



# Terrorism Insurance Market Solutions for NBCR Exposures

Terrorism loss arising out of a nuclear, biological, chemical, or radiological (NBCR) attack is a major concern of many insureds. According to Senator Richard G. Lugar's report, "The Lugar Survey on Proliferation Threats and Responses," the possibility of a weapon of mass destruction (WMD) or NBCR attack against a city or a target around the world is real and increasing over time (to access the report, visit <http://lugar.senate.gov/reports/NPSurvey.pdf>). Experts interviewed for the report, which was published in 2005, estimated that the possibility of such attack within the next five years (2005-2010) is about 10 percent. There is a strong consensus among these experts that a nuclear attack is more likely to be carried out by a terrorist than by a nation's government in the next 10 years (2005-2015). The risks of biological or chemical attack were each determined to be comparable to slightly higher than the risks of a nuclear attack, while the risks of a radiological attack were ascertained to be significantly higher than the risks of all three: biological, chemical or nuclear attack.

The threat of a NBCR attack is further heightened by a number of factors, including:

- concern over improper security of existing weapons and material that are stored primarily in the United States and Russia, but also in India, Pakistan, Iran, Libya, North Korea, Syria, Sudan, Israel, Great Britain, France, and China;
- threats posed by former weapons scientists, who may be tempted to sell their knowledge to terrorists or rouge states;
- the development of black market networks (e.g., Dr. A.Q. Khan's global nuclear weapons black market);
- the accessibility to fissile materials and components of nuclear weapons to pursue ostensibly peaceful nuclear electricity developments; and
- security weaknesses in ports and shipping.

Although the United States, Russia, and other members of the United Nations are working diligently to develop measures to mitigate the threat of such events, the risk at the moment is real and present. The impact of an NBCR attack may cripple our national security, and would also have political, moral, and economical implications. The economic impact to any one

company is difficult to predict; therefore, it is inherently important for each company to safeguard its assets through insurance programs.

Historically, insurance protecting against the risk of NBCR attacks has been available only in very limited scope and has commanded high prices. Furthermore, while NBCR insurance is accessible under the Terrorism Risk Insurance Act (TRIA), insurers are not required to offer this type of coverage; thus, it has not been widely available in the open market.

A number of standalone terrorism insurers now offer standalone NBCR terrorism insurance solutions at relatively viable prices. These insurers include: Catlin Insurance Company Ltd. (CICL), Montpelier Re Bermuda (MPRE), Berkshire Hathaway (BH), and other Lloyd's of London syndicates that act as supporting capacity to these insurers. We expect additional insurers, especially syndicates at Lloyd's of London, to enter this niche market in the near future.

While these insurers offer coverage for the same peril of NBCR terrorism, their products and services vary. The following table offers a snapshot of some

Coverage Distinctions	BH	CICL	MPRE
Type of coverage: Single location specific	✓	✓	✓
Type of coverage: Statewide specific for U.S. only	✓	✓	✓
Type of coverage: Multi locations portfolio	✓	✓	✓
Predefined perimeter radius of site restriction		✓	
Annual aggregated limits	✓	✓	✓
Direct or reinsurance placement	✓	✓	✓
Reinsurance to captives	✓	✓	✓
Extended to all P&C lines including workers compensation		✓	
Standalone NBCR policy	✓	✓	✓
NBCR as part of “conventional” terrorism policy	✓	✓	✓
Industry loss warranty options	✓		
Worldwide exposures covered (with selected restrictions)	✓	✓	✓
Limits available (in millions)	\$400	\$50	\$25
Average range of rates—rate on line (ROL)	2.5% - 22.5%	0.2% - 3%	0.65% - 6%
Policy forms	Hybrid T3/T3A	Hybrid T3/T3A	Hybrid T3/T3A

*This product information is accurate as of June 1, 2008.*

of these differences. Marsh recommends an in-depth discussion with our Property Specialized Risk Group (PSRG) (formerly the Terrorism Risk Specialty Group) to determine which insurance solution is most appropriate for an individual business.

### Important Points

- CICL’s defined perimeter radius for site specific coverage is generally three to 10 miles around the site. Perimeters for central business districts (CBD) are generally smaller—for example one to two city blocks in New York City.
- MPRE’s policy form will follow either “conventional” terrorism language or the CICL’s hybrid T3/T3A. The T3/T3A form is the policy form on which most

standalone terrorism policies are written (see below).

- MPRE’s product may be offered in conjunction with “conventional” terrorism insurance or follow CICL’s terms and forms as highlighted in the table above.
- BH’s policy may be written as an industry loss warranty policy, which may potentially be a more cost effective policy structure.
- The T3/T3A forms are standard terrorism insurance forms that define terrorism as, “an Act of Terrorism...including the use of force or violence, of any person or group(s) of persons, whether acting alone or on behalf of or in connection with any organisation(s), committed for political, religious or

ideological purposes including the intention to influence any government and/or to put the public in fear for such purposes.”

This definition is expanded in the CICL hybrid form to include, “...An act which causes: serious violence or harm to a person or people, or serious damage to property by the direct use of a nuclear detonation or explosion, biological weapon, chemical weapon, bio-chemical weapon, and/or radioactive agent (including but not limited to a radiological dispersal device) against people or property.”

- The aforementioned insurers will likely pay particular attention to their concentration of aggregates before writing

any particular risk. That is, they are not likely to write NBCR insurance for a large number of clients concentrated in any one region or city.

Prices for NBCR insurance will vary based on the geographical spread of risk, exposure type of property, location of exposure, proximity to other target risks, occupancy, available capacity, program structure (e.g., limit and deductibles), and the insurer writing the program. The average ROL, or rate applied towards the limit, could range from 0.2 percent to 22.5 percent based on the factors cited above.

Captive insurers that write direct policies covering losses as defined under TRIA can reinsure their NBCR exposures with any of the featured insurers.

The following are types of companies that have purchased NBCR coverage:

- airports,
- hospitals,
- municipal districts,
- shopping centers,
- sports organizations (i.e., stadiums, arenas), and
- workers compensation funds.

Businesses in all industries may want to consider the purchase of this coverage given the potential threat. It may be specifically of interest to companies that are in the following industries:

- chemical,
- financial institutions,
- health care,
- real estate,
- shipping, and
- transportation.

As an example, a Marsh client, a sports organization, purchased an NBCR policy in 2005. It secured this insurance to coincide with a major sports event at its stadium and has since enjoyed significant renewal premium reductions, as the take up rate for this product continues to increase and insurers are reducing prices to in order to remain competitive.

It is also important to note other sources of NBCR insurance coverage. Lexington Insurance Company offers insurance for biological and chemical terrorism attacks against assets/exposures located in United States.

Lexington's product, known as the BioChem Shield<sup>SM</sup>, can be purchased as an endorsement to a standard terrorism insurance policy or to an "all-risk" property policy; this coverage is not available on a standalone basis. The maximum limit for this product is \$25 million in annual aggregate. The endorsement is designed to cover the following, provided they are the proximate result of direct loss or damage to an insured location caused by biological and/or chemical terrorism:

- business interruption, rental income, and extra expense;
- debris removal and clean up cost expense;
- prevention of re-occupancy;
- law or ordinance; and
- interruption by civil or military authority.

Premium rates for the Lexington's BioChem Shield<sup>SM</sup> range from 0.25 percent to 1.5 percent on average ROL, depending on the holistic review of the exposure in question.

Insurers of environmental

insurance policies can also offer coverage for NBCR terrorism exposures. This is typically done, however, on a case-by-case basis and as an extension to a comprehensive environmental insurance program. It is not offered on a standalone basis. Typical limits available are \$1 million to \$50 million per insurer capacity on any one program. It should also be noted that some insurers are willing to stack limits and may be able to offer "drop down" coverage.

Real estate clients are the main purchasers of this NBCR coverage in recent years. High profile buildings are more challenging for underwriters and the coverage offer for this type of occupancy may be restrictive. Insurers offering environmental insurance, like the NBCR insurers, pay particular attention to the issue of concentration of risk.

Since the coverage is not offered on a standalone basis, the premiums are usually a percentage of the standard environmental insurance premiums. In general, terrorism coverage is priced between 3 percent and 12 percent of the standard environmental program premiums. Pricing for NBCR coverage is done on a case-by-case basis.

For further information on NBCR insurance solutions, contact your Marsh representative or a member of the Property Specialized Risk Group.



## Property Specialized Risk Group Contacts

**Ben Tucker**  
**Leader, Property Specialized  
Risk Group**

Ben.Tucker@marsh.com  
(212) 948-2820

**Sandra Fianko**  
Sandra.Owusu-Fianko@marsh.  
com  
(212) 345-3950

**Tarique Nageer**  
Tarique.I.Nageer@marsh.com  
(212) 345-5073

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