China and Hong Kong Typhoon model do not affect the US and Canada hurricane model and have no impact on losses in Florida.

   b) US and Canada Severe Convective Storm model
      RiskLink's Severe Convective Storm model is a separate model from the U.S. and Canada model with its own set of components. This model simulates insured property damage from tornado, hail, straight-line wind events and lightning.

      Severe convective storms are separate weather events from hurricanes, and do not include tornadoes generated within or by tropical cyclonic events.

      In RiskLink 13.1, changes were made to the hail stochastic module, the tornado hazard module, straight-line wind events, the vulnerability module and correlations related to these sub-perils.

   c) US Earthquake Casualty model
      The RiskLink 13.1 U.S. Earthquake Casualty Model updated mean casualty rates across all injury levels, secondary uncertainty levels of casualty vulnerability, and coefficients of variation for two regions (eastern and western U.S.) that reflect geographically specific uncertainty levels. The Earthquake Casualty Model has no effect on Florida hurricane losses.

2. The effect to the underlying acceptable model
      There is no effect on the underlying acceptable model. The effects are limited to other perils and/or geographical regions outside the United States.

3. The effect on the model results

   There is no effect on Florida hurricane model results. The impacts are limited to other perils and/or geographic regions outside the United States.

Based on Donna's email, we do not believe any additional forms are necessary; however, we would be happy to provide them if necessary.

Please feel free to contact me with any questions.
Respectfully,

Kay Cleary
Kay.Cleary@rms.com
Office: 850-386-5292
Mobile: 850-368-4392