

*Environmental Risk  
and  
Coverage for Fixed Sites*

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**AIG Environmental**

**ERRA Environmental Insurance Forum  
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**Exposure Identification / Analysis**

Classification of Exposures

- Site Specific - resulting from a specific location
- Non-Owned Locations - waste disposal sites, toll manufacturing, etc.
- Contracting Operations - operations performed for a another at a 3rd party location
- Transportation - movement of cargo, products or waste
- Products - resulting from products manufactured, sold, or distributed

## Exposure Identification / Analysis

### Consider the following:

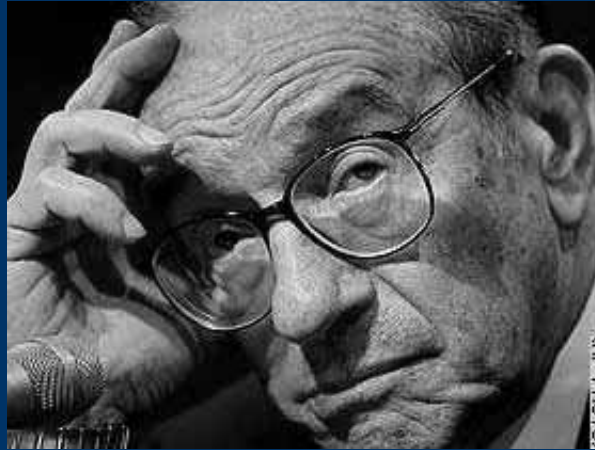
- Prior Use of Land
- Past Products
- Claims/lawsuits
- Class of Business
- Past Disposal Practices
- Known Conditions
- Annual Reports
- Age of Buildings
- Stored Materials
- Polluting Neighbors
- Potential Receptors
- Number of Vehicles
- Scope of Operations

## Exposure Identification / Analysis

### Environmental Risk Characteristics

- High Severity/Low Frequency
- Claims may arise from a perceived, rather than actual, exposure to pollutants
- Are often difficult to quantify because they may arise from activities that were conducted many years in the past or may be created by extremely small quantities of pollutants
- Advances in technology and changes in regulations can change the exposure to loss
- Damages can increase substantially over time as contamination migrates farther from source

## How can I manage risk?



## How can I manage risk? Analysis

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**Insurance**

**Avoidance**

**Retention**

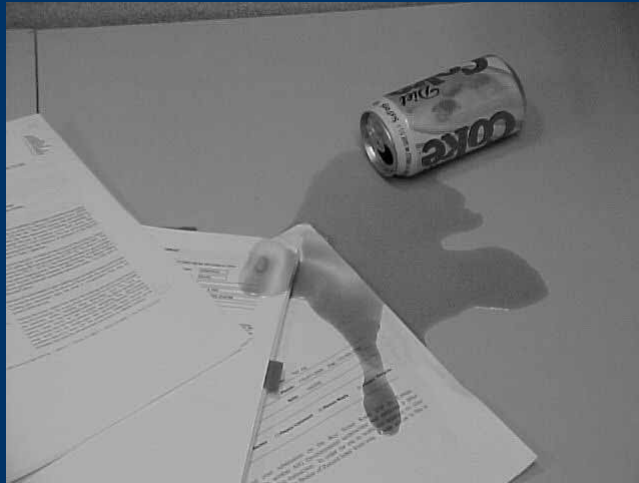
**Loss Control**

*LOW*

*HIGH*

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## Exposure Analysis: Retention



## Exposure Analysis: Loss Control



Security Cameras, Electronic Tags...

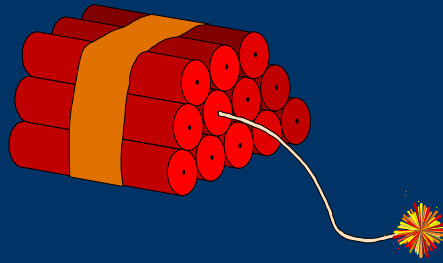
## Exposure Analysis: Avoidance



## Exposure Analysis: Avoidance



## Exposure Analysis... Insurance?



## Exposure Analysis... Insurance?



## Environmental Exposures

Mining  
Industry



## Environmental Exposures

*“We had this water brought in special for you guys.”*

Pulp &  
Paper



## Environmental Exposures

*Underground? Storage Tanks*



## Environmental Exposures

*Safe, Secure Storage Facilities*



## Environmental Exposures

*Chemical, Petroleum Industries*



## Environmental Exposures

Brownfields Redevelopment



## Environmental Exposures

**“I Ain’t Got No Pollution Exposure”**



## Environmental Exposures



## Financial Issues

Commercially Viable Property?  
Adequate Return on Investment?  
Cost of Cleanup v. Risk?  
Future Environmental Liability?  
Profile of Regulatory Climate?  
Operational Exposures?

07/25/2003

21

## Variables that complicate transactions

### *Unknown Conditions / Past & Future*

- Is Due Diligence ever enough?
- What level of uncertainty will be tolerable?
- How comfortable is the lender?

### *Known Contamination*

- Ability to negotiate indemnification language?
- Financial ability of either party to carry out indemnification?

## Insurance Solutions

- **Cleanup Cost Cap (Remediation Stop Loss)** to protect against cost overruns associated with known conditions.
- **Pollution Legal Liability (Environmental Impairment Liability Insurance)** to protect against liability arising from unknown pre-existing, known but not actionable and new pollution conditions due to operations.

## Insurance Solutions

- **Secured Creditor** Protects the lender from financial loss due to defaults accompanied by environmental conditions.

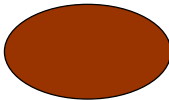
# Cleanup Cost Cap



# Cleanup Cost Cap

## Remedial Action Plan

Known Contamination



## Cleanup Cost Cap

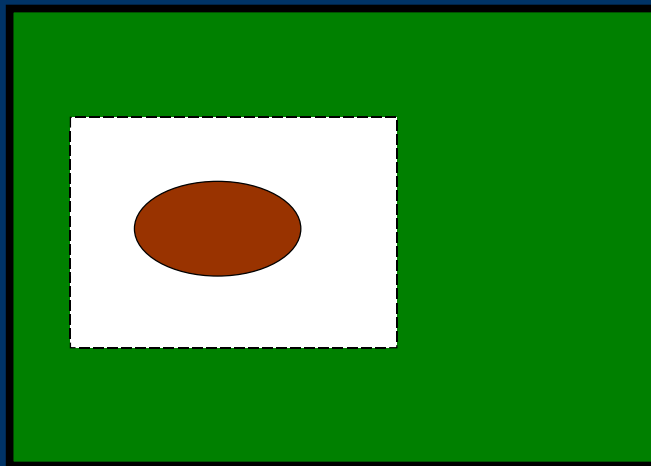
### Covers Remediation Cost Overruns for:

- Actual contamination greater than estimated.

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27

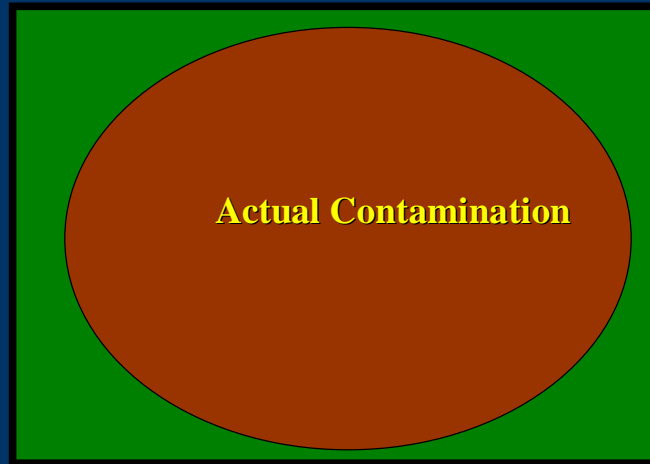
## Cleanup Cost Cap



07/25/2003

28

## Cleanup Cost Cap



07/25/2003

29

## Cleanup Cost Cap

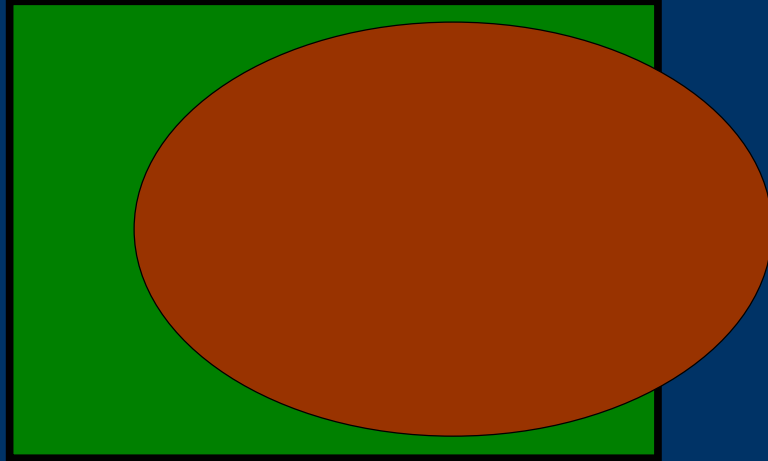
### Covers Remediation Cost Overruns for:

- Actual contamination greater than estimated.
- Offsite cleanup costs adjacent to the covered site.

07/25/2003

30

## Cleanup Cost Cap



07/25/2003

31

## Cleanup Cost Cap

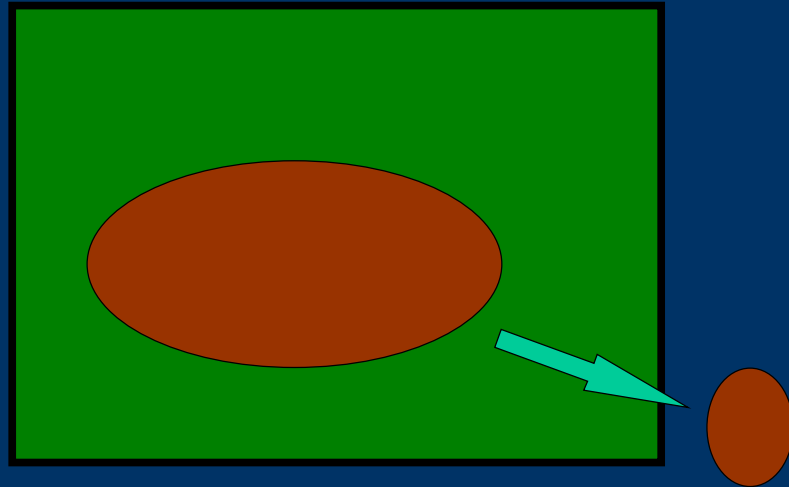
### **Covers Remediation Cost Overruns for:**

- Actual contamination greater than estimated.
- Offsite cleanup costs adjacent to the covered site.
- Offsite cleanup costs emanating from the covered site.

07/25/2003

32

## Cleanup Cost Cap Program



07/25/2003

33

## Cleanup Cost Cap Program

### Covers Remediation Cost Overruns for:

- Actual contamination greater than estimated.
- Offsite cleanup costs adjacent to the covered site.
- Offsite cleanup costs emanating from the covered site.
- **Change orders required by governmental authorities that are incurred during the policy term.**

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34

## Cleanup Cost Cap

*Optional*

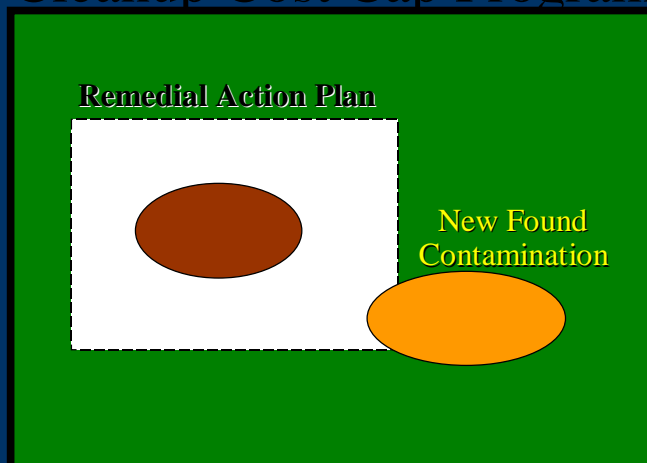
### **New Found Contamination Coverage:**

- Cleanup costs of a new found contamination that is discovered while conducting the action plan.

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35

## Cleanup Cost Cap Program



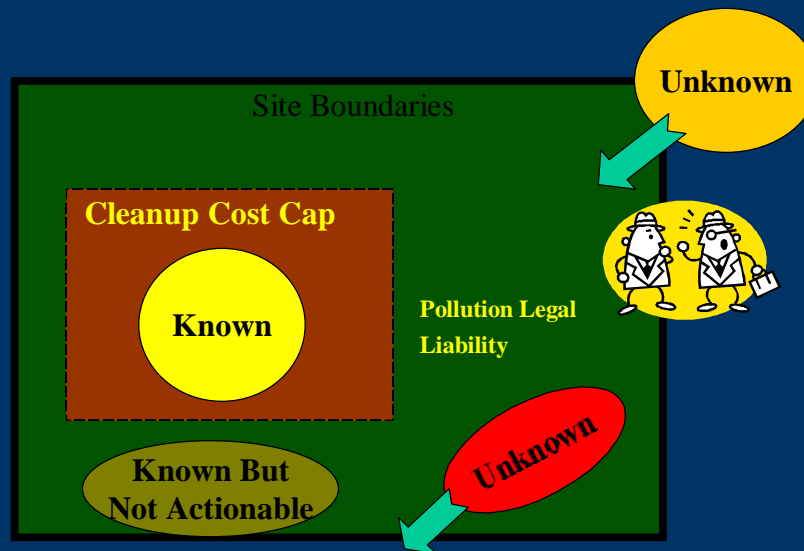
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36

## Pollution Legal Liability (PLL)

- Onsite Cleanup
- Offsite Cleanup
- Bodily Injury
- Property Damage
- Transportation Pollution Coverage
- Disposal Site Coverage
- Business Interruption / Diminution in Value Coverage Available

## Known And Unknown



## PLL: Onsite Cleanup



Timeline of Coverage



Covers  
Pre-existing  
Contamination

Policy  
Inception

Covers New  
Conditions

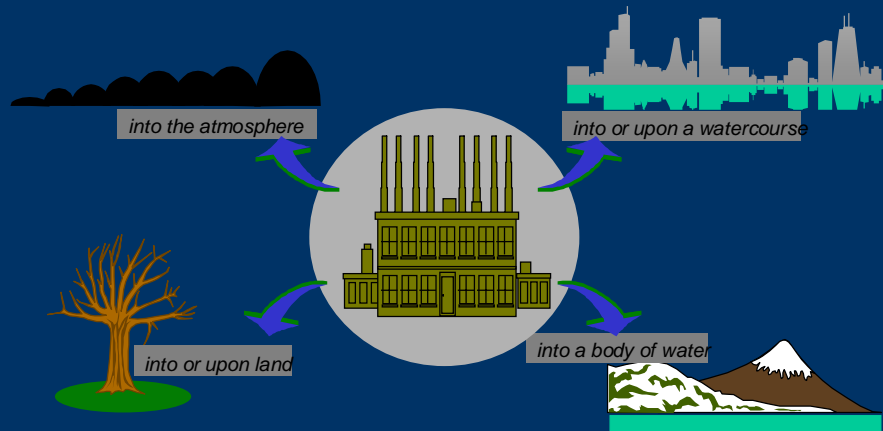
## PLL: Onsite BI&PD

On-site third-party bodily injury



On-site third-party property damage

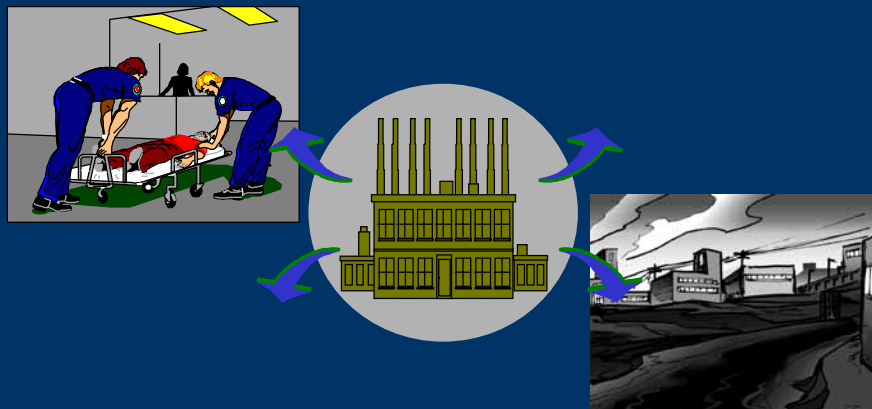
## PLL: Offsite Cleanup



Off-site cleanup resulting from pre-existing or new conditions

## PLL: Offsite BI&PD

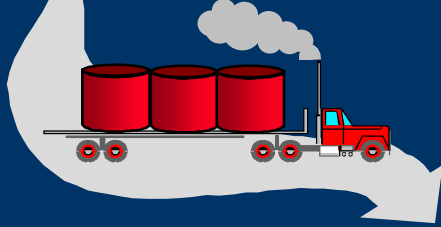
Third party claims for off-site bodily injury and property damage



## PLL: Non-Owned Sites



Waste product leaves the site



Non-owned disposal site



- Covers third party claims for off-site cleanup costs, property damage, or bodily injury at non-owned locations
- Covers third-party claims for on-site cleanup costs at non-owned locations

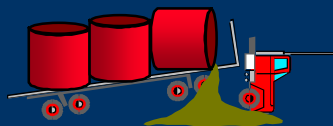
## PLL: Transportation

Coverage for pollution conditions resulting from transported cargo



Pollution coverage for...

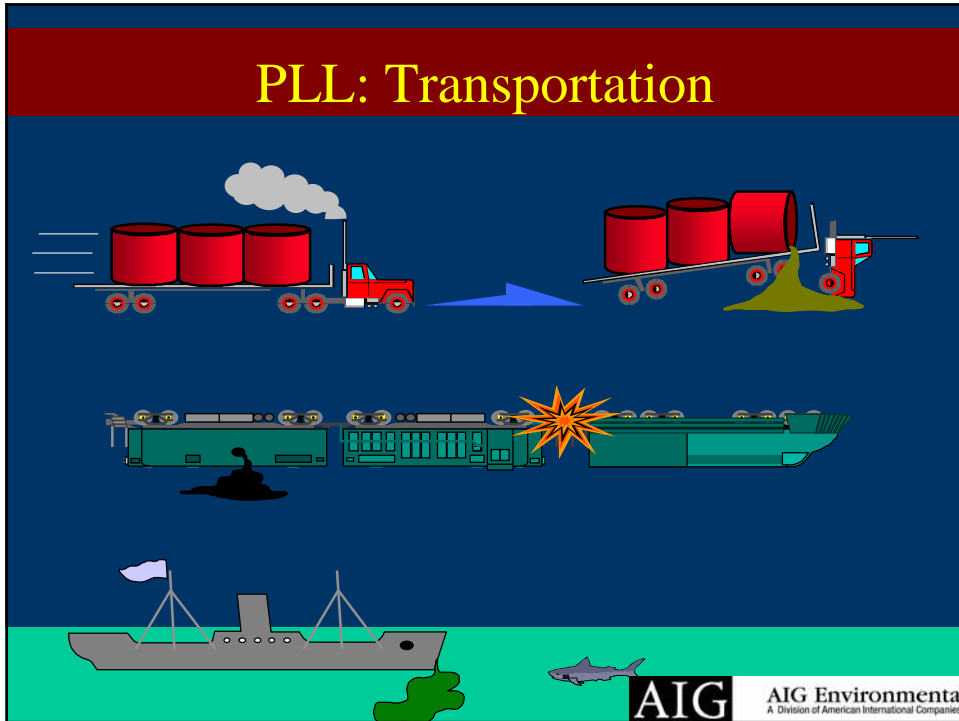
Upset and overturn



Loading and unloading

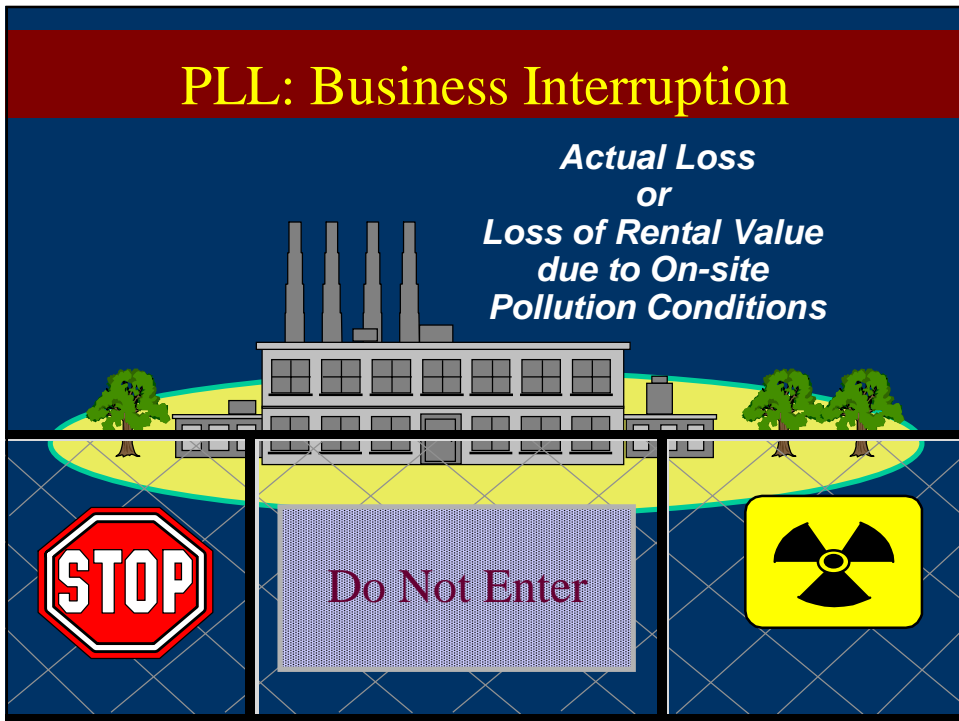


## PLL: Transportation



## PLL: Business Interruption

*Actual Loss  
or  
Loss of Rental Value  
due to On-site  
Pollution Conditions*



## Underwriting Approach

### Risk Factors Evaluated:

Site History

Site Features

Surrounding Environment

Contaminants

Geology/Hydrology

Air Emissions

Effluent Exposures

Tank Exposures

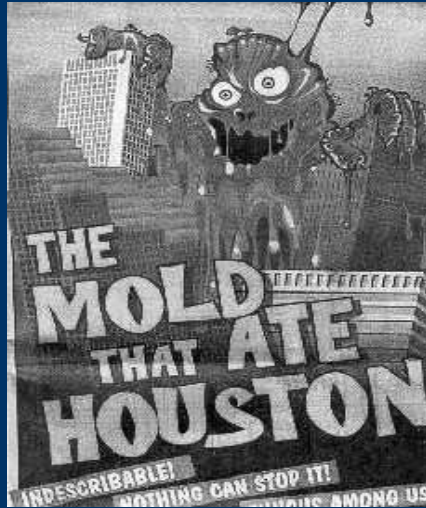
Soil/Groundwater Contamination Potential

Fire Exposure

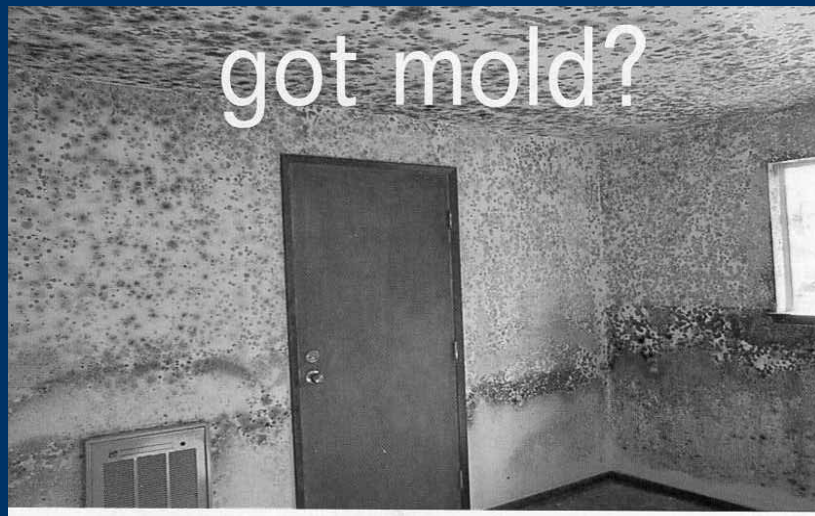
## New Concern?

Environmental Risk was Once  
Primarily an *Outdoor* Issue...

## Mold Takes the Country by Storm



## Microbial Matter



## Microbial Matter



## Microbial Matter

EVERY WATER DAMAGE CLAIM



POTENTIAL MOLD CLAIM



POTENTIAL BODILY INJURY CLAIM

## Fixed Facilities: Target Markets

Incinerators  
Research and Development Facilities  
Bulk Storage Terminals  
Manufacturers  
Chemical Manufacturers  
Schools and Universities  
Medical Facilities  
Utilities  
Electric Utilities  
Mining Operations  
Electroplating Operations  
Nursing Homes  
Waste Treatment, Storage &  
Disposal Facilities  
Recyclers

- Hazardous and Non-hazardous Waste
- Landfill Operations
- Analytical Labs
- Hospitals
- Residential Properties
- Food Processors
- Hotels and Motels
- Light Industrial Properties
- Mobile Home Parks
- Warehouses
- Financial Institutions
- Commercial Real Estate
- Property Managers and Developers
- Shopping Malls
- Undeveloped Land Owners

## What Commercial Lenders Fear Most

- **Loss of Collateral Value**
- **Inability of the borrower to repay the loan due to environmental problems**
- **Liability for environmental conditions at foreclosed properties**

## Secured Creditor

### PROTECTS LENDER

- **Lesser of loan balance or clean-up costs *or* loan balance only**
- **Loan in default accompanied by pollution condition**

## Secured Creditor

- **CERCLA Lender Liability Claims**
- **Third Party Claims for:**
  - Bodily Injury
  - Property Damage
  - Clean-up Costs

## Secured Creditor

### BENEFITS

- › Previously *ASSUMED* risk now can be insured
- › Backed by excellent credit
  - Advantage for indemnity substitution or securitization transaction
- › Moves environmental issue resolution to beginning of loan process

## Applying Coverage: Case Example

### ABC Distribution

ABC Distribution owns three warehouse facilities in Jacksonville, Florida. All three warehouses were purchased from a friend of the family in 1976. ABC currently warehouses and distributes computer equipment to nearby businesses.

**Claim...**an adjacent property owner conducts a Phase II survey prior to occupying an adjacent building. Significant concentrations of heavy metals and solvents are discovered and further investigation shows that contamination is migrating from the ABC Distribution warehouse. Upon discovery, title searches are conducted and it is determined that the ABC Distribution warehouse was utilized from 1962-1976 to manufacture and coat industrial pipe fittings. The site is now listed as a CERCLA site and claims for clean-up and property damage have exceeded \$5,000,000 to date.

## Applying Coverage: Case Example 2

### Johnson Tire, Inc.

Johnson Tire owns 56 retail auto service centers in the southeast. 20 locations are leased and 36 locations are owned. Each location has 1 AST for waste oil, 4 in-ground hydraulic lifts, and no known USTs. Annual revenues are \$31 million, the majority of which comes from the sale and installation of tires. Johnson follows all environmental laws and properly disposes of tires at a recycling center where tires are scraped and used for asphalt paving. Waste oil is recycled at Bob's Recycling.

**Claim...**the recycling facility that Johnson uses to dispose of old tires caught fire in 1999. The fire was fortunately contained and put out by the local fire department, however, waste materials and contaminated water left the site and entered a nearby wetlands area. The clean-up was in excess of the \$1m policy limit held by the recycling center. By order of the EPA, the remainder of the clean-up costs were split between 12 PRPs that shipped tires to the site. Johnson Tire's share was \$125,000.

## Applying Coverage: Case Example 3

### History

A wealthy doctor passed away and left a \$5m inheritance to his family. The inheritance included a high value real property located in Atlanta. The property was previously utilized as a gasoline station and has a known release and associated "environmental liabilities". A large bank is the executor of the will and will not distribute assets until liability is quantified and remediated.

## Applying Coverage: Case Example 3

### Details

- Operated as gas station from 1953-1967. USTs have been removed, no known soil impact above LDL. Groundwater impact in four monitor wells. Benzene concentrations ranging from 3 ppb to 106 ppb. Site currently vacant. Owner is listed as liable party. CAP-A prepared, but not submitted
- Property owner leased property to large oil company. Property owner never owned or operated USTs. (old lease agreements reviewed)
- Prior tenant denies responsibility for release. “We never leased this property and did not own or operate tanks”

## Applying Coverage: Case Example 3

### Underwriting Issues:

- **BTEX, known contamination, further action (if any) yet to be determined**
- **Distance to nearby receptors, water bodies, water wells vs. potential migration of plume**
- **Surrounding environment**
- **Defense Costs**

## Applying Coverage: Case Example 3

### Solution

*Environmental policy was secured to manage outstanding environmental liabilities*

- Coverage including on and off-site CU, BI, and PD resulting from pre-existing conditions
- \$2m/\$2m policy limit
- \$150k SIR/Deductible
- 10 year policy term
- \$96,000 prepaid premium

## Applying Coverage: Case Example 3

### Result

- Current owners were able to prepare property for final sale
- Prospective buyer is comfortable with property. Buyer can be covered under PLL policy
- Bank agreed to release estate funds, excess of deductible

## Key Benefits of Insurance

- Provides a Valuable Risk Management Plan, Including Loss Control Services, Claims-Handling and Risk Finance;
- Protects the bottom line, pollution losses are typically severe;
- Reduces the ultimate cost of Real Estate Transactions by providing certainty;
- Provides protection to the owner, buyer and/or seller for unknown first or third party liabilities;
- Caps costs of known remedial activities, which provides a level of balance sheet certainty;
- Provides loan value protection to the lender.

## For More Information:

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## Speaker Biography

Ted Joy is an environmental underwriter for AIG Environmental in Atlanta. He previously served as senior technical advisor to the Southern States Energy Board, providing strategic planning and technology deployment consulting to State Governors, the U.S. Department of Energy, Department of Defense, Environmental Protection Agency, state regulatory agencies and the energy and environmental technology industries. Ted received an MBA from Georgia State University, bachelor's degree in nuclear engineering from Georgia Tech and has earned the Environmental Risk Manager designation.