MARSH

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NAEM – Adding Business Value through EHS

Calibrating Risk to Spending
Environmental Insurance Trends

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Common Environmental Risk Controls

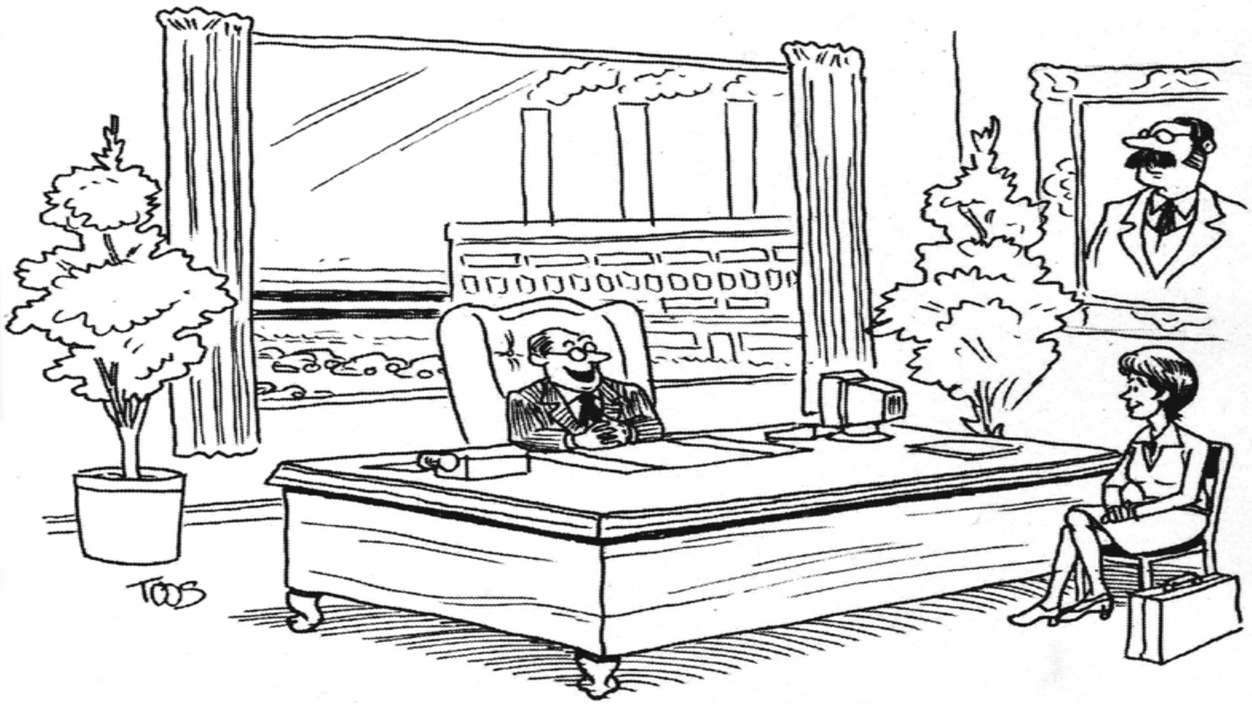
- Operational Approaches
  - Management Systems (BMPs, IT, Compliance Programs)
  - Risk Measurement & Mitigation (i.e., Six Sigma)
  - Education/communication programs
  - Avoidance of Risk (i.e., outsourcing)
  - Due Diligence for property transfers, acquisitions, and divestitures
- Legal Approaches
  - Contractual limitations, indemnifications
  - Regulatory authorizations
- Technical Approaches
  - Technology applications
  - Testing, testing, testing

These Common Risk Controls …

- Generally Attempt to Control Physical Impacts Rather Than Financial Consequences
- Attempt to Impose Control on Factors not Within Direct Managerial Control
  - Perceptions of public, customers
  - Activities of others (i.e., contractors)
  - Regulatory outcomes
- Can be Uneconomical, Impractical and of Little Benefit

Sound Familiar?

Consul"toon"



"What I need is a list of specific unknown problems we will encounter."

September / October 2004 **Consulting**

Types of Specific “Unknown” Environmental Risks

- Regulatory Compliance and Enforcement
  - Status of existing environmental management systems
  - Resource Availability/Efficiency of Operations
  - Emerging Regulation

- Contractual / third party risks
  - Purchase and sale agreements / indemnification
  - Non-owned disposal locations (Superfund liability)
  - Credit risk underlying contract indemnification

- Pollution Stemming from Product Use

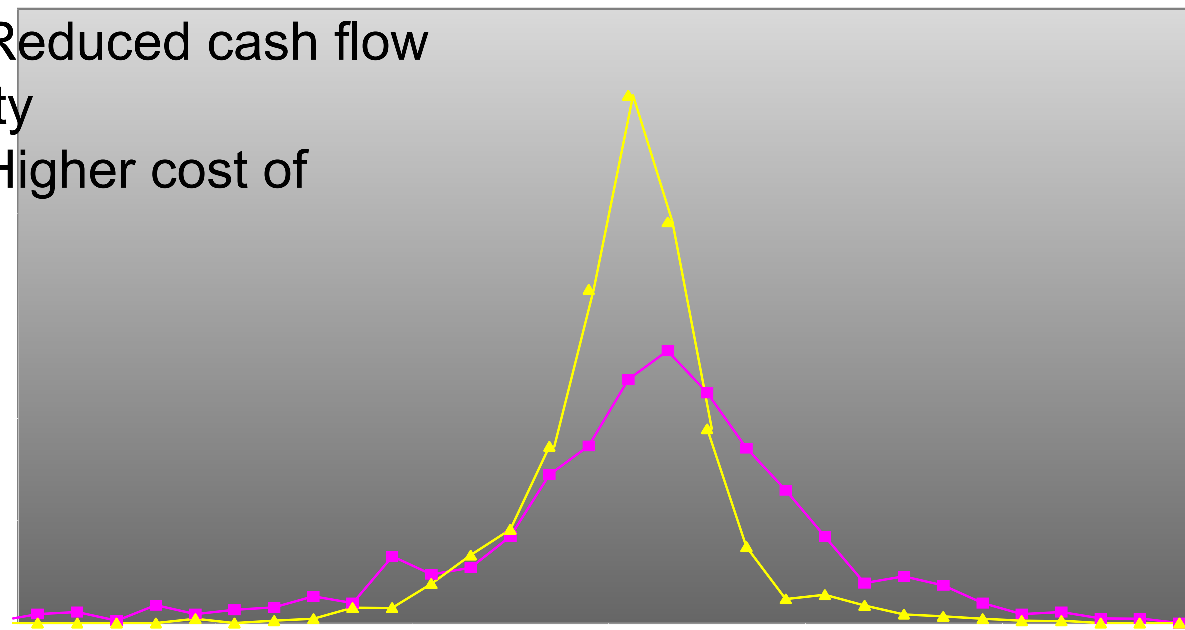
- Liabilities from Legacy Practices/Materials
  - Cleanup
  - Natural Resource Damages

- Inadequate Financial Disclosure/Public Perception

Improving Environmental Performance Provides Bottom Line Benefits

- Direct Cost Reductions
  - Efficiencies
  - Reduced clean-up costs
  - Reduced legal/regulatory costs

- Reduce Risk
  - Reduced cash flow volatility
  - Higher cost of capital



The Impact of Environmental Risk on *Cost of Capital - Example*

- Typical major chemical firm
  - $2 billion market cap
  - 10-50 NPL sites

- For every 10 additional NPL sites; Cost of Capital increases 0.2%-0.4%
- $0.5 - $1.0 million per NPL site
- ***In addition to expected clean-up costs***

"The greater the uncertainty, the more negatively the contingent Superfund liability is valued."

Campbell, Sefcik, and Soderstrom (1998)

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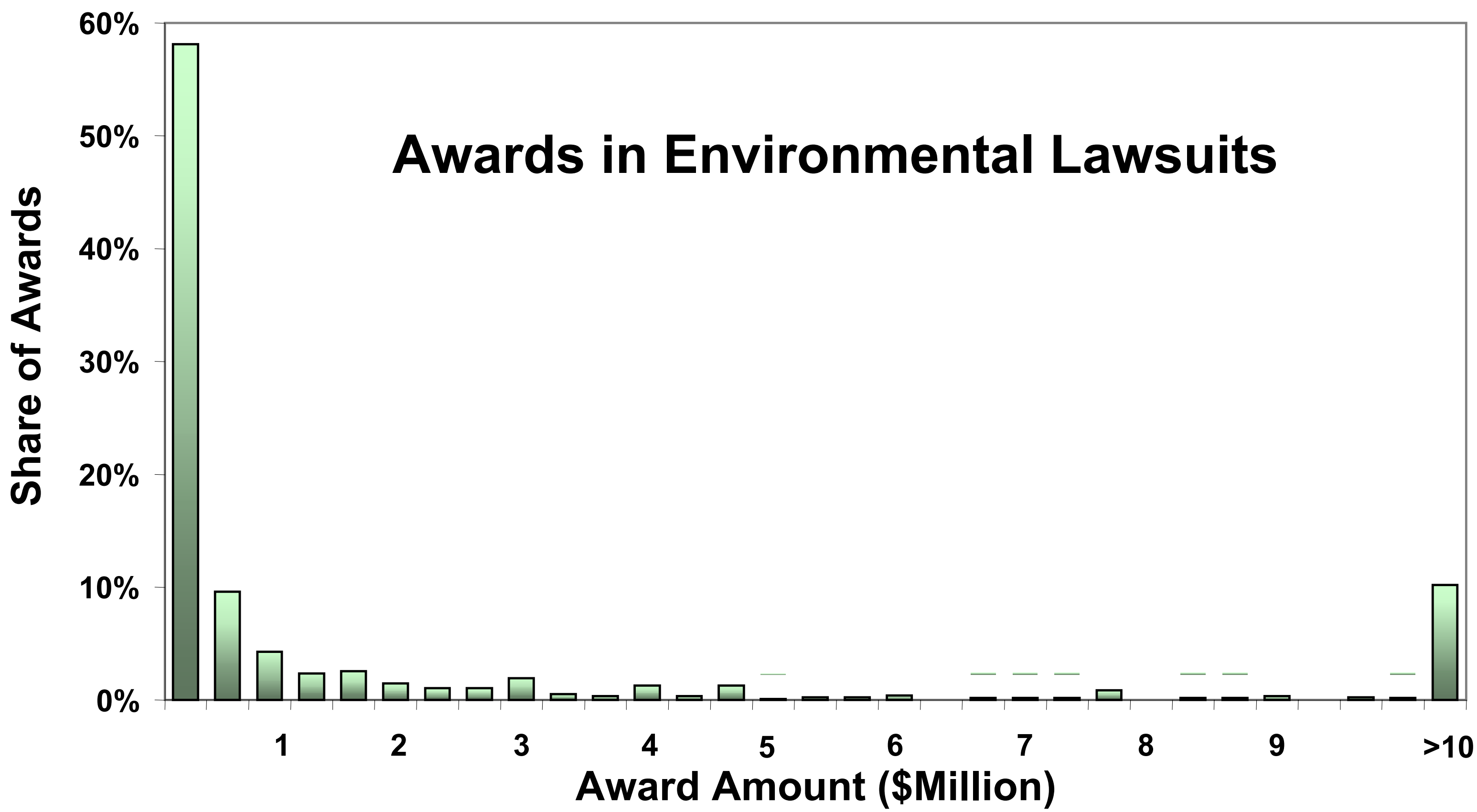
How Do Environmental Issues Lead to Company-Specific Risk?

- **Environmental factors add volatility to a firm's cash flow**
  - Difficult to estimate
  - High chance of significant negative result



Rethinking Environmental Liability

- New Financial Pressures Driving Risk Management
  - Recent GAO report calls for increased scrutiny of environmental risk identification/disclosure
  - Sarbanes-Oxley CFO/CEO certification
  - FIN 45 - Recognition at inception of a guarantee or indemnification a liability for the “fair value” of the obligation prospectively
  - Corporate governance initiatives highlighting management activities
  - Companies are focusing on financial audits, balance sheet cleansing, and portfolio approaches for addressing unknown / contingent liabilities

“Environmental Disclosure: SEC should explore ways to improve tracking and transparency of information”

2004 GAO Report Results

- Previous studies - rules vague and poorly enforced; Congress request for information on current SEC disclosure regulations and status of enforcement and recommendations to enhance disclosure.
- Five Areas of Concern identified on environmental disclosure:
  - Addressing uncertainty regarding likelihood, amount and timing of existing and potential environmental liabilities
  - Determining whether environmental information is material
  - Disclosing future environmental risks
  - Ensuring disclosure of important environmental information
  - Monitoring and enforcing environmental disclosure
- GAO Report Recommendations to SEC:
  - Create searchable database to track environmental liabilities and trends
  - SEC increase working relationship with EPA to apply relevant data
  - Increase public access to disclosure information by posting comment letters and company responses on its Web site – August 2004 filings
  - Establish new Office of Disclosure Standards to oversee recommendations and administration

What risk management techniques are Directors and Officers using now?

- Systematically identifying and quantifying environmental risks and liabilities (including third party liabilities) using consistent and defensible methodologies.

- Evaluating risk management strategies - outsourcing, liability buyout or transfer, insurance and risk financing options, selling surplus properties – continuous analyses.

- Performing “asset recovery” under historical comprehensive Commercial General Liability policies to fulfill the fiduciary duty to the shareholders.

- Increasing reliance on outside independent counsel and external consultants to evaluate internal controls, disclosure procedures, reserve methodology, due diligence, analyze and document material environmental liabilities.
- Integrating risk management, financial reporting and legal compliance into the information management systems.
- Communicating their risk strategies by assuring stakeholders that risks have been identified, contained, managed and reported to investors. Environmental insurance is being used within financial filings to assure shareholders that the environmental liabilities and risks have been properly managed.

New Risks, New Risk Management Options

- Traditional - attempting to impose direct control over external factors
  - Risk management control implementation
  - Liability by/from third parties
  - Reduce perception of risk
- Emerging - managing the financial impact of the risks
  - Financial disclosures
  - Safety net for failure of indemnifications/controls
  - Risk transfer/funding opportunities
  - Future unknowns

Environmental Insurance for Transactions

- Remove significant contingent liability that threatens the M&A transaction and financial models
- Positive disclosures can eliminate the potential for lawsuits to be filed, and if filed can mitigate the impact of such lawsuits and help avoid additional lawsuits from being filed.
- Release balance sheet reserves
- Allows management to focus on business operations
- Develop Risk Management Program for known, contingent, and unknown liabilities
- Develop Exit Strategies for liability buy-out, real estate disposition, etc.

EXAMPLES

Property Portfolio PLL - Chemical Manufacturing

- **Background**
  - 60 Properties Worldwide
  - Client in Proactive Acquisition Mode
  - Client previously purchased one-off PLL Policies
  - Client desired more comprehensive solution
- **Insurance Structure**
  - Created Master PLL Policy
  - Covered existing and new sites as acquired
  - Reduced “per location cost” and portfolio approach allowed broader coverage to obtained

Premium	Term	Policy Limits	Deductible	
$2.2M	10 Years	25M/ 25M	$100K	

Plastics Manufacture - Risk Quantification followed by Environmental Placement

- Problem
  - Client recently acquired two plastics manufacturing facilities in New England; both had environmental contamination issues;
  - Client concerned about financial wherewithal of Seller and strength of Seller's indemnity;
  - Client wanted to understand cost / likelihood of any environmental remediation to factor into business decision process; i.e., take title of properties or not.
- Solution
  - Performed document review, decision tree analysis, actuarial modeling, determined expected outcome and probability level.
  - Used results to set deductible levels for insurance coverage for known conditions, remove exclusions for certain contaminants

Premium	Term	Policy Limits	Deductible	
$380,000	10 Years	10M/ 10M	$100K	

Liability Buyout – Natural Gas Transmission

- Exposure Definition
  - 36 Properties with $10 Million in Known Environmental Liabilities
  - Client Interested in Packaging Risk, Taking Liability out of Sale of Business
  - Natural Gas Distribution / Transfer / Storage Facilities
  - Risk Sold to Buyout Contractor & Insurance Carrier
- Insurance Structure
  - Blended Finite Structure with PLL / Cost Cap, Exit Strategy Contract and Insuring Agreement must be in Sync

Premium	Term	Policy Limits	Deductible	
$10M	15 Years	20M/20M	$50K	