Environmental Liability Cost Estimation

The importance of reliable environmental cost estimation continues to increase in today’s competitive world. Generally Accepted Accounting Procedures (GAAP) related to environmental liabilities have been changing rapidly in recent years (see below), and requirements for public reporting have become more stringent under the Sarbanes-Oxley Act of 2002. For example, many companies are grappling with the requirement to report contingent asset retirement obligations at “fair” value under Financial Accounting Standards Board (FASB) Financial Accounting Statement (FAS) 143 and FASB Interpretation (FIN) 47. Companies are also anticipating the impacts of the requirement to explicitly recognize and report liabilities associated with acquisitions at “fair” value under exposure draft FAS 141. Even the longstanding FAS 5 rules governing remediation accruals are currently under review, which require companies to focus attention on estimating the often uncertain liabilities associated with environmental quality issues.

Key Issues

Liability Accrual and Reserve Estimation
- How should fair value be estimated?
- Are potential liabilities probable and can they be reasonably estimated?
- Are estimation methods consistent across sites in a portfolio?
- What asset retirement liabilities need to be reported?
- How certain are the liability estimates?

Risk Management
- What is the best way to characterize uncertainties?
- Are liability estimates adequately justified?

Services
- Liability accrual reserve estimation
- Asset retirement obligation identification and estimation
- Multi-party cost allocation or cash-out value estimation
- Merger and acquisition liability estimation
- Economic liability uncertainty analysis
- Environmental insurance analysis
- Insurance cost recovery claims support
- Site portfolio management and strategy development
Illustrative Projects

Environmental Reserve Estimation. Gradient estimates annually the environmental reserves for 8 international manufacturing sites on behalf of a large pharmaceutical company. We created an environmental reserve estimation template, tailored to site-specific needs, which was subsequently adopted by the client for use at all sites worldwide.

Insurance Settlement Liability Estimation. For a large chemical manufacturing company, Gradient developed environmental liability estimates for 20 manufacturing facilities and supported settlement negotiations with secondary insurance carriers. Site summaries detailing past operations, environmental investigations, remediation activities, and future liabilities at each site were prepared.

Liability Estimation for Property Portfolio Divestiture. Gradient provided technical and strategic settlement support for a property divestiture involving 45 gas compressor stations in Texas and Oklahoma, which were impacted with PCBs and petroleum hydrocarbons. We evaluated the investigation and remediation reports, developed reasonable and defensible cleanup levels and costs, participated in face-to-face negotiations, and testified in arbitration hearings on the level of PCB remediation required by regulations. Gradient’s work helped our client obtain a favorable settlement with the purchaser.

Liability Estimation for Property Portfolio Purchase. Gradient created a protocol, appropriate for international application, to quickly screen chemicals and exposure pathways at 8 international pesticide manufacturing plants so our client could focus on issues of greatest potential concern. For each site, we performed groundwater modeling to predict future conditions, assessed risks, and evaluated potential remedial alternatives to understand and minimize our client’s future liability. Our client purchased the properties at a fair price with full knowledge of current environmental liabilities and a clearly defined path for future site work.

Liability Estimation for Single Property Divestiture. For an international corporation, Gradient evaluated the environmental liability associated with a chemical plant offered for sale. We assessed human health risks associated with different future use scenarios, calculated risk-based remediation cleanup goals, and estimated the remedial costs to achieve those cleanup goals. Gradient’s analysis enabled our client to negotiate a sale for fair market value, with full knowledge of the potential environmental liability cost.

Gradient is an environmental and risk science consulting firm renowned for our specialties in Toxicology, Epidemiology, Risk Assessment, Product Safety, Contaminant Fate and Transport, and Environmental Chemistry. We employ sound science to assist national and global clients in resolving their complex problems relating to chemicals in the environment, in the workplace, and in consumer products.

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