

Perspectives – California Earthquake

Willis

September 2006

A Marketplace Eruption

The consistency in capacity and price that was the hallmark of the California Earthquake market for the past decade has come to a sudden and jarring halt. Because no market-shaking earthquake event has occurred since the Northridge quake of 1994, this development has many market participants and observers scratching their heads.

Why now? While perhaps not obvious to those who have operations far from the coastal areas so severely afflicted by 2004/2005 Atlantic hurricane activity, the same factors causing dislocation in the Wind market in Gulf and Southeast coastal areas are at play in the California Earthquake market. These include:

- Inadequate reinsurance capacity for primary insurers (and retrocessional capacity for reinsurers)
- Increased retentions when reinsurance is available
- Changing catastrophe models
- Rating agency scrutiny of catastrophe portfolios
- Tightening of capital requirements to support catastrophe portfolios in order to maintain satisfactory ratings

Another significant factor is that earthquakes are potential clash events, i.e., they can simultaneously affect multiple lines of coverage, such as General and Auto Liability/Physical Damage, Workers' Compensation, Accident & Health, and Life. Indeed, accumulation with Workers' Compensation was the reason given by Great American when, earlier this year, it exited the market for Earthquake Property lines.

Recent Renewals

Recent renewal experience indicates that large, well-distributed national or multinational risks can still expect to get \$100 million in California Earthquake coverage embedded in their Property programs fairly consistently. Above that level, the market is much more limited and the cost of cover, when available, is more unpredictable.

For accounts with significant percentages (25 percent or more) of their portfolios in California, the picture is not necessarily so bright. And for smaller accounts accustomed to buying Earthquake from the specialized difference-in-condition (DIC) market, it is even dimmer, as underwriters price their limited capacity "to market." In both categories, we have seen fairly consistent rate increases of over 50 percent and capacity cuts of the same size.



Perspectives is a periodic publication of the Willis Property Resource Group, addressing timely and pertinent property risk and protection issues for the risk management professional.



Effects of New Catastrophe Models

We have long been a proponent of modeling our clients' Earthquake exposures for two main reasons:

- You need to quantify your risks to understand how best to finance them. What does the traditional five percent deductible amount to, how likely are you to retain this full amount and how do you finance what you retain? Above the deductible, what risks do you need to transfer and if you can't entirely, how do you fund for the residual risk?
- You should know how underwriters, with their modeling, are likely to interpret your risk.

Toward the end of the second quarter of 2006, several cat modeling organizations released Earthquake updates incorporating some lessons learned from the recent hurricanes. Chief among these lessons was the impact of what one of the modeling organizations, RMS, calls "loss amplification." This term refers to several factors, including:

- Demand surge (the increase in building material and labor costs following a catastrophic event)
- The diaspora of workers from the affected area and the extensive loss of infrastructure (both of which will delay reconstruction, increasing time element/business interruption losses)
- The possible political pressure to treat claims more favorably for policyholders

Using RMS' RiskLink v6.0, California Earthquake loss expectancies could increase by at least 10 percent and perhaps as much as 20 percent over levels predicted by v5.0 at the 250-year return period, solely as a result of loss amplification. The highest increases are likely to be seen in locales subject to what RMS refers to as a "super CAT," namely Los Angeles and San Francisco.¹

For underwriters who were not previously incorporating demand-surge factors in their modeling, the increase in risk to their portfolios will be significant, and there will be little chance of shedding that risk until renewal. Rating agencies, also using

the updated models, are watching this closely. (One underwriter told us that a rating agency was in his office at least once a month to monitor his company's announced plans to reduce its cat portfolios.) This inhibits underwriters in renewing their expiring lines and writing new ones.

Successful Modeling

Whether models deliver good news or bad, they are our best predictive tool, and the more accurate they are the better. Clearly, modeled results are most accurate when the supplied information is complete. At a minimum, information must include the following:

- Construction class
- Occupancy
- Year built
- Number of stories
- Protection (sprinklered/non-sprinklered)

In fact, there are several underwriters who have said they will not quote without the above information. In the words of one underwriter: "No COPE, no hope." (COPE stands for construction, occupancy, protection and exposure, meaning properties or conditions in proximity to your facility that would expose it to loss.)

Secondary characteristics can also affect Earthquake modeling results. Among these are:

- Soft stories
- Setbacks and overhangs
- Cladding type
- Structural upgrades since original construction
- Evidence of fatigue or lack of maintenance
- Engineered foundations

Because some of this information is arduous to collect and may not be readily available from internal sources, it may be prudent to ask for some outside help. If you are seeking risk control service proposals from underwriters or others, consider making this data collection part of your service requirement.

¹ "Willis Analytics," Willis Re Catastrophe Management Services, April 11, 2006. Many of the comments presented here on catastrophe models are based on this piece.

If you have business continuity plans that would reduce your time element loss, these should be clearly outlined as part of the underwriting submission. Models are less reliable at estimating the time element aspect of a claim than the property damage; any information that might justify a reduction in the modeled loss expectancy should be sent to your underwriter.

Earthquake must be provided under California statute if fire is otherwise a covered peril. And while a firestorm of the magnitude that accompanied the 1906 San Francisco earthquake may be unlikely, clearly fire, explosion, sprinkler leakage and even dam destruction resulting in flood can be foreseen as possibly accompanying a major event. Consider this if you consider excluding Earthquake coverage.

Is Earthquake Just Earthquake Shock?

Even clients not purchasing Earthquake coverage can expect to see some constriction in All Risk capacity, since Fire Following

Policy forms differ in how they deal with these accompanying losses. As mentioned above, fire cover must be provided in California, but

	FM Global	XL Global	Zurich Global Corporate
Included in the definition of Earth Movement	Any natural or man-made earth movement including, but not limited to earthquake or landslide, regardless of any other cause or event contributing concurrently or in any other sequence of loss.	Earthquake, landslide, subsidence, volcanic eruption or any other Earth Movement (all whether or not naturally occurring). . . For purposes of all limits and deductibles in this Contract, Earth Movement includes all release or escape of water from sprinklers or other systems arising from or relating to the Occurrence.	<p>a. Any earth movement, including:</p> <ul style="list-style-type: none"> (1) Earthquake; (2) Landslide; (3) Mine subsidence; (4) Earth sinking, rising, shifting; or (5) Tsunami. (6) Sinkhole collapse <p>b. Volcanic action, explosion or effusion; Volcanic action means volcanic activity resulting from the following: Airborne volcanic blast or airborne shock waves; Ash, dust or particulate matter; or Lava flow</p>
Not included in the definition of Earth Movement	<p>However, physical damage by fire, explosion or sprinkler leakage resulting from Earth Movement will not be considered to be loss by Earth Movement within the terms and conditions of this Policy.</p> <p>[Earth Movement] does not apply to loss or damage caused by or resulting from flood; surface waters; rising waters; waves; tide or tidal water; the release of water; the rising, overflowing or breaking of boundaries of natural or man-made bodies of water; or the spray therefrom; or sewer backup resulting from any of the foregoing; all regardless of any other cause or event contributing concurrently or in any other sequence to the loss.</p>	...but not including mudslide, mudflow or sinkhole.	...But if earth movement results in fire, explosion, theft or leakage from fire protective equipment, this exclusion does not apply to the loss or damage caused by the fire, explosion, theft or leakage from fire protective equipment.

this is not the case for other perils. You need to read the definitions of Earthquake (and oftentimes more of the policy) to know what is and is not covered, excluded or sub-limited. Above we offer a comparison of excerpts from selected policy forms.

There is no apparent consistency here so *caveat emptor*.

Consider as well that buying an All Risk policy excluding Earthquake and supplementing that with separate Earthquake (DIC) cover will not always provide coverage as broad as buying an All Risk policy including Earthquake. There are likely to be gaps between what is excluded as Earthquake in the All Risk and what is picked up as that peril under the DIC, and extensions of coverage are not always the same under both policies, e.g., Miscellaneous Unnamed Locations, Miscellaneous Personal Property, Service Interruption, Civil Authority and Ingress/Egress.

Contingent Exposures Need to Be Considered

Even those without operations in California may be exposed to loss from an Earthquake there. Consider suppliers and customers, including logistics providers. Consider how much of your raw materials, merchandise or finished product passes through a port – whether sea or air – in California.

Even when you do have California operations and buy Earthquake, you should consider how your policy responds to some of the extensions of coverage mentioned above. For example, if you have Earthquake coverage for your facility but not Service Interruption coverage, i.e., protection for loss resulting from damage by Earthquake to suppliers of heat, light, power and telecommunications, your policy will exclude the physical damage or time element loss you incur due to the cessation of those services. This exclusion may also create an Idle Period² when your direct time element coverage does not apply, even if your facility sustains physical loss itself sufficient to cause an interruption in operations.

Deductibles = Your Money

Underwriters look to distance themselves from losses; one way they do that is imposing higher deductibles. While we have not seen a change in the traditional five percent used for California Earthquake, it is important to understand how differently that five percent can be applied. Clearly, it applies to whatever damage is included in the Earthquake definition. But does it apply separately to each location involved in the loss (no matter how insignificant the damage)? Does it apply only to each location for which a claim is being made? Does it apply separately for Property Damage and Time Element at each location and only when a claim is being made for both of these coverages? How do minimum – and maximum when available – deductibles apply? Are they applied per location or per occurrence, all locations combined? As with the Earthquake definitions above, there is no single industry standard on deductibles and these differences can have material consequences. When in doubt, ask underwriters or your broker to help resolve any questions.

Property Practice Contacts

North American Property Practice Leader

Suzanne Douglass
Managing Director
New York, NY
Tel: 212 804 0516
Fax: 212 344 2780
suzanne.douglass@willis.com

North American Resource Group

James H. Costner
SVP & Senior Resource Consultant
Willis Risk Solutions
Nashville, TN
Tel: 615 872 3421
Fax: 615 872 3333
james.costner@willis.com

Earl Owen
SVP & Senior Resource Consultant
Willis Risk Solutions
Boston, MA
Tel: 617 351 7532
Fax: 617 351 7430
earl.owen@willis.com

² For further information on Idle Periods, see "WARNING: Idle Periods Clauses May be Hazardous to the Health of Your Business Interruption Insurance," James H. Costner, Willis, September 4, 1996. A reprint of this article follows.

From the reprint department of:

Business Insurance[®]

a publication of Crain Communications Inc.

Reporting weekly for corporate risk, employee benefit and financial executives.

As seen the week of:

OCTOBER 21, 1996
Perspective

740 North Rush Street, Chicago, IL 60611 (312) 649-5319
Entire contents copyright by Crain Communications Inc. All rights reserved.

Clauses can interrupt coverage

Insurers use events that aren't covered to avoid paying claims

By James H. Costner

BECAUSE OF COMMON restrictions and exclusions in their insurance policies, many insurance buyers will never be able to collect for business interruption losses caused by hurricane, flood, earthquake, freeze or any other disaster affecting a large geographic area.

Even in the best of times, business interruption insurance struggles with its reputation.

Many people have been through difficult business interruption adjustments to emerge at the end exhausted, angry and wondering why they ever bought the coverage in the first place.

One of the problems affecting business interruption insurance's reputation is the practice of excluding coverage for coincidental idle periods. Many insurance companies say their business interruption policies do not cover losses unless the interruption is "solely" the result of damage by an insured peril to covered property.

If an interruption is caused by a combination of perils, some covered and some not covered, the entire loss, they will say, is excluded. Likewise, if an interruption is caused by damage to property, some of which is covered and some not covered, they will say the entire loss is excluded.

Judge Ely of the 9th U.S. Circuit Court of Appeals described such cases as "bizarre."

Judge Ely, writing in dissent in the 1974 decision *Manufacturers Mutual Fire Insurance Company vs. Royal Indemnity Co.*, said: "If a plant, insured for fire, is burned to the ground, and five seconds later the charred remains fall into a pit caused by an earthquake, for which the plant is not insured, then the idle periods clause operates to eliminate the insurance

company's liability. The company can successfully argue, after this decision, that if there had been no fire, there still would have been an earthquake five seconds later, so the insured can only recover what the business would have earned in the next five seconds."

Judge Ely also noted that the *Manufacturers* case involved a controversy between two insurance companies. But, he said, the argument in the next case might be between coverage and no coverage. The precedent set by the majority would result in the buyer collecting nothing for the loss.

The goal of business interruption insurance is, in the event of a loss, to do for the insured just what his business would have done for him if the loss had not occurred. Over the long term, the adjusted loss should bring the bottom line pre-tax profit to the same amount it would have been if the loss had not occurred.

Three clauses, however, restrict, reduce or exclude recovery for business interruption claims. These clauses, which operate interdependently, are collectively referred to as "idle periods clauses."

The first is the insuring agreement.

Insurers interpret this agreement to say the policy covers only interruption caused by physical damage of the type insured against; no coverage is provided for any interruption that would have occurred in the absence of damage to covered property by a covered peril even if the excluded interruption begins after the covered interruption and has no effect on the covered interruption. Judge Ely's comments made in 1974 are true.

The second related policy provision is called the Experience of the Business Provision. This provision says that what the insurer pays is determined by the businesses experience before the

interruption and its probable experience afterwards.

The term probable experience is a theoretical concept that attempts to determine what the experience of the business would have been if the insured interruption had not occurred.

In other words, if business would have been interrupted or reduced for any reason other than the covered interruption, the policy will make no payment.

Third is the Idle Periods Clause.

Some property insurance companies interpret the idle periods clause to say the insured can collect no payment for business interruption losses during any period when the business is interrupted because of two or more causes unless every cause (peril) is covered by the policy.

Referring to policies such as those published by the Insurance Services Office Inc. that do not contain an explicit idle periods clause, the Commercial Property Insurance Manual published by the International Risk Management Institute says: "The exclusion is probably unnecessary. . . Coverage is provided only for the actual loss sustained during the indemnity period, giving 'due consideration' . . . to the probable experience of the business. . . had no loss occurred. With or without an idle periods clause, there would be no coverage for any period of time during which the insured's operations would have been suspended even had no loss occurred."

Courts have addressed these clauses. The two most famous cases are *Manufacturers Mutual*, mentioned above, and *Simkins Industries Inc. vs. Lexington Insurance Co. et al.*

In 1992, tropical storm Agnes dropped 14 inches of rain in the Patapsco River basin in Maryland. The resulting flood

caused extensive damage to two plants owned and operated by Simkins, a paper manufacturer. And it washed away a bridge across the Patapsco River connecting the plants. The bridge was not insured, but the piping that crossed the bridge and connected the plants was insured. It took six months to replace the bridge.

Hartford Steam Boiler Inspection & Insurance Co. provided insurance covering property damage and business interruption resulting from accidents to objects in both plants and to the piping on the bridge. HSB's policy contained no flood exclusion.

HSB paid for the property damage. The court permitted HSB to avoid the business interruption loss during the six months it took to rebuild the bridge, notwithstanding the fact that operations in both plants would have been interrupted even if the bridge had not washed away.

Another court reached a different conclusion in a case not nearly as well known as the first two. Immediately after it was published, it was withdrawn and republished.

In *Thornton-White Inc. vs. Industrial Risk Insurers*, the Supreme Court of South Carolina ruled that the insurer could not avoid payment of a business interruption loss caused by a hurricane that affected both the insured's property, which was covered, and that of the local utility, which was not covered.

The court said: "Insurer contends the idle periods exclusion should apply even when the covered loss is caused by the same outside event that would otherwise prevent continuation of business because the (idle periods) exclusion clause does not specify an exception in such instances. We disagree."

Because the Thornton-White decision was withdrawn, it is of no precedential value. But it is, nevertheless, interesting and instructive. And it is doubtful any insurance company will be bold enough in the future to present a similar situation to the South Carolina Supreme Court honestly expecting a different outcome.

In addition to the court cases, there are other examples of the application of the idle periods clause:

- **Strikes.** Even if a strike begins after an insured business interruption has begun, the insurer will avoid payment for the interruption loss occurring during the strike.
- **Scheduled maintenance.** If a business interruption occurs during a period during which a shutdown for maintenance would have occurred, the idle periods clause will avoid payment.
- **Escaped molten materials.** Many

policies exclude coverage for the removal of escaped molten material and fault repairs. The time to remove escaped molten materials and repair the fault that permitted the escape are considered an idle period.

- **Simultaneous boiler and machinery, fire, and differences in conditions losses insured in separate policies.** A river barge collided with a dock. The collision also damaged motors and pumps on the dock. The collision damage to the dock was covered by a DIC policy; a boiler and machinery policy covering accidents to objects covered the motors and pumps. The boiler and machinery policy contained an idle periods clause, which permitted it to avoid payment for business interruption during the time it took to repair the dock.

- **During a covered interruption a subsequent, unrelated interruption occurs.** Operations at an assembly plant are interrupted by fire damage, an insured peril. During the interruption, a shipment of subassemblies is lost in transit. The time to replace the shipment of subassemblies constitutes an excluded idle period notwithstanding the fact the loss of the subassemblies occurred after the interruption by fire began and notwithstanding the fact that the loss of the subassemblies did not affect the length or the dollar amount of the business interruption loss caused by fire.

There is serious disagreement about the use of the idle periods clauses to avoid payment for loss when an idle period is coincidental to but does not affect the insured interruption. Examples of such cases usually involve natural catastrophes such as hurricanes. The argument is that the insurer should not be able to avoid payment for interruption caused by hurricane damage to a plant merely because the power lines in the vicinity are down or the roads or bridges are impassable.

In his dissenting opinion in the *Manufacturers* case, Judge Ely argued that the majority reached an incorrect conclusion because it applied an interpretation of the idle periods clause that was too literal. The majority thus allowed *Manufacturers* to avoid a loss because of the coincidental occurrence of another peril.

Except in a few states, the majority would not be permitted to reach such an outcome if the subject were property damage instead of business interruption. The rule in most states requires that whenever two or more perils produce damage to insured property, and at least one of the perils is an excluded peril, the property damage loss must be paid unless the insurer can show that the excluded

peril is the "efficient proximate cause" of the loss.

Another argument might be the "you can't have it both ways" argument. But that does not work when the subject is business interruption insurance.

An Econo Lodge Motel was damaged by Hurricane Hugo and its business was interrupted. In the calculation of its business interruption loss, the policyholder claimed it should be allowed to recover for the much higher occupancy rate it would have experienced if it could have stayed open. People whose homes were damaged were staying in hotels, so many additional people, such as contractors and claims adjusters, had moved into the area.

The court in this case said it would not condone recovery of a "windfall" resulting from the same insured event. So at least for the moment, a policyholder cannot benefit from a windfall, but the insurance company can if it can make its idle periods clause stick.

A third argument against the idle periods clause is that those who buy business interruption insurance do so with a set of reasonable expectations about how the insurance will respond in the event of a loss. And there is no way, the argument goes, a policyholder expects to be without insurance for its business interruption caused by a hurricane or a flood when its property damage loss for the same event is fully insured.

There is such a paucity of litigation on the idle periods clause, and the arguments made in the dissenting opinions such as Judge Ely's are so persuasive, future courts may be inclined to follow the dissenters.

Idle periods clauses are not just legal questions, and there is no reason for this problem to wait for a legal solution.

These clauses create commercial problems that lend themselves perfectly to commercial solutions.

The commercial problem is that insurance buyers expect to be able to transfer the risk of property damage and business interruption loss to their insurers.

Insurance buyers can insist that their insurers rewrite policy language so the business interruption insurance will pay for interruption in the event of a wide area disaster whether or not there is a coincidental, unrelated interruption.

Failing that, they can move their insurance from companies who will not offer acceptable language to insurers who will.

Insurance companies that want to meet the legitimate coverage needs of their customers should rewrite their forms to cover time element loss whenever the

efficient proximate cause of a loss is damage by a covered peril to covered property. Such losses should be paid without consideration of any other perils or damages occurring coincidentally.

Also, buyers without business interruption coverage for utility service interruption, contingent business interruption, interdependencies, law and ordinance, pollution cleanup and debris removal should purchase the coverages (or deliberately self-assume the risks).

It is the lack of these coverages that has

created most of the idle period controversies. It does little good for a company to stand in the courthouse crying because a business interruption loss was not covered when an insurance policy to cover that loss was available.

In the meantime, consideration should be given to adding this exception to idle periods exclusions to all time element policies and endorsements:

“Notwithstanding anything in this policy to the contrary, payment in the event of a claim shall not be affected by

any coincidental, unrelated idle period; nor shall payment be affected by any idle period the efficient proximate cause of which is the same as for the interruption for which a claim is made.” **BI**

James H. Costner is a senior resource consultant in the Advanced Risk management Services Division of Willis Corroon Corp. in Nashville, Tenn.