

Cost of Environmental Risk: You Cannot Stay Competitive, If You Do Not Manage and Control Your Environmental Liabilities

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Introduction

Companies (owners and operators) in various industry sectors need to focus on cost of risk associated with property damage, bodily injury, transportation, cleanup, and legal expenses including regulatory impacts resulting from pollution conditions arising from their owned facilities, contract locations, transportation and non-owned locations. Such claims have the potential to significantly impact the company's bottom line.

Following is an overview environmental exposures before experiencing a loss (pre-loss scenario) that owners and operators need to consider and develop strategies in transferring and financing those risks:

Healthcare Facilities

Types of Potential Exposures include mold, legionella, spills from aboveground and underground storage tanks, chemical fumes, wastewater and stormwater discharges, hazardous, biological and infectious wastes, indoor air quality

Claim Scenarios

1. A street and road contractor was hired to apply a sealing coat to a new concrete parking next door to a hospital. During the sealant application, fumes migrated into hospital's air intake system. Several patients and hospital staff were overcome by the fumes and became ill.
2. Legionella was discovered in the water supply of a major metropolitan hospital. While the water system went through treatment for legionella, an entire wing of the hospital needed to be vacated.
3. A mechanical contractor was hired to perform HVAC repairs at a hospital. Despite the controls, one year after completion of the project, the contractor was notified of that several aspergillus (a type of mold species) infections had occurred several months after valve replacement surgeries. Internal and government investigations identified the source as the hospital operating room shortly after the renovation.

Cost of Risk

1. Lawsuits were filed alleging bodily injury and asserting damages in excess of \$1,000,000.
2. In addition to the remediation costs, several patients sued the hospital claiming bodily injury from exposure to legionella. The cost is not known at this time, but we anticipate being in hundreds of thousand dollars.
3. The hospital and the contractor contributed to settle the claims. The settlement amount is not known, but we anticipate being in hundreds of thousand dollars.

Residential Units, Apartment Complexes and Commercial Buildings including Property Developers

Types of Potential Exposures include mold, meth labs, and historical contamination.

Claim Scenarios

1. A few years after construction of an upscale apartment community, tenants complained about mold in bathrooms. Some tenants moved out and filed claims for alleged bodily injury and property damage, an extensive investigation revealed that construction defects associated with HAVAC systems and showers caused severe water intrusion and moisture build-up leading to widespread mold growth.
2. The owner of a vacated apartment building discovered the renter had left behind an illegal meth lab and related chemicals. The renter could not be located and the property owner was left with the responsibility for the cleanup cost.
3. A new construction commenced on a previously undeveloped parcel of land. During excavation and dewatering activities, contaminated groundwater was discovered. Developer had to test and treat groundwater before discharging. Also, developer had to remove contaminated soil.

Cost of Risk

1. Damages to the property owner included loss of rents, cleanup costs and settlements with injured tenants totaled over \$2,000,000.
2. Clean-up and disposal costs were in excess of \$100,000.
3. Construction delays and cleanup costs exceeded \$1,000,000.

Manufacturing Facilities

Types of Potential Exposures include hazardous waste chemicals.

Claim Scenarios

1. An unknown party illegally placed a container of hazardous waste liquid into a dumpster at a small manufacturing facility. The container leaked and contaminated the contents of the load which in turn contaminated the waste on the tipping floor of the transfer station.
2. A small paint manufacturing facility performed routine drum washing operations over a severely compromised concrete containment pad. Over time, solvent laced wash water migrated through cracks in the concrete and contaminated the nearby municipal water supply

well. The municipality filed suit for cleanup property and property damage claims as well as the system had to be fitted with costly remedial technologies to provide safe drinking water for its customers.

Cost of Risk

1. Cleanup cost and legal fees exceeded \$150,000.
2. The cost is not known, but anticipated to be in hundreds of thousand dollars.

Key Learning Outcomes

At the end of the session, participants will be able to:

- Have a better understanding of the role an actuary can have in driving your environmental exposure identification and analysis.
- Understand how benchmarking data can be used to reduce the total cost of risk.
- Determine procedural and contractual deficiencies are in their environmental management and then develop risk transfer and financing mechanisms to reduce the total cost of risk
- Measure and manage risk to reduce your total cost of risk by tracking and monitoring regulatory enforcements activities
- Understand how managing your claims process helps reduce cost.
- Understand the benefit of pre-loss and post-loss analysis

References

Sources of claims from Great American Insurance Group