

VANGUARD ENVIRONMENTAL, INC.
PHASE I ENVIRONMENTAL SITE ASSESSMENT
for
REAL ESTATE EVALUATIONS &/or
TRANSACTIONS
[With ASTM E1527-21 as the Performance Standard
Per U.S. EPA's CERCLA Law]
(Varoom Service!)

On December 15, 2022, the U.S. Environmental Protection Agency (EPA) provided notice of a Final Rule approving the use of the American Society for Testing & Materials (ASTM) "E1527-21 – Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ESA)." The goal of an ASTM E1527 Phase I ESA is to identify the confirmed presence, likely presence, or a material threat of the presence of hazardous substances or petroleum products at a real property, also known as having a "Recognized Environmental Condition" (REC). The Standard ASTM E1527-21 also defines what constitutes "good commercial and customary practice for conducting an environmental site assessment of a parcel of commercial real estate in the United States of America with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation & Liability (CERCLA) Act (42 U.S.C. 9601) and petroleum products."

The previous ASTM Standard was incorporated by reference in the "All Appropriate Inquiry" (AAI) rule promulgated by the EPA to identify what specifically is required to obtain protection from liability for contamination under CERCLA.

The E1527-21 Standard Practice was published by ASTM in November 2021. In March 2022, the EPA issued a request for comments on the new ASTM E1527-21 Standard, and it also issued a "Direct Final Rule" that the E1527-21 Standard would be effective on May 13, 2022. The EPA received adverse comments because the Direct Final Rule did not extinguish the use of the previous E1527-13 Standard. Therefore, environmental consultants that conducted Phase I ESAs had the ability to continue using the previous E1527-13 Standard in complying with the AAI rules, or they could use the new E1527-21 Standard. This created confusion within the environmental community, and was in large part, the reason for the adverse comments. Consequently, the EPA withdrew its Direct Final Rule with the expectation that it would formally adopt the new ASTM E1527-21 Standard in a Final Rule, and at that time, either immediately withdraw continued use of the E1527-13 Standard or phase out its use over a designated time period.

Approval of the ASTM E1527-21 Standard officially became effective on February 13, 2023, and use of the previous E1527-13 Standard shall be phased out over a one-year time period. Therefore, until February 13, 2024, environmental consultants are free to use either the E1527-21 Standard Practice or the E1527-13 Standard Practice. After February 13, 2024, only the E1527-21 Standard Practice will be recognized as meeting the AAI Rule for protection from liability for contamination under CERCLA.

The E1527-21 Standard Practice makes significant modifications to the previous Standard that has been in use by environmental professionals (EPs) for the past eight years in performing Phase I ESAs of real property. The most significant modifications in the new Standard include the following:

New Definition of “**Recognized Environmental Condition**” (REC) – the goal of an E1527 Phase I ESA is to identify RECs associated with the real property that is the subject of the Phase I ESA. Under the previous Standard, an REC was defined as “the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.” The ASTM Committee that proposed the new Standard believed that the use of the word “likely” within the context of all three of the phrases contained in the previous definition was confusing to environmental consultants that were conducting Phase I ESAs.

1. The Standard now contains a **new definition of REC** as set forth below:
 - (1) the presence of hazardous substances or petroleum products in, on or at the subject property due to a release to the environment;
 - (2) the likely presence of hazardous substances or petroleum products in, on or at the subject property due to a release or likely release to the environment; or
 - (3) the presence of hazardous substances or petroleum products in, on or at the subject property under conditions that pose a material threat of a future release to the environment.”

2. Consistent Use of the Term “Subject Property” – Many environmental consultants commonly use a variety of terms in their Phase I Reports to describe the property that is the subject of a Phase I ESA. Often, it is referred to interchangeably in the Phase I ESA Report as the “property,” “site,” and/or “subject property.” This can become confusing to the reader of the Phase I Report. In an effort to promote clarity and consistency, the new Standard encourages use only of the term “**subject property**” throughout the Phase I Report.

3. Shelf Life of an E1527-21 Phase I Report – The new Standard indicates that the Phase I Report will remain viable if it was completed no more than 180 days prior to the date of acquisition, or up to one year, if five specific components of the Report have been updated. The five components include:

- interviews,
- searches for recorded environmental cleanup liens,
- review of government records,
- site reconnaissance of the subject property, and the
- Environmental Professional Declaration).

In addition, the new Standard requires that the dates in which each of the components were completed be identified in the Phase I Report, and that the 180 day or 1-year time period begins with the date upon which the first of these components was completed.

4. Requirement to Use Standard Historical Sources – the previous Standard required that the Environmental Professional (EP) review, within the EP’s discretion, as many Standard Historical Sources as the EP believes are necessary to meet the objectives of

an ASTM Phase I ESA. The new Standard prescribes that, at a minimum, the following four sources shall be reviewed in association with the subject property and adjoining properties as part of the Phase I ESA process. (**Note: adjoining properties include not only those properties with abutting property boundaries, but also properties that are across a street or alley from the subject property.**)

- Historical Aerial Photographs,
- Historical City Directories,
- Historical Topographic Maps, and
- Historical Fire Insurance [Sanborn] Maps.

If one or more of these sources cannot be reviewed, there must be a statement why the source could not be reviewed. Additional Standard Historical Sources shall be reviewed as needed to complete the objective of identifying RECs.

5. Use of Additional Standard Historical Sources – the new Standard emphasizes that providing as much specific information in the Phase I ESA Report about the use of the subject property is important. For example, the ASTM Committee learned from the EPA that many of the most highly contaminated properties in the U.S. are former dry-cleaning facility sites. Frequently, such sites were located in a retail use area, which is not typically considered to be a source of contamination like an industrial or manufacturing site would more likely be. Therefore, even if the general use of the subject property is classified as retail, the new Standard requires that additional ASTM Standard Historical Sources shall be reviewed if they are likely to identify a more specific use and are reasonably ascertainable.

6. Historical RECs (HREC) – an HREC is defined in the new Standard as “a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities, without subjecting the property to any controls (for example activity and use limitations, or other property use limitations).” An example of what may constitute an HREC could include a condition in which an underground storage tank (UST) was removed from a property, and residual contamination released from the UST was present. However, the residual contaminants that were released were excavated, and the regulatory authority issued a “No Further Action Required Letter” (often referred to as a “Closure Letter”) and did not require some type of activity use or institutional control limitation. The new Standard requires that the EP evaluate the past closure of a contaminated site and the environmental assessment data associated with the closure to confirm that the assessment meets current standards for unrestricted use.

7. Guidance Regarding REC vs HREC vs CREC – In addition to RECs and HRECs, another third type of REC, known as a “Controlled Recognized Environmental Condition” (CREC) can also be identified in association with a subject property. A CREC is defined in the new Standard as “a recognized environmental condition affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to implementation of controls (for example, activity and use limitations or other property use limitations).” Because the ASTM Committee recognized that there have often been major differences of opinion between consultants whether a property condition constitutes a REC, a HREC and/or a CREC, the new Standard includes an Appendix that contains a flow chart (Appendix X 4) for making

determinations whether a subject property condition constitutes a REC, HREC or a CREC. While this will not remove all uncertainty in making decisions about RECs, it is hoped that this will create more consistency among consultants in making such determinations.

8. Interviews – The prior Standard divided the Phase I process into four separate components. They included:

- 1) a review of environmental regulatory records (e.g., federal Superfund site lists/Solid Waste landfill site lists/leaking UST lists) and ASTM Standard Historical and Physical Setting Sources (e.g., historical aerial photographs/historical city directories/topographic maps)
- 2) a site reconnaissance; 3) interviews of the site owner, tenants, etc.; and 4) the Phase I ESA Report. Under the new Standard, the interviews are now classified and grouped into one of the ASTM Standard Historical Sources of information.

9. Emerging Contaminants – new contaminants of concern, such as per- and polyfluoroalkyl substances (PFAS), have been under scrutiny for possible regulation as hazardous substances by the federal EPA and some state agencies for the past several years. While some states have adopted regulatory standards for PFAS, the EPA has not yet listed PFAS as a federally regulated hazardous substance under CERCLA. (Note: In September 2022, the EPA proposed to list several PFAS compounds as hazardous substances under CERCLA. It is anticipated that the EPA could adopt these PFAS compounds as hazardous substances under CERCLA by the Summer of 2023.) Since one of the primary purposes of a Phase I ESA is to identify the documented or potential presence of CERCLA regulated hazardous substances, and because PFAS are not currently regulated under CERCLA, environmental consultants have not been required to include identification of PFAS as a scope item in performing Phase I ESAs. The new Standard provides guidance regarding whether environmental consultants are to include emerging contaminants, such as PFAS, in their scope of work when conducting Phase I ESAs by providing that until an emerging contaminant is regulated as a federal CERCLA hazardous substance, such substances are not required to be included in the scope of a Phase I ESA. However, the new Standard also indicates that inclusion of such substances can be added to the Phase I ESA as a “Non-Scope Consideration” and be addressed if the user of the Phase I wishes the environmental consultant to do so. This can be particularly important for those Phase I ESAs that are conducted in states that already have adopted regulatory standards for such substances, or the adoption of regulatory standards are anticipated in the near future. [Note: As of June 2023, laboratory testing for Emerging Contaminants/PFAS will require an additional fee for Vanguard to fulfill the client’s request under this element of the Phase I ESA.]

10. Significant Data Gap – The previous Standard required that significant informational or observational-related data gaps be identified in the Phase I ESA Report. (Note: a “data gap” is defined in the E1527-21 Standard as “a lack or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.”) However, there often has been confusion among environmental consultants as to what is considered a data gap that is significant enough to impact meeting the objectives of a Phase I ESA. The new Standard now includes a definition of what constitutes a, “significant data gap,” defining it as, “a data gap that affects the ability of the environmental professional to identify a recognized

environmental condition.” An example of a significant data gap could include a building that is located on a subject property which is inaccessible during the site reconnaissance, and based upon the EP’s experience, such a building is one that involves activities that can lead to RECs. In addition, the new Standard requires a discussion of how significant data gaps affected the EP’s ability to make conclusions regarding RECs.

11. Inclusion of Maps/Photographs – While it may appear to most that the inclusion of photographs of the subject property and of a map that illustrates the boundaries of the subject property be included as a routine part of a Phase I ESA Report, the prior Standard did not explicitly state that such items be included in the Report. Interestingly, the ASTM Committee that developed the new Standard noted that it was not unusual for Phase I ESA Reports to not include such items. The new Standard makes it clear that photographs and a map illustrating the boundaries of the subject property shall be included in all Phase I ESA Reports. The photographs should include major site features and locations on the subject property that are considered RECs, and also de minimis conditions. (Note: “de minimis conditions” are defined in the E1527-21 Standard as those conditions “related to a release that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.”)

We recommend that prospective purchasers of real estate, lenders or other entities that are commissioning environmental consultants to conduct Phase I ESAs should seriously consider requesting use of the new E1527-21 Standard, even though use of the E1527-13 Standard is allowable until February 13, 2024, as the E1527-21 Standard clearly has heightened levels of environmental due diligence that will be beneficial in identifying environmental issues associated with a property.

Phase I Environmental Site Assessment: In Plain English...

The basic purpose of a Phase I Environmental Site Assessment (ESA), as related to real estate transactions, is to determine and document what environmental impairment, degradation, or hazards, if any, are associated with the property or site in question. A report documenting a thorough investigation of the site and its historical use alerts all parties involved (buyer, seller, financial institution) in the transaction for any potential for remediation / cleanup prior to the consummation of the final agreement. Phase I especially informs the buyer and financial institution of any environmental liabilities at the time of the transaction that could substantially reduce the value of the investment in the future. If the Phase I Environmental Assessment documents evidence that environmental hazards do exist, then there may be cause for the site to undergo Phase II (Sampling, Testing & Evaluation) and Phase III (Cleanup & Abatement) projects. An outline description of Phase I, II, & III projects is offered below to avoid confusion about the scope of each project’s requirements. The ASTM E1527-22 Standard (above) serves as Vanguard’s Schedule of Work in this case. A pricing summary for the Phase I Environmental Assessment is provided on the last page of this document. Pricing summaries on Phase II and III projects could only be provided once the scope of each project is defined as a result of the Phase I’s findings.

Phase I Environmental Site Assessments find a legal perspective from the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980. Also known as Superfund, this law was created to provide authority and a source of funding for cleaning up environmentally-impaired real property. Courts have upheld CERCLA’s provisions of strict liability for contamination and joint and several liability among Potentially Responsible Parties (PRPs). Congress recognized the plight of “innocent” buyers by incorporating the “innocent landowner” defense into CERCLA. To

claim innocence, however, the landowner must first demonstrate that at the time of property transaction there was "no reason to know" that the property was contaminated and that "all good commercial or customary practice" was undertaken to detect the potential for property contamination. In order to qualify for the "innocent landowner" defense, a buyer must establish that, immediately prior to, or at the time of acquisition, a Phase I Environmental Site Assessment was conducted and documented on the real property by an Environmental Professional.

Standards prior to 2023 for performing a Phase I Environmental Site Assessment have been promulgated by the US EPA and were historically based in part on ASTM Standard E1527-13.

Distinguishing Between Phase I, II, and III (Basics)

PHASE I - REVIEW OF SITE HISTORY AND SITE INSPECTION

A. EXAMINE OWNER'S ENVIRONMENTAL DOCUMENTATION, AS REQUIRED BY LAWS OF REGULATORY AGENCIES, INCLUDING:

- Environmental policies and procedures
- Past violations of environmental policies and procedures
- Transportation and disposal records
- EPA and other environmental permits
- Records of Inspections
- Licenses and Coverage of Insurance Contracts.

B. DETERMINE HISTORICAL LAND USE:

- Obtaining and examining all available current and historical aerial photographs of the property
- Examining ownership records and abstracts for exhaustively documenting
 - a historical backdrop in land use as far back as records date (or at least 50 years)
- Interviewing past owners, neighbors, and relevant persons acquainted with the past and recent use of the property.

C. OBTAIN AND EXAMINE PUBLIC RECORDS OF INCIDENTS PERTINENT TO ENVIRONMENTAL SIGNIFICANCE AND/OR INCIDENTS IN THE VICINITY THAT COULD HAVE INFLUENCED THE CONDITION OF THE PROPERTY ADVERSELY.

D. OBTAIN STATE RECORDS OF THE PAST OR RECENT USE OF UNDERGROUND STORAGE TANKS, ALTHOUGH SOME TANKS MAY BE UNREGISTERED.

E. INSPECT THE PROPERTY TO IDENTIFY POSSIBLE ENVIRONMENTAL PROBLEMS AS INDICATED BY:

- Contaminated soils or surface waters;
- Stained or barren soil;
- Visible evidence of underground storage tanks;

- Electrical transformers that may contain PCB's;
- Possible asbestos containing building materials;
- Discarded or abandoned chemical containers.

F. EXAMINE THE SURROUNDING PROPERTY FOR POSSIBLE ENVIRONMENTAL PROBLEMS THAT COULD AFFECT THE PROPERTY.

G. WRITE A PHASE I "EXECUTIVE BRIEF" DOCUMENTING FINDINGS OF THE PROJECT, INCLUSIVE OF ANY PROBLEMS IDENTIFIED AND RECOMMENDATIONS, IF REQUIRED, FOR FURTHER STUDIES TO BE CONDUCTED.

- **Two hard-copies and/or digital representations shall be presented to the Client of Record. It is recommended that the client consider having it labeled as "subject to attorney-client privilege."**

PHASE II - TESTING AND EVALUATION

Note: The Phase I findings will determine items necessary in the Phase II project.

- Collect samples of soils, surface / subsurface water, container contents and possible asbestos containing materials;
- Have the samples tested in a laboratory for contaminants or asbestos as appropriate;
- Drill a test well to collect a sample of the groundwater. Have the sample tested for contamination;
- Contact the local utility company or manufacturer of any transformer whose contents are unknown to find out if they know whether it contains PCB's. If it cannot be determined in this manner, arrange to have the utility company sample and analyze the contents of the transformer;
- Write a final Phase II report stating the environmental findings and recommend the corrective actions necessary before the real estate transaction is completed.

PHASE III - IMPLEMENTATION OF CLEANUP AND ABATEMENT OF ENVIRONMENTAL IMPAIRMENT / PROBLEMS IDENTIFIED IN PHASE I & II

- Review and establish a plan to implement the cleanup and abatement process
- Obtain proper permits through the City, County, State, and Federal regulatory authorities
- Begin Cleanup and abatement process
- Inspect for complete abatement and cleanup of materials associated with project
- Write Final Report on the Phase III project.