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# ASTM Standard Practices

## Overview

### Environmental Site Assessment Process

American Society of Testing and Materials (ASTM) established the following two standards or practices for environmental site assessments (ESA) in commercial real estate transactions to standardize "Environmental Due Diligence":

- ◆ ASTM E 1528-00 Standard Practice for Environmental Site Assessments: Transaction Screen Process (Transaction Screen), and
- ◆ ASTM E 1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (Phase I ESA).

ASTM standards were established to define the extent and limit of "appropriate inquiry" as indicated in the phrase "good commercial or customary practice in the marketplace" as defined in 42 U.S.C. §9601(35)(B) for CERCLA liability and defense provisions. The purpose of the ASTM standards is to identify, to the extent feasible pursuant to ASTM E 1527, recognized environmental conditions in connection with property. ASTM defines the term "recognized environmental condition" as the presence or likely presence of hazardous substances as defined by CERCLA, and petroleum products on a property under conditions that indicate an existing release, a past release or a material threat of a release into the ground, groundwater or surface water.

Additionally, ASTM standard practices for environmental site assessments do not address every environmental concern that could be encountered. Additional services outside the scope of the ASTM standards would need to be specified in the terms of the contract or proposal for the environmental site assessment. Example of services outside the scope of work for ASTM standards include a broader scope of assessment, more detailed conclusions, liability/risk evaluations, recommendations for further testing, remediation techniques, asbestos surveys and lead-based paint testing.

ASTM has developed the following guide for further testing:

- ◆ ASTM E 1903-97 Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment.

### ASTM E 1528 Transaction Screen Process

ASTM E 1528 Transaction Screen Process (Transaction Screen) standard practice consists of a questionnaire and a corresponding guide. The questionnaire consists of three areas of inquiry: 1) interviews with the owner and/or operator of the property, 2) site visit and 3) review of government records and historical sources. The Transaction Screen may be conducted either by the user, including an agent or employee of the user, or wholly or partially by an environmental professional. ASTM defines the term "environmental

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professional" as one who has sufficient training and experience to investigate a site in accordance with the standard practice and the ability to develop conclusions regarding the site's environmental condition.

According to ASTM, if a transaction screen is conducted on a pristine property, the user should be able to answer all questions in the negative and reasonably conclude that no further inquiry is necessary. The user must exercise "business judgement" to determine whether the environmental condition of the property has been adequately assessed. When no response, unknown, or affirmative response occurs, the user must decide whether further inquiry is warranted. The reason for this conclusion must be documented. If further inquiry is needed, then the user should proceed with the advice and guidance of an "environmental professional."

Incorporating state regulatory database information for Texas, an ASTM 1528 transaction screen includes the following:

- ◆ limited records review:
  - National Priority List (NPL)
  - Comprehensive Environmental Response Compensation Liability Information System (CERCLIS)
  - Resource Compensation Recovery Act Treatment Storage and Disposal Facility (RCRA TSDF)
  - Texas Superfund
  - leaking petroleum storage tanks (LPST)
  - registered petroleum storage tanks (RPST)
  - municipal solid waste landfills (MSWLF)
- ◆ limited historical land use research:
  - fire insurance maps or local fire department interview
- ◆ site visit (reconnaissance)
- ◆ property owner and occupants (if applicable) interviews
  - 20 standardized questions
- ◆ documentation (questionnaire)

### **ASTM E 1527 Phase I Environmental Site Assessment**

According to ASTM, the phase I environmental site assessment (ESA) is a more comprehensive assessment than the transaction screen and is to be performed by an environmental professional as defined earlier. The duties of the environmental professional include three tasks: interviews and site reconnaissance, review and interpretation of information and oversight of writing the report. The phase I ESA consists of the following

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four components: 1) a more thorough review of records, 2) site visit, 3) interviews with the owner and/or operator of the property and 4) report documentation.

Incorporating state regulatory database information for Texas, an ASTM 1527 phase I environmental site assessment includes the following:

- ◆ records review/list search:
  - National Priority List (NPL)
  - Comprehensive Environmental Response Compensation Liability Information System (CERCLIS)
  - CERCLIS no further remedial action is planned (NFRAP) facilities
  - Resource Compensation Recovery Act Treatment Storage and Disposal Facility (RCRA TSD)
  - Resource Compensation Recovery Act Corrective Action Facilities (RCRA CORRACTS)
  - RCRA non-CORRACTS TSD
  - Texas Superfund
  - leaking petroleum storage tanks (LPST)
  - municipal solid waste landfills (MSWLF)
  - resource compensation recovery act generators
  - registered petroleum storage tanks (RPST)
  - voluntary cleanup program (VCP)
  - Emergency Response Notification System (ERNS)
- ◆ additional environmental record sources (discretional):
  - physical setting review
  - USGS 7.5 minute topographic map (mandatory)
  - other geologic, hydrogeologic and soil surveys or maps (discretional)
- ◆ historical land use research (reasonably ascertainable):
  - aerial photographs
  - USGS 7.5 minute topographic maps
  - fire insurance maps
  - local street directories
  - property tax files
  - building department records
  - recorded land title records
  - zoning/land use records
- ◆ site visit (reconnaissance)

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- ◆ interviews:
    - owners and occupants
    - local government officials
  - ◆ evaluation
  - ◆ documentation (written report)

### **ASTM Phase II Environmental Site Assessment**

Similar to AASHTO's preliminary site investigation or an environmental site investigation, a Phase II Environmental Site Assessment is a more detailed investigation requiring sampling and analysis. The purpose of the Phase II investigations is to estimate the nature and extent of contamination and to provide the basis for a preliminary assessment of the cost for corrective or preventive action.

ASTM has developed a Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment (ASTM E1903-97). The guide covers a framework for employing good commercial and customary practices in conducting a Phase II environmental site assessment of a parcel of commercial property.

### **For More Information**

For more information or to purchase copyrighted practices contact ASTM International at 100 Barr Harbor Drive, West Conshohocken, Pennsylvania, USA 19428-2959. ASTM's web page is <http://www.astm.org/>.