

**ASTM INTERNATIONAL
PHASE I AND II ENVIRONMENTAL SITE ASSESSMENTS:
INTERNATIONAL IMPLICATIONS**

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Abstract

ASTM International (formerly *American Society for Testing and Materials*) has been developing voluntary consensus standards for over a century. Government, industry, academia and consumers world wide have accepted and utilized these standards to guide in research, design, manufacturing, marketing and trade. With the development of the Phase I (standard practice), and Phase II (standard guide) Environmental Site Assessment standards (E 1527-00/E 1528-00 and E 1903-97), ASTM provided environmental professionals with the necessary tools to assess commercial real estate prior to acquisition. Although originally designed to define certain criteria in the United States under CERCLA (Comprehensive Environmental Response Compensation and Liability Act), the Phase I process has been adopted world wide as a useful environmental assessment tool. The standard practice outlined in the Phase I process is applicable for many types of commercial properties. It has become very useful in addressing “business environmental risk” associated with commercial real estate acquisition. The Phase II process has provided for continuation of assessments initiated during the Phase I by providing a “guide” on how to assess and evaluate recognized environmental conditions identified therein.

Introduction

From its inception (1898), ASTM’s method of developing standards has been based on consensus without borders. The global marketplace has resulted in more than 40 percent of ASTM standards being sold outside the United States. ASTM meets all basic criteria for an international standards developing organization as outlined in Annex 4 of the Triennial Review of the World Trade Organization’s Technical Barriers to Trade Agreement (WTO/TBT). Both the U.S. National Standards Strategy and the WTO/TBT state that international standardization can be more effective through the support of sector-driven standards and observance of basic principles of standards development. With over 11,000 ASTM voluntary consensus standards available as a result of the work completed by 32,000 members (over 4,000 international members) ASTM has emerged as an important force in standards development. ASTM is organized into 130 technical committees and 2,100 subcommittees that take on a wide variety of standards. ASTM Subcommittee E-50.02 was given the task of developing environmental site assessments for the

purpose of codifying good commercial and customary practice, due diligence principles, and all appropriate inquiry. ASTM was selected to develop environmental standards due to their history, voluntary consensus process, broad industry participation, and a process recognized by the legal system.

The resulting standard, E-1527 Phase I Environmental Site Assessment-ESA (1), developed in 1993, has become the number one selling standard in ASTM history. This demonstrates the interest in environmental assessments. E 1903-97 Phase II (2) was developed as a standard guide for the sampling and associated investigations following the completion of the Phase I ESA. This paper will focus primarily on the Phase I ESA. ASTM standard E-1528 Transaction Screen process is a companion to E-1527. It has the same goal, to identify RECs, but utilizes a “questionnaire” with no opinion by an Environmental Professional and with no written report.

Methods

The ASTM process involves users, producers and general interest groups. These entities form into subcommittees and task groups. A multi-task drafting process is utilized with a unanimous balloting procedure, including periodic review and amendments required. Subcommittee E-50.02 proposed to codify ‘appropriate inquiry’ as reflected in ‘good commercial and customary practice’ by developing a minimum standard of inquiry for CERCLA (Comprehensive Environmental Response, Compensation and Liability Act) hazardous substances and petroleum products in commercial real estate transactions.

The purpose of E-1527 is to identify recognized environmental conditions (RECs) as defined; to provide an environmental professional’s (EP’s) opinion regarding impact of RECs to the property, and to reflect a general national practice (allowing for EP’s discretion and judgment and incorporation of local customary practice).

The Phase I ESA process utilizes the following methods:

- Must be completed by an environmental professional
- Requires historical research
- Utilizes a standardized records search and review
- EP must conduct site reconnaissance
- Interviews with owner/occupants/operators and local agency officials
- Documentation and report; includes findings, opinions, and conclusions (by EP)

It relies on existing information sources and does not generate new data; addresses “no reason to know”; includes petroleum products and CERCLA hazardous substances; and is intended for commercial real estate only. It *does not* include sampling (Phase II), auditing regulatory compliance, and can not guarantee a “clean” property or eliminate risk (3).

Results

The resulting standard (or standards if counting E-1527 and E-1528) developed by ASTM committee E-50.02 was quickly adopted by the environmental professional (EP) community and the “user” groups in the United States. It has undergone several modifications through the years and is currently being reviewed as this paper is being written.

As the standard evolved, its use in the United States continued to grow. Interest in the process soon went beyond the borders and generated increased activity in other countries, including Canada, South Korea, Switzerland, Germany and others. This ever increasing acceptance and use by the global community has resulted in a standard that has contributed to the assessment and identification of potential environmental issues associated with commercial real estate. The standard is *the* accepted method for environmental assessment if parties are interested in acquiring the innocent landowner defense under CERCLA (in the US).

Years of use of the ASTM Phase I process (since 1993) has allowed evaluation, reassessment and modification which have resulted in the current outline (1):

- Section 1: Scope
- Section 2: Referenced Documents
- Section 3: Terminology
- Section 4: Significance and Use
- Section 5: User's Responsibilities
- Sections 6-11: Phase I Practice
- Section 12: Non-Scope Considerations
- Appendix X1: Legal Background
- Appendix X2: Phase I Report Format (revised in 2000)
- Appendix X3: Selecting an EP (new in 2000)

Discussion

As indicated earlier in this paper, the ASTM Phase I process is the standard for determining potential environmental issues associated with commercial real estate. It was originally intended to satisfy all appropriate inquiry under the CERCLA standard in the US. The purpose includes identifying Recognized Environmental Conditions (RECs). RECs are defined as the presence or likely presence of hazardous substances or petroleum products under conditions indicating a present, past or material threat of a future release into structures, ground or groundwater. It can include legally compliant conditions and does not include *de minimis* conditions (issues that would not require regulatory action, or conditions that would not threaten the environment).

Typical non-scope issues include asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance and others. These issues are outside of CERCLA and therefore outside the scope of the ASTM standard. However, the user can request any or all of these issues to be addressed if needed.

The general report requirements include:

- Report user responsibilities
- List and document all findings
- Documentation should be adequate for another EP to reconstruct the report
- Report contents
- Describe deviations from the practice
- List additional services
- References

- Signature
- Qualifications
- Include Appendices

The report should describe and document the research, site visit, interviews, and findings/conclusions/opinions. There is a required report conclusion statement that must be quoted from the standard itself (concerning the conclusion: RECs identified).

The Standard allows for inclusion of local practices found in certain states and/or countries. An example would be local issues such as hydrogeology or wetlands mandate that environmental assessments take them into account. National, state and local practices should be considered when conducting any type of environmental assessment. The user is ultimately responsible for determining which practice to utilize. Users must consider the business intent based on known uses of the property (historically)... such as agricultural, residential, commercial/non-industrial, light industrial, industrial, and so on. It also depends on the risk tolerance of the user.

Following conclusion of the Phase I ESA, the user will frequently look to the Phase II ESA to determine the impact of the RECs identified. The EP will work with the user to determine the best course of sampling and work-plan/scope-of-work to accomplish this.

Conclusions

With the ever increasing need for world-wide standardization, including those utilizing ESAs, the ASTM standard will undoubtedly see an increase in scrutiny and use by the regulated community. Different countries have adopted various methods of investigating commercial properties and contaminated sites, however, each can adopt and/or utilize existing standards. If not adopted as is, the process itself can be useful for any ESA conducted. ASTM has been a facilitator of a variety of standard for over 100 years and it's method of development has been very successful. It may be of interest to all parties to investigate the ASTM standards and to adopt as many practices as deemed practical. This can only lead to a better standard through use, examination and modification as more and more nations participate in the process. As a good "minimum" standard, the ASTM process allows for incorporation of national and local practices and for environmental professionals to utilize their best professional judgment/opinions.

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References

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