dpSTUDIO
environmental consulting & design

Issue No. 13 | Fall 2019 **Is It a REC? – Environmental Cost Estimating**

Aside from impacts to human health and the environment, often one of the primary concerns to a purchaser of property with real or perceived environmental contamination is cost. If the prospective purchaser is not concerned with the expense of environmental cleanup, regulatory response, or third party liability, then his or her lender most likely will be.

When conducting a Phase I environmental site assessment (ESA) in compliance with the ASTM International Standard Practice E1527-13 and EPA's All Appropriate Inquiry (AAI), the Environmental Professional (EP) needs to consider the relationship of the purchase price of a commercial property to the fair market value of the property if it was not contaminated. This requirement is passed onto the user of the Phase I to try to identify an explanation for a lower price that does not reflect fair market value. In order to fully comply with AAI and qualify for innocent landowner defense under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the user is required to answer, among others, the following question:

> *"Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?"*

Right at the start of the Phase I process, it is therefore incumbent on the user and their hired EP to consider the costs of any relevant recognized environment conditions or business environmental risk.

When ESAs are done for the benefit of, or requested by, a lender, cost concerns will go beyond CERCLA. A bank's underwriting process will consider environmental liabilities, and the Phase I or follow-up Phase II will assist in determining the "book" value or appraised value of a property. This process considers cash flow and Loan to Value ratio where environmental liabilities must be addressed and/or the property is re-purposed from its past use. For liabilities not addressed before closing, the EP can be asked to develop a cost to address the issues so the lender can "hold back" sufficient funds for the work.

For mergers and acquisitions involving industrial and commercial property, the business may not be repurposed, but the spending records and environmental compliance budget will be a factor, as will environmental liabilities. Again, the Phase I/Phase II process will not only be relied upon for innocent landowner defense, but also to assist in the business valuation. This may include identified RECs with associated costs to maintain or remediate, or which may be settled in a price negotiation between the buyer and seller. In these scenarios, any environmental requirements may greatly impact the buyer's costs and loan amounts, including what funds will need to be escrowed for future liabilities.

But EPs are not Bankers…

Since Environmental Professionals and consultants do not have extensive financial training, or access to all financial related information in a transaction, luckily there is available guidance to help better support businesses and their lenders on environmental issues.

5 Types of Environmental Liabilities	Examples of Associated Environmental Issues
Asset Retirement Obligations	Underground storage tank removal; asbestos/lead paint abatement; decommissioning & demolition; landfill closure
Environmental Obligations	Spill cleanup; Administrative Order on Consent; Notice of Violation; RCRA Permit; Discharge Permit; Soil & Groundwater remediation
Commitments	Leases; Contracts; Purchase & Sales agreements; Potentially Responsible Party (PRP) agreements
Contingencies	State re-opening of a Federal site; Litigation outcome; Offsite ecological resources; Natural Resource Damage Assessments (NRDA)
Guarantees	RCRA/CERCLA financial assurance; Joint/Several Liability

ASTM Standards Dealing with Environmental Liabilities

ASTM E2137 – Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters

First published in 2001 and with a substantial update in 2017, this standard provides a framework to identify environmental liabilities and apply relevant costs. The proposed process is to first identify the purpose or objective of the estimate, which sometimes goes beyond the environmental site assessment process. In addition to applying costs during due diligence for acquisitions and divestitures, different scenarios may be considered when making a specific business decision, optimizing a portfolio of properties, litigating cost recovery, analyzing remediation alternatives, and others.

E2137 then considers what relevant information is available, such as documents and accounting data, and guides the user to select an approach for the estimate considering the purpose, available information, and sources of uncertainty. The Standard and its Appendices also provide example lists of environmental costs and triggers of liability, listing some fairly comprehensive considerations such as costs for business interruption and legal defense along with the more common costs for environmental response and compliance. The provided hierarchy of estimation approaches is particularly useful, showing the applicability of a range of approaches, see below.

Hierarchy of Estimation Approaches – ASTM E2137

Increasing Comprehensiveness ↑	Quoted Price	Market price with least uncertainty
	Expected Value	Mean value of an unknown cost
	Most Likely Value & Range of Values	Engineering estimates of most likely scenario
	Known Minimum Value	Difficult to defend & justify over time
	No Estimate	Usually inappropriate

The Guidance also provides examples of the Expected Value Approach, particularly useful in situations where a quoted price is more difficult to pinpoint. For example, consider a scenario where you have identified a release at your subject property, say a leaking UST, and you need a cost estimate for relevant cleanup action.

ASTM E2137 might help you to walk through the cost estimate process as follows:

- **Site Media** – Soil
- **Uncertainty** - what is extent of contamination? i.e., Shallow (upper 3 feet) or Deeper (greater than 6 feet).
- **Negotiation** – what cleanup level will a regulator agree to, for example Generic cleanup goals or a Risk-based goal derived from risk tables or a risk assessment (Hint: it is not always obvious which is the cheaper option).
- **Decision** – then for each of the four options (Generic or Risk-based cleanup for shallow contamination, and same for deeper contamination) consider a treatment or disposal technology (for example, landfill or soil vapor extraction).
- **Calculated Costs** – with two cleanup technologies for each of your four contamination options, you now have eight cost scenarios from which to derive a range of values, say for example $25,000 for soil vapor extraction of shallow soils, up to $200,000 if excavation and landfilling is applied to remediate deeper soils to the strictest cleanup goal.

Complexities can then be more accurately considered, for example is time of the essence for cleanup, or if a certain remedy fails what is the added cost to switch mid-project to another option.

ASTM E2173 – Standard Guide for Disclosure of Environmental Matters

This Guidance also was extensively updated (2016) and does a better job of marrying the major federal environmental legislation with some key environmental accounting and disclosure procedures from the Government Accounting Standards Board (GASB) and Financial Accounting Standards Board (FASB). An important benefit of the Guidance is to differentiate the five types of environmental liabilities instead of one, allowing more standard terminology and applicability among the environmental and accounting professions. Information from disclosures in financial statements and corporate reports can be discerned more easily, and environmental professionals as well as M&A advisors can compare what a company designates as an environmental liability (the "Booked" value) to its Market value, or more simply stated, "what is it really going to cost?"

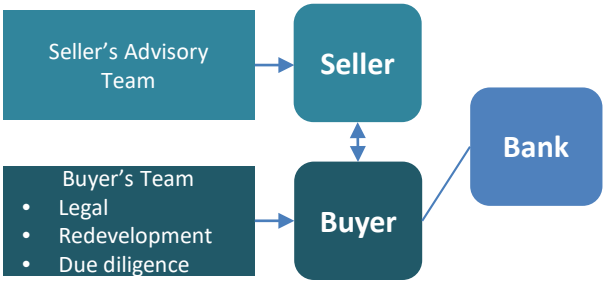
ASTM E3128 – Recognition and Derecognition of Environmental Liabilities

This new Guidance, published in 2018, provides instructions to companies and their financial and environmental advisors to identify and quantify environmental liabilities. The five main types of liabilities (see Page 1) are defined and expanded upon to reduce potential for gaps between booked value and market value of environmental liabilities addressed in E2173.

While some of the analyses discussed in E3123 can go beyond the scope of a typical Phase I/Phase II ESA, standardizing some of these issues will at least call attention to the appropriate environmental liabilities. At the very least, this helps to reduce potential for dispute in M&A transactions; situations where environmental liabilities are to be transferred; bankruptcies; and other aspects of property valuation and transfer. Another benefit is to avoid the "dueling Phase I" approach. If a seller provides an existing Phase I ESA at time of sale that uses standard costing procedures, then a Phase I prepared by a buyer's consultant is more likely to agree and match up with estimates of environmental costs.

SBA Lending has a Say in Environmental Cost Estimating

Going back to lender concerns for a moment, banks will often follow Small Business Administration (SBA) Standard Operating Procedures when servicing loans and liquidations of real property. Guidance includes SOP 50 57 2, whose Chapter 5 outlines Environmental Risk Management requirements; and SOP 50 10 5 (J), which includes Subpart C, Chapter 3 on "Collateral, Appraisals and Environmental Policies." Both SOPs direct the EP to ASTM E2137 to develop environmental remediation costs. Even if SBA is not involved in the loan process, banks will have their own internal procedures to follow. If remediation is recommended, the EP should be prepared to provide and verify any documents that describe the recommended action and cost of remediation along with expected completion date. The party responsible for cleanup will need to be identified and demonstrate the ability to pay for the remediation. If remediation is to be ongoing, the EP will be asked to document future costs. When calculating environmental liability costs that will extend into the future, remember to consider economic factors like inflation, and set aside enough money at the start of the activity to ensure funds last for its duration.



CERCLA 113 (f)

The findings of the Phase I/Phase II may show that environmental liabilities involve multiple parties. Can associated costs for cleanup be apportioned among the parties, and how is this done fairly? Section 113 (f) of CERCLA allows a party who has borne its fair share of such costs to seek contribution from other responsible parties. Here the EP can apply factors known as the "Gore Factors", named for then-Congressman Al Gore who unsuccessfully proposed them as an amendment to CERCLA in 1980. The six Gore Factors (paraphrased) are:

1. Distinguishable discharge, release, or disposal;
2. The amount of hazardous waste involved;
3. The degree of toxicity of the hazardous waste involved;
4. The degree of involvement in the generation, transportation, treatment, storage, or disposal;
5. The degree of care exercised; and
6. The degree of cooperation by the parties with federal, state, or local officials to prevent any harm to the public health or environment.

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