

Earthquake and Wind Risk Analysis of a Major Corporation's Worldwide Portfolio

Client – Corporate Insurance and Risk Control Group

Project Scope

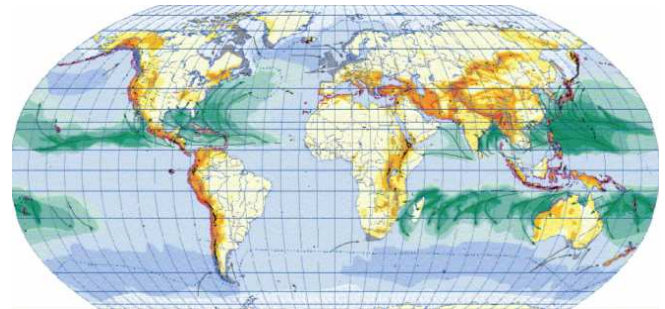
This project was conducted to assist the Corporate Insurance and Risk Control Group to better understand their earthquake and windstorm potential loss exposures at their sites located worldwide.

Project Solution

The Corporation supplied the worldwide portfolio data (in excess of 1200 sites), primarily in the form of spreadsheets. This data included building locations in terms of street address, replacement value, and business interruption value. The data was grouped based on geographical locations as follows:

- Asia and Australasia
- Europe and Africa
- North America
- Central and South America

The ABS Consulting analysis utilised state of the art EQECAT natural catastrophe modelling software (WORLDWIDE REINSURANCE) to perform the portfolio analysis. This was supplemented with a review of earthquake or windstorm hazard maps, retrieval of specific hazard data from previous client reports for selected critical locations, and selection and consideration of structural vulnerability data. For increased accuracy in the seismic and windstorm hazard definition, some historical data for selected regions was also retrieved and reviewed.



Probabilistic loss analyses were performed to determine the estimated loss for each site that can be caused by events having return periods of 500 years. The analysis provided probable maximum loss (PML) and business interruption losses for each site.

For both the seismic and windstorm analysis, the PMLs were presented and ranked in order. The point at which the PML becomes a tolerable level of risk was identified by the Corporation and used as a cut off for further consideration.



Project Benefits

The results of the earthquake and windstorm risk analysis were used by the Corporate Insurance and Risk Control Group to:-

- Optimise Captive Insurance Program /sub limits
- Identify their high risk facilities
- Develop loss prevention programme for high risk facilities
- Understand interdependency between facilities from region or worldwide perspective



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"Professional service provider of the year"
In 2000 and again in 2003

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