

# **Environmental Site Assessments**

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This article provides an introduction to Environmental Site Assessments (ESA), with a primary focus on the Phase I ESA. Included are a section on background, purpose of a Phase I ESA, industry standards on conducting a Phase I ESA, Phase II ESA, additional environmental actions, how to identify a qualified ESA consultant, and the reasons for hiring a professional. Hopefully, the information provided herein will aid environmental professionals and users of ESA's in their understanding of the ESA process.

## **Background**

During the past two decades, environmental regulations have been developed that impact many aspects of our daily lives and the way we conduct business. The catalyst for these regulations has been the protection of human health and the environment. For the most part, these regulations are developed at the federal level and implemented by federal, state, and local officials, with penalties for violations including fines and criminal punishment.

The body of environmental legislation and associated regulations have resulted in many businesses, financial institutions, building owners, and tenants involved in property transactions being named as potentially responsible parties (PRP's) who may be liable for the entire cost of an environmental clean-up (remediation). Environmental regulations may also target the individual as a PRP. In order to minimize this liability exposure, it quickly became apparent that a professional review of current and past property uses was necessary. Early on, this method of limiting liability was recognized as a "due diligence" process under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, a.k.a. Superfund, 40 CFR Part 300). Although this process was intended as a Superfund defense, the ESA has become the de facto method of conducting environmental due diligence for commercial property transactions.

## **Purpose of a Phase I ESA**

Phase I ESA's involve research into the history of a property to determine if hazardous substances or petroleum products have likely been released into soil, groundwater, or structures on site. These assessments have become a routine part of the due diligence process prior to commercial real-estate transactions. Lenders, realtors, and attorneys generally require that a Phase I ESA be conducted on all commercial real-estate transactions above a threshold dollar amount.

The rationale for conducting a Phase I ESA has historically been one or more of the following:

1. To satisfy CERCLA appropriate inquiry requirements for the "innocent landowner" defense, should contamination be found on the property at some time in the future;
2. To evaluate business environmental risk, defined by the American Society of Testing and Materials

(ASTM) as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate...;"

3. As a common-sense practice to determine the likelihood of soil or groundwater contamination or of contamination within an existing structure on a property. The presence of any such contamination could devalue a property or incur future liability for the property owner. Accordingly, many prospective purchasers back out of real-estate deals if contamination is discovered on a property prior to closing.

Two major federal environmental statutes, CERCLA and the Resource Conservation and Recovery Act (RCRA), while not requiring that a site assessment be conducted, provide for severe penalties for those who own or control contaminated properties, as well as those who contaminate properties. Promulgated in January 2002, the Small Business Liability Relief and Brownfields Revitalization Act (the Federal Brownfields Law) defined two new categories of liability protection for landowners, in addition to the innocent landowner category defined in CERCLA.

CERCLA deals primarily with property which is suspected of, or known to be contaminated. This legislation enables the federal government to respond to actual or threatened releases or hazardous substances, to abate these releases, and to recover damages from PRP's. Many contaminated properties identified as Superfund sites have become mired in litigation as multiple PRP's involved in the clean-up of these sites battle to determine their share of responsibility. Some of these parties may have long ago removed themselves from using the property or contributing to its impairment or may not have been involved in any illegal activity at the time of the property's contamination. However, under CERCLA, those parties may be just as liable for clean-up costs as the most recent perpetrator of environmental contamination.

The federal government enacted CERCLA in 1980. If you own or have ever owned a property that is presently contaminated, you may be designated as a PRP under the CERCLA regulations. Being designated as a PRP means you may be financially responsible for the clean-up costs of environmental contamination you did not create. That means that if you acquire property without performing due diligence that discloses the environmental concerns, then you as the new owner can acquire those environmental liabilities and the responsibility to pay for the costs related to the clean-up.

CERCLA provides for an "innocent landowner" defense against environmental liability. Some states, like North Dakota, have extended the innocent landowner provisions to include petroleum products, expanding upon the federal hazardous substances list. To invoke the innocent landowner defense, you must show you made an effort "consistent with good customary or commercial practice" to research the past ownership and uses of a property prior to purchasing that property. This effort is known as "appropriate inquiry."

RCRA deals primarily with the present-day activities on a property, and addresses waste generation, treatment, storage, and disposal. In addition, underground storage tanks (USTs) are regulated under Subtitle I of RCRA.

The Federal Brownfields Law adds two new categories to CERCLA environmental-liability protection for landowners, in addition to the current innocent landowner defense:

1. *Bona Fide Prospective Purchaser Defense*: For the first time, a purchaser who knowingly purchases a contaminated property will receive liability protection provided the purchaser-turned-owner can demonstrate on-site contamination occurred prior to purchase.
2. *Contiguous Property Owner Defense*: A property owner will receive liability protection provided contamination migrated on site from an adjoining property and the owner demonstrates that he/she had no knowledge of the contamination when the property was purchased.

To be eligible for the two new categories of landowner protection, a Phase I ESA must be conducted in accordance with the EPA's new all-appropriate-inquiry (AAI) rule, expected to be finalized in late 2005. The AAI rule is discussed in more detail in the following section.

### **Industry Standards for Conducting a Phase I ESA**

Terminology related to ESA's can be very confusing. The various aspects of environmental inquiry into the history of a property have been assigned different terms by industry practice, regulatory structure, and professional organizations. The result is that while someone working in State A may refer to one particular scope of work services as preliminary site assessment, someone else in State B may refer to the same scope of services as a Phase I Site Assessment. Still others may refer to the same activity as an environmental audit.

An environmental audit, also known as a regulatory compliance audit, is a separate and distinct activity. The audit typically involves assessing the facility's operations to determine if they are in compliance with applicable regulations. An audit is often much more stringent and labor intensive than a Phase I ESA.

A Phase I ESA typically involves researching a property's history for potential or real liability issues and focuses on identifying potential or known environmental impairment.

#### ***ASTM E-1527-00***

ASTM has developed a standard for Phase I ESA's written to satisfy the CERCLA appropriate inquiry requirement. The ASTM standard is the most widely accepted nationwide protocol for environmental assessment of commercial properties and seeks to identify "recognized environmental conditions" on a property (known in the consulting industry as REC's). The most current ASTM standard for Phase I ESA's is entitled *ASTM E 1527-00, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.

The ASTM Phase I standard typically includes the following tasks:

- Site Reconnaissance
- Regulatory-Database Review
- Interviews with Knowledgeable Individuals
- Historical-Land-Title-Records Review
- Historical-Aerial-Photograph Review
- Topographic-Map Review

- Review of Regional and Local Geology
- Review of Regional and Local Soil Conditions
- Preparation of a Report Containing Findings and Opinion of Environmental Professional

The standard scope of *E 1527-00* addresses only contaminants within the scope of CERCLA and petroleum products. Typically, no sampling of soil, groundwater, or building materials are conducted within the standard scope of a Phase I ESA. However, concerns about business environmental risk frequently expand the standard scope. Standard non-scope considerations which the user may wish to assess as additional issues include:

- Asbestos-Containing Materials
- Radon
- Lead-Based Paint
- Lead in Drinking Water
- Wetlands
- Regulatory Compliance
- Cultural and Historic Resources
- Industrial Hygiene
- Health and Safety
- Ecological Resources
- Endangered Species
- Indoor Air Quality, and
- High Voltage Power Lines

#### ***ASTM E 1528-00***

ASTM has published a standard for conducting a minimal environmental investigation designated *ASTM E 1528-00, Standard Practice for Environmental Site Assessments: Transaction Screen Process*. Transaction Screens are designed to be conducted by someone other than an environmental professional, and the process does not require the information gathered to be presented in a formal report, or that any conclusions or opinions be provided. Transaction Screens are typically performed on low dollar value properties and/or on properties where an owner/operator believes that environmental impairment is not likely to be a factor. Such properties include undeveloped sites or those with low-cap loans. This level of ESA typically involves having owners and operators of the subject property complete a questionnaire, perform a site visit to ascertain the subject property's and adjoining property's uses, and perform a search of government records and historical sources. The Transaction Screen is just that, a screening tool that asks critical questions. If the questions cannot be adequately addressed within the Transaction Screen, then a full-blown Phase I ESA is appropriate.

#### ***EPA All-Appropriate-Inquiry Rule (AAI): 40 CFR 312***

The Federal Brownfields Law referenced earlier in this article will change the way all-appropriate-inquiry, and hence Phase I ESA's, are conducted in the United States. The law is an attempt to encourage redevelopment of known contaminated properties, called "brownfields." As a result, the first federal

standards for all-appropriate-inquiry, called AAI, have started to emerge. After the final AAI rule is promulgated, any Phase I ESA must meet the minimum standards in AAI if it is to provide environmental-liability protection under CERCLA.

The draft proposed AAI rule was published in the Federal Register on August 26, 2004, as *40 CFR 312, Standards and Practices for All Appropriate Inquiries and Notice of Public Meeting to Discuss Standards and Practices for All Appropriate Inquiry Proposed Rules*. The public comment period ended on November 30, 2004. The EPA is targeting late 2005 to promulgate the final AAI rule.

The proposed AAI rule is similar to ASTM E-1527 in several regards, but generally requires a higher level of inquiry than the ASTM standard. Perhaps most notably, a Phase I ESA must be conducted under the supervision of an environmental professional (EP) who must meet specific requirements. The ASTM standard's definition of an EP is relatively vague:

[An environmental professional is] "a person possessing sufficient training and experience necessary to conduct a site reconnaissance, interviews, and other activities in accordance with this practice, and from the information generated by such activities, having the ability to develop opinions and conclusions regarding recognized environmental conditions in connection with the property in question."

The EP requirements in the proposed AAI rule are much more specific:

- Professional Engineer (P.E.). or Professional Geologist (P.G.) registration and 3 years relevant experience; or,
- Federal or state license/certification to perform environmental inquiries and 3 years relevant experience; or,
- B.A./B.S. degree or higher in relevant discipline (engineering, environmental science, earth science) and 5 years relevant experience; or
- B.A./B.S. degree or higher (grandfather clause) and 10 years relevant experience.

According to the EPA preamble to the AAI rule, the site visit must be conducted by the EP. Other Phase I tasks may be conducted by someone other than an EP, provided that person is under the direct supervision of an EP.

The AAI rule differs from the ASTM standard in other areas as well. Among those differences, AAI requires:

- Research into local and tribal records;
- Research into activity use limitations (AUL's) on the subject property and all properties within a one-half-mile radius. AUL's include institutional controls restricting certain activities on a property because of environmental concerns; and engineering controls which consist of signs and physical barriers designed to prevent exposure to hazardous wastes left on a property.

Promulgation of the final AAI rule does not necessarily mean the ASTM standards will become obsolete. ASTM Committee E 50 is currently working on revisions to the current standard of *ASTM E 1527* to

bring it in compliance with the AAI rule. If EPA determines the revised ASTM standard, expected to be named *ASTM E 1527-04*, is as stringent as the final AAI rule, then EPA will recognize the ASTM standard as meeting the requirements of AAI. In this eventuality, ASTM would remain the industry standard for CERCLA due diligence as well as for evaluating business environmental risk.

Once the final AAI rule is promulgated, the ASTM Transaction Screen would cease to become an effective tool for protection against CERCLA liability and would likely be used for evaluating business environmental risk on properties where a lower level of assessment is applicable.

### ***ISO 14015***

The International Organization for Standardization (ISO) finalized its own environmental assessment standard, *ISO 14015 – Environmental Assessments of Sites and Organizations (EASO)* in November 2001. Whereas much of the ASTM E 1527 standard is CERCLA driven to identify soil and groundwater contamination, *ISO 14015* requires identification of potential impacts from all possible media, including air. *ISO 14015* is designed to assess organizations along with individual sites. Otherwise, *ISO 14015* roughly follows the ASTM standard. *ISO 14015* largely arose from the desire of multi-national corporations to adopt an international standard to aid in mergers, acquisitions, and real-estate deals.

### **Phase II ESA**

Recognized environmental conditions identified in a Phase I may trigger a Phase II ESA. The Phase II process typically includes sampling and laboratory analysis of different media, as deemed necessary based on the findings of the Phase I ESA or by a regulatory agency, including but not limited to building materials, indoor air, soils, ground water, surface water, and ambient air. The data gathered is compared to existing environmental and human health standards to determine the site's environmental and public health risks and potential remediation strategies. Several standards exist for conducting Phase II ESA's, including *ASTM E 1903, Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process*. Be aware of regulatory standards which may be applicable to the type of Phase II being conducted.

### **Additional Environmental Actions**

Following the Phase II ESA, further studies may be required to determine the extent of any environmental impact, to explore alternative methods of abatement or remediation, and to develop cost estimates of the various abatement or remediation alternatives. Upon completion of these studies, abatement or remediation activity is often initiated.

Another type of work that may be required, especially if significant federal dollars are involved, are Environmental Assessments and/or Environmental Impact Statements performed under the National Environmental Policy Act (NEPA). These are usually very large projects, with specific scope of work defined by the guiding regulatory agency. But, occasionally a NEPA checklist will be requested to be completed along with an ASTM ESA. These are usually easy to complete, and like a Transaction Screen, are a screening tool to determine whether additional information is required.

In addition to protocols and standards mentioned above, many state legislatures and state bar associations have developed site assessment standards which must be met when addressing environmental concerns

in those states. It is important for the environmental professional to be aware of any state and/or local requirements that may apply. Please contact a state's environmental regulatory offices to determine if they are aware if there are state or local requirements for conducting ESA's.

### **How to Identify a Qualified Consultant**

Within the last several years, the environmental-consulting market has become saturated with would-be providers of Phase I ESA's. This saturated market has produced a competitive atmosphere in which high-volume, low-quality consulting has become prevalent. As a result, the environmental-consulting industry is rife with shoddiness, incompetence, and outright dishonesty. Many firms agree to conduct Phase I's at rock-bottom prices with the intent of recommending a Phase II ESA, regardless of actual site conditions. Also, there are firms that mean well, but you cannot buy a standard and start performing this type of work without appropriate training.

Qualified firms with integrity will not choose to engage in dishonest practices or to compromise on quality. When choosing a consulting firm, it is strongly recommended to ask the following important questions:

1. Do they carry an Errors and Omissions (E&O) policy, along with general liability?
2. What are their policy liability limits? At least \$1,000,000 per claim is the industry minimum standard.
3. Are they insured by an A-rated insurance firm?
4. Can they provide a minimum of five references relative to the type or work for which they are being considered?
5. Can they provide a sample report?

Also, some individuals or firms incorrectly believe that only registered geologists or engineers are qualified to perform ESA's. These registrations do not ensure knowledge of environmental issues. However, having your ESA conducted by a registered professional with a proven environmental background can indeed provide confidence your consultant is not taking a superficial approach to conducting your Phase I.

Most environmental firms are staffed with civil or geotechnical engineers or geologists. They can be trained to do environmental work, as can other professionals. It is important that the ESA consultant is not shortsighted and focused too heavily on soil or groundwater conditions, thus overlooking internal processes or building materials. In general, ESA reports do not require a professional engineer's or geologist's stamp.

The best staff are scientists (life or earth) and engineers that are trained in multiple disciplines. For instance, it is a good idea to ask that a Certified Asbestos Inspector/Management Planner be leading an ESA if the property is older, or the scope has been expanded to include a visual survey to determine the presence of potential asbestos-containing material. Be aware it is against federal law for non-certified staff to make any determinations, whether visual or with samples regarding the potential or actual presence of asbestos in buildings.

Another problem in the environmental industry is the over-reliance upon government record searches

from national database vendors. Government record searches (GRS) base their information on publicly-available state and federal databases. However, some states do not compile their records in compatible electronic formats or regularly update their information. Another problem is that many consultants will reference a GRS without reviewing the GRS and evaluating its accuracy. To as great an extent as reasonably possible, information on the GRS should be verified during the site reconnaissance. Ultimately, if an environmental consultant cuts corners by relying on an inadequate GRS, that consultant may be liable due to recognized environmental conditions that were missed during the ESA.

### **Hire a Professional**

An important rule to remember: An ESA should be regarded as a professional service, not as a commodity to be obtained at the lowest possible price.

The greater the number of commercial properties you purchase, the greater the likelihood you will unknowingly purchase a contaminated property. The greater the level of assessment and expertise that goes into your ESA, the greater the likelihood you will satisfy the requirements for appropriate inquiry.

Even a seemingly clean, undeveloped rural property can have hidden environmental issues associated with it. Past dumping or burying of hazardous materials on-site, or groundwater contamination from a nearby landfill or industrial facility are very real possibilities. Use of an ESA provider who has an overly hurried, superficial approach to the ESA process increases the likelihood of future environmental liabilities.

In summary, it is a good, conservative business decision to have your ESA conducted by an experienced and diligent professional. Select your provider on qualifications first, then negotiate the price afterwards.

For more information, the following web addresses are provided:

American Society of Testing and Materials (ASTM): <http://www.astm.org/>

Environmental Advantage, Inc.: <http://www.envadv.com/phase1.html>

EPA AAI Rule: <http://www.epa.gov/brownfields/regneg.htm>

EPA Brownfields Law: <http://www.epa.gov/brownfields/sblbra.htm>

International Organization for Standardization (ISO): <http://www.iso.org/>

Return to EIA Web Site: <http://www.eia-usa.org/>