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The New ASTM E1527-21 Standard Practice for Phase I Environmental Site Assessments (ESA)

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On November 1, 2021, the American Society for Testing and Materials (ASTM) Committee on Environmental Assessment, Risk Management and Corrective Action (ASTM Committee E-50) approved a new standard for conducting Phase I Environmental Site Assessments (ESAs). The new standard, known as "E1527-21 – Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," which was published by ASTM in November 2021, makes significant modifications to the previous ASTM Phase I Standard Practice (E1527-13) that has been in use by environmental professionals (EPs) for the past eight years in performing Phase I ESAs of real property. 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 a "Recognized Environmental Condition" (REC). The ASTM E1527 Standard 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 E1527-13 Standard was incorporated by reference into rules promulgated by the federal Environmental Protection Agency (EPA) (known as the "All Appropriate Inquiry" [AAI] rule) as what specifically is required to obtain protection from liability for contamination under CERCLA.

The most significant modifications in the new E1527-21 Standard Practice include the following:

1. New Definition of "Recognized Environmental Condition" (REC) – as previously stated, 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 E1527-13 Standard, a 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 modifications to the E1527 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. Therefore, the E1527-21 Standard contains a new definition of REC as set forth below which uses the word "likely" only within the context of the second phrase identified in the definition of a REC. An REC is now defined as:

"(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."

To assist environmental consultants in identifying RECs, the new E1527-21 Standard will contain an Appendix (Appendix X4) that is intended to clarify what each of the three phrases means. Further, the Appendix contains examples of what constitutes a REC. Moreover, there is a note to the REC definition that provides that use of the word "likely" is a condition "which is neither certain nor proved, but can be expected or believed by a reasonable observer based on the logic and/or experience of the environmental professional, and/or available evidence, as stated in the report to support the opinions given."

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 E1527-21 Standard encourages use only of the term "subject property" throughout the Phase I Report when referring to the property that is the subject of the Report.

3. Shelf Life of an E1527-21 Phase I Report – The new E1527-21 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 [EP] Declaration). In addition, the new E1527-21 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 E1527-13 Standard required that the EP review, within the EP's discretion, as many Standard Historical Sources (e.g., historical aerial photographs, historical city directories, historical topographic maps, historical fire insurance [Sanborn] maps, building department records, property tax records, zoning records) as the EP believed were necessary to meet the objectives of an ASTM Phase I ESA. The new E1527-21 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 ASTM E1527-21 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 E1527-21 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 E1527-21 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 E1527-21 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 E1527-21 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 ASTM E15227-21 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 ASTM E1527-13 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 ASTM E1527-21 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. Since one of the primary purposes of an ASTM Phase I ESA is to identify the documented or potential presence of CERCLA regulated hazardous substances, 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 ASTM Phase I ESAs. The new E1527-21 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 an ASTM E1527-21 Phase I ESA. However, the new E1527-21 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.

10. Significant Data Gap – The previous E1527-13 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 an ASTM Phase I ESA. The new E1527-21 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 E1527-21 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 ASTM E1527-13 Standard did not explicitly state that such items be included in the Report. Interestingly, the ASTM Committee that developed the new E1527-21 Standard noted that it was not unusual for Phase I ESA Reports to not include such items. The new E1527-21 Standard makes it clear that photographs and a subject property 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.")

ASTM has submitted the new E1527-21 Standard to the EPA for the agency's review for compliance with the federal AAI regulations. It is anticipated that the review by the EPA could require up to one year. In the interim, environmental consultants have several options for implementing the new E1527-21 Standard. They include:

1. Continue using and citing the ASTM E1527-13 Standard until the EPA approves the new ASTM E1527-21 Standard for compliance with the AAI regulations;
2. Use and cite the new ASTM E1527-21 Standard now; or
3. Cite the ASTM E1527-13 Standard, and indicate that the Phase I ESA also incorporates procedures as prescribed in the new ASTM E1527-21 Standard.