Designation: E1527 – 21

Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process[1]

This standard is issued under the fixed designation E1527; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 *Purpose*—The purpose of this practice is to define good commercial and customary practice in the United States of America for conducting an *environmental site assessment*[2] of a parcel of *commercial real estate* with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. § 9601) and *petroleum products*. As such, this practice is intended to permit a *user* to satisfy one of the requirements to qualify for the *innocent landowner*, *contiguous property owner*, or *bona fide prospective purchaser* limitations on CERCLA liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"): that is, the practice that constitutes *all appropriate inquiries* into the previous ownership and uses of the *property* consistent with good commercial and customary standards and practices as defined at 42 U.S.C. § 9601(35)(B). (See Appendix X1 for an outline of CERCLA's liability and defense provisions.) Controlled substances are not included within the scope of this practice. Persons conducting an *environmental site assessment* as part of an EPA Brownfields Assessment and Characterization Grant awarded under CERCLA 42 U.S.C. § 9604(k)(2)(B) must include controlled substances as defined in the Controlled Substances Act (21 U.S.C. § 802) within the scope of the assessment investigations to the extent directed in the terms and conditions of the specific grant or cooperative agreement. Additionally, an evaluation of *business environmental risk (BER)* associated with a parcel of *commercial real estate* may necessitate investigation beyond that identified in this practice (see 1.4 and Section 13).

1.1.1 *Recognized Environmental Conditions*—The goal of the processes established by this practice is to identify *recognized environmental conditions*. The term *recognized environmental condition* means *(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*. A *de minimis condition* is not a *recognized environmental condition*.

1.1.2 *Petroleum Products—Petroleum products* are included within the scope of this practice because they are of concern with respect to *commercial real estate* and current custom and usage is to include an inquiry into the presence of *petroleum products* when doing an *environmental site assessment* of *commercial real estate*. Inclusion of *petroleum products* within the scope of this practice is not based upon the applicability, if any, of CERCLA to *petroleum products*.

1.1.3 *CERCLA Requirements Other Than Appropriate Inquiries*—This practice does not address whether requirements in addition to *all appropriate inquiries* have been met in order to qualify for the *LLPs* (for example, the duties specified in 42 U.S.C. §§ 9607(b)(3)(a) and (b) and cited in Appendix X1, including the continuing obligation not to impede the integrity and effectiveness of *activity and use limitations [AULs]*, or the duty to take reasonable steps to prevent *releases*, or the duty to comply with legally required *release* reporting obligations).

1.1.4 *Other Federal, State, and Local Environmental Laws*—This practice does not address requirements of any state or local laws or of any federal laws other than the *all appropriate inquiries* provisions of the *LLPs*. *Users* are cautioned that federal, state, and local laws may impose environmental assessment obligations that are beyond the scope of this practice. *Users* should also be aware that there are likely to be

[1] This practice is under the jurisdiction of ASTM Committee E50 on Environmental Assessment, Risk Management and Corrective Action and is the direct responsibility of Subcommittee E50.02 on Real Estate Assessment and Management.

Current edition approved Nov. 1, 2021. Published November 2021. Originally approved in 1993. Last previous edition approved in 2013 as E1527 – 13. DOI: 10.1520/E1527-21.

[2] All definitions, descriptions of terms, and acronyms are defined in Section 3. Whenever terms defined in 3.2 are used in this practice, they are in *italics*.

other legal obligations with regard to *hazardous substances* or *petroleum products* discovered in, on, or at the *subject property* that are not addressed in this practice and that may pose risks of civil and/or criminal sanctions for noncompliance.[3]

1.1.5 *Documentation*—The scope of this practice includes research and reporting requirements that support the *user's* ability to qualify for the *LLPs*. As such, sufficient documentation of all sources, records, and resources utilized in conducting the inquiry required by this practice must be provided in the written *report* (refer to 8.1.9 and 12.2).

1.2 *Objectives*—Objectives guiding the development of this practice are *(1)* to synthesize and put in writing good commercial and customary practice for *environmental site assessments* for *commercial real estate*; *(2)* to facilitate high quality, standardized *environmental site assessments*; *(3)* to provide a practical and reasonable *standard practice* for conducting *all appropriate inquiries*; and *(4)* to clarify an industry standard for *all appropriate inquiries* in an effort to guide legal interpretation of the *LLPs*.

1.3 *Units*—The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 *Considerations beyond Scope*—The use of this practice is strictly limited to the scope set forth in this section. Section 13 of this practice identifies, for informational purposes, certain environmental conditions (not an all-inclusive list) that may exist at a *subject property* that are beyond the scope of this practice, but may warrant consideration by parties to a *commercial real estate transaction*. The need to include an investigation of any such conditions in the *environmental professional's* scope of services should be evaluated based upon, among other factors, the nature of the *subject property* and the reasons for performing the assessment (for example, a more comprehensive evaluation of *business environmental risk*) and should be agreed upon between the *user* and *environmental professional* as additional services beyond the scope of this practice before initiation of the *environmental site assessment* process.

1.5 *This practice offers a set of instructions for performing one or more specific operations. This document cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this practice may be applicable in all circumstances. This ASTM standard is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this document be applied without consideration of a project's many unique aspects. The word "Standard" in the title means only that the document has been approved through the ASTM consensus process.*

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[4]

E2091 Guide for Use of Activity and Use Limitations, Including Institutional and Engineering Controls

E2247 Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property

E2600 Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions

E2790 Guide for Identifying and Complying With Continuing Obligations

2.2 *Federal Statutes:*[5]

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA" or "Superfund"), as amended by Superfund Amendments and Reauthorization Act of 1986 ("SARA") and Small Business Liability Relief and Brownfields Revitalization Act of 2002 ("Brownfields Amendments"), 42 U.S.C. § 9601 *et seq*.

Emergency Planning and Community Right-To-Know Act of 1986 ("EPCRA"), 42 U.S.C. § 11001 *et seq*.

Resource Conservation and Recovery Act (also referred to as the Solid Waste Disposal Act), as amended ("RCRA"), 42 U.S.C. § 6901 *et seq*.

2.3 *OSHA Standard:*

OSHA Hazard Communication Standard (HCS), 29 C.F.R. § 1910.1200[6]

2.4 *USEPA Documents:*[7]

"Standards and Practices for All Appropriate Inquiries" Final Rule (AAI), 40 C.F.R. Part 312

Superfund, Emergency Planning, and Community Right-To-Know Programs, 40 C.F.R. Parts 300-399

USEPA "Enforcement Discretion Guidance Regarding the

[3] Many states and other jurisdictions have differing definitions for terms used throughout this practice, such as "*release*" and "*hazardous substance*." If a *Phase I Environmental Site Assessment* is being conducted to satisfy state requirements and to qualify for the state (or other jurisdiction) equivalent of *LLPs*, *users* and *environmental professionals* are cautioned and encouraged to consider any differing jurisdictional requirements and definitions while performing the *Phase I Environmental Site Assessment*. Substances that are outside the scope of this practice (for example, emerging contaminants that are not *hazardous substances* under CERCLA) may be regulated under state law and may be federally regulated in the future. Although the presence or any *release*/threatened *release* of these substances are "non-scope considerations" under this practice, the *user* may nonetheless decide to include such substances in the defined scope of work for which the *environmental professional* conducting the *Phase I Environmental Site Assessment* is engaged. See 13.1.2.

[4] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[5] Available from https://uscode.house.gov/.

[6] Available from www.osha.gov.

[7] Available from www.epa.gov.

Affiliation Language of CERCLA's Bona Fide Prospective Purchaser and Contiguous Property Owner Liability Protections" (September 21, 2011)

USEPA "Revised Enforcement Guidance Regarding the Treatment of Tenants Under the CERCLA Bona Fide Prospective Purchaser Provision" (December 5, 2012)

USEPA "Enforcement Discretion Guidance Regarding Statutory Criteria for Those Who May Qualify as CERCLA Bona Fide Prospective Purchasers, Contiguous Property Owners, or Innocent Landowners" ("Common Elements Guidance") (July 29, 2019)

USEPA "Superfund Liability Protections for Local Government Acquisitions after the Brownfields Utilization, Investment, and Local Development Act of 2018" (June 15, 2020)

National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300

3. Terminology

3.1 This section provides definitions, descriptions of terms, and a list of acronyms for many of the words used in this practice. The terms are an integral part of this practice and are critical to an understanding of the practice and its use.

3.2 *Definitions:*

3.2.1 *abandoned property, n—property* that can be presumed to be deserted, or an intent to relinquish possession or control can be inferred from the general disrepair or lack of activity thereon such that a reasonable person could believe that there was an intent on the part of the current *owner* to surrender rights to the *property*.

3.2.2 *activity and use limitations (AULs), n*—legal or physical restrictions or limitations on the use of, or access to, a site or facility: *(1)* to reduce or eliminate potential exposure to *hazardous substances* or *petroleum products* in the soil, soil vapor, groundwater, and/or surface water on the *property*, or *(2)* to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include *institutional* and/or *engineering controls*, are intended to prevent adverse impacts to individuals or populations that may be exposed to *hazardous substances* and *petroleum products* in the soil, soil vapor, groundwater, and/or surface water on a *property*.

3.2.2.1 *Discussion*—The term *activity and use limitations (AULs)* is taken from Guide E2091 to include both legal (that is, institutional) and physical (that is, engineering) controls within its scope. Other agencies, organizations, and jurisdictions may define or utilize these terms differently (for example, EPA and California do not include physical controls within their definitions of "*institutional controls*." Department of Defense and International County/City Management Association use "Land Use Controls." The term "land use restrictions" is used but not defined in the *Brownfields Amendments*).

3.2.3 *actual knowledge, n*—knowledge actually possessed by an individual who is a real person, rather than an entity. *Actual knowledge* is to be distinguished from constructive knowledge that is knowledge imputed to an individual or entity.

3.2.4 *adjoining properties, n*—any real *property* or *properties* the border of which is contiguous or partially contiguous with that of the *subject property*, or that would be contiguous or partially contiguous with that of the *subject property* but for a street, road, or other public thoroughfare separating them.

3.2.5 *aerial photographs, n*—photographs taken from an aerial platform with sufficient resolution to allow identification of development and activities.

3.2.6 *all appropriate inquiries, n*—that inquiry constituting *all appropriate inquiries* into the previous ownership and uses of the *subject property* consistent with good commercial and customary practice as defined in CERCLA, 42 U.S.C. § 9601(35)(B) and 40 C.F.R. Part 312, that will qualify a party to a *commercial real estate transaction* for one of the threshold criteria for satisfying the *LLPs* to CERCLA liability (42 U.S.C. §§ 9601(35)(A) & (B), § 9607(b)(3), § 9607(q), and § 9607(r)), assuming compliance with other elements of the defense. See Appendix X1.

3.2.7 *approximate minimum search distance, n*—the area for which records must be obtained and reviewed pursuant to Section 8 subject to the limitations provided in that section. This may include areas outside the *subject property* and shall be measured from the nearest *subject property* boundary. This term is used in lieu of radius to include irregularly shaped *properties*.

3.2.8 *bona fide prospective purchaser [42 U.S.C. § 9607(r)], n*—a person may qualify as a *bona fide prospective purchaser* if, among other requirements, such person made "*all appropriate inquiries* into the previous ownership and uses of the facility in accordance with generally accepted good commercial and customary standards and practices." Knowledge of contamination resulting from *all appropriate inquiries* would not generally preclude this liability protection. A person must make *all appropriate inquiries* on or before the date of purchase. The facility must have been purchased after January 11, 2002. See Appendix X1 for the other necessary requirements that are beyond the scope of this practice.

3.2.9 *Brownfields Amendments, n*—amendments to CERCLA pursuant to the Small Business Liability Relief and Brownfields Revitalization Act, Pub. L. No. 107-118 (2002), 42 U.S.C. § 9601 *et seq*.

3.2.10 *building department records, n*—those records of the local government in which the *subject property* is located indicating permission of the local government to construct, alter, or demolish improvements on a *property*.

3.2.11 *business environmental risk (BER), n*—a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of *commercial real estate*, not necessarily related to those

environmental issues required to be investigated in this practice. Consideration of *BER* issues may involve addressing one or more non-scope considerations, some of which are identified in Section 13.

3.2.12 *commercial real estate, n*—any real *property* except a *dwelling* or *property* with no more than four *dwelling* units exclusively for residential use (except that a *dwelling* or *property* with no more than four *dwelling* units exclusively for residential use is included in this term when it has a commercial function, as in the construction of such *dwellings* for profit). This term includes but is not limited to undeveloped real *property* and real *property* used for industrial, retail, office, agricultural, other commercial, medical, or educational purposes; *property* used for residential purposes that has more than four residential *dwelling* units; and *property* with no more than four *dwelling* units for residential use when it has a commercial function, as in the building of such *dwellings* for profit.

3.2.13 *commercial real estate transaction, n*—a transfer of title to or possession of real *property* or receipt of a security interest in real *property*, except that it does not include transfer of title to or possession of real *property* or the receipt of a security interest in real *property* with respect to an individual *dwelling* or building containing fewer than five *dwelling* units, nor does it include the purchase of a lot or lots to construct a *dwelling* for occupancy by a purchaser, but a *commercial real estate* transaction does include real *property* purchased or leased by persons or entities in the business of constructing or developing *dwelling* units.

3.2.14 *construction debris, n*—concrete, brick, asphalt, and other such building materials discarded in the construction of a building or other improvement to *property*.

3.2.15 *contaminated public wells, n*—public wells used for drinking water that have been designated by a government entity as contaminated by *hazardous substances* (for example, chlorinated *solvents*) or *petroleum products*, or as having water unsafe to drink without treatment.

3.2.16 *contiguous property owner [42 U.S.C. § 9607(q)], n*—a person may qualify for the *contiguous property owner liability protection* if, among other requirements, such person owns real *property* that is contiguous to, and that is or may be contaminated by *hazardous substances* from other real *property* that is not owned by that person. Furthermore, such person conducted *all appropriate inquiries* at the time of acquisition of the *subject property* and did not know or have reason to know that the *subject property* was or could be contaminated by a *release* or threatened *release* from the contiguous *property*. The *all appropriate inquiries* must not result in knowledge of contamination. If it does, then such person did "know" or "had reason to know" of contamination and would not be eligible for the *contiguous property owner liability protection*. See Appendix X1 for the other necessary requirements that are beyond the scope of this practice.

3.2.17 *controlled recognized environmental condition, n—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 required controls (for example, *activity and use limitations* or *other property use limitations*). For examples of *controlled recognized environmental conditions*, see Appendix X4.

3.2.17.1 *Discussion*—Identification of a *controlled recognized environmental condition* is a multi-step process that shall be reflected in the *report's* Findings and Opinions section(s), as described in 12.5 and 12.6, including the *environmental professional's* rationale for concluding that a finding is a *controlled recognized environmental condition*:

(1) When determining whether a *recognized environmental condition* has been "addressed to the satisfaction of the applicable regulatory authority or authorities with *hazardous substances* or *petroleum products* allowed to remain in place," the *environmental professional* shall review *reasonably ascertainable* documentation, such as no further action letters (or similar certifications or approvals) issued by the applicable regulatory authority or authorities, or, in the case of self-directed actions, documentation and relevant data that satisfy risk-based criteria established by the applicable regulatory authority or authorities.

(2) In determining whether a *recognized environmental condition* is "subject to implementation of required controls (for example, *activity and use limitations* or other *property use limitations*)," the *environmental professional* shall identify the documentation providing the control(s) that addresses the *recognized environmental condition* in the *report's* Findings and Opinions section(s).

(3) When the *environmental professional* determines that a *recognized environmental condition* is "subject to implementation of required controls," this determination does not imply that the *environmental professional* has evaluated or confirmed the adequacy, implementation, or continued effectiveness of the control(s).

(4) A past *release* that previously qualified as a *controlled recognized environmental condition* may no longer constitute a *controlled recognized environmental condition* at the time of the *Phase I Environmental Site Assessment* if new conditions or information have been identified such as, among other things, a change in regulatory criteria, a change of use at the *subject property*, or a subsequently identified *migration* pathway that was not previously known or evaluated.

3.2.18 *data failure, n*—failure to achieve the historical research objective in 8.3.1 even after reviewing the *standard historical resources* in 8.3.4.1 through 8.3.4.8 that are *reasonably ascertainable* and likely to be useful. *Data failure* is one type of *data gap*. See 8.3.6.

3.2.19 *data gap, n*—a lack of or inability to obtain information required by this practice despite *good faith* efforts by the *environmental professional* to gather such information. *Data gaps* may result from incompleteness in any of the activities required by this practice, including, but not limited to, *site reconnaissance* (for example, an inability to conduct the *site visit*), and *interviews* (for example, an inability to interview the *key site manager*, regulatory officials, etc.). See 12.6.

3.2.20 *de minimis condition, n*—a condition 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. A condition determined to be a *de minimis condition* is not a *recognized environmental condition* nor a *controlled recognized environmental condition*.

3.2.21 *demolition debris, n*—concrete, brick, asphalt, and other such building materials discarded in the demolition of a building or other improvement to a *property*.

3.2.22 *drum, n*—a container (typically, but not necessarily, holding 55 gal (208 L) of liquid) that may be used to store *hazardous substances* or *petroleum products*.

3.2.23 *dry wells, n*—underground areas where soil has been removed and replaced with pea gravel, coarse sand, or large rocks. *Dry wells* are used for drainage, to control storm runoff, for the collection of spilled liquids (intentional and non-intentional), and *wastewater* disposal (often illegal).

3.2.24 *due diligence, n*—the process of inquiring into the environmental characteristics of *commercial real estate* or other conditions, usually in connection with a *commercial real estate* transaction. The degree and kind of *due diligence* vary for different *properties*, and differing purposes. See Appendix X1.

3.2.25 *dwelling, n*—structure or portion thereof used for residential habitation.

3.2.26 *engineering controls, n*—physical modifications to a site or facility (for example, capping, slurry walls, or point of use water treatment) to reduce or eliminate the potential for exposure to *hazardous substances* or *petroleum products* in the soil or groundwater on a *property*. *Engineering controls* are a type of *activity and use limitation (AUL)*.

3.2.27 *environment, n—environment* shall have the same meaning as the definition of *environment* in CERCLA 42 U.S.C. § 9601(8)). For additional background information, see Legal Appendix (Appendix X1) to X1.1.1 "Releases or Threatened Releases."

3.2.28 *environmental compliance audit, n*—the investigative process to determine if the operations of an existing facility are in compliance with applicable environmental laws and regulations. This term should not be used to describe this practice, although an *environmental compliance audit* may include an *environmental site assessment* or, if prior audits are available, may be part of an *environmental site assessment*.

3.2.29 *environmental lien, n*—a charge, security, or encumbrance upon title to a *property* to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of *hazardous substances* or *petroleum products* upon a *property*, including (but not limited to) liens imposed pursuant to CERCLA 42 U.S.C. §§ 9607(1) & 9607(r) and similar state or local laws.

3.2.30 *environmental professional, n*—a person meeting the education, training, and experience requirements as set forth in 40 C.F.R. § 312.10(b). For the convenience of the reader, this section is reprinted in Appendix X2. The person may be an independent contractor or an employee of the *user*.

3.2.31 *environmental site assessment (ESA), n*—the process by which a person or entity seeks to determine if a *subject property* is subject to *recognized environmental conditions*. At the option of the *user*, an *environmental site assessment* may include more inquiry than that constituting *all appropriate inquiries* or, if the *user* is not concerned about qualifying for the *LLPs*, less inquiry than that constituting *all appropriate inquiries*. An *environmental site assessment* is both different from and often less rigorous than an *environmental compliance audit*.

3.2.32 *ERNS list, n*—EPA's emergency response notification system list of reported CERCLA *hazardous substance releases* or spills in quantities greater than the reportable quantity, as maintained at the National Response Center. Notification requirements for such *releases* or spills are codified in 40 C.F.R. Parts 302 and 355.

3.2.33 *fill dirt, n*—dirt, soil, sand, or other earth, that is obtained off-site, that is used to fill holes or depressions, create mounds, or otherwise artificially change the grade or elevation of real *property*. It does not include material that is used in limited quantities for normal landscaping activities.

3.2.34 *fire insurance maps, n*—maps originally produced for fire insurance purposes that indicate uses of *properties* at specified dates.

3.2.35 *good faith, n*—absence of any intention to seek an unfair advantage or to defraud another party; an honest and sincere intention to fulfill one's obligations in the conduct or transaction concerned.

3.2.36 *hazardous substance, n*—a substance defined as a *hazardous substance* pursuant to CERCLA 42 U.S.C. § 9601(14), as interpreted by EPA regulations and the courts: "(A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title, (C) any *hazardous waste* having the characteristics identified under or listed pursuant to section 3001 of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, (42 U.S.C. § 6921) (but not including any waste the regulation of which under RCRA (42 U.S.C. § 6901 *et seq*.) has been suspended by Act of Congress), (D) any toxic pollutant listed under section 1317(a) of Title 33, (E) any hazardous air pollutant listed under section 112 of the Clean Air Act (42 U.S.C. § 7412), and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator (of EPA) has taken action pursuant to section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a *hazardous substance* under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)." (See Appendix X1.)

3.2.37 *hazardous waste, n*—any *hazardous waste* having the characteristics identified under or listed pursuant to section 3001 of RCRA, as amended, (42 U.S.C. § 6921) (but not including any waste the regulation of which under RCRA (42 U.S.C. §§ 6901-6992k) has been suspended by Act of Congress). RCRA is sometimes also identified as the Solid Waste

Disposal Act. RCRA defines a *hazardous waste*, at 42 U.S.C. § 6903, as: "a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may: (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness, or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."

3.2.38 *hazardous waste/contaminated sites, n*—sites on which a *release* has occurred, or is suspected to have occurred, of any *hazardous substance*, *hazardous waste*, or *petroleum products*, and that *release* or suspected *release* has been reported to a government entity.

3.2.39 *historical recognized environmental condition, n*—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 *subject property* to any controls (for example, *activity and use limitations* or other *property use limitations*). A *historical recognized environmental condition* is not a *recognized environmental condition*. For examples of *historical recognized environmental conditions*, see Appendix X4.

3.2.39.1 *Discussion*—Identification of a *historical recognized environmental condition* is a multi-step process that shall be reflected in the *report's* Findings and Opinions section(s), as described in 12.5 and 12.6, including the *environmental professional's* rationale for concluding that a finding is a *historical recognized environmental condition*:

(1) When determining whether a *recognized environmental condition* has been "addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the regulatory authority or authorities," the *environmental professional* shall review *reasonably ascertainable* documentation and relevant data that demonstrate that unrestricted use criteria established by the applicable regulatory authority or authorities was met.

(2) A past *release* that qualified as a *historical recognized environmental condition* may no longer qualify as a *historical recognized environmental condition* if new conditions or information have been identified such as, among other things, a change in regulatory criteria or a subsequently identified *migration* pathway that was not previously known or evaluated. As noted, the *report's* Findings and Opinions section(s) shall include the *environmental professional's* rationale for concluding that a condition at the *subject property* is or is not currently a *recognized environmental condition* or a *historical recognized environmental condition*.

3.2.40 *IC/EC registries, n*—databases of *institutional controls* or *engineering controls* that may be maintained by a federal, state, or local environmental agency for purposes of tracking sites that may contain residual contamination and *AULs*. The names for these may vary from program to program and state to state, and include terms such as, but not limited to the following: Declaration of Environmental Use Restriction database (Arizona), Land Use Restriction Sites (California Department of Toxic Substances Control), Sites with Deed Restrictions (California State Water Resources Control Board), Environmental Covenant List (Washington), Sites With Environmental Covenants and Use Restrictions (Colorado), Institutional Control Registry (Indiana), Environmental Site Tracking and Research Tool (Missouri), and the Pennsylvania Activity and Use Limitation (PA *AUL*) Registry.

3.2.41 *innocent landowner [42 U.S.C. §§ 9601(35) & 9607(b)(3)], n*—a person may qualify as one of three types of innocent landowners: *(1)* a person who "did not know and had no reason to know" that contamination existed on the *subject property* at the time the purchaser acquired the *subject property*; *(2)* a government entity which acquired the *subject property* by escheat, or through any other involuntary transfer or acquisition, or through the exercise of eminent domain authority by purchase or condemnation; or *(3)* a person who "acquired the facility by inheritance or bequest." To qualify for the *innocent landowner* defense, such person must have made *all appropriate inquiries* on or before the date of purchase. Furthermore, the *all appropriate inquiries* must not have resulted in knowledge of the contamination. If it does, then such person did "know" or "had reason to know" of contamination and would not be eligible for the *innocent landowner defense*. See Appendix X1 for the other necessary requirements that are beyond the scope of this practice.

3.2.42 *institutional controls (IC), n*—a legal or administrative mechanism (for example, "deed restrictions," restrictive covenants, easements, or zoning) on the use of, or access to, a site or facility to *(1)* reduce or eliminate potential exposure to *hazardous substances* or *petroleum products* in the soil or groundwater on the *property*, or *(2)* to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. An *institutional control* is a type of *activity and use limitation (AUL)*.

3.2.43 *interviews, n*—those portions of this practice that are conducted to gather information from an individual or individuals in person, by telephone, in writing, or via other electronic media to meet the objectives of this practice.

3.2.44 *key site manager, n*—the person identified by the *owner* or *operator* of a *subject property* as having good knowledge of the uses and physical characteristics of the *subject property*. See 10.5.1.

3.2.45 *land title records, n*—records that affect the title of real estate, which may include, among other things, deeds, mortgages, leases, land contracts, court orders, easements, liens, and *AULs* recorded within the recording systems or land registration systems created by state statute in every state and ordinarily administered in the local jurisdiction (usually the county) in which the *subject property* is located, and available by performing a title search. Such records are publicly accessible, though the process of performing a title search to find *land title records* often requires specialized expertise or knowledge of the local system (see 5.4 – *AULs* and *Environmental Liens in Land Title Records*). Information about the title to the *subject property* that is filed or stored in any place other than where *land title records* are, by law or custom, recorded

for the local jurisdiction in which the *subject property* is located, are not considered *land title records*.

3.2.46 *landfill, n*—a place, location, tract of land, area, or premises used for the disposal of solid wastes as defined by state solid waste regulations. The term is synonymous with the term *solid waste disposal site* and is also known as a garbage dump, trash dump, or similar term.

3.2.47 *landowner liability protections (LLPs), n*—a defense to CERCLA available to *bona fide prospective purchasers*, *contiguous property owners*, and *innocent landowners*. See 42 U.S.C. §§ 9601(35)(A), 9601(40), 9607(q), and 9607(r).

3.2.48 *local government agencies, n*—those agencies of municipal or county government having jurisdiction over the *subject property*. Municipal and county government agencies include but are not limited to cities, parishes, townships, and similar entities.

3.2.49 *local street directories, n*—directories published by private or government entities that list the *occupant(s)* of a specific address at the time the *occupant* data were collected, typically within a year of the publication date of the directory.

3.2.50 *major occupants, n*—those tenants, subtenants, or other persons or entities each of which uses at least 40 % of the leasable area of the *subject property* or any anchor tenant when the *subject property* is a shopping center.

3.2.51 *material safety data sheet (MSDS), n*—see *safety data sheet*.

3.2.52 *material threat, n—obvious* threat which is likely to lead to a *release* and that, in the opinion of the *environmental professional*, would likely result in impact to public health or the environment. An example might include an aboveground storage tank system that contains a *hazardous substance* and which shows evidence of damage. The damage would represent a *material threat* if it is deemed serious enough that it may cause or contribute to tank integrity failure with a *release* of contents to the *environment*.

3.2.53 *migrate/migration, v/n*—for the purposes of this practice, "*migrate*" and "*migration*" refers to the movement of *hazardous substances* or *petroleum products* in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.

3.2.53.1 *Discussion*—Vapor *migration* in the subsurface is described in Guide E2600; however, nothing in this practice should be construed to require application of the Guide E2600 standard to achieve compliance with *all appropriate inquiries*.

3.2.54 *National Priorities List (NPL), n*—list compiled by EPA pursuant to CERCLA 42 U.S.C. § 9605(a)(8)(B) of sites with the highest priority for cleanup pursuant to EPA's Hazard Ranking System. See 40 C.F.R. Part 300.

3.2.55 *obvious, adj*—that which is plain or evident; a condition or fact that could not be ignored or overlooked by a reasonable observer.

3.2.56 *occupants, n*—those tenants, subtenants, or other persons or entities using a *property* or a portion of a *property*.

3.2.57 *operator, n*—person responsible for the overall operation of a facility.

3.2.58 *other historical resources, n*—any resource other than those designated in 8.3.4.1 through 8.3.4.8 that are credible to a reasonable person and that identify past uses of *properties*. See 8.3.4.9.

3.2.59 *owner, n*—generally the fee *owner* of record of a *property*.

3.2.60 *petroleum exclusion, n*—the exclusion from CERCLA liability provided in 42 U.S.C. § 9601(14), as interpreted by the courts and EPA: "The term (*hazardous substance*) does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a *hazardous substance* under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)."

3.2.61 *petroleum products, n*—those substances included within the meaning of the *petroleum exclusion* to CERCLA, 42 U.S.C. § 9601(14), as interpreted by the courts and EPA, that is: petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a *hazardous substance* under Subparagraphs (A) through (F) of 42 U.S.C. § 9601(14), natural gas, natural gas liquids, liquefied natural gas, and synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). (The word fraction refers to certain distillates of crude oil, including gasoline, kerosine, diesel oil, jet fuels, and fuel oil, pursuant to Standard Definitions of Petroleum Statistics.[8])

3.2.62 *Phase I Environmental Site Assessment, n*—the process described in this practice.

3.2.63 *physical setting sources, n*—resources that provide information about the geologic, hydrogeologic, hydrologic, or topographic characteristics of the area that includes the *subject property*. See 8.2.1.

3.2.64 *pits, ponds, or lagoons, n*—manmade or natural depressions in a ground surface that are likely to hold liquids or sludge containing *hazardous substances* or *petroleum products*. The likelihood of such liquids or sludge being present is determined by evidence of factors associated with the pit, pond, or lagoon, including, but not limited to, discolored water, distressed vegetation, or the presence of an *obvious wastewater* discharge.

3.2.65 *practically reviewable, adj*—information that is *practically reviewable* means that the information is provided by the source in a manner and in a form that, upon examination, yields information relevant to the *subject property* without the need for extraordinary analysis of irrelevant data. The form of the information shall be such that the *user* can review the records for a limited geographic area. Records that cannot be feasibly retrieved by reference to the location of the *subject property* or a geographic area in which the *subject property* is located are not generally *practically reviewable*. Most databases of public records are *practically reviewable* if they can

[8] *Standard Definitions of Petroleum Statistics*, American Petroleum Institute, Fifth Edition, 1995.

be obtained from the source agency by the county, city, zip code, or other geographic area of the facilities listed in the record system. Records that are sorted, filed, organized, or maintained by the source agency only chronologically are not generally *practically reviewable*. Listings in *publicly available* records which do not have adequate address information to be located geographically are not generally considered *practically reviewable*. For large databases with numerous records (such as RCRA hazardous waste generators and registered *underground storage tanks*), the records are not *practically reviewable* unless they can be obtained from the source agency in the smaller geographic area of zip codes. Even when information is provided by zip code for some large databases, it is common for an unmanageable number of sites to be identified within a given zip code. In these cases, it is not necessary to review the impact of all of the sites that are likely to be listed in any given zip code because that information would not be *practically reviewable*. In other words, when so much information is generated that it cannot be feasibly reviewed regarding its impact on the *subject property*, it is not *practically reviewable*.

3.2.66 *property, n*—real *property*, including buildings and other fixtures and improvements located on and affixed to the land.

3.2.67 *property use limitation, n*—limitation or restriction on current or future use of a *property* in connection with a response to a *release*, in accordance with the applicable regulatory authority or authorities that allows *hazardous substances* or *petroleum products* to remain in place at concentrations exceeding unrestricted use criteria.

3.2.68 *property tax files, n*—files kept for *property* tax purposes by the local jurisdiction which may include records of past ownership, appraisals, maps, sketches, photographs, or other information.

3.2.69 *publicly available, adj*—information that is *publicly available* means that the source of the information allows access to the information by anyone upon request.

3.2.70 *RCRA generators, n*—those persons or entities that generate *hazardous wastes*, as defined and regulated by RCRA.

3.2.71 *RCRA TSD facilities, n*—those facilities on which treatment, storage, and/or disposal of *hazardous wastes* takes place, as defined and regulated by RCRA.

3.2.72 *reasonably ascertainable, adj*—information that is *(1) publicly available*, *(2)* obtainable from its source within reasonable time and cost constraints, and *(3) practically reviewable*.

3.2.73 *recognized environmental conditions, n—(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*.

3.2.73.1 *Discussion*—For the purposes of this definition, "likely" is that 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 therein.

3.2.73.2 *Discussion*—A *de minimis condition* is not a *recognized environmental condition*. See Appendix X4: Additional Examination of the Recognized Environmental Condition Definition and Logic.

3.2.74 *records review, n*—that part that is contained in Section 8 of this practice that addresses which records shall or may be reviewed.

3.2.75 *release, n/v*—a *release* of any *hazardous substance* or *petroleum product* shall have the same meaning as the definition of "*release*" in CERCLA 42 U.S.C. § 9601(22). There are a number of statutory exclusions from the definition of *release* that may impact the *environmental professional's* opinions and conclusions, such as the normal application of fertilizer. For additional background information, see Legal Appendix (Appendix X1) to X1.1.1 "*Releases* and Threatened *Releases*."

3.2.76 *report, n*—written *report* prepared by the *environmental professional* and constituting part of a "*Phase I Environmental Site Assessment*," as required by this practice.

3.2.77 *safety data sheets, n*—written or printed material that is prepared by chemical manufacturers and importers for distributors' and employers' use that provides comprehensive information regarding a hazardous chemical pursuant to OSHA's Hazard Communication Standard (HCS), 29 C.F.R. § 1910.1200.

3.2.78 *significant data gap, n*—a *data gap* that affects the ability of the *environmental professional* to identify a *recognized environmental condition*. See 12.6.2.

3.2.79 *site reconnaissance, n*—that part that is contained in Section 9 of this practice and addresses what should be done in connection with the *site visit*. The *site reconnaissance* includes, but is not limited to, the *site visit* done in connection with such a *Phase I Environmental Site Assessment*.

3.2.80 *site visit, n*—the visit to the *subject property* during which observations are made constituting the *site reconnaissance* section of this practice.

3.2.81 *solid waste disposal site, n*—a place, location, tract of land, area, or premises used for the disposal of solid wastes as defined by state solid waste regulations. The term is synonymous with the term *landfill* and is also known as a garbage dump, trash dump, or similar term.

3.2.82 *solvent, n*—a chemical compound that is capable of dissolving another substance and may itself be a *hazardous substance*, used in a number of manufacturing/industrial processes including but not limited to the manufacture of paints and coatings for industrial and household purposes, equipment clean-up, and surface degreasing in metal fabricating industries.

3.2.83 *standard environmental record sources, n*—those records specified in 8.2.2.

3.2.84 *standard historical resources, n*—those resources of information about the history of uses of *properties* specified in 8.3.4.

3.2.85 *standard physical setting resources, n*—recent *USGS 7.5 Minute Topographic Map* (or equivalent) showing contour lines and the area on which the *subject property* is located, and site-specific physical setting information obtained pursuant to agency file reviews. See 8.2.1.

3.2.86 *standard practice, n*—the activities set forth in this practice.

3.2.87 *standard sources, n*—sources of environmental, physical setting, or historical records specified in Section 8 of this practice.

3.2.88 *subject property, n*—the *property* that is the subject of the *environmental site assessment* described in this practice.

3.2.89 *sump, n*—pit, cistern, cesspool, or similar receptacle where liquids drain, collect, or are stored.

3.2.90 *topographic map, n*—graphic representation delineating natural and man-made features of an area or region in a way that shows their relative positions and elevations.

3.2.91 *TSD facility, n*—treatment, storage, or disposal facility. See 3.2.71.

3.2.92 *underground injection, n*—the emplacement or discharge of fluids into the subsurface by means of a well, improved sinkhole, sewage drain hole, subsurface fluid distribution system or other system, or groundwater point source.

3.2.93 *underground storage tank (UST), n*—any tank, including underground piping connected to the tank, that is or has been used to contain *hazardous substances* or *petroleum products* and the volume of which is 10 % or more beneath the surface of the ground.

3.2.94 *user, n*—the party seeking to use Practice E1527 to complete an *environmental site assessment* of the *subject property*.

3.2.94.1 *Discussion*—A *user* may include, without limitation, a potential purchaser of *subject property*, a potential tenant of *subject property*, an *owner* of the *subject property*, a lender, or a *property* manager. A *user* seeking to qualify for an *LLP* to CERCLA liability, or a *user* that is an EPA Brownfield Assessment and Characterization grantee, has specific responsibilities for completing a successful application of this practice as outlined in Section 6.

3.2.95 *USGS 7.5 Minute Topographic Map, n*—USGS Topographic Map, including the current US Topo 7.5-Minute Series or the historical 7.5-Minute Topographic Series, which is available from the United States Geologic Survey and showing the *subject property*.

3.2.96 *visually and/or physically observed, v*—during a *site visit* pursuant to this practice, this term means observations made by visual, auditory, or olfactory means while performing the *site reconnaissance*.

3.2.97 *wastewater, n*—water that *(1)* is or has been used in an industrial or manufacturing process, *(2)* conveys or has conveyed sewage, or *(3)* is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. *Wastewater* does not include water originating on or passing through or adjacent to a site, such as stormwater flows, that has not been used in industrial or manufacturing processes, has not been combined with sewage, or is not directly related to manufacturing, processing, or raw materials storage areas at an industrial plant.

3.2.98 *zoning/land use records, n*—those records of the local government of areas encompassing the *subject property* indicating the uses permitted by the local government in particular zones within its jurisdiction. The records may consist of maps or written records.

3.3 *Abbreviations and Acronyms:*

3.3.1 *AULs—Activity and Use Limitations*

3.3.2 *CERCLA*—Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (as amended, 42 U.S.C. § 9601 *et seq*.)

3.3.3 *C.F.R.*—Code of Federal Regulations

3.3.4 *CREC—Controlled Recognized Environmental Condition*

3.3.5 *EC—Engineering Control*

3.3.6 *EPA*—United States Environmental Protection Agency

3.3.7 *EPCRA*—Emergency Planning and Community Right to Know Act (also known as SARA Title III), 42 U.S.C. §§ 11001-11050 *et seq*.

3.3.8 *ERNS*—emergency response notification system

3.3.9 *ESA—environmental site assessment* (different than an *environmental compliance audit*, 3.2.28)

3.3.10 *FR*—Federal Register

3.3.11 *HREC—Historical Recognized Environmental Condition*

3.3.12 *IC—Institutional Control*

3.3.13 *LLP—Landowner Liability Protections* under the *Brownfields Amendments*

3.3.14 *LUST*—Leaking *underground storage tank*

3.3.15 *NCP*—National Contingency Plan

3.3.16 *NFRAP*—Sites where no further remedial action is planned under CERCLA

3.3.17 *NPDES*—National Pollutant Discharge Elimination System

3.3.18 *NPL*—National Priorities List

3.3.19 *PCBs*—Polychlorinated biphenyls

3.3.20 *RCRA*—Resource Conservation and Recovery Act (as amended, 42 U.S.C. § 6901 *et seq*.)

3.3.21 *REC—Recognized Environmental Condition*

3.3.22 *SARA*—Superfund Amendments and Reauthorization Act of 1986 (amendment to CERCLA).

3.3.23 *TSDF—hazardous waste* treatment, storage, or disposal facility

3.3.24 *U.S.C.*—United States Code

3.3.25 *USGS*—United States Geological Survey

3.3.26 *UST*—Underground Storage Tank

4. Significance and Use

4.1 *Uses*—This practice is intended for use on a voluntary basis by parties who wish to assess the environmental condition of *commercial real estate* taking into account commonly known and *reasonably ascertainable* information. While use of this practice is intended to constitute *all appropriate inquiries* for purposes of the *LLPs*, it is not intended that its use be limited to that purpose. This practice is intended primarily as an approach to conducting an inquiry designed to identify *recognized environmental conditions* in connection with a *subject property*. No implication is intended that a person shall use this practice in order to be deemed to have conducted inquiry in a commercially prudent or reasonable manner in any particular transaction. Nevertheless, this practice is intended to reflect good commercial and customary practice (see 1.6).

4.2 *Clarifications on Use:*

4.2.1 *Use Not Limited to CERCLA*—This practice is designed to assist the *user* in developing information about the environmental condition of a *subject property* and as such has utility for a wide range of persons, including those who may have no actual or potential CERCLA liability and/or may not be seeking the *LLPs*.

4.2.2 *Residential Tenants/Purchasers and Others*—No implication is intended that it is currently customary practice for residential tenants of multifamily residential buildings, tenants of single-family homes or other residential real estate, or purchasers of *dwellings* for one's own residential use, to conduct an *environmental site assessment* in connection with these transactions. Thus, these transactions are not included in the term *commercial real estate* transactions, and it is not intended to imply that such persons are obligated to conduct an *environmental site assessment* in connection with these transactions for purposes of *all appropriate inquiries* or for any other purpose. In addition, no implication is intended that it is currently customary practice for *environmental site assessments* to be conducted in other unenumerated instances (including but not limited to many commercial leasing transactions, many acquisitions of easements, and many loan transactions in which the lender has multiple remedies). On the other hand, anyone who elects to do an *environmental site assessment* of a *subject property* may, in such person's judgment, use this practice.

NOTE 1—The 2018 BUILD Act amended the CERCLA definition of *bona fide prospective purchaser* at § 101(40) to include certain commercial tenants or lessees who acquire a leasehold interest in a *property*. Therefore, in certain cases, a person acquiring a leasehold interest in a commercial property may need to conduct an *environmental site assessment*, for the purposes of *all appropriate inquiries*, into the previous ownership and uses of the leased commercial property to qualify for the *bona fide prospective purchaser landowner liability protection*.

4.2.3 *Site-Specific*—This practice is site-specific in that it relates to the assessment of environmental conditions for specific *commercial real estate*. Consequently, this practice does not address many additional issues raised in transactions such as purchases of business entities, or interests therein, or of their assets, that may well involve environmental liabilities pertaining to *properties* previously owned or operated or other off-site environmental liabilities.

4.3 *Who May Conduct*—A *Phase I Environmental Site Assessment* must be performed by an *environmental professional* as specified in 7.5.1. No practical standard can be designed to eliminate the role of judgment and the value and need for experience in the party performing the inquiry. The professional judgment of an *environmental professional* is, consequently, vital to the performance of *all appropriate inquiries*.

4.4 *Additional Services*—As set forth in 12.10, additional services may be contracted for between the *user* and the *environmental professional*. Such additional services may include *business environmental risk (BER)* issues not included within the scope of this practice, examples of which are identified in Section 13 under Non-Scope Considerations.

4.5 *Principles*—The following principles are an integral part of this practice and are intended to be referred to in resolving any ambiguity or exercising such discretion as is accorded the *user* or *environmental professional* in conducting an *environmental site assessment* or in judging whether a *user* or *environmental professional* has conducted appropriate inquiry or has otherwise conducted an adequate *environmental site assessment*.

4.5.1 *Uncertainty Not Eliminated*—No *environmental site assessment* can wholly eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with a *subject property*. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for *recognized environmental conditions* in connection with a *subject property*, and this practice recognizes reasonable limits of time and cost.

4.5.2 *Not Exhaustive—All appropriate inquiries* does not mean an exhaustive assessment of a *property*. There is a point at which the cost of information obtained or the time required to gather it outweighs the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. One of the purposes of this practice is to identify a balance between the competing goals of limiting the costs and time demands inherent in performing an *environmental site assessment* and the reduction of uncertainty about unknown conditions resulting from additional information.

4.5.3 *Level of Inquiry is Variable*—Not every *property* will warrant the same level of assessment. Consistent with good commercial and customary standards and practices as defined at 42 U.S.C. § 9601(35)(B), the appropriate level of *environmental site assessment* will be guided by the type of *property* subject to assessment, the expertise and risk tolerance of the *user*, future intended uses of the *subject property* disclosed to the *environmental professional*, and the information developed in the course of the inquiry.

4.5.4 *Comparison with Subsequent Inquiry*—It should not be concluded or assumed that an inquiry was not *all appropriate inquiries* merely because the inquiry did not identify *recognized environmental conditions* in connection with a *subject property*. *Environmental site assessments* must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent *environmental site assessments* should not be considered valid standards to judge the appropriateness of any

prior assessment based on hindsight, new information, use of developing technology or analytical techniques, or other factors.

4.5.5 *Point in Time*—The *environmental site assessment* is based upon conditions at the time of completion of the individual *environmental site assessment* elements (see 7.2).

4.6 *Continued Viability of Environmental Site Assessment:*

4.6.1 *Presumed Viability*—Subject to 4.8 and the *user's* responsibilities set forth in Section 6, an *environmental site assessment* meeting or exceeding this practice is presumed to be viable when it is conducted within 180 days prior to the date of acquisition[9] of the *subject property* (or, for transactions not involving an acquisition such as a lease or refinance, the date of the intended transaction). The dates of the components presented in 4.6.2(i), (iii), (iv), and (v) for *interviews*, review of government records, visual inspections, and declaration by *environmental professional*, shall be identified in the *report*. Completion of searches for recorded environmental cleanup liens (4.6.2(ii)) is a *user* responsibility; however, if the *user* has engaged the *environmental professional* to conduct these searches, then that date shall also be identified in the *report*.

4.6.2 *Updating of Certain Components*—Subject to 4.8 and the *user's* responsibilities set forth in Section 6, an *environmental site assessment* meeting or exceeding this practice and for which the information was collected or updated within one year prior to the date of acquisition of the *subject property* (or, for transactions not involving an acquisition such as a lease or refinance, the date of the intended transaction) may be used provided that the following components of the inquiries were updated within 180 days prior to the date of purchase or the date of the intended transaction. All of the following components must be conducted or updated within 180 days prior to the date of acquisition or prior to the date of the transaction:

(i) *interviews* with *owners*, *operators*, and *occupants*;

(ii) searches for recorded environmental cleanup liens (a *user* responsibility, see Section 6);

(iii) reviews of federal, tribal, state, and local government records;

(iv) visual inspections of the *subject property* and of *adjoining properties*; and

(v) the declaration by the *environmental professional* responsible for the assessment or update.

4.6.3 *Compliance with All Appropriate Inquiries*—To qualify for one of the threshold criteria for satisfying the *LLPs* to CERCLA liability, the *all appropriate inquiries* components listed in 4.6.2 must be conducted or updated within 180 days of and prior to the date of acquisition of the *subject property*, and all other components of *all appropriate inquiries* must be conducted within one year prior to the date of acquisition of the *subject property*. The date of the *report* generally does not represent the date the individual components of *all appropriate inquiries* were completed and should not be used when evaluating compliance with the 180-day or 1-year *all appropriate inquiries* requirements.

4.6.4 *User's Responsibilities*—If, within this period, the *environmental site assessment* will be used by a *user* different than the *user* for whom the *environmental site assessment* was originally prepared, the subsequent *user* must also satisfy the *user's* responsibilities in Section 6.

4.7 *Prior Assessment Usage*—This practice recognizes that *environmental site assessments* performed in accordance with this practice will include information that subsequent *users* may want to use to avoid undertaking duplicative assessment procedures. Therefore, this practice describes procedures to be followed to assist *users* in determining the appropriateness of using information in *environmental site assessments* performed more than one year prior to the date of acquisition of the *subject property* (or for transactions not involving an acquisition such as a lease or refinance, the date of the intended transaction). The system of prior assessment usage is based on the following principles that should be adhered to in addition to the specific procedures set forth elsewhere in this practice:

4.7.1 *Use of Prior Information*—Subject to the requirements set forth in 4.6, *users* and *environmental professionals* may use information in prior *environmental site assessments* provided such information was generated as a result of procedures that meet or exceed the requirements of this practice. However, such information shall not be used without current investigation of conditions likely to affect *recognized environmental conditions* in connection with the *subject property*. Additional tasks may be necessary to document conditions that may have changed materially since the prior *environmental site assessment* was conducted. Nothing in this practice is intended to convey a right to use or to rely upon resources, information, findings, or opinions provided in prior assessments.

4.7.2 *Contractual Issues Regarding Prior Assessment Usage*—The contractual and legal obligations between prior and subsequent *users* of *environmental site assessments* or between *environmental professionals* who conducted prior *environmental site assessments* and those who would like to use such prior *environmental site assessments* are beyond the scope of this practice.

4.8 *Actual Knowledge Exception*—If the *user* or *environmental professional(s)* conducting an *environmental site assessment* has *actual knowledge* that the information being used from a prior *environmental site assessment* is not accurate or if it is *obvious*, based on other information obtained by means of the *environmental site assessment* or known to the person conducting the *environmental site assessment*, that the information being used is not accurate, such information from a prior *environmental site assessment* may not be used.

4.9 *Rules of Engagement*—The contractual and legal obligations between an *environmental professional* and a *user* (and other parties, if any) are outside the scope of this practice. No specific legal relationship between the *environmental professional* and the *user* is necessary for the *user* to meet the requirements of this practice.

4.10 *Organization of This Practice*—This practice has thirteen sections and six appendixes. Section 1 is the Scope. Section 2 is Referenced Documents. Section 3, Terminology, has definitions of terms not unique to this practice, descriptions

[9] Under "*All Appropriate Inquiries*" 40 C.F.R. Part 312, EPA defines "date of acquisition" as the date on which a person acquires title to the *property*.

of terms unique to this practice, and acronyms. Section 4 is Significance and Use of this practice. Section 5 provides discussion regarding *activity and use limitations*. Section 6 describes *User's* Responsibilities. Sections 7 – 12 are the main body of the *Phase I Environmental Site Assessment*, including evaluation and *report* preparation. Section 13 provides additional information regarding non-scope considerations (see 1.4). The appendixes are included for information and are not part of the procedures prescribed in this practice. Appendix X1 explains the liability and defense provisions of CERCLA that will assist the *user* in understanding the *user's* responsibilities under CERCLA; it also contains other important information regarding CERCLA, the *Brownfields Amendments*, and this practice. Appendix X2 provides the definition of the *environmental professional* responsible for the *Phase I Environmental Site Assessment*, as required in the "*All Appropriate Inquiries*" Final Rule (40 C.F.R. Part 312). Appendix X3 provides an optional *User* Questionnaire to assist the *user* and the *environmental professional* in gathering information from the *user* that may be material to identifying *recognized environmental conditions*. Appendix X4 offers an additional examination of the *recognized environmental condition* definition. Appendix X5 provides a suggested table of contents and *report* format for a *Phase I Environmental Site Assessment*. Appendix X6 summarizes non-scope considerations that persons may want to assess.

5. Significance of Activity and Use Limitations

5.1 *Activity and Use Limitations—AULs* are one indication of a past or present *release* of *hazardous substances* or *petroleum products*. *AULs* are an explicit recognition by a federal, tribal, state, or local regulatory agency that residual levels of *hazardous substances* or *petroleum products* may be present on a *property*, and that unrestricted use of the *property* may not be acceptable. *AULs* are important to both the *user* and the *environmental professional*. Specifically, the *environmental professional* can review agency records and *IC/EC registries* for the presence of *AULs* on the *subject property* to determine if *recognized environmental conditions* are present on the *subject property* (see 8.2.2, 8.2.4, and 11.5.1.4). The *user* must comply with *AULs* to maintain the *LLP* (see Appendix X1).

5.2 *Different Terms for AULs*—The term *AUL* is taken from Guide E2091 to include both legal (that is, institutional) and physical (that is, engineering) controls, within its scope. Agencies, organizations, and jurisdictions may define or utilize these terms differently (for example, Department of Defense and International City/County Management Association use "Land Use Controls" and the term "land use restrictions" is used but not defined in the *Brownfields Amendments*).

5.3 *Information Provided by the AUL*—The *AUL* should provide information on the *hazardous substance* or *petroleum product* at the *subject property*, the potential exposure pathway(s) that the *AUL* is intended to control, the environmental medium that is being controlled, and the expected performance objective(s) of the *AUL*. *AULs* may be used to provide access to monitoring wells, sampling locations, or remediation equipment.

5.4 *AULs and Environmental Liens in Land Title Records or Judicial Records—Environmental liens* and *AULs* are legally distinct instruments and have very different purposes, but both instruments can provide an indication of a past or present *release* of a *hazardous substance* or *petroleum product*. *AULs* and *environmental liens* can ordinarily be found in *land title records*. In some jurisdictions, however, judicial records rather than *land title records* include *environmental lien* records. The process of searching and evaluating *land title records* or judicial records (as applicable) ordinarily requires specialized expertise provided by title insurance companies or title search professionals. As described in 6.2, reviewing *land title records* for *AULs* and *environmental liens* (or judicial records where applicable) is a *user* responsibility. See Appendix X1.7 (providing additional discussion of *Land Title Records*, judicial records, and the title search process).

5.5 *AULs in State IC/EC Registries*—In some cases, in lieu of or in addition to being filed in the *land title records*, *AULs* may be found in separate *IC/EC registries*. As 8.2 provides, lists of state and tribal *institutional control/engineering control* sites shall be reviewed by the *environmental professional*. This review can be accomplished by reviewing *IC/EC registries*. However, while some states maintain *reasonably ascertainable IC/EC registries*, other states do not. The *environmental professional* should determine whether *AULs* are considered *reasonably ascertainable* records in the state in which the *subject property* is located. Some *AULs* may only exist in project documentation, which may not be *reasonably ascertainable* for the *environmental professional*. This may be the case in states where project files are archived after a period of years and access to the archives is restricted. *AULs* imposed upon some *properties* by local agencies with limited environmental oversight may not be recorded in the *land title records*, particularly where a local agency has been delegated regulatory authority over environmental programs.

6. User's Responsibilities

6.1 *Scope*—The purpose of this section is to describe tasks to be performed by the *user*. The "*All Appropriate Inquiries*" Final Rule (40 C.F.R. Part 312) requires that these tasks be performed by or on behalf of a party seeking to qualify for an *LLP* to CERCLA liability (see Note 2). These tasks must also be completed by or on behalf of EPA Brownfield Assessment and Characterization grantees. While such information is not required to be provided to the *environmental professional*, the *environmental professional* shall request that the *user* provide the results of these tasks as such information can assist the *environmental professional* in identifying *recognized environmental conditions*. Appendix X3 provides an optional *User* Questionnaire to assist the *user* and the *environmental professional* in gathering information from the *user* that may be material to identifying *recognized environmental conditions*. If the *user* does not communicate the information to the *environmental professional* in connection with 6.1 through 6.6, the *environmental professional* should consider the significance of the absence of such information pursuant to 12.7.

NOTE 2—Nothing in this section relieves the *environmental professional* of satisfying the *environmental professional* responsibilities set forth in the *All Appropriate Inquiries* Final Rule (40 C.F.R. Part 312).

6.2 *Review Land Title Records and Judicial Records for Environmental Liens and Activity and Use Limitations*—To meet the requirements of 40 C.F.R. 312.20 and 312.25, a search for the existence of *environmental liens* and *AULs* that are filed or recorded against the *subject property* must be conducted. To meet this requirement, *users* may rely on either of the following two methods:

6.2.1 *Method 1 Transaction-Related Title Insurance Documentation Such as Preliminary Title Reports and Title Commitments*—The *user* may rely on title insurance documentation, commonly fashioned as preliminary title reports or title commitments, which are prepared in the course of offering title insurance for the *subject property* transaction to identify *environmental liens* or *AULs* filed or recorded against the *subject property*. Title insurance documentation involves a reliable review of *land title records* or judicial records (see X1.7.4 discussing title insurance documentation). However, the *user* (or a title professional engaged by the *user*) should closely review the title insurance documentation, particularly the areas of the documentation listing *subject property* encumbrances or "restrictions on record," for indications of *AULs* or *environmental liens*.

6.2.2 *Method 2 Title Search Information Reports Such as Condition of Title, Title Abstracts, and AUL/Environmental Lien Reports*—Alternatively, *users* may rely on title search information reports to identify *environmental liens* or *AULs* filed or recorded against the *subject property*. Title search information reports, commonly fashioned as Condition of Title, Title Abstract, *AUL*/Environmental Lien, or similarly titled reports, provide the results of *land title record* and/or judicial records research (as applicable) for information purposes only, rather than for the purposes of offering title insurance. *Users* may rely on title search information reports as long as the title search information reports meet the following scope:

6.2.2.1 *Scope of Title Search Information Reports*—Title search information reports shall identify environmental covenants, environmental easements, land use covenant and agreements, declaration of environmental land use restrictions, environmental land use controls, environmental use controls, *environmental liens*, or any other recorded instrument that restricts, affects, or encumbers the title to the *subject property* due to restrictions or encumbrances associated with the presence of *hazardous substances* or *petroleum products*. Title search information reports shall review *land title records* for documents recorded between 1980 and the present. If judicial records are not reviewed, the title search information report shall include a statement providing that the law or custom in the jurisdiction at issue does not require a search for judicial records in order to identify *environmental liens*.

6.2.3 *Role of the Environmental Professional*—The *user's* responsibility to search for *environmental liens* and *AULs* required by this section is in addition to the *environmental professional's* search of *institutional control* and *engineering control* registries described in 8.2. Unless this task is expressly added by a change in the scope of work to be performed by the *environmental professional*, the *user* requirements set forth in 6.2 do not impose on the *environmental professional* the responsibility to undertake a review of *land title records* or judicial records for *environmental liens* or *AULs*.

6.2.3.1 *User Responsibility to Report Environmental Liens and AULs to the Environmental Professional*—Any *environmental liens* or *AULs* identified under the requirements of 6.2, or otherwise known to the *user*, should be reported to the *environmental professional* conducting the *environmental site assessment*. As provided in 6.1, the *environmental professional* shall request that the *user* provide the results of *user*-performed *AUL* and *environmental lien* searches performed under 6.2.

6.2.3.2 *Environmental Professional Report Requirements*—*Environmental professionals* shall describe in their *report* whether they received the results of the *environmental lien* and *AUL* search required by 6.2. The *environmental professional* does not need to review, assess, or otherwise evaluate the *land title records* or the *user's* conclusions as to whether *AULs* or *environmental liens* were identified. The *environmental professional* only needs to identify whether they received *land title records* from the *user* and whether the *user* identified *AULs* or *environmental liens*.

6.2.4 *Reasonably Ascertainable Title and Judicial Records for Environmental Liens and Activity and Use Limitations*—For this Section 6 (but not 8.2), *environmental liens* and *AULs* that are recorded or filed in any place other than *land title records* or judicial records (as applicable) are not considered to be *reasonably ascertainable* unless applicable federal, tribal, state, or local statutes or regulations specify a place other than *land title records* or judicial records (as applicable) for recording or filing of *environmental liens* and *AULs*.

6.3 *Specialized Knowledge or Experience of the User*—*Users* must take into account their specialized knowledge to identify conditions indicative of *releases* or threatened *releases*. If the *user* has any specialized knowledge or experience that is material to *recognized environmental conditions* in connection with the *subject property*, the *user* should communicate any information based on such specialized knowledge or experience to the *environmental professional*. The *user* should do so before the *environmental professional* conducts the *site reconnaissance* is conducted.

6.4 *Actual Knowledge of the User*—If the *user* has *actual knowledge* of any *environmental lien* or *AULs* encumbering the *subject property* or in connection with the *subject property*, the *user* should communicate such information to the *environmental professional*. The *user* should do so before the *site reconnaissance* is conducted.

6.5 *Reason for Significantly Lower Purchase Price*—In a transaction involving the purchase of a parcel of *commercial real estate*, the *user* shall consider the relationship of the purchase price of the *subject property* to the fair market value of the *subject property* if the *subject property* was not affected by *hazardous substances* or *petroleum products*. The *user* should try to identify an explanation for a lower price which does not reasonably reflect fair market value if the *subject property* was not contaminated, and make a written record of such explanation. Among the factors to consider will be the

information that becomes known to the *user* pursuant to the *Phase I Environmental Site Assessment*. This practice does not require that a real estate appraisal be obtained in order to ascertain fair market value of the *subject property*. The *user* should inform the *environmental professional* if the *user* believes that the purchase price of the *subject property* is lower than the fair market value due to contamination. The *user* is not required to disclose the purchase price to the *environmental professional*.

6.6 *Commonly Known or Reasonably Ascertainable Information*—Commonly known or reasonably ascertainable information within the local community about the *subject property* must be taken into account by the *user*. If the *user* is aware of any commonly known or *reasonably ascertainable* information within the local community about the *subject property* that is material to *recognized environmental conditions* in connection with the *subject property*, the *user* should communicate such information to the *environmental professional*. The *user* should do so before the *site reconnaissance* is conducted. The *user* must gather such information to the extent necessary to identify conditions indicative of *releases* or threatened *releases* of *hazardous substances* or *petroleum products*.

6.7 *Degree of Obviousness*—The *user* must consider the degree of obviousness of the presence or likely presence of *releases* or threatened *releases* at the *subject property* and the ability to detect *releases* or threatened *releases* by appropriate investigation including the information collected under 6.2, 6.3, 6.5, 6.6, 8.2, 8.3, Section 9, and Section 10.

6.8 *Other*—Either the *user* shall make known to the *environmental professional* the reason why the *user* wants to have the *Phase I Environmental Site Assessment* performed or, if the *user* does not identify the purpose of the *Phase I Environmental Site Assessment*, the *environmental professional* shall assume the purpose is to qualify for an *LLP* to CERCLA liability and state this in the *report*.

7. Phase I Environmental Site Assessment

7.1 *Objective*—The purpose of this *Phase I Environmental Site Assessment* is to identify, to the extent feasible pursuant to the processes prescribed herein, *recognized environmental conditions* in connection with the *subject property* (see 1.1.1).

7.2 *Elements*—A *Phase I Environmental Site Assessment* shall include the following elements:

7.2.1 *User's Responsibilities*—Described in Section 6,

7.2.2 *Physical Setting Resources*—Described in 8.2.1,

7.2.3 *Government Records*—Described in 8.2.2,

7.2.4 *Historical Records*—Described in 8.3,

7.2.5 *Site Reconnaissance*—Described in Section 9,

7.2.6 *Owner/Operator/Occupant Interviews*—Described in Section 10,

7.2.7 *Local Government Officials Interviews*—Described in Section 11,

7.2.8 *Evaluation and Report*—Described in Section 12.

7.3 *Coordination of Parts:*

7.3.1 *Parts Used in Concert*—The *records review*, *site reconnaissance*, and *interviews* are intended to be used in concert with each other. If information from one source indicates the need for more information, other sources may be available to provide information. For example, if a previous use of the *subject property* as a gasoline station is identified through the *records review*, but the present *owner* and *occupants* interviewed report no knowledge of an *underground storage tank*, the person conducting the *site reconnaissance* should be alert for signs of the presence of an *underground storage tank*. The *environmental professional* shall, based on professional judgment, evaluate the relevant lines of evidence obtained as a part of the Phase I process to identify *recognized environmental conditions* in connection with the *subject property*.

7.3.2 *User's Responsibilities*—The *environmental professional* shall note in the *report* whether or not the *user* has reported to the *environmental professional* information pursuant to Section 6.

7.4 *No Sampling*—This practice does not include any testing or sampling of materials (for example, soil, water, air, or building materials).

7.5 *Who May Conduct a Phase I Environmental Site Assessment:*

7.5.1 *Environmental Professional's Duties*—The *environmental site assessment* must be conducted by the *environmental professional* or conducted under the supervision or responsible charge of the *environmental professional*. The *environmental professional* shall be involved in planning the *interviews* and the *site reconnaissance* if not conducted by the *environmental professional*. The person performing the *interviews* and *site reconnaissance* shall possess sufficient education, training, and experience to assess the nature, history, and setting of the *subject property*, and have the ability to identify issues relevant to *recognized environmental conditions* in connection with the *subject property*. The *environmental professional* shall review and interpret the information used to form the basis of the findings, opinions, and conclusions in the *report*.

7.5.2 *Information Obtained From Others*—Information for the *records review* needed for completion of a *Phase I Environmental Site Assessment* may be provided by a number of parties including government agencies, third-party vendors, the *user*, and present and past *owners* and *occupants* of the *subject property*, provided that the information is obtained by the *environmental professional* or person acting under the supervision or responsible charge of the *environmental professional*, or is obtained by a third-party vendor specializing in retrieval of the information specified in Section 8. Prior assessments may also contain information that will be appropriate for usage in a current *environmental site assessment* provided the prior usage procedures set forth in Sections 4, 8, 9, and 10 are followed. The *environmental professional* responsible for the *report* shall review all of the information provided.

7.5.2.1 *Reliance*—An *environmental professional* is not required to verify independently the information provided but may rely on information provided unless the *environmental professional* has *actual knowledge* that certain information is incorrect or unless it is *obvious* that certain information is incorrect based on other information obtained in the *Phase I*

Environmental Site Assessment or otherwise actually known to the *environmental professional*.

8. Records Review

8.1 *Introduction:*

8.1.1 *Objective*—The purpose of the *records review* is to obtain and review records that will help identify *recognized environmental conditions* in connection with the *subject property*.

8.1.2 *Approximate Minimum Search Distance*—Some records to be reviewed pertain not just to the *subject property* but also pertain to *properties* within an additional *approximate minimum search distance* in order to help assess the likelihood of an impact to the *subject property* from migrating *hazardous substances* or *petroleum products*. When the term *approximate minimum search distance* includes areas outside the *subject property*, it shall be measured from the nearest *subject property* boundary. The term *approximate minimum search distance* is used in lieu of radius in order to include irregularly shaped *properties*.

8.1.2.1 *Adjustment to Approximate Minimum Search Distance*—When allowed by 8.2.2, the *approximate minimum search distance* for a particular record may be adjusted in the discretion of the *environmental professional*. Factors to consider in adjusting the *approximate minimum search distance* include: *(1)* the density (for example, urban, rural, or suburban) of the setting in which the *subject property* is located; *(2)* the distance that the *hazardous substances* or *petroleum products* are likely to *migrate* based on local geologic or hydrogeologic conditions; *(3)* the *property* type, *(4)* existing or past uses of surrounding *properties*, and *(5)* other reasonable factors. The justification for each adjustment and the *approximate minimum search distance* actually used for any particular record shall be explained in the *report*. If the *approximate minimum search distance* is specified as "*subject property* only," then the search shall be limited to the *subject property* and may not be reduced unless the particular record is not *reasonably ascertainable*.

8.1.3 *Accuracy and Completeness*—Accuracy and completeness of record information varies among information sources, including governmental sources. Record information is often inaccurate or incomplete. Neither the *user* nor the *environmental professional* is obligated to identify mistakes or insufficiencies in information provided. However, the *environmental professional* reviewing records shall make a reasonable effort to compensate for mistakes or insufficiencies in the information reviewed that are *obvious* in light of other information of which the *environmental professional* has *actual knowledge*.

8.1.4 *Reasonably Ascertainable/Standard Sources*—Availability of record information varies from information source to information source, including governmental jurisdictions. The *user* or *environmental professional* is not obligated to identify, obtain, or review every possible record that might exist with respect to a *property*. Instead, this practice identifies record information that shall be reviewed from *standard sources*, and the *user* or *environmental professional* is required to review only record information that is *reasonably ascertainable* from those *standard sources*. Record information that is *reasonably ascertainable* means information that is *(1) publicly available*, *(2)* obtainable from its source within reasonable time and cost constraints, and *(3) practically reviewable*.

8.1.5 *Reasonable Time and Cost*—Information that is obtainable within reasonable time and cost constraints means that the information will be provided by the source within 20 calendar days of receiving a written, telephone, or in-person request at no more than a nominal cost intended to cover the source's cost of retrieving and duplicating the information. Information that can only be reviewed by a visit to the source is *reasonably ascertainable* if the visit is permitted by the source within 20 calendar days of request.

8.1.6 *Alternatives to Standard Sources*—Alternative sources may be used instead of *standard sources* if they are of similar or better reliability and detail, or if a standard source is not *reasonably ascertainable*.

8.1.7 *Coordination*—If records are not *reasonably ascertainable* from *standard sources* or alternative sources, the *environmental professional* shall attempt to obtain the requested information by other means specified in this practice, such as questions posed to the current *owner* or *occupant(s)* of the *subject property* or appropriate persons available at the source at the time of the request.

8.1.8 *Sources of Standard Source Information—Standard source* information or other record information from government agencies may be obtained directly from appropriate government agencies or from commercial services. Government information obtained from non-governmental sources may be considered current if the source updates the information at least every 90 days or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public.

8.1.9 *Documentation of Sources Checked*—The *report* shall document each source that was checked, even if a source revealed no findings. Sources shall be sufficiently documented, including name, date request for information was filled, date information provided was last updated by source, date information was last updated by original source (if provided other than by original source; see 8.1.8). Supporting documentation shall be included in the *report* or adequately referenced to facilitate reconstruction of the assessment by an *environmental professional* other than the *environmental professional* who conducted it.

8.1.10 *Significance*—If a *standard environmental record source* (or other sources in the course of conducting the *Phase I Environmental Site Assessment*) identifies the *subject property* or another site within the *approximate minimum search distance*, the *report* shall include the *environmental professional's* judgment about the significance of the listing to the analysis of *recognized environmental conditions* in connection with the *subject property* (based on the data retrieved pursuant to 8.2, additional information from the government source, or other sources of information). In doing so, the *environmental professional* may make statements applicable to multiple sites (for example, a statement to the effect that none of the sites listed is likely to have current or former *releases* of *hazardous*

substances and/or *petroleum products* with the potential to *migrate* to the *subject property* except...).

8.2 *Environmental Information:*

TABLE 1 Mandatory *Standard Physical Setting Resources*

USGS—Most recent 7.5 Minute Topographic Map (or equivalent) showing contour lines
Site-specific physical setting information obtained pursuant to agency file review
Discretionary and *Non-Standard Physical Setting Resources*
USGS and/or State Geological Survey—Groundwater Maps
USGS and/or State Geological Survey—Bedrock Geology Maps
USGS and/or State Geological Survey—Surficial Geology Maps
National Cooperative Soil Survey—Soil Survey Maps
Other *Physical Setting Resources* that are reasonably credible (as well as *reasonably ascertainable*)

8.2.1 *Physical Setting Resources*—A USGS topographic map (current USGS Topo or historical 7.5-Minute Topographic Series) showing the *subject property* shall be reviewed. The map shall be displayed at an appropriate scale such that the contour labels are visible and the topography can be visualized. Site-specific physical setting information obtained pursuant to agency file reviews set forth in 8.2.3 shall also be reviewed. One or more additional *physical setting resources* may be obtained at the discretion of the *environmental professional*. Because such resources provide information about the geologic, hydrogeologic, hydrologic, or topographic characteristics of a site, discretionary *physical setting resources* shall be sought when *(1)* conditions have been identified in which *hazardous substances* or *petroleum products* are likely to *migrate* to the *subject property* or from or within the *subject property* into the groundwater or soil, and *(2)* more information than is provided in the most recent *USGS 7.5 Minute Topographic Map* (or equivalent) is generally obtained, pursuant to local good commercial and customary practice in initial *environmental site assessments* for the type of *commercial real estate transaction* involved, to assess the impact of such *migration* on *recognized environmental conditions* in connection with the *subject property* (Table 1).

8.2.2 *Standard Federal, State, and Tribal Environmental Record Sources—Standard government environmental record sources* shall be reviewed, subject to the conditions of 8.1.1 through 8.1.8. Table 2 identifies the types of government records that shall be reviewed. The *approximate minimum search distance* may be reduced, pursuant to 8.1.2.1, for any of these *standard government environmental record sources* except the Federal *NPL* site list and Federal RCRA Treatment, Storage, and Disposal (TSD) records.

8.2.3 *Regulatory Agency File and Records Review:*

8.2.3.1 If the *subject property* or any of the *adjoining properties* is identified on one or more of the *standard government environmental record resources* in 8.2.2, pertinent regulatory files and/or records associated with the listing

TABLE 2 Types of Government Records to be Reviewed

Standard Environmental Record Resources (where available)	*Common Sources for Government Records*	*Approximate Minimum Search Distance* miles (kilometers)
Lists of Federal *NPL* (Superfund) sites	U.S. EPA Website and available EPA databases listing currently listed sites	1.0 (1.6)
Lists of Federal Delisted *NPL* sites	U.S. EPA Website and available EPA databases listing delisted NPL sites	0.5 (0.8)
Lists of Federal sites subject to CERCLA removals and CERCLA orders[A]	U.S. EPA Websites (HQs and Regions)	0.5 (0.8)
Lists of Federal CERCLA sites with NFRAP[B]	U.S. EPA Websites (HQs and Regions)	0.5 (0.8)
Lists of Federal RCRA facilities undergoing Corrective Action	U.S. EPA Website and EPA databases listing RCRA permitted or interim status facilities undergoing corrective action	1.0 (1.6)
Lists of Federal RCRA TSD facilities[A]	U.S. EPA Website and available EPA databases listing RCRA permitted and interim status facilities	0.5 (0.8)
Lists of Federal RCRA *generators*	U.S. EPA Website and available EPA databases listing RCRA Generators of hazardous waste	*subject property* and *adjoining properties*
Federal *institutional control/engineering control registries*	U.S. EPA Website and available EPA data bases listing response actions at CERCLA sites; RCRA sites with *ICs/ECs*, etc.	*subject property* only
Federal *ERNS* list	EPA and US Coast Guard websites and data bases;	*subject property* only
Lists of state- and tribal "Superfund" equivalent sites[A]	Varies by state / tribe	1.0 (1.6)
Lists of state- and tribal hazardous waste facilities	Varies by state / tribe	0.5 (0.8)
Lists of state and tribal *landfills* and *solid waste disposal facilities*	Varies by state / tribe	0.5 (0.8)
Lists of state and tribal leaking storage tanks[A]	Varies by state / tribe	0.5 (0.8)
Lists of state and tribal registered storage tanks	Varies by state / tribe	*subject property* and *adjoining properties*
State and tribal *institutional control/ engineering control registries*	Varies by state / tribe	*subject property* only
Lists of state and tribal voluntary cleanup sites[A]	Varies by state / tribe	0.5 (0.8)
Lists of state and tribal brownfield sites	Varies by state / tribe	0.5 (0.8)

[A] Records should be researched for both currently active and formerly active sites.
[B] Sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action. This should not be interpreted as there being no contamination at the site or that other regulatory agencies, such as at the State level, have not required further action. Such sites may be listed in other environmental record resources.

should be reviewed in accordance with 8.1.1 through 8.1.8. The purpose of the regulatory file review is to obtain sufficient information to assist the *environmental professional* in determining if a *recognized environmental condition*, *historical recognized environmental condition*, *controlled recognized environmental condition*, or a *de minimis condition* exists at the *subject property* in connection with the listing. If, in the *environmental professional's* opinion, such a review is not warranted, the *environmental professional* must explain within the *report* the justification for not conducting the regulatory file review.

8.2.3.2 As an alternative, the *environmental professional* may review files/records from an alternative source(s) (for example, on-site records, *user*-provided records, records from *local government agencies*, *interviews* with regulatory officials or other individuals knowledgeable about the environmental conditions that resulted in the *standard environmental record source* listing, etc.). A summary of the information obtained from the file/record review shall be included in the *report* and the *environmental professional* must include in the *report* the *environmental professional's* opinion on the sufficiency of the information obtained from the files/records review to evaluate the existence of a *recognized environmental condition*, *historical recognized environmental condition*, *controlled recognized environmental condition*, or *de minimis condition*.

8.2.4 *Additional Federal, State, Tribal, and Local Environmental Record Sources*—To enhance and supplement the *standard environmental record sources* in 8.2.2, local records and/or additional federal, state, or tribal records shall be checked when, in the judgment of the *environmental professional*, such additional records *(1)* are *reasonably ascertainable*, *(2)* are sufficiently useful, accurate, and complete in light of the objective of the *records review* (see 8.1.1), and *(3)* are generally obtained, pursuant to local good commercial and customary practice, in initial *environmental site assessments* in the type of *commercial real estate transaction* involved. To the extent additional sources are used to supplement the same record types listed in 8.2.2, *approximate minimum search distances* should not be less than those specified above (adjusted as provided in 8.1.2.1 and 8.2.2). Examples of types of records and sources that may be useful are in Table 3.

TABLE 3 Types of Records

Local Brownfield Lists	
Local Lists of *Landfill* and *Solid Waste Disposal Sites*	
Local Lists of *Hazardous Waste* and *Contaminated Sites*	
Local Lists of Registered Storage Tanks	
Local Land Records (for *activity and use limitations*)	
Records of Emergency Release Reports (42 U.S.C. 11004)	
Records of *Contaminated Public Wells*	
Sources	
Department of Health/Environmental Division	
Fire Department	
Planning Department	
Building Permit/Inspection Department	
Local/Regional Pollution Control Agency	
Local/Regional Water Quality Agency	
Local Electric Utility Companies (for records relating to PCBs)	

8.3 *Historical Research:*

8.3.1 *Objective*—The objective of compiling and analyzing historical *property* information and developing a history of the previous uses of the *subject property*, *adjoining properties*, and surrounding area is to help identify the likelihood of past uses having led to *recognized environmental conditions* in connection with the *subject property*. The *environmental professional* shall exercise professional judgment and consider the possible *releases* that might have occurred at the *subject property*, *adjoining properties*, and surrounding area in light of the historical uses and, in concert with other relevant information gathered as part of the Phase I process, use this information to assist in identifying *recognized environmental conditions* in connection with the *subject property*.

8.3.2 *Property Identification—Properties* may be different in use, size, configuration, or address than in the past. Nonetheless, the *subject property* is defined by its current boundaries without regard for any historical change in configuration. For example, the review of historical resources may indicate that: *(1)* the *subject property* formerly comprised a different number or configuration of parcels or addresses or both; *(2)* the *subject property* was formerly part of a larger parcel; or *(3)* the street name(s) or address(es) changed during the research period. *Properties* historically considered to be adjoining the *subject property* may change over time. As an example, a current *adjoining property* may be located beyond a public thoroughfare; however, before the installation of the thoroughfare, a historically *adjoining property* with uses of concern may have been in the location of the current thoroughfare. These factors should be considered by the *environmental professional* when researching historical uses of the *subject property*, *adjoining properties*, and surrounding area.

8.3.3 *Standard Historical Information Sources*—Sources of historical information include, but are not limited to: *(1)* libraries; *(2)* historical societies; *(3)* government agencies; *(4)* local building permit/inspection department records or planning department records; *(5)* current *owners* and *occupants* of the *subject property*, *adjoining properties*, or surrounding *properties*; *(6)* local government officials or employees with knowledge of the *subject property*; *(7)* map preparation companies; *(8)* private resellers of historical *property* information; and *(9)* prior assessments (see 8.4).

8.3.4 *Standard Historical Resources*—Historical resources are obtained from historical information sources. Not all historical resources can be found in each listed source, nor is it necessary to consult every source (see 8.3.8, 8.3.9, and 8.3.10). The following *standard historical resources* include data, imagery, documents, records, and other resources that typically provide useful information about the historical uses of *properties* in light of the objective of the *records review* (see 8.1.1) and are typically *reasonably ascertainable*.

8.3.4.1 *Aerial Photographs*—The term *aerial photographs* means photographs taken from an aerial platform with sufficient resolution to allow identification of development and activities of areas encompassing the *subject property*. *Aerial photographs* are often available from government agencies or private collections unique to a local area.

8.3.4.2 *Fire Insurance Maps*—The term *fire insurance maps* means maps produced for private fire insurance map companies that indicate uses of *properties* at specified dates and that encompass the *subject property*. These maps are often available at local libraries, historical societies, private resellers, or from the map companies who produced them.

8.3.4.3 *Local Street Directories*—The term *local street directories* means directories published by private or sometimes government entities, often published at regular intervals, that list the *occupant(s)* of a specific address at the time the *occupant* data were collected, which is typically within a year of the publication date of the directory. Often *local street directories* are available at libraries of local governments, colleges or universities, or historical societies.

8.3.4.4 *Topographic Maps—Topographic maps* reviewed for historical land use research purposes may be historical or current maps and should be published at a scale that allows the *environmental professional* to distinguish land surface elevation contour lines, hydrological features, place names, and various cultural features. *Topographic maps* for the entire United States may be obtained from the USGS; other possible sources are local government entities or a *property*-specific topographic survey commissioned by the *property owner*.

8.3.4.5 *Building Department Records*—The term *building department records* means those records of the local government in which the *subject property* is located indicating permission of the local government to construct, alter, or demolish improvements at the *subject property*. Often *building department records* are located in the building department of a municipality or county.

8.3.4.6 *Interviews—Interviews* with one or more persons knowledgeable about the past uses of the *subject property*, *adjoining properties*, or surrounding area may provide information about the past uses of the *subject property* and *adjoining properties*.

8.3.4.7 *Property Tax Files*—The term *property tax files* means the files kept for *property* tax purposes by the local jurisdiction which may include records of past ownership, appraisals, maps, sketches, photographs, or other information.

8.3.4.8 *Zoning/Land Use Records*—The term *zoning/land use records* means those records of the local government in which the *subject property* is located indicating the uses permitted by the local government in particular zones within its jurisdiction. The records may consist of maps and/or written records.

8.3.4.9 *Other Historical Sources*—The term *other historical resources* means a resource or resources other than those designated in 8.3.4.1 through 8.3.4.8 that are credible to a reasonable person and that identify past uses of *properties*. This category includes, but is not limited to: miscellaneous maps, news articles, books about the history of the area being researched, imagery, *land title records*, and a variety of other resources that may provide information about past land uses. These other resources may be found in sources such as prior assessments (see 8.4), newspaper archives, internet sites, community organizations, local libraries, historical societies, government agencies, current *owners* or *occupants* of surrounding *properties*, or records in the files and/or personal knowledge of *owners* and/or *occupants*. *Other historical resources* may be used to satisfy the objective of 8.3.1, but checking *other historical resources* is not required to comply with this practice.

8.3.5 *Intervals*—Review of *standard historical resources* at less than approximately five-year intervals is not required by this practice. For example, if the *subject property* had one use in 1950 and another use in 1955, it is not required to check for a third use in the intervening period. As another example, if the specific use of the *subject property* appears unchanged over a period longer than five years, then it is not required by this practice to research the use during the intervening period (such as if *fire insurance maps* show the same solely residential use building in 1940 and 1960, then the period in between need not be researched).

8.3.6 *Data Failure*—The historical research is complete when either: *(1)* the objective in 8.3.1 is achieved or *(2) data failure* is encountered. *Data failure* occurs when all of the *standard historical resources* that are *reasonably ascertainable* and likely to be useful have been reviewed and yet the objective has not been met. *Data failure* is not uncommon in trying to identify historical uses at five-year intervals back to first use or 1940 (whichever is earlier). Notwithstanding a *data failure*, *standard historical resources* may be excluded if: *(1)* the resources are not *reasonably ascertainable* or *(2)* if past experience indicates that the resources are not likely to be accurate or complete in terms of satisfying the objective (for example, if a particular historical data source is known to have insufficient data for the particular subject area). *Other historical resources* specified in 8.3.4.9 may be used to satisfy the objective of 8.3.1 but are not required to comply with this practice. If *data failure* is encountered, the *report* shall document the failure and, if any of the *standard historical resources* in 8.3.4.1 through 8.3.4.8 were excluded, give the reasons for their exclusion. If the *data failure* represents a *significant data gap*, the *report* shall comment on the impact of the *data gap* on the ability of the *environmental professional* to identify *recognized environmental conditions* (see 12.7).

8.3.7 *Type of Use*—In identifying previous uses, specific information about uses is more helpful than general information. If the general type of use is retail, industrial, or manufacturing, then additional *standard historical resources* in 8.3.4.1 through 8.3.4.8 shall be reviewed if they are likely to identify a more specific use and are *reasonably ascertainable*, subject to the constraints of *data failure* (see 8.3.6).

NOTE 3—Merely identifying that a building is present may not satisfy the historical research objective. For example, a strip-mall, which is typically a retail building, may have included past dry cleaning or other activities of concern as tenant operations. Identifying the more specific use as "past dry cleaning" is more helpful in fulfilling the historical research objective than simply stating “retail”.

8.3.8 *Uses of the Subject Property*—All *obvious* uses of the *subject property* shall be identified from the present, back to the *subject property's* first developed use, or back to 1940, whichever is earlier. The term “developed use” includes agricultural uses and placement of *fill dirt*, and other uses that may not involve structures. The *report* shall describe all identified uses, justify the earliest date identified for the *subject property's* first developed use (for example, records showed no

development of the *subject property* prior to the specific date), and explain the reason for any gaps in the history of use (for example, *data failure*). This task requires reviewing as many of the *standard historical resources* in 8.3.4.1 through 8.3.4.8 as are necessary and both *reasonably ascertainable* and likely to be useful. The following *standard historical resources* shall be reviewed if, based on the judgment of the *environmental professional*, they are *reasonably ascertainable*, likely to be useful, and applicable to the *subject property*: *(1) aerial photographs* (see 8.3.4.1), *(2) fire insurance maps* (see 8.3.4.2), *(3) local street directories* (see 8.3.4.3), and *(4)* historical *topographic maps* (see 8.3.4.4). In cases in which any of the preceding four *standard historical resources* are not reviewed, the *environmental professional* shall indicate in the *report* why such a review was not conducted. Additional *standard historical resources* in 8.3.4.5 through 8.3.4.8 shall be reviewed if, in the opinion of the *environmental professional*, such additional review is warranted to achieve the objective in 8.3.1. For example, if the *subject property* was developed in the 1700s, it might be feasible to identify uses back to the early 1900s using resources such as *fire insurance maps* or historical *topographic maps* (or equivalent). Although other resources such as *land title records* might go back to the 1700s, it would not be required to review these resources unless these resources were both *reasonably ascertainable* and likely to be useful. As another example, if the *subject property* was reportedly not developed until 1960, it would still be necessary to attempt to confirm that it was undeveloped back to 1940. Such confirmation may come from one or more of the *standard historical resources* specified in 8.3.4.1 through 8.3.4.8, or it may come from *other historical resources* (see 8.3.4.9). However, checking *other historical resources* is not required.

8.3.9 *Uses of the Adjoining Properties*—During research of the *subject property*, as described in 8.3.8, uses of the *adjoining properties* that are obvious shall be identified to evaluate the likelihood that past uses of the *adjoining properties* have led to *recognized environmental conditions* in connection with the *subject property*. The *report* shall describe identified obvious uses of *adjoining properties*, and indicate the earliest dates identified. This task requires reviewing the following *standard historical resources* if they have been researched for the *subject property* (see 8.3.8), provide coverage of one or more *adjoining properties*, and are likely to be useful in satisfying the objective in 8.3.1: *(1) aerial photographs* (see 8.3.4.1), *(2) fire insurance maps* (see 8.3.4.2), *(3) local street directories* (see 8.3.4.3), and *(4)* historical *topographic maps* (see 8.3.4.4). In cases in which any of the preceding four *standard historical resources* are not reviewed for the *adjoining properties* but they were reviewed for the *subject property*, the *environmental professional* shall indicate in the *report* why such a review was not conducted. Additional *standard historical resources* should be reviewed if, in the opinion of the *environmental professional*, such additional review is warranted to achieve the objective in 8.3.1. Factors to consider in making this determination include, but are not limited to: known hydrogeologic/geologic conditions that may indicate a high probability of *hazardous substances* or *petroleum products* migrating to the *subject property*; the extent to which information is *reasonably ascertainable*; the extent to which information is likely to be useful; the time and cost involved in reviewing such resources (for example, reviewing *building department records* or *property tax files* for *adjoining properties* may be too time-consuming); and local good commercial and customary practice. *Other historical resources* may be used to satisfy the objective of 8.3.1 but checking *other historical resources* is not required to comply with this practice.

8.3.10 *Uses of Properties in Surrounding Area*—Uses in the area surrounding the *subject property* shall be identified in the *report*, but this task is required only to the extent that this information is revealed in the course of researching the *subject property* itself (for example, an *aerial photograph* or *fire insurance map* of the *subject property* will usually show the surrounding area). If the *environmental professional* uses resources that include the surrounding area, surrounding uses should be identified to a distance determined at the discretion of the *environmental professional* (for example, if an *aerial photograph* shows the area surrounding the *subject property*, then the *environmental professional* shall determine how far out from the *subject property* the photograph should be analyzed). Factors to consider in making this determination include, but are not limited to: the extent to which information is *reasonably ascertainable*; the time and cost involved in reviewing surrounding uses (for example, analyzing *aerial photographs* is relatively quick, but reviewing *local street directories* for more than the few streets that surround the *subject property* is typically too time-consuming); the extent to which information is useful, accurate, and complete in light of the purpose of the *records review* (see 8.1.1); the likelihood of the information being significant to *recognized environmental conditions* in connection with the *subject property*; the extent to which potential concerns are obvious; known hydrogeologic/geologic conditions that may indicate a high probability of *hazardous substances* or *petroleum products migrating* to the *subject property*; how recently local development has taken place; information obtained from *interviews* and other sources; and local good commercial and customary practice.

8.4 *Prior Assessment Usage*—Historical resources obtained from prior assessments may be reviewed as part of the current assessment provided that legible copies are appended to the prior assessment, and the *environmental professional* independently determines that the historical information meets the objective of 8.3.1 and the historical research requirements of 8.3.8, 8.3.9, and 8.3.10. Anecdotal information such as observations reported at the time of a prior assessment may also be helpful in evaluating historical conditions and may be used at the sole discretion of the *environmental professional* performing the current *environmental site assessment* (see 4.7.1).

8.5 *Referencing Historical Information*—Historical resources used to analyze the land use history of the *subject property*, *adjoining properties*, and surrounding area shall be properly referenced in the *report* or appendixes to provide sufficient information to facilitate reconstruction by another *environmental professional* (see 12.2). Resource references typically include: *(1)* the name of the publisher, title of the

publication, and year of publication for a city directory, business directory, or historical map; *(2)* the name of the entity that produced an *aerial photograph* or series of photographs, and date or year that the photograph was taken; *(3)* the name and title of the interviewee and date of the *interview*; or *(4)* the website address and resource description for pertinent supplemental internet information.

9. Site Reconnaissance

9.1 *Objective*—The purpose of the *site reconnaissance* is to collect information and make observations to help identify *recognized environmental conditions* in connection with the *subject property*. In identifying *recognized environmental conditions*, *controlled recognized environmental conditions*, and *de minimis conditions*, the *environmental professional* shall exercise professional judgment and consider the observations made during the *site reconnaissance* in concert with other relevant information gathered as part of the *Phase I Environmental Site Assessment* process.

9.2 *Observation*—On a visit to the *subject property* (the *site visit*), the *environmental professional* (or the person under the supervision or responsible charge of the *environmental professional*) shall *visually and/or physically observe* the *subject property* and any structure(s) located on the *subject property*.

9.2.1 *Methodology*—The *environmental professional* (or the person under the supervision or responsible charge of the *environmental professional*) shall establish a method for observation of the *subject property* to satisfy the objective of the assessment (for example, grid patterns or other systematic approaches used for large *properties*). Such methodology shall be documented in the *report*.

NOTE 4—For large tracts of undeveloped land and/or rural *properties*, the *user* may consider whether to use Practice E2247.

9.2.2 *Exterior*—The periphery of the *subject property* as well as the periphery of all structures on the *subject property* shall be *visually and/or physically observed*. The *subject property* shall also be viewed from all adjacent public thoroughfares. If roads or paths with no apparent outlet are observed on the *subject property*, the use of the road or path shall be identified to determine whether it was likely to have been used as an avenue for *releases* or disposal of *hazardous substances* or *petroleum products*.

9.2.3 *Interior*—The interior of structures at the *subject property* shall be *visually and/or physically observed* including accessible common areas (such as lobbies, hallways, utility rooms, recreation areas, etc.); areas where *hazardous substances* or *petroleum products* are or may have been stored, used, treated, discharged, or disposed; maintenance and repair areas; boiler rooms; and a representative sample of *occupant* spaces.

9.2.4 *Activity Exclusions*—It is not necessary to conduct the following activities during the *site visit*:

9.2.4.1 Identification of any features, activities, uses and conditions specified in 9.4.1 through 9.4.28 that cannot be *visually and/or physically observed* during the *site visit*.

9.2.4.2 Identification of conditions under floors, above ceilings, on rooftops, or behind walls.

9.2.5 *Adjoining Properties and the Surrounding Area*—*Adjoining properties* and the surrounding area shall be observed during observation of the periphery of the *subject property*, from public thoroughfares adjacent to or traveled on the way to the *subject property*, and from buildings and structures otherwise accessed during the *site visit*. The purpose of observing *adjoining properties* and the surrounding area is to identify features, activities, uses, and conditions that may indicate *recognized environmental conditions* at the *subject property*.

9.2.6 *Limiting Conditions*—General limitations and basis of review, including limitations imposed by physical obstructions such as adjacent buildings, bodies of water, asphalt, or other paved areas, and other physical constraints (for example, snow, rain, flooding, etc.) shall be noted during the *site visit* and documented in the *report*.

9.2.7 *Frequency*—It is not expected that more than one *site visit* shall be made in connection with a *Phase I Environmental Site Assessment*.

9.3 *Prior Assessment Usage*—The information supplied in connection with the *site reconnaissance* portion of a prior *environmental site assessment* may be used for guidance but shall not be relied upon as representative of current features, activities, uses, or conditions.

9.4 *Features, Activities, Uses, and Conditions*—During the *site visit*, the *environmental professional* (or the person under the supervision or responsible charge of the *environmental professional*) shall look for and identify the features, activities, uses, and conditions specified in 9.4.1 through 9.4.28. The specified features, activities, uses, and conditions should also be the subject of questions asked as part of the *interviews* of *owners*, *operators*, and *occupants* (see Section 10). Any of the specified features, activities, uses, and conditions identified in, on, or at the *subject property* shall be described in the *report*. If any of the specified features, activities, uses, or conditions are not found to be present in, on, or at the *subject property*, the *environmental professional* shall document as such in the *report*.

9.4.1 *Current Use(s) of the subject property*—This includes any use, treatment, storage, disposal, or generation of *hazardous substances* or *petroleum products*. Unoccupied spaces should be noted. In identifying current uses of the *subject property*, specific information about uses is more helpful than general information. (For example, it is more useful to identify uses such as a hardware store, a grocery store, or a bakery rather than simply retail use.)

9.4.2 *Past Use(s) of the subject property*—This includes the likely past use, treatment, storage, disposal, or generation of *hazardous substances* or *petroleum products*.

9.4.3 *Current Uses of Adjoining Properties.*

9.4.4 *Past Uses of Adjoining Properties.*

9.4.5 *Current or Past Uses in the Surrounding Area* (for example, residential, commercial, industrial, etc.).

9.4.6 *Geologic, Hydrogeologic, Hydrologic, and Topographic Conditions*—This includes the *subject property* as well as the general topography of the area surrounding the *subject property*. If observations made during the *site visit* indicate there likely is or was a *release* of *hazardous substances* or

petroleum products at a nearby *property* that may migrate to the *subject property*, geologic, hydrogeologic, hydrologic, topographic, and other environmental information shall be evaluated to determine whether the *release* is likely to result in a *recognized environmental condition* at the *subject property*.

9.4.7 *Structures and Other Improvements at the Subject Property*—This includes, for example, a general description of the number of buildings; number of stories each; approximate age of buildings; ancillary structures, if any, etc.

9.4.8 *Roads*—This includes roads, streets, and parking facilities on the *subject property*, and public thoroughfares adjacent to the *subject property*.

9.4.9 *Potable Water Supply/Source* for the *subject property*.

9.4.10 *Sewage Disposal System* for the *subject property*.

9.4.11 *Hazardous Substances and Petroleum Products in Connection with Identified Uses*—The approximate number of containers and a general description of the contents, capacity, types of containers, and the storage conditions shall be included in the *report*; however, a detailed inventory is not required.

9.4.12 *Storage Tanks*—This includes aboveground storage tanks, or *underground storage tanks*, vent pipes, fill pipes, or access ways indicating *underground storage tanks* at the *subject property*. The description should include tank construction (for example, single-wall steel, fiberglass, etc.), contents, capacity, and age.

9.4.13 *Strong, Pungent, or Noxious Odors and Their Sources.*

9.4.14 *Standing Surface Water and Pools or Sumps Containing Liquids Likely to be Hazardous Substances or Petroleum Products.*

9.4.15 *Drums, Totes, and Intermediate Bulk Containers*—The approximate number of containers and a general description of the contents, capacity, types of containers, and the storage conditions shall be included in the *report*; however, a detailed inventory is not required.

9.4.16 *Hazardous Substance and Petroleum Product Containers Not in Connection With Identified Uses*—The approximate number of containers and a general description of the contents, capacity, types of containers, and the storage conditions shall be included in the *report*; however, a detailed inventory is not required.

9.4.17 *Unidentified Substance Containers* (including approximate quantities, the types of containers, and conditions). The approximate number of containers and a general description of the contents, capacity, types of containers, and the storage conditions shall be included in the *report*; however, a detailed inventory is not required.

9.4.18 *PCB-Containing Items*—Electrical or hydraulic equipment known to contain PCBs or likely to contain PCBs. Fluorescent light ballasts, caulk, paint, or other materials that may contain PCBs, and are located inside and are part of the building or structure, are outside the scope of this practice.

NOTE 5—Materials potentially containing PCBs (for example, fluorescent light ballasts, paint, caulk) that are not part of the structure and that are not solely within the structure may require identification [see Appendix X1.1.4.3*(2)*].

9.4.19 *Heating/Cooling*—The means of heating and cooling the building(s) on the *subject property*, including the fuel source (example: natural gas furnace, heating oil fueled boiler, electric baseboards, municipally supplied steam, etc.).

9.4.20 *Stains or Corrosion on Floors, Walls, or Ceilings* (except for staining from water).

9.4.21 *Drains and Sumps.*

9.4.22 *Pits, Ponds, or Lagoons.*

9.4.23 *Stained Soil or Pavement.*

9.4.24 *Stressed Vegetation* (from something other than insufficient water).

9.4.25 *Solid Waste*—Areas that are apparently graded by non-natural causes (or filled with fill of unknown origin) suggesting trash, *construction debris*, *demolition debris*, or other solid waste disposal; and mounds or depressions suggesting trash or other solid waste disposal.

9.4.26 *Water/Wastewater*—Wastewater or other liquid (including stormwater) discharged from or to the *subject property*.

9.4.27 *Wells* (including *dry wells*, irrigation wells, injection wells, monitoring wells, abandoned wells, or other wells).

9.4.28 *Septic Systems or Cesspools.*

10. Interviews with Past and Present Owners, Operators, and Occupants

10.1 *Objective*—The purpose of *interviews* is to obtain information indicating *recognized environmental conditions* in connection with the *subject property*.

10.2 *Content—Interviews* with past and present *owners*, *operators*, and *occupants* of the *subject property* consist of questions to be asked in the manner and of persons as described in this section. The content of questions to be asked shall attempt to obtain information about current and past features, uses, activities, and conditions specified in 9.4.1 through 9.4.28, as well as information described in 10.8 and 10.9.

10.3 *Medium*—Questions to be asked pursuant to this section may be asked in person, by telephone, by electronic communication, or in writing, at the discretion of the *environmental professional*.

10.4 *Timing*—Except as specified in Sections 6, 10.8, and 10.9, it is in the discretion of the *environmental professional* whether to ask questions before, during, or after the *site visit* described in Section 9, or in some combination thereof.

10.5 *Interviews:*

10.5.1 *Key Site Manager*—Before the *site visit*, the *owner* of the *subject property* shall be asked to identify a person with good knowledge of the uses and physical characteristics of the *subject property* (the *key site manager*). Often the *key site manager* will be a property manager, the chief physical plant supervisor, or head maintenance person. (If the *user* is the current *subject property owner*, the *user* has an obligation to identify a *key site manager*, even if it is the *user* himself or herself.) If a *key site manager* is identified, the person conducting the *site visit* shall make at least one reasonable attempt (in writing or by telephone) to arrange a mutually convenient appointment for the *site visit* when the *key site manager* agrees to be there. If the attempt is successful, the *key site manager* shall be *interviewed* in conjunction with the *site*

visit. If such an attempt is unsuccessful, when conducting the *site visit*, the *environmental professional* shall inquire whether an identified *key site manager* (if any) or if a person with good knowledge of the uses and physical characteristics of the *subject property* is available to be interviewed at that time; if so, that person shall be interviewed. In any case, it is at the discretion of the *environmental professional* to decide which questions to ask the *key site manager* before, during, or after the *site visit* or in some combination thereof.

10.5.2 *Occupants*—A reasonable attempt shall be made to *interview* a reasonable number of *occupants* of the *subject property*.

10.5.2.1 *Multi-Family Properties*—For multi-family residential *properties*, residential *occupants* do not need to be *interviewed*, but if the *subject property* has non-residential uses, *interviews* should be held with the non-residential *occupants* based on criteria specified in 10.5.2.2.

10.5.2.2 *Major Occupants*—Except as specified in 10.5.2.1, if the *subject property* has five or fewer current *occupants*, a reasonable attempt shall be made to *interview* a representative of each one of them. If there are more than five current *occupants*, a reasonable attempt shall be made to interview the major *occupant(s)* and those other *occupants* whose operations are likely to indicate *recognized environmental conditions* in connection with the *subject property*.

10.5.2.3 *Reasonable Attempts to Interview*—Examples of reasonable attempts to interview those *occupants* specified in 10.5.2.2 include (but are not limited to) an attempt to *interview* such *occupants* when making the *site visit* or calling such *occupants* by telephone. In any case, when there are several *occupants* to *interview*, it is not expected that the *site visit* must be scheduled at a time when they will all be available to be *interviewed*.

10.5.2.4 *Occupant Identification*—The *report* shall identify the *occupants interviewed* and the duration of their occupancy.

10.5.3 *Prior Assessment Usage*—Persons *interviewed* as part of a prior *environmental site assessment* consistent with this practice do not need to be questioned again about the content of answers they provided at that time. However, they should be questioned about any new information learned since that time, or others should be questioned about conditions since the prior *environmental site assessment* consistent with this practice.

10.5.4 *Past Owners, Operators, and Occupants—Interviews* with past *owners*, *operators*, and *occupants* of the *subject property* who are likely to have material information regarding the potential for contamination at the *subject property* shall be conducted to the extent that they have been identified and that the information likely to be obtained is not duplicative of information already obtained from other sources or resources.

10.5.5 *Interview Requirements for Abandoned Properties*—In the case of inquiries conducted at *abandoned properties* where there is evidence of potential unauthorized uses of the *abandoned property* or evidence of uncontrolled access to the *abandoned property*, *interviews* with one or more *owners* or *occupants* of *adjoining properties* or nearby *properties* shall be conducted.

10.6 *Quality of Answers*—The person(s) *interviewed* should be asked to be as specific as reasonably feasible in answering questions. The person(s) *interviewed* should be asked to answer in *good faith* and to the extent of their knowledge.

10.7 *Incomplete Answers*—While the person conducting the *interview(s)* has an obligation to ask questions, in many instances the persons to whom the questions are addressed will have no obligation to answer them.

10.7.1 *User*—If the person to be *interviewed* is the *user*, the *user* has an obligation to answer all questions in *good faith* and to the extent of their *actual knowledge*, or to designate a *key site manager* to do so. If answers to questions are unknown or partially unknown to the *user* or such *key site manager*, this *interview* section of the *Phase I Environmental Site Assessment* shall not thereby be deemed incomplete.

10.7.2 *Non-user*—If the person conducting the *interview(s)* asks questions of a person other than a *user* but does not receive answers or receives partial answers, this section of the *Phase I Environmental Site Assessment* shall not thereby be deemed incomplete, provided that *(1)* records have been kept of the person to whom the questions were addressed and the responses given, if any, and *(2)* at least one reasonable follow up was made asking for responses.

10.8 *Questions About Helpful Documents*—Prior to the *site visit*, the *subject property owner*, *key site manager* (if any is identified), and *user* (if different from the *subject property owner*) shall be asked if they know whether any of the documents listed in 10.8.1 exist and, if so, whether copies can and will be provided to the *environmental professional* within reasonable time and cost constraints. Even partial information provided may be useful. If so, the *environmental professional* conducting the *site visit* shall review the available documents prior to or at the beginning of the *site visit*.

10.8.1 *Helpful Documents:*

10.8.1.1 *Environmental site assessment* reports;

10.8.1.2 Environmental site investigation reports;

10.8.1.3 *Environmental compliance audit* reports;

10.8.1.4 Environmental permits (for example, solid waste disposal permits, *hazardous waste* disposal permits, *wastewater* permits, NPDES permits, *underground injection* permits, air permits);

10.8.1.5 Registrations for *underground storage tanks* and aboveground storage tanks;

10.8.1.6 Registrations for *underground injection* systems;

10.8.1.7 *Safety data sheets*;

10.8.1.8 Community right-to-know plans;

10.8.1.9 Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; facility response plans, etc.;

10.8.1.10 Reports regarding hydrogeologic conditions at the *subject property* or surrounding area;

10.8.1.11 Reports regarding any self-directed or other cleanup activities conducted at the *subject property*;

10.8.1.12 Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the *subject property* or relating to *environmental liens* encumbering the *subject property*;

10.8.1.13 *Hazardous waste* generator notices or *reports*;

10.8.1.14 Geotechnical studies;

10.8.1.15 Risk assessments; and

10.8.1.16 Recorded *AULs*.

10.9 *Proceedings Involving the Subject Property*—Prior to the *site visit*, the *subject property owner*, *key site manager* (if any is identified), and *user* (if different from the *subject property owner*) shall be asked whether they know of *(1)* any pending, threatened, or past litigation relevant to *hazardous substances* or *petroleum products* in, on, at, or from the *subject property*; *(2)* any pending, threatened, or past administrative proceedings relevant to *hazardous substances* or *petroleum products* in, on, at, or from the *subject property*; and *(3)* any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to *hazardous substances* or *petroleum products*.

11. Interviews with State and/or Local Government Officials

11.1 *Objective*—The purpose of *interviews* with state and/or local government officials is to obtain information indicating *recognized environmental conditions* in connection with the *subject property*.

11.2 *Content—Interviews* with state and/or local government officials consist of questions to be asked in the manner and of persons as described in this section. The content of questions to be asked shall be decided in the discretion of the *environmental professional(s)* conducting the *Phase I Environmental Site Assessment*, provided that the questions shall generally be directed towards identifying *recognized environmental conditions* in connection with the *subject property*.

11.3 *Medium*—Questions to be asked may be asked in person, by telephone, by electronic communication, or in writing, in the discretion of the *environmental professional*.

11.4 *Timing*—It is in the discretion of the *environmental professional* whether to ask questions before or after the *site visit* described in Section 9, or in some combination thereof.

11.5 *Who Should Be Interviewed:*

11.5.1 *State and/or Local Agency Officials*—A reasonable attempt shall be made to *interview* at least one staff member of any one of the following types of state and/or *local government agencies*:

11.5.1.1 Local fire department that serves the *subject property*,

11.5.1.2 State and/or local health agency or local/regional office of state health agency serving the area in which the *subject property* is located,

11.5.1.3 State and/or local agency or local/regional office of state agency having jurisdiction over *hazardous waste* disposal or other environmental matters in the area in which the *subject property* is located, or

11.5.1.4 Local agencies responsible for the issuance of building permits or groundwater use permits that document the presence of *AULs* in the area in which the *subject property* is located.

11.6 *Prior Assessment Usage*—Person(s) *interviewed* as part of a prior *environmental site assessment* consistent with this practice do not need to be questioned again about the content of answers they provided at that time. However, they should be questioned about any new information learned since that time, or others should be questioned about conditions since the prior *Phase I Environmental Site Assessment* consistent with this practice (see also 4.7.1).

11.7 *Quality of Answers*—The person(s) *interviewed* should be asked to be as specific as reasonably feasible in answering questions. The person(s) *interviewed* should be asked to answer in *good faith* and to the extent of their knowledge.

11.8 *Incomplete Answers*—While the person conducting the *interview(s)* has an obligation to ask questions, in many instances the persons to whom the questions are addressed will have no obligation to answer them. If the person conducting the *interview(s)* asks questions but does not receive answers or receives partial answers, this section shall not thereby be deemed incomplete, provided that questions have been asked (or attempted to be asked) in person or by telephone, and written records have been kept of the person to whom the questions were addressed and their responses.

12. Evaluation and Report Preparation

12.1 *Report Format*—A suggested format for the *Phase I Environmental Site Assessment report* is presented in Appendix X5.

12.2 *Documentation*—The findings, opinions, and conclusions in the *Phase I Environmental Site Assessment report* shall be supported by documentation. If the *environmental professional* has chosen to exclude certain documentation from the *report*, the *environmental professional* shall identify in the *report* the reasons for doing so (for example, a confidentiality agreement). Required and other relevant supporting documentation shall be included in the *report* or adequately referenced to facilitate reconstruction of the assessment by an *environmental professional* other than the *environmental professional* who conducted it. Sources that revealed no findings shall also be documented.

12.3 *Contents of Report*—The *report* shall include those matters required to be included in the *report* pursuant to various sections of this practice. The *report* shall also identify the *environmental professional* and the person(s) who conducted the *site reconnaissance* and *interviews*, and the date(s) the *site reconnaissance* and *interviews* were conducted. In addition, the *report* shall state whether the *user* reported to the *environmental professional* any information pursuant to the *user's* responsibilities described in Section 6 of this practice (for example, an *environmental lien* or *AUL* encumbering the *subject property* or any relevant specialized knowledge or experience of the *user* regarding the *subject property*). A *site plan* showing the approximate location of features, activities, uses, and conditions of the *subject property*, as deemed relevant by the *environmental professional*, shall also be included. Photographs of features, activities, uses, and conditions indicative of *recognized environmental conditions* and *de minimis conditions* shall be included. At the discretion of the

environmental professional, other relevant and representative photographs of features, activities, uses, and conditions at the *subject property* may also be included.

12.4 *Scope of Services*—The *report* shall describe all services performed in sufficient detail to permit another party to reconstruct the work performed.

12.5 *Findings*—The *report* shall have a Findings section that identifies those features, activities, uses, and conditions that, in the judgment of the *environmental professional*, may indicate the presence or likely presence of *hazardous substances* or *petroleum products* at the *subject property*. Some findings, but not necessarily all findings, may be indicative of the presence of *recognized environmental conditions*, *controlled recognized environmental conditions*, *historical recognized environmental conditions*, or *de minimis conditions*. All parts of the assessment work in concert, and all information identified during the assessment should be evaluated in an aggregated manner (see 7.3.1).

12.5.1 *Significant Data Gaps*—The *report* shall identify *significant data gaps* in the Findings section of the *report*. The resources and/or sources of information that were consulted to address the *significant data gaps* shall also be identified in the *report*. A *data gap* by itself is not inherently significant. For example, if a *subject property's* historical use is not identified back to 1940 because of *data failure* (see 8.3.6), but the earliest source shows that the *subject property* was undeveloped, this *data gap* by itself might not be significant. A *data gap* is only significant if other information and/or professional experience raises reasonable concerns involving the effects of that *data gap* on the ability of the *environmental professional* to render an opinion regarding whether conditions exist that are indicative of *recognized environmental conditions* or *controlled recognized environmental conditions*. For example, if a building on the *subject property* is inaccessible during the *site reconnaissance*, and the *environmental professional's* experience indicates that the use of such a building often involves activity that leads to a *recognized environmental condition*, the inability to inspect the building would be a *significant data gap* listed in the Findings section and discussed in the Opinions section.

12.6 *Opinions*—The *report* shall include the *environmental professional's* opinion(s) and supporting rationale regarding the likely impact to the *subject property* from features, activities, uses, and conditions identified in the Findings section. At the discretion of the *environmental professional*, opinions may be presented in a combined Findings and Opinions section. The logic and reasoning used by the *environmental professional* in evaluating information collected during the course of the assessment related to findings shall be discussed. The opinions shall specifically include the *environmental professional's* rationale for concluding that a finding is or is not a *recognized environmental condition*, *controlled recognized environmental condition*, *historical recognized environmental condition*, or *de minimis condition* insofar as the findings pertain to each of these conditions.

12.6.1 In the case of *controlled recognized environmental conditions*, the logic and reasoning shall: *(1)* discuss how the *recognized environmental condition* has been addressed to the satisfaction of the applicable regulatory authority or authorities as described in 3.2.17, and *(2)* identify the *activity and use limitation(s)* or other *property use limitation(s)* upon which the *controlled recognized environmental condition* finding was made.

12.6.2 If a *significant data gap* is identified, the *environmental professional* shall comment in the Opinion section of the *report* how the missing information that caused the *significant data gap* affects the *environmental professional's* ability to provide an opinion as to whether the inquiry has identified conditions indicative of *releases* or threatened *releases* in, on, or at the *subject property*. If there is a *significant data gap*, then the *environmental professional* should discuss whether additional information would likely assist the *environmental professional* in determining whether a *recognized environmental condition* or *controlled recognized environmental condition* exists (see 12.8). This comment is not intended to constitute a requirement that the *environmental professional* include any recommendations for additional inquiries or other services.

12.7 *Conclusions*—The *report* shall include a Conclusions section that lists all *recognized environmental conditions* (including *controlled recognized environmental conditions*) and *significant data gaps* connected with the *subject property*. The *report* shall include a statement substantially similar to one of the following statements:

12.7.1 "We have performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-21 of [insert address or legal description], the *subject property*. Any exceptions to, or deletions from, this practice are described in Section [ ] of this *report*. This assessment has revealed no *recognized environmental conditions*, *controlled recognized environmental conditions*, or *significant data gaps* in connection with the *subject property*," or

12.7.2 "We have performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E1527-21 of [insert address or legal description], the *subject property*. Any exceptions to, or deletions from, this practice are described in Section [ ] of this *report*. This assessment has revealed the following *recognized environmental conditions*, *controlled recognized environmental conditions*, and/or *significant data gaps* in connection with the *subject property*:" (list).

12.8 *Additional Investigation*—The *environmental professional* should provide an opinion regarding additional appropriate investigation, if any, to detect the presence of *hazardous substances* or *petroleum products*. A *Phase I Environmental Site Assessment* which includes such an opinion by the *environmental professional* does not render the assessment incomplete. This opinion is not intended to constitute a requirement that the *environmental professional* include any recommendations for Phase II or other assessment activities.

NOTE 6—An opinion pursuant to 12.8 is a statement by the *environmental professional* that additional investigation may be appropriate, which is different than a recommendation that provides a specific course of action which is outside the scope of this practice (see 12.9).

12.9 *Recommendations*—Recommendations are not required by this practice. A *user* should consider whether recommendations for additional inquiries or other services are desired. Recommendations are an additional service that may be useful in the *user's* analysis of *LLPs* or *business environmental risks*.

12.10 *Additional Services*—Any additional services contracted for between the *user* and the *environmental professional(s)*, including a broader scope of assessment, more detailed conclusions, liability/risk evaluations, recommendation for Phase II testing or other assessment activities, remediation techniques, and so forth, are beyond the scope of this practice, and should only be included in the *report* if so specified in the terms of engagement between the *user* and the *environmental professional(s)*.

12.11 *Limiting Conditions/Deviations*—All limiting conditions, deletions, and deviations from this practice (if any) shall be listed individually and in detail, including *user*-imposed constraints, and all additions shall be listed.

12.12 *References*—The *report* shall include a references section to identify published referenced sources relied upon in preparing the *Phase I Environmental Site Assessment*. Each referenced source shall be adequately annotated to facilitate retrieval by another party.

12.13 *Signature*—The *environmental professional(s)* responsible for the *Phase I Environmental Site Assessment* shall sign the *report*.

12.14 *Environmental Professional Statement*—As required by 40 C.F.R. § 312.21(d), the *report* shall include the following statements of the *environmental professional(s)* responsible for conducting the *Phase I Environmental Site Assessment* and preparation of the *report*:

12.14.1 "[I, We] declare that, to the best of [my, our] professional knowledge and belief, [I, we] meet the definition of *Environmental professional* as defined in § 312.10 of 40 C.F.R. § 312" and

12.14.2 "[I, We] have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the *subject property*. [I, We] have developed and performed the *all appropriate inquiries* in conformance with the standards and practices set forth in 40 C.F.R. Part 312."

12.15 *Appendixes*—The *report* shall include an appendix section containing supporting documentation and the qualifications of the *environmental professional* and the qualifications of the personnel conducting the *site reconnaissance* and *interviews* if conducted by someone other than the *environmental professional*.

13. Non-Scope Considerations

13.1 *General:*

13.1.1 *Additional Issues*—There may be environmental issues or conditions at a *property* that parties may wish to assess in connection with *commercial real estate* that are outside the scope of this practice (that is, non-scope considerations). As noted by the legal analysis in Appendix X1 of this practice, some environmental conditions may be present at a *property* that do not present potential CERCLA liability, and are beyond the scope of this practice.

13.1.2 *Outside Standard Practices*—Whether or not a *user* elects to inquire into non-scope considerations in connection with this practice or any other *environmental site assessment*, no assessment of such non-scope considerations is required for *all appropriate inquiry* as defined by this practice.

13.1.3 *Other Standards*—There may be standards or protocols for assessment of potential hazards and conditions associated with non-scope conditions developed by governmental entities, professional organizations, or other private entities.

13.1.4 *Compliance With AULs*—Parties who wish to qualify for one of the *LLPs* will need to know whether they are in compliance with *AULs*, including land use restrictions that were relied upon in connection with a response action. A determination of compliance with *AULs* is beyond the scope of this practice.

13.1.5 *List of Additional Issues*—Following are several non-scope considerations that persons may want to assess in connection with *commercial real estate*. Some common non-scope considerations are discussed further in Appendix X1 and Appendix X6. No implication is intended as to the relative importance of inquiry into such non-scope considerations, and this list of non-scope considerations is not intended to be all-inclusive:

13.1.5.1 Asbestos-containing building materials unrelated to *releases* into the *environment*;

13.1.5.2 Biological agents;

13.1.5.3 Cultural and historic resources;

13.1.5.4 Ecological resources;

13.1.5.5 Endangered species;

13.1.5.6 Health and safety;

13.1.5.7 Indoor air quality unrelated to *releases* of *hazardous substances* or *petroleum products* into the *environment*;

13.1.5.8 Industrial hygiene;

13.1.5.9 Lead-based paint unrelated to *releases* into the *environment*;

13.1.5.10 Lead in drinking water;

13.1.5.11 Mold or microbial growth conditions;

13.1.5.12 PCB-containing building materials (for example, interior fluorescent light ballasts, paint, and caulk);

13.1.5.13 Naturally-occurring radon;

13.1.5.14 Regulatory compliance;

13.1.5.15 Substances not defined as *hazardous substances* (including some substances sometimes generally referred to as emerging contaminants) unless or until such substances are classified as a CERCLA *hazardous substance* (see 1.1.4 and Appendix X6.10); and

13.1.5.16 Wetlands.

14. Keywords

14.1 commercial real estate; contaminants; environmental site assessment; Phase I

APPENDIXES

(Nonmandatory Information)

X1. LEGAL BACKGROUND ON CERCLA AND THE APPLICATION OF "ALL APPROPRIATE INQUIRIES" TO THE PRACTICE ON ENVIRONMENTAL ASSESSMENTS IN COMMERCIAL REAL ESTATE TRANSACTIONS

INTRODUCTION

(Note that EPA was not a party to the development of the appendix and the information and conclusions provided in the appendix do not in any way reflect the opinions, guidance, or approval of EPA. This appendix was last updated in October 2021. Users of this appendix are cautioned that statutes, regulations, guidance, case law, and/or other authorities analyzed and/or referenced in the appendix may have changed since that date. Thus, before relying on any of the analyses, conclusions, and/or guidance provided by this appendix, *users* should ensure that those analyses, conclusions, and/or guidance are current and correct at the time use is made of this appendix. In addition, this appendix is provided for background information purposes only, and does not alter, amend, or change the meaning of Practice E1527. If any inconsistency between this appendix and Practice E1527 arises, Practice E1527 applies, not this appendix or any interpretation based on this appendix.)

The specter of strict, joint and several liability under the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 *et seq.* (CERCLA) and analogous state laws, has been a primary driver for Environmental Assessments in *Commercial Real Estate Transactions*. While the E1527 practice can be used in many contexts, a familiarity with CERCLA, and especially its potential *landowner liability protections* (*LLPs*), is crucial to understanding and applying Practice E1527.

CERCLA authorizes the federal government to respond to *releases* of *hazardous substances*,[10] to seek reimbursement from potentially responsible parties ("PRPs"),[11] or to order PRPs to abate *releases* or threatened *releases* of *hazardous substances* that may present an "imminent and substantial endangerment" to the public health or welfare or the environment.[12] In addition, CERCLA requires anyone who is in charge of a facility or vessel to immediately report *releases* of *hazardous substances* that they become aware of which exceed the reportable quantity threshold established by EPA.[13] In addition, PRPs and other persons may seek cost recovery or contribution for response costs from other PRPs, provided they comply with certain requirements.[14]

EPA promulgated an "*all appropriate inquiries*" ("AAI") rule[15] that became effective in November 2006. EPA has indicated that this Practice E1527 is consistent with the requirements of AAI and may be used to comply with the provisions of the AAI rule.[16] This Legal Appendix provides background on CERCLA liability, the scope of the potential liability protections that may be available to *owners* and *operators* of *commercial real estate*, and the AAI rule. It should be noted that with the enactment of the 2002 CERCLA Amendments and the adoption of AAI, the Environmental Transaction Screen Practice (E1528) no longer meets the requirement for establishing the CERCLA *LLPs*. However, Practice E1528 may still be a useful transactional environmental screening tool.

This Legal Appendix is intended for informational purposes only and is not intended to be nor interpreted as legal advice.

---

[10] Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9604(a)(1).
[11] 42 U.S.C. § 9607(a)(4)(A).
[12] 42 U.S.C. § 9606.
[13] 42 U.S.C. § 9603.
[14] 42 U.S.C. § 9607(a)(4)(B)(authorizing innocent parties and PRPs to obtain cost recovery from other liable parties); 42 U.S.C. § 9613(f) (specifying the circumstances under which PRPs may seek contribution). *See also United States v. Atlantic Research Corp.*, 551 U.S. 128, 134-41 (2007); *Cooper Indus. Inc. v. Aviall Services., Inc.*, 543 U.S. 157, 165-68 (2004).
[15] 70 Fed. Reg. 66081 (Nov. 1, 2005). Codified at 40 C.F.R. § 312.
[16] 70 Fed. Reg. 66081 (Nov. 1, 2005).

X1.1 **Elements of CERCLA Liability**—A plaintiff (federal government, state or local government, or private party[17]) must establish the following elements before a defendant may be found liable under CERCLA for response costs:

X1.1.1 *Releases or Threatened Releases*—The first element for establishing CERCLA liability is that there must be a *release* or threatened *release* of *hazardous substances* from a facility or a vessel. A *release* or threatened *release* of a *hazardous substance* includes any "*spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant)*."[18]

X1.1.1.1 Courts have generally broadly interpreted the term "*release*." There is no minimum quantity requirement in order to qualify as a CERCLA *release*.[19] Likewise, courts have liberally construed the meaning of "threatened *release*" so that corroding or deteriorating *drums* have been interpreted to be a threatened *release*.[20] The *release* must also be "into the environment."[21]

X1.1.1.2 *Exclusions from definition of "release":*

(1) Section 101(22) contains a number of exclusions from the definition of *release*. For example, section 101(22)(A) excludes any *release* that results in exposures solely within the workplace for claims that may be asserted against an employer.[22] In a 1983 notice of proposed rulemaking to adjust the reportable quantities for the CERCLA *release* notification requirements, EPA discussed this so-called "workplace exclusion." EPA said the provision was a relic of an earlier House bill that had contemplated that CERCLA would provide a remedy for personal injury. The bill would have provided compensation to persons injured in the workplace from *releases* of *hazardous substances* unless they could file a workers compensation claim to avoid duplicate claims.[23] Citing to the legislative history, EPA said the "workplace exposure" exclusion was apparently intended to limit the potential scope of third-party actions for personal injuries under the Act.[24] EPA then went on to say that when the personal injury remedy for exposure to *releases* of *hazardous substances* was deleted Congress apparently failed to remove the workplace exclusion.[25] When EPA finalized the rule in 1985, the agency said that the workplace exclusion only applied to "claims compensable through workers compensation."[26] EPA then went on to say that the legislative history clearly indicates that Congress did not intend to exclude all workplace *releases* of *hazardous substances* from CERCLA reporting requirements and response authorities.[27] As a result, EPA said that if a *release* of a *hazardous substance* does not remain wholly contained within a building or structure, then it is a *release* "into the environment" for CERCLA purposes, whether or not it occurs within a workplace.[28]

(2) In 1993, EPA issued guidance on the use of authority under section 104(a) of CERCLA to conduct response actions to address *releases* of *hazardous substances*, pollutants, or contaminants that are found within buildings. EPA clarified that the phrase "*release into the environment*" refers to the location of the *release* itself and does not address the location of the hazard that the *release* poses. The guidance document then provided examples where EPA could exercise its authority. These included:

...[c]ontamination that is the direct result of a release into the environment from a non-natural source that migrates into a building or structure. For example, contamination in a

---

[17] Private plaintiffs, as well as the government, may seek response costs under CERCLA from defendants. *see supra* note 5. While many *users* of these ASTM practices or other private parties may think in terms of how to defend against CERCLA liability, they should be aware of the alternative option of conducting a cleanup and then seeking response costs from other responsible parties.

[18] 42 U.S.C.§ 9601(22). The complete definition of a *release* is "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the *environment* (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any *hazardous substance* or pollutant or contaminant), but excludes (*A*) any *release* which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons, (*B*) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine, (*C*) *release* of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954 [42 U.S.C. § 2011 *et seq*.], if such *release* is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act [42 U.S.C. § 2210], or, for the purposes of section 104 of this title [42 U.S.C. § 9604] or any other response action, any *release* of source byproduct, or special nuclear material from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978 [42 U.S.C. § 7912(a) or § 7942(a)], and (*D*) the normal application of fertilizer. See, for example, *Carson Harbor Village, Ltd. v. Unocal Corp*., 270 F.3d 863, 878 (9th Cir. 2001) (en banc); *United States v. CDMG Realty*, 96 F.3d 706, 714-15 (3d Cir. 1996).

[19] *Amcast Industry Corp. v. Detrex Corp*., 779 F. Supp. 1519 (N.D. Ind. 1991). Note that 40 C.F.R. § 312.20(h) provides that the *environmental professional* need not specifically identify extremely small quantities or amounts of contaminants, so long as the contaminants generally would not pose a threat to human health or the environment.

[20] *New York v. Shore Realty Corp*., 759 F.2d 1032 (2d Cir. 1985).

[21] The term "environment" means (*A*) the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson-Stevens Fishery Conservation and Management Act [16 U.S.C. § 1801 *et seq.*], and (*B*) any other surface water, groundwater, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States. 42 U.S.C. § 9601(8). EPA has interpreted "into the environment" to apply to *releases* that remain on plant or installation grounds such as spills from tanks or valves onto concrete pads or into lined ditches open to the outside air, *releases* from pipes into open lagoons or ponds, or any other discharges that are not wholly contained within buildings or structures. 50 Fed. Reg. 13456 (April 4, 1985).

[22] 42 U.S.C. § 9601(22)(A). *See also United States v Saporito*, 2011 U.S. Dist. LEXIS 66456 (N.D.Ill. June 22, 2011).

[23] *Notice of Proposed Rulemaking: Notification Requirements; Reportable Quantity Adjustments*, 48 Fed. Reg. 23552, 23555 (May 25, 1983) (NPRM).

[24] *Id.* at 23555. EPA said in the preamble to the NRPM that "The legislative history of the Act indicates that the "workplace exposure" exclusion was apparently intended to limit the potential scope of third-party actions for personal injuries under the Act and cited to S. Rep. No. 96-848, 96th Cong., 2d. Sess. 94 (1980).

[25] 48 Fed. Reg. 23555 (May 25, 1983).

[26] 50 Fed. Reg. 13456, 13462 (April 4, 1985).

[27] *Id.* EPA included the following quote from the legislative history to support this statement "For example, if a *release* occurring solely within a workplace created a hazard of damage to human life or to the environment, it is contemplated that the Fund would have the authority to respond with all of its authorities except for compensating workers whose employers are liable for their injuries under worker's compensation law." *Id*., (citing to S. Rep. No. 96-848, 96th Cong., 2d Sess. 94 (1980)).

[28] 48 Fed. Reg. at 13463. *See also Cyker v. Four Seasons Hotels Ltd*., 1991 U.S. Dist. LEXIS 1310 (D. Mass. Jan. 3, 1991) (no *release* into the environment when chemicals from an indoor pool migrated into adjoining apartment building). *See also "Response Actions at Sites With Contamination Inside Buildings"*, Memorandum from Henry L. Longest, II, OSWER Directive 9360.3-12 (Aug. 12, 1993).

yard may be tracked into a building on the feet of the residents or workers, or may migrate into the building through an open window or basement walls. In this situation, a release into the environment is occurring and has caused a building to become contaminated with the hazardous substance, pollutant, or contaminant.

(3) Another example EPA provided was when radium wastes that have been disposed in subsoil that may cause indoor hazards from *migration* and accumulation of radon gas in nearby homes can result in CERCLA liability.[29]

(4) Thus, the presence within a building of *hazardous substances* such as vapors that have *migrated* into a building from a "*release into the environment*" (that is, from a *release* outside of the building) can result in CERCLA liability.[30]

(5) Another exclusion to the definition of *release* that may be relevant to a *commercial real estate transaction* is the exclusion for the normal application of fertilizer contained in CERCLA section 101(22)(D). While CERCLA does not define the phrase "normal application of fertilizer," the legislative history indicates that phrase was meant to apply to the act of putting fertilizer on crops or cropland, and did not mean any dumping, spilling, or emitting, whether accidental or intentional, in any other place or of significantly greater concentrations or amounts than are beneficial to crops.[31] The exception may not apply to spillage or improper storage of fertilizer.[32]

X1.1.1.3 The objective of the investigation, according to the AAI rule, is to identify conditions indicative of *releases* or threatened *releases*.[33] While the rule refers to CERCLA section 101(22) that includes the exclusions to the definition of *release*, the rule does not specifically discuss if those excluded *releases* have to be identified to comply with the AAI rule.

X1.1.2 *Hazardous Substance*—The second element that must be satisfied is that there must be a *release* of a "*hazardous substance*." Section 101(14)[34] provides that the term "*hazardous substance*" includes *hazardous substances* designated under section 311 of the Clean Water Act (CWA)[35] or section 102 of CERCLA,[36] any toxic pollutant listed under section 307(a) of the CWA,[37] any waste that has been listed as a RCRA hazardous waste or possesses a RCRA hazardous waste characteristic,[38] any substance that is identified as a hazardous pollutant under section 112 of the Clean Air Act (CAA),[39] and any imminently hazardous chemical that EPA has taken action pursuant to section 7 of the Toxic Substances Control Act (TSCA).[40]

X1.1.2.1 *Petroleum exclusion:*

(1) The definition of a CERCLA *hazardous substance* specifically excludes *petroleum products* and crude oil.[41] EPA has determined that the "petroleum exclusion" applies to petroleum products such as gasoline and other fuels containing lead, benzene, or other *hazardous substances* that are normally added during the refining process.[42]

(2) If waste oil becomes contaminated during use from new *hazardous substances* that are added to oil during use or because the level of the *hazardous substances* that are normally found in the oil is increased beyond the concentrations normally found in petroleum, the EPA has said the petroleum exclusion should not apply.[43] Courts have generally upheld EPA's view that the "petroleum exclusion" does not apply to petroleum that has been contaminated through use. Thus, waste oil has been held to fall outside the "petroleum exclusion."[44] Courts have been less certain on whether sludges found at the bottom of a petroleum storage tank that become contaminated with rust from the steel tank fall within the petroleum exclusion.[45] Likewise, the petroleum exclusion was held not applicable where petroleum had commingled with *hazardous substances* in the subsurface beneath a refinery.[46]

X1.1.2.2 Notwithstanding the existence of the petroleum exclusion, *petroleum products* are included within the scope of this practice and the Legal Appendix for several reasons. First, *petroleum products* have historically been widely used at commercial *properties*. Second, other federal and state laws may impose liability for *releases* or spills of *petroleum products*. For example, *petroleum products* may become *hazardous wastes* such as when petroleum has spilled and cannot be reclaimed from soil. In addition, petroleum products *released* from *underground storage tanks* may be subject to corrective action under RCRA Subtitle I[47] or comparable state laws. Spills to surface waters could also result in cleanup

[29] *Id.*

[30] *See "Response Actions at Sites With Contamination Inside Buildings"*, Memorandum from Henry L. Longest, II, OSWER Directive 9360.3-12 (Aug. 12, 1993).

[31] S. Rep. No. 96-848, at 46 (1980).

[32] *City of Waco v. Schouten*, 385 F. Supp. 2d 595 (W.D. Tex. 2005)(use and storage of phosphorus in cow manure was beyond normal application of fertilizer).

[33] 40 C.F.R. § 312.1(c).

[34] 42 U.S.C. §§ 9601(14)(A)-(F).

[35] 33 U.S.C. § 1321(b)(2)(A).

[36] 42 U.S.C. § 9602. EPA has promulgated a list of CERCLA *hazardous substances* at 40 C.F.R. § 302.

[37] 33 U.S.C. § 1317(a).

[38] EPA has identified over 400 substances as listed hazardous wastes (see 40 C.F.R. § 261.11). EPA has also identified four hazardous waste characteristics for determining if a non-listed solid waste should be regulated as a hazardous waste (see 40 C.F.R. §§ 260.21-.24).

[39] 42 U.S.C. § 7412.

[40] 15 U.S.C. § 2606(f).

[41] 42 U.S.C. § 9601(14) provides that the term *hazardous substances* "does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a *hazardous substance* under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)."

[42] 50 Fed. Reg. 13 460 (April 4, 1985); "*Scope of the CERCLA Petroleum Exclusion*," Memorandum from Francis Blake, General Counsel, Environmental Protection Agency, to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response (July 31, 1987); *Wilshire Westwood Associates v. Atlantic Richfield Corp*., 881 F.2d 801 (9th Cir. 1989).

[43] 50 Fed. Reg. 13460 (April 4, 1985); "*Scope of the CERCLA Petroleum Exclusion*," Memorandum from Francis Blake, General Counsel, Environmental Protection Agency, to J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response (July 31, 1987).

[44] *United States v. Alcan Aluminum*, 964 F.2d 252 (3d. Cir. 1992); *United States v. Alcan Aluminum Corp*., 755 F. Supp. 531 (N.D.N.Y. 1991); *City of New York v. Exxon Corp*., 766 F. Supp. 177 (S.D.N.Y. 1991).

[45] *Compare United States v. Western Processing Co*., 761 F. Supp. 713 (W.D. Wa. 1991) *with Cose v. Getty Oil Co*., 4 F.3d 700 (9th Cir. 1993) (reversing and remanding summary judgment in favor of appellee oil company).

[46] *Tosco Corp. v. Koch Industries, Inc*. 216 F.3d. 886 (10th Cir. 2000).

[47] 42 U.S.C. § 6991 *et seq*.

liability pursuant to the Oil Pollution Act of 1990[48] and the CWA.[49] Finally, persons seeking to qualify for federal, state, or local brownfield funding may be required to investigate potential petroleum *releases* as part of implementing this practice.

X1.1.3 *Facility*—The third element of CERCLA liability is that the *release* must occur on or from a facility.[50] The term "facility" is meant to encompass the area of contamination so that a facility may extend beyond property boundaries such as when a groundwater plume has *migrated* offsite. EPA has said it has broad discretion to treat non-contiguous sites as one CERCLA facility.[51]

X1.1.4 *Response Costs*—Another element necessary to establish CERCLA liability is that response costs must be incurred as a result of a *release* or threatened *release* of a *hazardous substance*. There are two different types of response actions for which costs may be recovered: Removal actions[52] (typically short-term or temporary actions) and remedial actions[53] (typically long-term or permanent cleanups).

X1.1.4.1 To recover response costs, a plaintiff must demonstrate that its response costs were incurred consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).[54] However, the burden of establishing NCP consistency differs depending if the plaintiff is the federal government or a private party. A private party or local government seeking to recover response costs has the burden of proving its response costs were consistent with the NCP.[55] Private plaintiffs only have to demonstrate "substantial compliance" with the NCP rather than strict technical compliance as long as a CERCLA-quality cleanup is achieved.[56] Some cases have held that cleanup costs incurred pursuant to a consent decree will be presumed to be in compliance with the NCP.[57]

X1.1.4.2 The federal government may recover response costs that are "not inconsistent" with the NCP.[58] Courts have interpreted the "not inconsistent" language to mean that the government has a rebuttable presumption that its response costs are consistent with the NCP. Thus, defendants have to introduce evidence to overcome this presumption of NCP consistency.[59] Some courts have held that the defendants must not simply prove variance from the NCP but that there were demonstrable excess costs.[60] Other courts have rejected defendant claims that a remedy was inconsistent with the NCP because it was not cost effective on the grounds that this factor is only relevant in choosing a remedy and not a criterion for challenging the implementation of the remedy.[61] While state agencies also enjoy the presumption of consistency, municipalities are not entitled to the presumption because they are not considered part of state government.[62] Another limitation on cost recovery by private plaintiffs is that they may recover only "necessary" response costs.[63]

X1.1.4.3 *No cost recovery for certain types of releases*—Sections 104(a)(3) and 107 identify certain categories of *releases* for which cost recovery is prohibited. While the cost prohibition of sections 107(i) and (j) broadly apply to all persons including the federal government, states, and Tribes, the limitation of section 104(a)(3) is expressly directed at the federal government.[64] However, courts have generally interpreted this provision not only to limit the federal government's ability to recover response costs for such *releases* under section 107, but also to apply to private cost recovery or contribution actions.[65] The section 104(a)(3) limitations on response actions by the federal government do not apply to any *release* or threatened *release* that EPA determines constitutes a public health or environmental emergency and no other person with

[48] 33 U.S.C. § 1321 *et seq*. Indeed, an "all appropriate inquiries" requirement was added to OPA in 2004 as part of a new OPA innocent landowner defense and the United States Coast Guard issued an OPA AAI rule in 2008 that is substantially similar to the CERCLA AAI rule. See 73 Fed. Reg. 2146 (Jan. 14, 2008).

[49] 33 U.S.C. § 1321 *et seq*.

[50] 42 U.S.C. § 9601(9) defines the term "facility" to mean "(A) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, *landfill*, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a *hazardous substance* has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel."

[51] 55 Fed. Reg. 8689–91 (Mar. 8, 1990).

[52] 42 U.S.C. § 9601(23).

[53] 42 U.S.C. § 9601(24).

[54] 42 U.S.C § 9607(a)(4)(B). The National Contingency Plan is the federal government's blueprint on how *hazardous substances* are to be cleaned up pursuant to CERCLA. *See* 42 U.S.C. § 9605; 40 C.F.R. Part 300.

[55] *Amland Properties Corp. v. Aluminum Co. of America*, 711 F. Supp. 784, 794 (D.N.J. 1989); *Artesian Water Co. v. New Castle Cty*., 659 F. Supp. 1269, 1291 (D. Del. 1987); *United States v. Northeastern Pharmaceutical & Chemical Co*., 579 F. Supp. 823 (W.D. Mo. 1984), *aff'd in part, rev'd on other grounds*, 810 F.2d 726 (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987).

[56] The NCP requirements for a private party response-action are set forth at 40 C.F.R. § 300.700.

[57] *United States v. Western Processing Co*., 1991 U.S. Dist. LEXIS 16021 (W.D. Wa. July 31, 1991).

[58] 42 U.S.C. § 9607(a)(4)(A). *See Dedham Water Co. v. Cumberland Farms Dairy, Inc*., 889 F.2d 1146 (1st Cir. 1989).

[59] *United States v. Gurley Refining Co*., 788 F. Supp. 1473 (E.D. Ak. 1992); *United States v. American Cyanamid*, 786 F. Supp. 152 (D.R.I. 1992); *Ambrogi v. Gould*, 750 F. Supp. 1233 (M.D. Pa. 1990); *Northeastern Pharmaceutical & Chemical Co*., 579 F. Supp. 823 (W.D. Mo. 1984).

[60] *United States v. American Cyanamid*, 786 F. Supp. 152 (D.R.I. 1992).

[61] *Id.*

[62] *Town of Bedford v. Raytheon Co*., 755 F. Supp. 469 (D. Mass. 1991); *Philadelphia v. Stephan Chemical Co*., 713 F. Supp. 1484 (E.D. Pa. 1989).

[63] 42 U.S.C. § 9607(a)(4)(B).

[64] 42 U.S.C. § 9604(a)(3).

[65] *3550 Stevens Creek Assocs. v. Barclays Bank*, 915 F.2d 1355 (9th Cir. 1990)(affirming district court ruling that it was unlikely that Congress would have intended to preclude the President from taking a specific action, while allowing private parties to respond by that precise action); *First United Methodist Church v. United States Gypsum Co*., 882 F.2d 862 (4th Cir. 1989)(§ 9604(a)(3)(B) represents much more than a procedural limitation on the President's authority; instead, it is a substantive limitation of the breadth of CERCLA itself); *Retirement Community Developers, Inc. v. Merine*, 713 F. Supp. 153 (D. Minn.1989)(legislative history supports view that § 9604(a)(3) was intended to be a limit on the substantive scope of CERCLA and not solely a limit on the President's authority under the statute). But see *Prudential Ins. Co. of America, v. United States Gypsum*, 711 F. Supp. 1244 (D.N.J. 1989) (holding that the plaintiffs did not state a CERCLA claim because the sale of asbestos building materials was not a "disposal" of a *hazardous substance* as defined by CERCLA but suggesting, *in dicta*, that it believed that the limits of § 9604(a)(3) did not apply to private asbestos removal actions).

the authority and capability to respond to the emergency will do so in a timely manner.[66]

(1) Naturally occurring substances exclusion—This exclusion applies to *releases* from a substance that is in an unaltered form or altered by natural processes and where the *releases* occur from a location where the substance is naturally found.[67] Thus, the *migration* of radon gas into a building would not normally be considered a CERCLA *release*.[68] However, when the source material for the radon gas is radioactive waste material that has been disposed or spilled, the presence of radon gas in a structure or property can be a *release* of a *hazardous substance* for which cost recovery could be available.[69]

(2) Building materials exclusion—This exclusion applies to *releases* from products that are part of a building that result in exposure within that structure.[70] This exclusion has been invoked frequently to challenge claims for abatement of asbestos-containing building materials (ACM)[71] but can also apply to lead-based paint (LBP)[72] or to materials potentially containing polychlorinated biphenyls (PCBs) (for example, fluorescent light ballasts, paint, caulk). To fall within this exclusion, the *release* must be from a product that is part of the structure AND result in exposure within the structure.[73]

(a) For example, some building *owners* who have incurred ACM abatement costs have tried to circumvent the structural materials issue by arguing that the seller arranged for the disposal of *hazardous substances* by selling a building with ACM. For example, in *Sycamore Industrial Park Associates v. Ericsson, Inc*.[74] the plaintiff purchased an industrial park with an old heating system that was incorporated into the building. Plaintiff sued defendant under CERCLA, RCRA, and common law, and requested an injunction ordering the defendant to remove the ACM or pay plaintiff for its abatement costs. In its CERCLA claim, plaintiff tried to distinguish the long line of CERCLA case law holding that sellers of buildings with ACM in the building structures could not be liable for arranging for disposal of a *hazardous substance*. Plaintiff argued that since the ACM in the building was associated with an abandoned and obsolete heating system, it was no longer a useful product. Ruling for the defendant on its motion to dismiss, the court said that since installing ACM in a building was not disposal under CERCLA, then simply leaving the same material where it was originally installed could not qualify as disposal. Moreover, the court noted that the plaintiff did not allege that asbestos fibers were being *released* into the environment. If the defendant had dismantled the equipment with ACM or detached and abandoned the ACM, the court said it would not hesitate to impose liability on the seller. Since no such facts were alleged in the complaint, the court granted the defendant's motion to dismiss.

(b) In *California v. Blech*,[75] a fire caused asbestos dust to be *released* in office space leased by the California Department of General Services (DGS). When the building *owner*/defendant declined to abate the dust, DGS performed a cleanup and sought cost recovery. DGS argued that the fire-damaged ACM was no longer part of the building structure and had become asbestos waste. However, the court ruled that because the source of the asbestos dust was ACM that had been part of the building structure, the asbestos abatement costs were not recoverable under CERCLA.

(c) In *CP Holdings, Inc. v. Goldberg-Zoino & Associates, Inc*.[76] the purchaser of a building with ACM was allowed to recover its ACM disposal costs under CERCLA after the purchaser demolished the building because the asbestos *release* was not confined to the interior of the building. Courts have allowed plaintiffs to recover response costs for soil contaminated with asbestos that was *released* from buried asbestos-contaminated materials.[77]

(d) While the building materials exclusion of CERCLA § 104(a)(3) has been applied to LBP, EPA has used its CERCLA authority to conduct response actions for soils contaminated by a *release* of lead-contaminated paint chips from the exterior of homes that pose a lead hazard and to prevent recontamination of soils that have been remediated.[78]

(3) Exclusion for release into public or private drinking water supplies due to deterioration of the system through ordinary use[79]—Lead in drinking water (LIW) can be evaluated in terms of this exclusion. The statutory language seems clear that LIW would not fall within the CERCLA's AAI responsibilities. Indeed, there is no reported case law involving LIW and CERCLA.

(4) Application of pesticides—Section 107(i)[80] provides that no person (including the United States and state governments) may recover response costs resulting from the application of pesticides registered pursuant to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The purpose of CERCLA's pesticide exemption is "to prevent the typical pesticide user from incurring CERCLA liability when he has

[66] 42 U.S.C. § 9604(a)(4). *See also "CERCLA Removal Actions at Methane Release Sites"*; Memorandum from Henry L. Longest, II to Basil G. Constantelos, OSWER Directive 9360.0-8 (Jan. 23, 1986).

[67] 42 U.S.C. § 9604(a)(3)(A).

[68] EPA has designated radionuclides as a CERCLA *hazardous substance*. Radon and its daughter products are considered radionuclides, and qualify as CERCLA *hazardous substances*. See 40 C.F.R. § 302.4.

[69] *Amoco Oil Co. v. Borden, Inc*., 889 F.2d 664 (5th Cir. 1990).

[70] 42 U.S.C. § 9604(a)(3)(B).

[71] *3550 Stevens Creek Assoc. v. Barclays Bank*, 915 F.2d 1355 (9th Cir. 1990), *cert. denied*, 500 U.S. 917 (1991); *Dayton Independent School Dist. v. United States Mineral Products*, 906 F.2d 1059 (5th Cir. 1990); First United Methodist Church v. United States Gypsum Co., 882 F.2d 862 (4th Cir. 1989); *Black v. Carey Canada, Inc*., 791 F. Supp. 1120 (S.D. Miss. 1990); *Retirement Community Developers v. Merine*, 713 F. Supp. 153 (D. Md. 1989).

[72] *California v. Blech*, 976 F.2d 525, 527 (9th Cir. 1992); *First United Methodist Church v. United States Gypsum Co*., 882 F.2d 862, 868 (4th Cir. 1989); *ABD Assocs. v. American Tobacco Co*., 1995 U.S. Dist. LEXIS 11094 (M.D.N.C. June 26, 1995).

[73] *ABD Assocs. v. American Tobacco Co*., 1995 U.S. Dist. LEXIS 11094 (the legislative history of § 9604(a)(3) shows no intention by Congress to distinguish between asbestos and other products such as lead-based paint).

[74] 2007 U.S. Dist. LEXIS 23881 (N.D. Ill. Mar. 30, 2007).

[75] *California v. Blech*, 976 F.2d 525 (9th Cir. 1992).

[76] 769 F. Supp. 432 (D.N.H. 1991).

[77] *Hidden Lakes Development, LP v. Allina Health System and Park Construction Co*., 2004 U.S. Dist. LEXIS 19360 (D. Minn. Sept. 27, 2004); *Richmond American Homes of Colorado, Inc., v. United States*, 75 Fed. Cl. 376 (2007).

[78] *See generally "Superfund Lead-Contaminated Residential Sites Handbook"*, OSWER 9285.7-50 (August 2003); *See also* OSWER Directive *"Clarification to the 1994 Revised Interim Soil Lead (Pb) Guidance for CERCLA Sites and RCRA Corrective Action Facilities"*, OSWER Directive 9200.4-27P (August 1998).

[79] 42 U.S.C. § 9604 (a)(3)(C).

[80] 42 U.S.C. § 9607(i).

done nothing more than to have purchased and applied a pesticide in the customary manner."[81] FIFRA registration is not a complete defense to a CERCLA claim, though, and a defendant will have the burden of establishing its entitlement to the exemption.[82] To qualify for this cost recovery prohibition, the pesticide must have been applied in accordance with the labeling requirements established for that pesticide product at the place where the pesticide product was to be applied. Courts have held that the pesticide exemption should be construed narrowly and the exemption has been held not to apply to pesticide disposal, storage, spills, or transport.[83] The misapplication of pesticides that causes contamination on *adjoining properties* has been held not to fall within the pesticide exemption.[84] The pesticide exemption also contains a "savings clause" that provides that the cost recovery prohibition does not alter or modify any obligations or liability under any other federal or state law for damages, injury, or loss resulting from a *release* of *hazardous substances*, or for the costs of removal or remedial actions of such *hazardous substances*.[85]

(5) Federally Permitted Releases—Likewise, section 107(j)[86] prohibits cost recovery by any persons (including the United States and state governments) for response costs or damages resulting from federally-permitted *releases*.[87] There is also a "savings clause" that provides that this section does not alter or modify any obligations or liability under any other federal or state law for damages, injury, or loss resulting from a *release* of *hazardous substances*, or for the costs of removal or remedial actions of such *hazardous substances*.[88]

X1.1.5 *Responsible Party*—The final element of CERCLA liability is that the plaintiff must establish that defendant falls within at least one of the four categories of potentially responsible parties (PRP) identified in section 107(a). The categories of PRPs include current *owners* and *operators* of a facility;[89] past *owners* or *operators* of a facility at the time of disposal;[90] any person who arranges for disposal, treatment or transport of *hazardous substances* ("arrangers" or "generators");[91] and any person who accepts or accepted any *hazardous substances* for transport to a disposal or treatment facility selected by such person ("transporter").[92] Because this practice is focused on *commercial real estate* transactions, the discussion in this Legal Appendix focuses on the *owner* and *operator* PRP categories.

X1.1.5.1 *CERCLA owner:*[93]

(1) Courts have broadly construed the term and some courts have ruled that persons holding equitable title,[94] easement holders,[95] and holders of mineral estates[96] could be liable as CERCLA *owners*. A purchaser of tax liens who has obtained tax deeds has been found to be a CERCLA *owner*,[97] as well as an *owner* of equipment that is an important component of the production process at a facility.[98] Other courts have ruled that mere possessory interests without some incidents of ownership cannot support CERCLA *owner* liability.[99] Some courts appear to be reluctant to extend ownership liability to persons who simply serve as conduits and hold title for only a very short period of time to facilitate a multi-step transaction.[100]

(2) Current *owners* may be liable for any contamination existing on the site even if the current *owner* did not place the *hazardous substances* on the site or cause the *release*.[101] One federal appeals court held that current ownership is measured at the time of cleanup and not necessarily when a cost recovery lawsuit is filed.[102] Passive landlords or sublessors who do not

[81] *Jordan v. Southern Wood Piedmont Co*., 805 F. Supp. 1575, 1581-82 (S.D. Ga. 1992).

[82] *Cameron v. Navarre Farmers Union Coop. Ass'n*, 76 F. Supp. 2d 1178 (D. Kan. 1999); *Beers v.Williams Pipe Line Co*., 1994 U.S. Dist. LEXIS 12303 (D. Kan. Aug. 23, 1994).

[83] *See Redwing Carriers, Inc. v. Saraland Apartments*, 94 F.3d 1489, 1511 (11th Cir. 1996) (affirming the district court's finding that the defendant could not be held liable for the alleged disposal of FIFRA-registered pesticides because plaintiff failed to produce any evidence refuting the defendant's proof that the pesticides were properly applied.); *South Fla. Water Management Dist. v. Montalvo*, 84 F.3d 402 (11th Cir. 1996) (exemption inapplicable to "spills while loading planes and the drainage of contaminated rinse water following spraying runs."); *In re Sundance Corp*., 149 B.R. 641, 663 (Bankr. E.D. Wash. 1993) (allowing excess dip to drain off the stakes was a *release* and not an application of pesticides); *Jordan v. Southern Wood Piedmont Co*., 805 F. Supp. 1575 (S.D. Ga. 1992) (exemption did not apply to wood treatment facility but defendant not liable on other grounds); *United States v. Hardage*, 1989 U.S. Dist. LEXIS 17877 (W.D. Okla. 1989) (rejecting a stock yard company's argument that exemption afforded a defense to liability for the disposal of FIFRA-registered dipping vat pesticide waste).

[84] *United States v. Tropical Fruit*, S.E., 96 F. Supp. 2d 71 (D.P.R. 2000).

[85] 42 U.S.C. § 9607(i).

[86] 42 U.S.C. § 9607(j).

[87] Federally-Permitted *Releases* are defined in 42 U.S.C. § 9601(10). Some of the categories of *releases* that may be relevant to *commercial real estate* transactions include discharges in compliance with NPDES and pre-treatment permits issued under the Clean Water Act; *releases* in compliance with a legally enforceable final permit issued pursuant to RCRA where the permit specifically identifies the *hazardous substances* and establishes treatment practice for that discharge; emissions of air pollutants pursuant to permits issued under the CAA; injection of fluids authorized under the federal *underground injection* control programs or approved state programs pursuant to the Safe Drinking Water Act; and any *release* of source, special nuclear, or byproduct material in compliance with a legally enforceable license, permit, regulation, or order issued pursuant to the Atomic Energy Act of 1954.

[88] 42 U.S.C. § 9607(j).

[89] 42 U.S.C. § 9607(a)(1).

[90] 42 U.S.C. § 9607(a)(2).

[91] 42 U.S.C. § 9607(a)(3).

[92] 42 U.S.C. § 9607(a)(4).

[93] 42 U.S.C. § 9601(20).

[94] *K.C. 1986 Ltd. Pshp. v. Reade Mfg*., 33 F. Supp.2d 820 (W.D. Mo. 1998); *United States v. Wedzeb Enters., Inc*., 809 F. Supp. 646, 652 (S.D. Ind. 1992); United States v. Union Corp., 259 F. Supp.2d 356, 395 (E.D. Pa. 2003).

[95] *United States v. Union Gas Co*., 1992 U.S. Dist. LEXIS 14834 (E.D. Pa. Sept. 30, 1992). *But see Long Beach Unified Sch. Dist. v. Dorothy B. Godwin Cal. Living Trust*, 32 F.3d 1364, 1369 (9th Cir. 1994) and *Grand Trunk Western Railroad Co. v. Acme Belt Recoating, Inc*., 859 F. Supp. 1125 (W.D. Mich. 1994).

[96] *City of Grass Valley v. Newmont Mining Corp*., 2007 U.S. Dist. LEXIS 97340 (E.D. Cal. Dec. 3, 2007) (holding that ownership of the mineral estate was sufficient to impose liability as an *owner* under CERCLA).

[97] *United States v. Capital Tax Corp*., 2007 U.S. Dist. LEXIS 1184 (N.D. Ill. Jan. 4, 2007).

[98] *United States v. Saporito*, 684 F. Supp. 2d 1043 (N.D. Ill. 2010); *Elf Atochem North American, Inc. v. United States*, 868 F. Supp. 707, 709 (E.D. Pa. 1994).

[99] *City of L.A. v. San Pedro Boat Works*, 635 F.3d 440 (9th Cir. 2011); *Long Beach Unified Sch. Dist. v. Dorothy B. Godwin Cal. Living Trust*, 32 F.3d 1364, 1368 (9th Cir. 1994).

[100] *Ameripride Servs. v. Valley Indus. Serv*., 2007 U.S. Dist. LEXIS 18806 (E.D. Cal. Jul. 7, 2007); *Robertshaw Controls v. Watts Regulator*, 807 F. Supp. 144 (D. Me. 1992); In *re Diamond Reo Trucks, Inc. v. Lansing*, 115 B.R. 559 (Bankrcy. W.D. Mich. 1990).

[101] *Nurad, Inc. v. Hooper & Sons Co*., 966 F.2d 837 (4th Cir. 1992), *cert. denied*, 506 U.S. 940 (1992); *United States v. Monsanto*, 858 F.2d 160 (4th Cir. 1989).

[102] *Pennsylvania Dep't of Envtl. Prot. v. Trainer Custom Chem*., LLC, 906 F.3d 85, (3d Cir. 2018): *Cal. Dep't of Toxic Substances Control v. Hearthside Residential Corp*., 613 F.3d 910 (9th Cir. 2010).

participate in the management of the property have been held to be liable for cleanup costs.[103]

(3) In contrast to the scope of liability for a current *owner*, a person may only be liable as a "former *owner*" if the person held title "at the time of disposal." Some courts have held that even the mere *migration* of previously-deposited or *released hazardous substances* constitutes "disposal" so that a former *owner* that simply held title while contaminants *migrated* (passive disposal) could be liable as a CERCLA past owner.[104] However, the majority of jurisdictions now appear to require that a party must be engaged in active conduct to be liable as a former *owner* "*at the time of disposal*."[105] In many jurisdictions, development activities such as grading and soil relocation may be the kind of active conduct that can be considered "disposal" for purposes of CERCLA liability.[106]

X1.1.5.2 *CERCLA operator liability:*[107]

(1) A person may be liable as a CERCLA *operator* when they exercise control over a facility. To be considered a CERCLA *operator*, the United States Supreme Court held in *United States v. Bestfoods* that a person must "manage, direct, or conduct operations specifically related to pollution, that is, operations having to do with the leakage or disposal of hazardous waste, or decisions about compliance with environmental regulations."[108] Following *Bestfoods*, parent corporations and individual shareholders may be directly liable as CERCLA *operators* for subsidiary facilities only if they exercise actual control over the operations at the facility that caused the contamination.[109] A parent corporation may be held derivatively or indirectly liable for the environmental liabilities of its subsidiary only on a traditional corporate veil piercing analysis.[110] Municipalities have been found liable as *operators* of sewer systems that allowed contaminants to escape into the environment.[111]

(2) Some courts have held that a person may be liable as a current CERCLA *operator* where the person did not exercise control over historic operations that caused the contamination but dispersed or moved around contaminated soil during grading and excavation activities.[112] A managing agent of a shopping center that had been contaminated by *releases* from a dry cleaner may also be potentially liable as a CERCLA *operator*.[113]

(3) Like a past CERCLA *owner*, a past *operator* must have exercised control over the site "at the time of disposal" to be liable as a CERCLA *operator*. Many courts have held that disposal is not limited to the original *release* but can encompass subsequent dispersal or movement of *hazardous substances*. Thus, CERCLA *operator* liability has been imposed on persons as a result of grading or excavation activities that moved contaminated soil.[114]

X1.1.5.3 *Arrangers/generators and transporters*—CERCLA arrangers/generators and transporters are not usually found liable for *releases* at property that they do not own or operate. Therefore, this practice is typically not impacted by CERCLA arranger/generator and transporter liability.

X1.1.6 *Exclusions from Definition of Owner or Operator*—There are several important statutory exemptions from the definition of *owner* or *operator*. A party that does not qualify for one of the statutory exemptions may still be able to assert one of the *LLPs*.

X1.1.6.1 *Secured creditor exemption*—The "secured creditor" exemption exempts from the definition of "*owner* or

[103] *United States v. A & N Cleaners & Launderers, Inc*., 788 F. Supp. 1317 (S.D.N.Y. 1992).

[104] *Nurad, Inc. v. Hooper & Sons Co*., 966 F.2d 837 (4th Cir.), *cert. denied*, 506 U.S. 940 (1992).

[105] *Carson Harbor Vill., Ltd. v. Unocal Corp*., 270 F.3d 863 (9th Cir. 2001); *United States v. 150 Acres of Land*, 204 F.3d 698, 706 (6th Cir. 2000); *ABB Indus. Sys., Inc. v. Prime Tech., Inc*., 120 F.3d 351 (2d Cir. 1997); *United States v. CDMG Realty Co*., 96 F.3d 706 (3d Cir. 1996).

[106] *Bonnieview Homeowners v. Woodmont Builders*, 2009 U.S. Dist. LEXIS 86737 (D.N.J. Sept. 22, 2009); *United States v. Honeywell Intl., Inc*., 542 F. Supp.2d 1188 (E.D. Cal. 2008).

[107] 42 U.S.C. § 9601(20).

[108] *United States v. Bestfoods*, 524 U.S. 51 (1998).

[109] *Atlanta Gas Light Co. v. UGI Utilities, Inc*., 463 F.3d 1201 (11th Cir, 2006). *See also Consolidated Edison of New York, Inc. v. UGI Utilities*, 310 F. Supp.2d 592 (S.D.N.Y.), *aff'd in part*, 423 F.3d 90 (2d Cir. 2005); *cert. denied* 551 U.S. 1130 (2007); *Yankee Gas Services Company v. UGI Utilities*, 616 F. Supp.2d 228 (D. Conn. 2009), aff'd, 428 Fed. Appx. 18. *But see United States v. Newmont USA Ltd*., 2008 U.S. Dist. LEXIS 82922 (E.D. Wa. Oct. 11, 2008).

[110] 524 U.S. at 63-64.

[111] *Westfarm Assocs. Ltd. Partnership v. Washington Suburban Sanitary Comm'n*, 66 F.3d 669 (4th Cir. 1995); *City of Bangor v. Citizens Communications Co*., 2004 U.S. Dist. LEXIS 3845 (D. Me. Mar. 11, 2004); *United States v. Union Corp*., 277 F. Supp.2d 478 (E.D. Pa. 2003). *But see Lincoln Properties, Ltd. v. Higgins*, 823 F. Supp. 1528 (E.D. Cal. 1992).

[112] *Trinity Amer. Corp. v. EPA*, 150 F.3d 389 (4th Cir. 1998); *PCS Nitrogen, Inc. v. Ashley II of Charleston LLC*, 714 F.3d 161, 177 (4th Cir. 2013), *cert. denied*, 571 U.S. ___ (Nov. 4, 2013); *United States v. Honeywell Int'l, Inc*., 542 F. Supp.2d 1188 (E.D. Cal. 2008).

[113] *Scarlett & Associates, Inc. v Briarcliff Center Partners, LLC*, 2009 U.S. Dist. LEXIS 90483 (N.D. Ga. 2009). There, the managing agent did not maintain an office or have personnel at the site, nor did it have keys to any leased space or have the power to evict tenants. The managing agent said its principal responsibilities were to attempt to rent space to tenants that were approved by the *owner*, collect rent, maintain the common areas of the shopping center, pay bills in a timely manner, and send any excess revenues to the *owner*. The *owner* pointed to language in the management services agreement that the managing agent was to obtain all necessary government approvals and perform such acts necessary to ensure that *owner* was in compliance with all laws. The court noted that the managing agent sent the dry cleaner a certified letter advising the dry cleaner of certain environmental reporting requirements, and requested copies of the documentation that the dry cleaner was required to provide to the EPA or an explanation as to why the dry cleaner was exempt from providing such documentation. The court said that this correspondence combined with the other evidence of record indicating that the managing agent generally was responsible for managing and maintaining the shopping center and performing all acts necessary to effect compliance with all laws, rules, ordinances, statutes, and regulations of any governmental authority applicable to the operation of the shopping center was sufficient to create a genuine issue as to whether the managing agent managed the operations of the dry cleaner specifically related to pollution, and it therefore met the definition of a former "*operator*."

[114] *Tanglewood Homeowners v. Charles-Thomas, Inc*., 849 F.2d 1568 (5th Cir. 1988); *Redwing Carriers, Inc. v. Saraland Apartments*, 94 F.3d 1489 (11th Cir. 1996); *Kaiser Aluminum & Chem. Corp. v. Catellus Dev. Corp*., 976 F.2d 1338 (9th Cir. 1992); *Bonnieview Homeowners Ass'n, LLC v. Woodmont Builders, L.L.C*., 655 F. Supp.2d 473 (D.N.J. 2009). But see *Montville Township v. Woodmont Builders, LLC*., 2009 U.S. Dist. LEXIS 93629 (D.N.J. 10/7/09)(no evidence that developer activities spread contaminated soil).

operator" persons holding an "indicia of ownership" primarily to protect a security interest in a vessel or facility so long as the person did not participate in the management of the facility.[115] The CERCLA secured creditor exemption can insulate a secured creditor from liability during the administration of a loan, including workouts, so long as the lender's actions during the life of a loan do not constitute exercising managerial control over the operations of its borrower.[116] The secured creditor exemption contains some key definitions.

X1.1.6.2 *Security interest*—This term includes a right under a mortgage, deeds of trust, assignment, judgment lien, pledge, security agreement, factoring agreements, or lease and any other right accruing to a person to secure the repayment of money, performance of a duty, or any other obligations by a non-affiliated person.[117]

X1.1.6.3 *Lender permissible actions:*

(1) A lender holding indicia of ownership primarily to protect a security interest in a facility or vessel will not be liable as a CERCLA *owner* or *operator* during the term of a loan if it does not participate in the management of that facility. The term "participate in management" means actually participating in the management or operational affairs of a vessel or facility, and does not include merely having the capacity to influence or the unexercised right to control vessel or facility operations. Thus, the mere presence of clauses in a financing agreement giving a lender the right to take certain actions, such as responding to violations of law or *releases* of *hazardous substances*, will not expose the lender to liability.[118]

(2) The secured creditor exemption includes a list of nine permissible activities commonly taken by lenders that are considered consistent with the exemption and therefore do not constituent "participation in management." A lender may take the following nine actions and not be deemed to have participated in management:

(a) Holding, releasing, or abandoning a security interest, including environmental compliance covenants, warranties, or other environmental conditions in a security agreement or extension of credit;[119]

(b) Monitoring or enforcing any terms or conditions of a security agreement or extension of credit;

(c) Monitoring or undertaking any inspections of the collateral;

(d) Requiring the borrower to take response actions to address *releases* of *hazardous substances*;

(e) Providing financial or other advice or counseling to mitigate, prevent, or cure default or diminution of the value of the collateral;

(f) Restructuring, renegotiating, or otherwise agreeing to alter terms and conditions of a security agreement or extension of credit;

(g) Exercising forbearance of any rights;

(h) Exercising any remedies that may be available under applicable law for breaches of security agreements or extensions of credit; and

(i) Conducting a response action under CERCLA in accordance with the National Contingency Plan or under the direction of an on-scene coordinator.[120]

(3) A lender may be considered to be participating in management of a facility if it does the following while the borrower is in possession of the property encumbered by the security interest:

(a) Exercises decision-making control over the borrower's environmental compliance, such that the holder (that is, lender) has undertaken responsibility for the borrower's *hazardous substance* handling or disposal practices; and

(b) Exercises control at a level comparable to that of a manager of the facility or vessel so that the lender has assumed or manifested responsibility for the overall management of the day-to-day decision making at the facility with respect to environmental compliance or overall or substantially all of the operational aspects or functions of the facility or vessel.[121]

X1.1.6.4 *Workouts and Foreclosure*—The secured creditor exemption also provides limited protection to lenders during workouts and foreclosures. A lender will not be considered a CERCLA *owner* or *operator* if it did not participate in the management of a facility prior to foreclosure, forecloses on the facility or vessel, and then follows certain requirements. After foreclosure, the lender may maintain business activities, wind up operations, undertake a response action in accordance with the NCP or under the direction of an on-scene coordinator, or otherwise take any other actions to preserve, protect, or prepare the vessel or facility prior to sale or disposition *provided* the lender tries to sell, release or otherwise divest itself of the facility or vessel at the earliest practicable, commercially

[115] 42 U.S.C. § 9601(20)(E)(i). In 1992, EPA sought to further clarify the scope of the secured creditor exemption when it issued its "Lender Liability under CERCLA" as an amendment to the NCP ("Lender Liability Rule"). 57 Fed. Reg. 18344 (April 29, 1992). However, the Lender Liability Rule was subsequently invalidated. *Kelley v. EPA*, 15 F.3d 1100 (D.C. Cir. 1994), *reh'g denied*, 25 F.3d 1088 (D.C. Cir. 1994). In response, EPA announced it would use the Lender Liability Rule as a guidance document in exercising its enforcement discretion. See "*Policy on CERCLA Enforcement Against Lenders and Government Entities that Acquire Property Involuntarily*" (Sept. 22, 1995). Congress subsequently enacted the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act ("1996 Lender Liability Amendments") which substantially amended the secured creditor exemptions of CERCLA and RCRA. Omnibus Consolidated Appropriations Act of 1997, Pub. L. No 104-208 §§ 2501-2505, 110 Stat. 3009 (Sept. 30, 1996). The 1996 Lender Liability Amendments added new defined terms and identified the kinds of actions lenders could take without being considered to be participating in the management of a facility, as well as the steps that lenders had to follow to foreclose on property and still be considered simply protecting their security interest.

[116] *Monarch Tile, Inc. v. City of Florence*, 212 F.3d 1219, 1222 (11th Cir. 2000); *United States v. Marvin Pesses*, 1998 U.S. Dist. LEXIS 7902 (W.D. Pa. May 6, 1998).

[117] 42 U.S.C. § 9601(20)(G)(vi).

[118] 57 Fed. Reg. at 18357 (Apr. 29, 1992).

[119] An extension of credit includes a lease finance transaction where the lessor does not initially select the leased vessel or facility, during the term of the lease does not control the daily operation or maintenance of the vessel or facility, or the transaction conforms with regulations issued by a federal banking agency, an appropriate state bank supervisor, or with regulations promulgated by the National Credit Union Administration Board. 42 U.S.C. § 9601(20)(G)(i).

[120] 42 U.S.C. § 9601(20)(F)(iv).

[121] 42 U.S.C. § 9601(20)(F)(ii).

reasonable time, and on commercially reasonable terms after taking into account market conditions and legal or regulatory requirements.[122]

X1.1.7 *Trustees*—The secured creditor exemption also includes liability protections for persons and financial institutions acting in a fiduciary capacity.[123]

X1.1.7.1 *Definition of fiduciary:*

(1) The liability protection applies to anyone holding title, having control, or otherwise having an interest in a facility or vessel pursuant to the exercise of its responsibilities as a fiduciary. Covered persons include trustees, receivers, executors, administrators, custodians, guardians of estates or a guardian *ad litem*, conservators, committees of estates of incapacitated persons, personal representatives, trustees under a various forms of indebtedness where the trustee is not the lender (for example, a trustee in an indenture agreement, trust agreement, lease, or similar financing agreement for debt securities, certificates of participation in debt securities, or other), or a representative that EPA determines is acting in one of the foregoing capacities.[124]

(2) The term does not include a person acting as a fiduciary for an estate organized for the primary purpose of, engaged in, or actively carrying on a trade or business for profit, or a person who acquires ownership or control of a vessel or facility with the objective of avoiding liability. In addition, it does not apply to the assets of the estate or trust, or to a non-employee agent or independent contractor of the fiduciary.

(3) A trustee is not a "fiduciary" for the purpose of the safe harbor provision where they are the trustee of a trust that engages in a business for profit, or is organized to engage in a business for profit, unless the reason for the trust was the facilitation of an estate plan due to the incapacity of the estate *owner*.[125] Also excluded are fiduciaries of trusts that would be considered fraudulent in that they were created specifically and intentionally to avoid liability.[126]

X1.1.7.2 *Fiduciary permissible actions*—A fiduciary will also not forfeit its immunity from liability by taking the following actions:

(1) Terminating the fiduciary relationship;

(2) Including covenants or other conditions requiring compliance with environmental laws in the fiduciary agreement;

(3) Monitoring or conducting inspections of a facility or vessel;

(4) Providing financial advice or other advice to other parties in the fiduciary relationship, including the settlor or beneficiary;

(5) Restructuring or renegotiating the terms of the fiduciary relationship;

(6) Administering a vessel or facility that was contaminated prior to the commencement of the fiduciary relationship; or

(7) Declining to take any of the foregoing actions.

X1.1.7.3 *Limitation of liability:*

(1) A fiduciary will only be liable for *releases* of *hazardous substances* from a facility or vessel held in a fiduciary capacity up to the value of the assets held in the trust or estate so long as the *release* was not caused by the *negligence* of the fiduciary. In addition, a fiduciary will not be exposed to personal liability by undertaking or directing another person to take response actions to address *releases* of *hazardous substances*.

(2) Importantly, the limitation on the liability of a fiduciary will not apply if the fiduciary negligently caused or contributed to the *release* or threatened *release* of a *hazardous substance*. An example of the negligence exception is *Canadyne-Georgia Corp. v. NationsBank, N.A.*[127] where a former site *owner* was allowed to proceed with a contribution action against a bank that served as trustee for a trust that held a general partnership interest in a limited partnership owning the site.[128]

X1.2 **Defenses to CERCLA Liability**—Assuming all the elements of liability exist (and no specific liability exclusions apply), a party may still avoid CERCLA liability by qualifying

[122] The CERCLA Lender Liability Rule had required lenders to take actions consistent with the NCP, such as removing abandoned *drums* at a facility they have foreclosed on, in order to preserve their immunity. Abandonment of *drums* or equipment would not be consistent with the requirements of the NCP and could cause a lender to lose its immunity even where it has complied with all of the aspects of the CERCLA Lender Liability Rule. However, the Lender Liability Amendments did not expressly address this issue of post-foreclosure NCP compliance.

The Lender Liability rule contained a "bright-line" test requiring a lender to publish certain notices of sale and retain brokers to sell the property. If the lender complied with these requirements, there would be a presumption that the lender had complied with the rule which a plaintiff would have to rebut to proceed against a secured creditor under CERCLA. Unfortunately, the 1996 Lender Liability Amendments did not incorporate the "bright-line" test. As a result, the CERCLA secured creditor exemption provides little guidance to lenders on the specific steps that they may take and still preserve their safe harbor. Accordingly, it is imperative that holders of security interests carefully review site conditions before foreclosing.

Note that EPA promulgated a final rule in 1995 that clarified the regulatory obligations of lending institutions and other persons who hold a security interest in a petroleum *underground storage tank* (UST) subject to the RCRA Subtitle I UST program or in real estate containing a petroleum UST, or that acquired title or deed to property with petroleum USTs subject to the RCRA Subtitle I UST program. See "*Underground Storage Tanks—Lender Liability; Final Rule*," 60 Fed. Reg. 46691 (Sept. 7, 1995) ("RCRA Lender Liability Rule"). The RCRA Lender Liability Rule contains a "bright-line" test for persons holding security interests that foreclose on property containing USTs subject to the RCRA Subtitle I program. *See* 40 C.F.R. § 280.210(c)(1)(ii). In the RCRA Lender Liability Rule, EPA stated that it believed the *Kelly* decision did not apply to the RCRA Subtitle I UST program. 60 Fed. Reg. at 46695 n.3. Thus, the RCRA "bright-line" test for foreclosing lenders remains in effect.

[123] 42 U.S.C. § 9607(n).

[124] Generally powers of a trustee are greater and broader than those of an executor or conservator. Actions of a trustee require court approval in fewer instances. The trustee obtains written title by the very trust instrument itself. CERCLA *owner* liability can extend to conservators and executors so long as they hold adequate indicia of ownership over and above bare legal title. Bare legal title is not enough to impose CERCLA *owner* liability on a fiduciary. Other factors must be considered in determining this issue. As a result, one court held that conservators and executors must not only hold bare legal title, but must possess other indicia of ownership. *Castlerock Estates v. Estate of Markham*, 871 F. Supp. 360 (N.D. Cal. 1994).

[125] 42 U.S.C. § 9607(n)(5)(A)(ii)(I).

[126] 42 U.S.C. § 9607(n)(5)(A)(ii)(II). Trustees of an Illinois land trust are not "*owners*" under CERCLA, even though they hold legal title. *United States v. Petersen Sand and Gravel, Inc*., 806 F. Supp. 1346, 1359 (N.D. Ill. 1992).

[127] 183 F.3d 1269 (11th Cir. 1999).

[128] It is unclear if a fiduciary who fails to respond to a *release* of *hazardous substances* can still take advantage of the fiduciary safe harbor. Thus, a fiduciary with knowledge of a *release* may want to consider authorizing response actions to address any such *release* or threatened *release* since such actions will not expose the fiduciary to liability, and the failure to take such action might amount to negligence that could expose the fiduciary to personal liability.

for one of the so-called affirmative defenses.[129] These listed affirmative defenses are exclusive of other common law defenses that a defendant might be able to assert.[130]

X1.2.1 *Third Party Defense*—The most commonly asserted defense is that the *release* is attributable to the acts or omissions of a third party.[131] To successfully assert this defense, a party must establish the following four elements:

X1.2.1.1 The *release* of the *hazardous substance* was caused solely by a third party;

X1.2.1.2 The third party is not an employee or agent of the defendant, or the acts or omissions of the third party did not occur in connection with a direct or indirect contractual relationship with the defendant;

X1.2.1.3 The defendant exercised due care with respect to the *hazardous substances* (Due Care Element);[132] and

X1.2.1.4 The defendant took precautions against foreseeable acts or omissions of the third party (Precaution Element).[133]

X1.2.1.5 The Third Party Defense does not require that the landowner perform pre-acquisition *all appropriate inquiries*.[134] Of course, if the defendant has a direct or indirect contractual relationship with the person solely responsible for the *release*, it would have to comply with the all appropriate inquiries rule to assert the innocent landowner defense (see below).

X1.2.2 *Innocent Landowner Defense (ILO)*—The second element of the third party defense prohibits the defendant from having a direct or indirect "contractual relationship" with the person solely responsible for the *release*. A "contractual relationship" encompasses "land contracts, deeds or other instruments transferring title or possession."[135]

X1.2.2.1 In the early days of CERCLA, a number of courts broadly construed the meaning of this phrase so that it encompassed nearly every contractual arrangement transferring title or possession of land such as a purchase agreement or lease.[136] For example, a deed was held to serve as an indirect contractual relationship that could prevent a property *owner* from asserting the third party defense.[137] As a result, it was difficult for purchasers or landowners to assert this defense in jurisdictions adopting this view since a landowner could only effectively invoke the defense if the *release* was a result of acts of trespassers, or adjacent landowners, and then only if the landowner exercised due care.[138]

X1.2.2.2 Because of this harsh impact on *owners* who did not cause the contamination, Congress enacted the ILO defense in 1986 to exclude from the phrase "in connection with a contractual relationship" purchasers who conducted an appropriate inquiry into the past use and ownership of the property,

[129] Section 9607(b) provides that a party shall not be liable if it can establish by a preponderance of the evidence [meaning more probable than not] that the *release* or threat of *release* of a *hazardous substance* and the damages resulting therefrom were caused by (1) an act of God; (2) an act of war; (3) the "third party defense" (discussed below). 42 U.S.C. § 9607(b). The Contiguous Property Owner (CPO) liability protection of 42 U.S.C. § 9607(q) and the Bona Fide Prospective Purchaser (BFPP) liability protection of 42 U.S.C. § 9607(r) are not contained within the affirmative defenses of 107(b) so they are discussed separately.

[130] *United States v. Aceto Agricultural Chemicals Corp*., 872 F.2d 1373 (8th Cir. 1989). *But see United States v. Marisol, Inc*., 725 F. Supp. 833 (M.D. Pa. 1989) (equitable defenses under Superfund may be available after the development of a factual record). The equitable defenses may be considered by the court when resolving or apportioning contribution claims under 42 U.S.C. § 9613(f). *AT&T Global Info. Solutions Co. v. Union Tank Car Co*., 1997 U.S. Dist. LEXIS 6090 (S.D. Ohio Mar. 31, 1997).

[131] 42 U.S.C. § 9607(b)(3).

[132] CERCLA does not indicate what types of actions would constitute the exercise of "due care" that would satisfy the third party defense. The legislative history indicates that a person must demonstrate that their actions were consistent with those that a "reasonable and prudent person would have taken in light of all relevant facts and circumstances." H.R. Rep. No. 253, 99th Cong., 2d Sess. 187 (1986). The due care requirement has been interpreted to include "those steps necessary to protect the public from a health or environmental threat." *New York v. Lashins Arcade*, 91 F.3d 353 (2d Cir. 1996). Because a person's actions will be evaluated based on the "relevant facts and circumstances," the due care analysis is a fact-intensive inquiry and will be evaluated on a case-by-case basis. *Foster v. United States*, 922 F. Supp. 642 (D.D.C. 1996). In one case, the owner of a shopping center was able to demonstrate that it exercised due care because it took steps such as maintaining water filters, sampling drinking water, instructing tenants to avoid discharging into the septic system, inserting institutional and land use controls into leases, and conducting periodic inspections. *Lashins*, 91 F.3d 353. At the other extreme are the cases that hold that a person who does not take any affirmative measures will not be able to satisfy its due care obligations. *See United States v. DiBiase*, 45 F.3d 541 (1st Cir. 1995); *Kerr-McGee Chem. Corp. v. Lefton Iron & Metal Co*., 14 F.3d 321 (7th Cir. 1994). For a survey of "due care" case law, see William R. Weissman & J. Michael Sowinski, Jr., *Revitalizing the Brownfields Revitalization and Environmental Restoration Act: Harmonizing the Liability Defense Language to Achieve Brownfield Restoration*, 33 Va. Envtl. L.J. 257, 338-43 (2015).

[133] *United States v. A & N Cleaners & Launderers, Inc*., 854 F. Supp. 229, 239 (S.D.N.Y. 1994). Like the *Due Care Element*, the *Precaution Element* will be evaluated on a case-by-case basis. In one case, a municipal sewer authority was found to have failed to take adequate precautions when it knew that a dry cleaner discharged PCE into the sewer system and that there were cracks in its sewer pipes, had the power to abate the foreseeable *release* of PCE and failed to exercise that power. *Westfarm Associates Ltd. Pshp. v. Washington Suburban Sanitary Comm'n*, 66 F.3d. 669 (4th Cir. 1995) (despite this knowledge, the county did not repair its pipes or prohibit the discharge of PCE into its system).

[134] *Town of New Windsor v. Tesa Tuck, Inc*., 935 F. Supp. 310 (S.D.N.Y. 1996) (landowner established the Third Party Defense despite having not taken steps to discover the contamination at its property from the encroachment of a neighboring *landfill*). Of course, it might be difficult to satisfy the *Due Care and Precaution Elements* of the third party defense in the absence of any *due diligence*. Indeed, some courts have held in the context of what constitutes due care that the failure to inquire about past environmental practices may constitute a lack of due care on the grounds that Congress intended CERCLA to provide incentives for private parties to investigate potential sources of contamination and initiate remediation efforts. *United States v. A & N Cleaners & Launderers*, 842 F. Supp. 1543 (failure to inquire about past use of a floor drain, not communicating with local environmental authorities, or inquiring about environmental compliance of commercial tenants). Other courts have held that CERCLA "does not sanction willful or negligent blindness." *Westfarm Associates Ltd. Pshp. v. Washington Suburban Sanitary Comm'n*, 66 F.3d. 669 (4th Cir. 1995); *United States v. Monsanto*, 858 F.2d. 160; *United States v. Shore Realty*, 759 F.2d 1032 (2d Cir. 1985).

[135] 42 U.S.C. § 9601(35)(A).

[136] *See New York v. Shore Realty Corp*., 759 F.2d 1032 (2d Cir. 1985); *United States v. Pacific Hide & Fur Depot, Inc*., 716 F. Supp. 1341 (D. Idaho 1989); *United States v. Northernaire Plating Co*., 670 F. Supp. 742 (W.D. Mich. 1987); *United States v South Carolina Recycling and Disposal, Inc*., 653 F. Supp. 984 (D.S.C. 1984).

[137] *United States v. Occidental Chemical Corp*., 965 F. Supp. 408 (W.D.N.Y. 1997).

[138] An exception to this trend was *State of New York v. Lashins Arcade*, 91 F.3d 353 (2d Cir. 1996) where the Second Circuit allowed the current *owner*/purchaser of a shopping center to invoke the third-party defense even though it knew of contamination because the current owner had no contractual relationship with a former dry cleaner tenant who had discharged *hazardous substances* into the ground 15 years prior to the current *owner's* acquisition. In addition, the property *owner* took proactive steps to minimize exposure to the contamination. Compare Lashins conduct to the purchaser/*owner* in *Idylwoods Associates v. Mader Capital Inc*., 956 F. Supp. 410 (W.D.N.Y. 1997).

and did not know or have reason to know of any *releases* as a result of that investigation.[139]

X1.2.2.3 Following the enactment of the ILO defense, some courts began holding that the mere existence of a contractual relationship was not sufficient to defeat the third party defense and began looking into the purpose of the contractual relationship to see if it related to the *hazardous substances* that had impacted the property or if the contract allowed the landowner to assert some level of control over the third party's activities at the site.[140]

X1.2.2.4 *Pre-acquisition obligations of ILO*—The ILO defense is actually a component of the third party defense. It provides that a purchaser will not be considered to have a "contractual relationship" if at the time the defendant acquired the facility the defendant did not know and had no reason to know that any *hazardous substance* which is the subject of the *release* was disposed of on, in, or at the facility.[141] To establish that the defendant "did not know and had no reason to know of" the *hazardous substance* with respect to the property, the defendant must show that it undertook "*all appropriate inquiries*" into the past ownership and uses of the property in accordance with generally accepted good commercial and customary standards and practices.[142]

X1.2.2.5 *Post-acquisition obligations of the ILO*—A defendant claiming the ILO defense would still have to comply with the Due Care and Precautionary Elements of the Third Party Defense after learning of the *release* of the *hazardous substance*.[143]

(1) In addition, following the 2002 CERCLA Amendments, a person seeking to assert the ILO defense must after acquiring the property:

(a) Cooperate, assist, and provide access to persons that are authorized to conduct response actions or natural resource restoration at the property;

(b) Comply with any land use restrictions established or relied on in connection with the response action at a vessel or facility; and

[139] 42 U.S.C. § 9601(35)(A).

[140] *New York v. Lashins Arcade*, 91 F.3d 353 (2d Cir. 1996); *Westwood Pharmaceuticals, Inc. v. National Fuel Gas Distribution*, 964 F.2d 85 (2d Cir. 1992) (requiring some relationship between the contractual relationship and the disposal or *release*). *See also, CERCLA Enforcement Discretion Guidance Regarding the Affiliation Language of CERCLA's Bona Fide Prospective Purchaser and Contiguous Property Owner Liability Protections* Memorandum from Elliot Gilberg, Director of Office of Site Remediation Enforcement, Environmental Protection Agency to Regional Counsel of EPA (Sept. 21, 2011). *But see Cal. Dep't of Toxic Substances Control v. Westside Delivery, LLC*, 888 F.3d 1085 (9th Cir. 2018) (tax sale buyer had "contractual relationship with the pre-tax-sale *owner* of that property. Court specifically rejected Westwood rationale and distinguished from *Lashins*). See also *Buffalo Marine Servs. Inc. v. United States*, 663 F.3d 750 (5th Cir. 2011) (describing a "contractual relationship . . . involving a chain of intermediaries" as "an indirect" contractual relationship within the meaning of the Oil Pollution Act, which contains "a third-party defense provision virtually identical to" CERCLA's); *United States v. CDMG Realty Co*., 96 F.3d 706 (3d Cir. 1996) (noting that "[t]he [third-party] defense is generally not available if the third party causing the *release* is in the chain of title with the defendant); *Lefebvre v. Cent. Me. Power Co*., 7 F. Supp. 2d 64, 71 n.3 (D. Me. 1998) (rejecting *Lashins Arcade*); *Goe Eng'g Co. v. Physicians Formula Cosmetics, Inc*., 1997 U.S. Dist. LEXIS 23627 (C.D. Cal. June 4, 1997) (rejecting *Lashins Arcade* and *Westwood*). *See also* Craig N. Johnston, *Current Landowner Liability Under CERCLA: Restoring the Need for Due Diligence*, 9 Fordham Envtl. L.J. 401, 462 (1998) ("The Westwood approach makes no sense . . . in the context of preexisting contamination.").

[141] 42 U.S.C. § 9601(35)(A)(i).

[142] 42 U.S.C.§ 9601(35)(B)(i)(I). The 2002 CERCLA Amendments required EPA to promulgate a regulation establishing the requirements for conducting "all appropriate inquiries" ("AAI"). 42 U.S.C. § 9601(35)(B)(ii). The 2002 CERCLA Amendments also provided that property *owners* who acquired commercial property before May 31, 1997 would have to establish that they complied with the five statutory criteria for the ILO defense that had been in effect prior to the 2002 CERCLA Amendments. These criteria were: any specialized knowledge or experience on the part of the defendant; the relationship of the purchase price to the value of the property, if the property was not contaminated; commonly known or *reasonably ascertainable* information about the property; the obviousness of the presence or likely presence of contamination at the property; and the ability of the defendant to detect the contamination by appropriate inspection ("1986 AAI"). 42 U.S.C. § 9601(35)(B)(iv)(I). *See Coppola v. Smith*, 2015 U.S. Dist. LEXIS 5127(E.D.Cal. Jan. 15, 2015)(ASTM Practice E1527-93 not dispositive for complying with 1986 AAI).

Persons who acquired commercial property after May 31, 1997 would have to demonstrate compliance with the interim federal AAI standard until EPA promulgated its AAI Rule. 42 U.S.C. § 9601(35)(B)(iv)(II). While a draft AAI Rule was under development, EPA clarified that persons who purchased or occupied property on or after May 31, 1997 would have to demonstrate compliance with the "*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*" ASTM E1527-00 or the earlier 1997 version (ASTM E1527-97). 68 Fed. Reg. 24888 (May 9, 2003). EPA promulgated its AAI Rule on November 1, 2005. "*Standards and Practices for All Appropriate Inquiries*," 70 Fed. Reg. 66069 (Nov. 1, 2005).

Beginning November 1, 2006, a party seeking to establish the ILO defense must show that it has complied with the requirements of EPA's AAI Rule. 40 C.F.R. § 312. EPA has referenced both ASTM Practices E1527-13 and E2247-16 as being in compliance with the final AAI Rule (*see* 40 C.F.R. § 312.11) and is expected to review this update.

[143] 42 U.S.C. § 9601(35)(A).

(c) Must not impede the effectiveness or integrity of any *institutional control* employed at the vessel or facility in connection with a response action.[144]

(2) Finally, the defendant must take reasonable steps to:

(a) Stop any continuing *release*;

(b) Prevent any threatened future *release*; and

(c) Prevent or limit any human, environmental, or natural resources exposure to any previously *released hazardous substance*."[145]

X1.2.3 *Beneficiaries*—Persons who acquire title by inheritance or bequest will not be considered to be in a "contractual relationship" and will be able to assert the Third Party Defense if they comply with the Due Care and Precaution Elements of the Third Party Defense and the same post-acquisition obligations as those required by the ILO defense.[146]

X1.2.4 *State and Local Governments*—CERCLA contains two exemptions for state or local governmental units that acquire ownership or control involuntarily by virtue of their function as sovereigns. The first exemption is from the definition of *owner* or *operator* and applies to involuntary acquisitions or control of property through the bankruptcy, tax delinquency, abandonment, or other circumstances in which the government involuntarily acquires title by virtue of its function as sovereign. However, this exclusion does not apply if the government entity contributed or caused the *release* of *hazardous substances*.[147]

X1.2.4.1 The second state or local government liability exemption is contained within the exclusion for "contractual relationships" for the third party defense. This exemption contains slightly different language than the "*owner* or *operator*" exemption as it applies to a "government entity which acquired a facility by escheat, or through any other involuntary transfer or acquisition, or through the exercise of eminent domain authority by purchase or condemnation."[148] A government unit seeking to rely on this exemption would have to comply with the *Due Care and Precautionary Elements* of the third-party defense to maintain their liability protection.

X1.3 **Landowner Liability Protections**—The 2002 CERCLA Amendments added two new *landowner liability protections (LLPs)* to CERCLA liability.

X1.3.1 *Bona Fide Prospective Purchaser (BFPP)*[149]—The BFPP is a significant *LLP* because it allows a purchaser to acquire property with knowledge that it is contaminated. The BFPP liability protection applies to purchasers (and their tenants) that acquire ownership of a facility after January 11, 2002.[150] In 2018, the BUILD Act further amended CERCLA to allow certain tenants to qualify for CERCLA's *bona fide prospective purchaser* protections if the *property owner* qualifies as a *bona fide prospective purchaser*, and certain tenants can qualify as *bona fide prospective purchasers* only if, among other conditions, the tenants fulfill *continuing obligations*.[151] Unlike the ILO defense, a party that qualifies as a BFPP is by definition not a responsible party.[152]

X1.3.1.1 *Pre-acquisition requirements*—To qualify as a BFPP, a person must satisfy the following pre-acquisition criteria prior to acquiring title: *(1)* all disposal of *hazardous substances* at the facility occurred before the person acquired the facility;[153] *(2)* the person conducted "*all appropriate inquiries*;"[154] and *(3)* the person is not a PRP or affiliated with any other PRP for the property through any direct or indirect familial relationship, any contractual, corporate or financial relationship,[155] or as a result of a reorganization of a business entity that was a PRP.[156]

X1.3.1.2 *Post-acquisition obligations*—A BFPP must also comply with the following continuing obligations after taking title to the property:

---

[144] 42 U.S.C. § 9601(35)(A).

[145] 42 U.S.C. § 9601(35)(B)(i)(II).

[146] 42 U.S.C. § 9601(35)(A)(iii).

[147] 42 U.S.C. § 9601(20)(D). Courts have not consistently interpreted the reference to taking title to a facility by the exercise of eminent domain. Some courts have held that the exemption applies to municipalities that assert their eminent domain authority but reach an agreement to purchase the property without having to resort to judicial proceedings. *City of Emeryville v. Elements Pigments, Inc*., 2001 U.S. Dist. LEXIS 4712 (N.D. Ca. Mar. 7, 2001). Other courts have ruled that a local government will not be entitled to the liability protection unless the land is purchased pursuant to a judicial proceeding. *See City of Toledo v. Beazer Materials and Services, Inc*., 923 F. Supp. 1013 (N.D. Ohio. 1996). Some have also examined if the purchase was voluntary. *See United States v. Occidental Chem. Corp*., 965 F. Supp. 408 (N.D.N.Y. 1997) (City of Niagara Falls was held to have voluntarily acquired title to Love Canal area.); *City of Petoskey v. Oxy USA, Inc*., 1996 U.S. Dist. LEXIS 22640 (W.D. Mich. Feb. 6, 1996) (city that purchased site for use as a municipal park as part of a waterfront redevelopment project was performing a governmental function but purchase was not involuntary transfer); *Transportation Leasing Co. v. California*, 861 F. Supp. 931 (C.D. Cal. 1993) (exclusion did not apply to state government that voluntarily acquired land by eminent domain to build a freeway). *In re Sundance Corp*., 149 B.R. 641 (E.D. Wash.1993), a court-appointed receiver was held to fall within the protection afforded by this section under derivative judicial immunity theory as an officer of court performing judicial functions.

[148] 42 U.S.C. § 9601(35)(A)(ii).

[149] 42 U.S.C. § 9601(40).

[150] The BFPP *LLP* could result in the *owner* becoming subject to a windfall lien for unrecovered response costs against an increase in value of the property because of cleanup. 42 U.S.C. § 9607(r).

[151] Enacted as part of the Consolidated Appropriations Act 2018, Pub. L. No. 115-141 (2018).

[152] 42 U.S.C. § 9607(r)(1).

[153] 42 U.S.C. § 9601(40)(A).

[154] 42 U.S.C. § 9601(40)(B).

[155] 42 U.S.C. § 9601(40(H)(i)(II) narrows the potential scope of the phrase "contractual, corporate or financial relationship." It excludes any such relationship that is created by an instrument by which title to a facility is conveyed or financed, or by a contract for the sale of goods or services.

[156] 42 U.S.C. § 9601(40)(H). Note that the ILO defense does not include the "no affiliation" language. Also note that in *Ashley II of Charleston LLC v. PCS Nitrogen, Inc.*, 791 F. Supp 2d 431 (D.S.C. 2011), *aff'd on other grounds*, 714 F.3d 161 (4th Cir. 2013), *cert. denied*, 571 U.S. 990 (2013), a federal district ruled that a plaintiff had an inappropriate affiliation when it indemnified the seller of contaminated property and then sought to discourage EPA from bringing an enforcement action against the seller/indemnitee. This aspect of the *Ashley II* decision has been criticized in legal commentary. *See* William R. Weissman & J. Michael Sowinski, Jr., *Revitalizing the Brownfields Revitalization and Environmental Restoration Act: Harmonizing the Liability Defense Language to Achieve Brownfield Restoration*, 33 Va. Envtl. L.J. 257, 348-51 (2015). EPA also seems to have been troubled by the decision because it subsequently issued enforcement guidance stating that "deeds or agreements that make transfer of title possible," including certain types of indemnification or insurance agreements, would not be considered to be disqualifying affiliations. *See CERCLA Enforcement Discretion Guidance Regarding the Affiliation Language of CERCLA's Bona Fide Prospective Purchaser and Contiguous Property Owner Liability Protections* at 10 Memorandum from Elliot Gilberg, Director of Office of Site Remediation Enforcement, Environmental Protection Agency to Regional Counsel of EPA (Sept. 21, 2011). *See also SPS L.P. LLLP v. Sparrows Point, LLC*, 2017 U.S. Dist. LEXIS 144740 (D. Md., Sept. 6, 2017)(no inappropriate affiliations).

(1) No disposal of *hazardous substances* can occur after the person acquires the property;[157]

(2) Provide all legally required notices with respect to the discovery or *release* of any *hazardous substances* at the facility;[158]

(3) Exercise appropriate care with respect to *hazardous substances* by taking reasonable steps to stop any continuing *release*; prevent any threatened future *releases*; and prevent or limit human, environmental, or natural resource exposure to any previously *released hazardous substance*;[159]

(4) Provide full cooperation, assistance, and access to persons who are authorized to conduct response actions or natural resource restoration (including the cooperation and access necessary for the installation, integrity, and maintenance of any complete or partial response actions or natural resource restoration;[160]

(5) Comply with any land use restrictions established or relied on in connection with the response action, and not impede the effectiveness or integrity of any *institutional control* employed at the vessel or facility in connection with a response action;[161] and

(6) Comply with any request for information or administrative subpoena issued under CERCLA.[162]

ASTM International has issued a guide to assist users in satisfying post-acquisition continuing obligations.[163]

X1.3.2 *Contiguous Property Owner (CPO) Liability Protection*[164]—This *LLP* excludes from the definition of a CERCLA *owner* or *operator*, a landowner whose property has been impacted solely by a *release* from a source located at real *property* that is not owned or operated by the person and that is contiguous to or otherwise similarly situated to the impacted property.[165]

X1.3.2.1 *No knowledge of contamination*—Unlike a BFPP, a CPO must not know or have reason to know following performance of *all appropriate inquires* that their property was or could be contaminated by the adjacent or contiguous real *property*.[166]

X1.3.2.2 *Pre-acquisition requirements*—To satisfy this *LLP*, the property *owner* must show that *(1)* it did not cause, contribute, or consent to the *release* at the *property*; *(2)* the person is not a PRP or affiliated with any other PRP;[167] and *(3)* the person conducted *all appropriate inquiries*.[168]

X1.3.2.3 *Post-acquisition obligations*—A CPO must comply with the so-called "Continuing Obligations" after taking title to maintain the CPO *LLP*. These Continuing Obligations are:

(1) Taking reasonable steps to stop any continuing *release*; prevent any threatened future *release*; and prevent or limit human, environmental, or natural resource exposure to any *hazardous substance released* on or from *property* owned by that person;[169]

(2) Provide full cooperation, assistance, and access to persons that are authorized to conduct response actions or natural resource restoration at the facility from which there has been a *release* or threatened *release* (including the cooperation

[157] EPA identified "no disposal" as a continuing post-acquisition requirement in the 2019 Common Elements guidance, discussed in section X1.4. Note that some development activities, like moving soil, may be considered "new" disposals and cause an *owner* to fail to qualify as a BFPP. *See PCS Nitrogen, Inc. v. Ashley II of Charleston LLC*, 714 F.3d 161, 177 (4th Cir. 2013), *cert. denied*, 571 U.S. 990 (2013); *Cranbury Brick Yard, LLC v. United States, 2018 U.S. Dist. LEXIS 171458 (D.N.J., Sept. 17, 2018) (mixing contaminated soil with clean and using as fill was a new disposal)*; *Bonnieview Homeowners Ass'n, LLC v. Woodmont Builders, LLC*., 655 F. Supp.2d 473 (D.N.J. 2009)(spreading contaminated soil through grading operations considered new disposal). *But see SPS L.P. LLLP v. Sparrows Point, LLC*, 2017 U.S. Dist. LEXIS 144740 (D. Md., Sept. 6, 2017) (passive *migration* of benzene plume not new disposal).

[158] 42 U.S.C. § 9601(40)(C).

[159] 42 U.S.C. § 9601(40)(D). *See MPM Silicones, LLC v. Union Carbide Corp*., 2016 U.S. Dist. LEXIS 98535 (N.D.N.Y. July 7, 2016) (appropriate care is at least as stringent as due care).

[160] 42 U.S.C. § 9601(40)(E).

[161] 42 U.S.C. § 9601(40)(F).

[162] 42 U.S.C. § 9601(40)(G).

[163] ASTM E2790, Standard Guide for Identifying and Complying with Continuing Obligations.

[164] 42 U.S.C. § 9607(q).

[165] EPA has issued guidance explaining its views on the CPO. *See Interim Enforcement Discretion Guidance Regarding Contiguous Property Owners*, Memorandum from the USEPA Office of Enforcement and Compliance Assurance (Jan. 2004). In addition, EPA issued policies that preceded the CPO but may still reflect how the agency will exercise its enforcement discretion since the CPO was based on these policies. *See "Final Policy Towards Owners of Property Containing Contaminated Aquifers"*, Memorandum from Bruce Diamond, Director of Office of Site Remediation Enforcement Environmental Protection Agency (May 24, 1995); and *Policy Towards Owners of Residential Property at Superfund Sites*, Memorandum from U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response to Regional Administrators (July 3, 1991). This policy was referenced by the US Supreme Court in *Atlantic Richfield Co. v. Christian*, 590 U.S. _____, 140 S. Ct. 1335, 1354 (2020).

[166] 42 U.S.C. § 9607(q)(1)(A)(viii)(II). A person that does not qualify for the CPO because it knew or should have known that its property was impacted by an off-site source may still qualify for the BFPP *LLP*. 42 U.S.C. § 9607(q)(1)(C).

[167] 42 U.S.C. § 9607(q)(1)(A)(ii)(I)-(II). The improper affiliation includes any direct or indirect familial relationship or any contractual, corporate, or financial relationship (other than a contractual, corporate, or financial relationship that is created by a contract for the sale of goods or services), or the result of a reorganization of a business entity that was potentially liable. Note that the District Court decision in *Ashley II*, discussed in note 148, could also affect the CPO's eligibility for the defense.

[168] 42 U.S.C. § 9607(q)(1)(A)(viii)(I).

[169] 42 U.S.C. § 9607(q)(1)(A)(iii).

and access necessary for the installation, integrity, operation, and maintenance of any complete or partial response action or natural resource restoration at the facility);[170]

(3) Comply with any land use restrictions established or relied on in connection with the response action at the facility;[171]

(4) Not impede the effectiveness or integrity of any *institutional control* employed in connection with a response action;[172]

(5) Comply with any request for information or administrative subpoena issued by EPA;[173] and

(6) Provide all legally required notices with respect to the discovery or *release* of any *hazardous substances* at the facility.[174]

X1.4 **EPA "Common Elements" Guidance**:

X1.4.1 EPA finalized its Common Elements Guidance, which interprets the obligations that parties must satisfy to qualify for the CERCLA *LLPs*, in 2019 (the "2019 Common Elements").[175] The 2019 Common Elements identifies two initial "threshold criteria" that a party must satisfy at the time it takes title to or possession of the property, including (a) completing *All Appropriate Inquiries* prior to property acquisition, and (b) having no affiliation with a PRP.[176] The guidance discusses five "Continuing Obligations" that landowners or building *occupants* must continue to satisfy following acquisition or possession to maintain a defense to liability, including:

(a) Ensuring no disposal activity occurs after acquisition;

(b) Complying with Land Use Restrictions, not impeding the effectiveness or integrity of the *Institutional Controls* required as part of a response action, implementing *institutional controls* required as part of a response action, and monitoring activities designed to assist in satisfying statutory obligations;

(c) Taking "reasonable steps" with respect to *hazardous substance releases*;

(d) Providing cooperation, assistance, and access to those performing response actions;

(e) Complying with information requests and administrative subpoenas; and

(f) Providing legally required notices.[177]

X1.4.2 Both CERCLA legislative history and EPA in its 2019 Common Elements Guidance indicate that to satisfy *continuing obligations*, a *landowner* is not necessarily required to undertake the same level of *response actions* that would be required of a liable party. "EPA believes Congress did not intend to create, as a general matter, the same types of response obligations that exist for a CERCLA liable party (for example, removal of contaminated soil, extraction and treatment of contaminated groundwater)."[178] Both Courts and EPA have indicated that "the 'due care' case law . . . serves as a useful reference point" for evaluating the reasonable steps requirement but is not dispositive.[179] The *Ashley II* appellate court concluded that due care case law should "inform [the] determination of appropriate care in the BFPP context" and that the appropriate care standard "is at least as stringent as due care under 9607(b)(3) [the innocent landowner defense]."

X1.4.3 Complying with the "Continuing Obligations" is the subject of ASTM Guide E2790 and is not directly addressed by this practice.[180] Thus we refer the reader with interest in Common Elements to ASTM Guide E2790 or the 2019 Common Elements guidance.[181]

[170] 42 U.S.C. § 9607(q)(1)(A)(iv).

[171] 42 U.S.C. § 9607(q)(1)(A)(v)(I).

[172] 42 U.S.C. § 9607(q)(1)(A)(v)(II).

[173] 42 U.S.C. § 9607(q)(1)(A)(vi).

[174] 42 U.S.C. § 9607(q)(1)(A)(vii). Note that all criteria must be established to qualify for the CPO defense. *See Atlantic Richfield Co. v. Christian*, 590 U.S. _____, 140 S. Ct. 1335, 1356 (2020) (contiguous landowners could not satisfy all criteria to qualify for CPO defense). In *Atlantic Richfield*, the EPA and the PRP negotiated a cleanup agreement under CERCLA. Nearby landowners, relying on state law, sought to require additional cleanup beyond the negotiated agreement. The court found that the landowners were PRPs under CERCLA. As PRPs, the only procedural way to get an approved cleanup was to follow the NCP procedures and obtain EPA approval. The court noted that some PRPs may not be liable for costs, by virtue of a defense or by virtue of EPAs enforcement discretion, but are still PRPs under CERCLA for its other purposes, including performing remedial actions.

[175] Enforcement Discretion Guidance Regarding Statutory Criteria for Those Who May Qualify as CERCLA Bona Fide Prospective Purchasers, Contiguous Property Owners, or Innocent Landowners ("Common Elements"). July 2019 (hereafter "USEPA 2019 Common Elements).The original interim guidance was titled "*Interim Guidance Regarding Criteria Landowners Must Meet In Order to Qualify for the Bona Fide Prospective Purchaser, Contiguous Property Owner or Innocent Landowner Limitations on CERCLA Liability*" ("Common Elements Guidance"), Memorandum from Susan E. Bromm, Director of Site Remediation Enforcement, Environmental Protection Agency (March 6, 2003). Note that this document, the 2019 Common Elements guidance, and other informal documents issued by EPA without formal rulemaking, is not a regulation and does not have the force of law. Thus, it does not impose legal duties or obligations on landowners. Instead, it is EPA's interpretation of some of the Continuing Obligations and a court can choose to adopt or ignore EPA's interpretation.

[176] *Id*. For application of BFPP criteria to tenants, in 2012, EPA issued guidance on the applicability of the BFPP protection to tenants who lease contaminated or formerly contaminated *properties*, and how EPA intends to exercise its enforcement discretion to treat certain tenants as BFPPs under CERCLA. See "*Revised Enforcement Guidance Regarding the Treatment of Tenants Under the CERCLA Bona Fide Prospective Purchaser Provision*" Memorandum from Cynthia Giles and Mathy Stanislaus to Regional Administrators (Dec. 5, 2012) (available at: http://www.epa.gov/enforcement/cleanup/documents/policies/superfund/tenants-bfpp-2012.pdf). This EPA policy was sanctioned by Congress in the *BUILD Act* of 2018, Pub. L. No. 115-141 (2018).

[177] USEPA 2019 Common Elements guidance. Further discussion on the legal contours of these elements can be found in ASTM Guide E2790 and its legal appendix.

[178] See S. Rep. No. 107-2, at 10-11 (2001); see also USEPA 2019 Common Elements at 18.

[179] USEPA 2019 Common Elements Guidance at 18. See also *PCS Nitrogen Inc. v. Ashley II of Charleston LLC*, 714 F.3d 161, 180-81 (4th Cir.), *cert, denied*, 571 U.S. 990 (2013) (citing USEPA 2003 Interim Common Elements Guidance, at 9 and *MPM Silicones, LLC v. Union Carbide Corp*., 2016 U.S. Dist. LEXIS 98535 (N.D.N.Y. July 7, 2016) (appropriate care is at least as stringent as due care)).

[180] For example, the 2019 Common Elements reinterpreted prior 2003 guidance from EPA and concluded that "no prior disposal" was a Continuing Obligation, as opposed to a threshold requirement. Additionally, EPA's guidance on what constituted "land use restrictions" is spelled out with more specificity. The *environmental professionals* and *users* seeking to preserve CERCLA *LLPs* are encouraged to review the Common Elements document, the ASTM Guide E2790 standard, and consult with their environmental attorney prior to acquisition to ensure that continuing obligations can be satisfied, and to develop a plan to ensure continued compliance prior to acquiring ownership or occupancy of real *property*.

[181] See USEPA 2019 Common Elements guidance.

X1.5 **All Appropriate Inquiries**:

X1.5.1 As noted above, a prerequisite for each of the *LLPs* is that the *owner* conduct "*all appropriate inquiries*" into the previous ownership and uses of the *subject property* "in accordance with generally accepted good commercial and customary standards and practices" as established by EPA before acquiring title to property. The purpose of the pre-acquisition AAI is to determine if there has been a *release* of *hazardous substances* of on, in, or at the *property*.[182]

X1.5.2 Before the 2002 CERCLA Amendments, persons seeking to qualify for the ILO had to demonstrate compliance with the five statutory criteria added to CERCLA in 1986 ("1986 AAI"). In the 2002 CERCLA Amendments, Congress added to the statutory criteria. The ten criteria are listed below with "1986" placed in parenthesis next to the original 1986 statutory criteria:

X1.5.2.1 The results of an inquiry by an *environmental professional*;

X1.5.2.2 *Interviews* with past and present *owners*, *operators*, and *occupants* of the facility for the purpose of gathering information regarding the potential for contamination at the facility;

X1.5.2.3 Reviews of historical sources, such as chain-of-title documents, *aerial photographs*, *building department records*, and land use records, to determine previous uses and occupancies of the real *property* since the *property* was first developed;

X1.5.2.4 Searches for recorded environmental cleanup liens against the facility that are filed under Federal, State, or local law;

X1.5.2.5 Reviews of Federal, State and local governmental records, waste disposal records, *underground storage tank* records, and *hazardous waste* handling, treatment, disposal and spill records, concerning contamination at or near the facility;

X1.5.2.6 Visual inspections of the facility and of *adjoining properties* (1986);

X1.5.2.7 Specialized knowledge or experience on the part of the defendant (1986);

X1.5.2.8 The relationship of the purchase price to the value of the *property*, if the *property* was not contaminated (1986);

X1.5.2.9 Commonly known or *reasonably ascertainable* information about the *property* (1986); and

X1.5.2.10 The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect contamination by appropriate investigation (1986).[183]

X1.5.3 To clarify further the scope of "*all appropriate inquiries*," Congress instructed EPA to promulgate regulatory standards and practices for carrying out *all appropriate inquiries*.[184] The 2002 CERCLA Amendments also provided that property *owners* who acquired commercial property before May 31, 1997 would have to establish that they complied with the 1986 AAI.[185]

X1.5.4 The purpose of Practice E1527 is to set forth a practice that constitutes *all appropriate inquiries* into the previous ownership and uses of the *property* consistent with good commercial and customary practice as defined at 42 U.S.C. § 9601(35)(B).[186] The goal of Practice E1527 is to identify "the presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* due to a *release* to the environment; or 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 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."[187] Practice E1527 labels the presence or likely presence of a *hazardous substance* (or *petroleum products*) as a "*Recognized Environmental Condition*" ("REC").[188] In other words, the *environmental professional*'s determination pursuant to an AAI procedure that a *hazardous substance* (or petroleum) from a *release* is or is likely to be present at the *property* in a non-*de minimis*

[182] 42 U.S.C. § 9601(35)(A)(i).

[183] 42 U.S.C. § 9601(35)(B)(iii).

[184] 42 U.S.C.§ 9601(35)(B)(ii). In the preamble to its AAI rule, USEPA said that AAI was "legally distinct" from the more general concepts or processes of "*environmental site assessment*" and "environmental *due diligence*." 70 Fed. Reg. 66069, 66072 (Nov. 1, 2005).

[185] 42 U.S.C. § 9601(35)(B)(iv)(I). Persons who acquired commercial property after May 31, 1997 and who sought *LLPs* were required to have complied with the interim federal AAI standard until EPA promulgated its AAI Rule. See footnote 122, *infra*.

[186] Practice E1527-13, Section 1.1.

[187] Practice E1527-21, Section 1.1.1. Note that Practice E1527-21 includes petroleum and is not limited to CERCLA *hazardous substances*. See Section 1.1.2 of Practice E1527-21 that explains that Practice E1527-21 includes *petroleum products* because they are a concern in assessing real estate, but not because of any applicability of CERCLA to *petroleum products*.

[188] Practice E1527-21, Section 1.1.1. Because CERCLA does not contain any exclusion for minor spills, the REC definition is not necessarily congruent with the definition of a CERCLA *release*. For example, there could be a spill or discharge of *hazardous substance* that would satisfy the CERCLA liability element of a *release* but would not qualify as a REC if the contamination does not exceed applicable cleanup levels. Under such a circumstance, the contamination could be considered a "*de minimis condition*" since it would not likely result in an enforcement action if brought to the attention of regulators.

Likewise, the REC definition also refers to conditions indicating the existence of a "*material threat* of a *release*." Again, CERCLA liability does not have a "materiality" requirement to satisfy the *release* element for CERCLA. Of course, a *release* that does not result in contamination that exceeds applicable cleanup standards will not likely result in significant response costs though some investigation might be required to make that determination.

Under a strict reading of CERCLA, the absence of a REC might not necessarily mean that the *owner* or *operator* of the property under evaluation would be immune from CERCLA liability albeit not likely to be significant. However, EPA determined that this practice is the equivalent of AAI. Thus, a landowner who conducts an investigation consistent with this practice that does not identify any "RECs" and otherwise complies with the other requirements of AAI might be able to satisfy the ILO or CPO notwithstanding the lack of congruence between the definition of a CERCLA *release* and a REC.

condition results in the identification of a REC under Practice E1527. Although many of the specific steps set forth in AAI are prescriptive,[189] the rule clearly requires the exercise of professional judgment by the *environmental professional* who conducts the inquiry as guided by the objectives and performance standards of the AAI rule.[190]

X1.5.5 Recommendations by *environmental professionals* are not required by this practice. Under AAI, the report should include an opinion by an *environmental professional* on whether additional information could assist in determination of a REC, if any.[191] Some *environmental professionals* and *users* of this practice may contract for recommendations. While contract liability is beyond the scope of this practice, the recommendations by the *environmental professional* may be read by courts evaluating continuing obligations.[192]

X1.6 Case Law Interpretation of "*All Appropriate Inquiries*" in Commercial Real Estate Transactions:

X1.6.1 The vast body of case law interpreting the parameters of "*all appropriate inquiries*" pre-date the 2002 CERCLA Amendments, though, as discussed below, AAI parameters may be increasingly addressed by courts.[193] The older case law involving the Third Party Defense and *LLPs* is fact-intensive and is influenced by the particular circumstance of the case.

X1.6.2 The courts have said that deciding what constitutes an appropriate inquiry presents a mixed question of law and fact[194] that is to be guided by the statutory language, legislative history, and common sense.[195] The duty to make inquiry is judged as of the time of acquisition. Defendants must be held to a higher standard as public awareness of the hazards associated with *releases* of *hazardous substances* has grown, as reflected by CERCLA and other federal and state statutes. For pre-2002 acquisitions, good commercial and customary practice has been viewed through a prism of what a reasonable inquiry must have included in all circumstances, in light of best business and land transfer principles. Those engaged in commercial transactions should, however, be held to a higher standard than those who are engaged in private residential transactions.[196]

X1.6.3 AAI represents the minimum level of inquiry necessary to support the *LLPs*. However, it is important to understand that additional inquiry ultimately may be necessary or desirable for legal as well as business reasons depending upon the outcome of this inquiry and the particular risk tolerances of a *user*. For example, such additional inquiry may assist the *user* in determining whether the *user* would have continuing obligations in the event he acquires the *property* and may also assist the *user* in defining the scope of future steps to be taken to satisfy the obligation to take reasonable steps. In addition, a *user* may be concerned about *business environmental risks* that do not fall within the definition of a REC. If an investigation performed to the requirements of this practice identifies the presence of RECs, the *user* may desire to conduct additional subsurface investigation (commonly referred to as a "Phase II" environmental investigation).

X1.6.4 The burden of proof for establishing an *LLP* or Third Party Defense lies with the person seeking to qualify for the liability protection.[197] The person seeking to assert a defense to CERCLA liability must show only that the evidence offered to support the level of inquiry that was taken at the time of acquisition is of greater weight or more convincing than the evidence offered in opposition to it. In other words, the evidence on the inquiry issue taken as a whole shows that the fact sought to be proved is more probable than not.

X1.6.5 AAI issues sometimes are addressed in preliminary orders during a case, though few such issues have, to date, been addressed squarely on appeal. For example, courts have been

[189] For example, see § 312.21 (an inquiry by an *environmental professional*), § 312.22 (collection of certain required information), and § 312.25 (searches for recorded environmental cleanup liens).

[190] 40 C.F.R. §§ 312.20(e) and (f). EPA discussed the importance of the objectives and performance standards in the Preamble to the AAI Final Rule, 70 Fed. Reg. 66070, 66101 (Nov. 1, 2005): "After collecting and considering all the information required to comply with the rule's objectives and performance standards, all the information should be considered in total to determine whether or not there are indications of *releases* or threatened *releases* of *hazardous substances* on, at, in, or to the property."

[191] C.F.R. § 312.31(b).

[192] See for example, *Ashley II of Charleston v PCS Nitrogen, Inc*., 791 F. Supp. 2d 431 (D.S.C. 2011), *aff'd on other grounds*, 714 F.3d 161 (4th Cir. 2013), *cert. denied*, 571 U.S 990 (2013). In Ashley II, the Phase I Report recommended that the *sumps* be cleaned out and filled, the cracks in the concrete pad and debris pile be investigated, and that the asphalt base be maintained. The court found that Ashley failed to timely implement these recommendations, thus impacting its ability to claim BFPP protections. Thus, recommendations included in the report (if any), may give rise to CERCLA liability if not completely resolved in the report.

[193] Prior to 2012, only one case has directly addressed AAI. In *Ashley II of Charleston v PCS Nitrogen, Inc*., 791 F. Supp. 2d 431 (D.S.C. 2011), *aff'd on other grounds*, 714 F.3d 161 (4th Cir. 2013), *cert. denied*, 571 U.S 990 (2013), the plaintiff had performed a *Phase 1 Environmental Site Assessment* using ASTM Practice E1527-05 that was referenced by EPA as being in compliance with the AAI rule. The defendant claimed there were some inconsistencies between Ashley's Phase I reports and ASTM Practice E1527-05. The court simply held that any such inconsistencies "lacked significance" without explaining the alleged inconsistencies between the Phase 1 reports and Practice E1527-05. What was important, the court held, was that Ashley acted reasonably; it hired an expert to conduct an AAI, and relied on that expert to perform its job properly. As a result, the court ruled that Ashley had properly conducted AAI. *Id*. At 500-01.

[194] *Advance Technology Corp. v. Eliskim, Inc*. 87 F. Supp.2d 780, 785 (N.D. Ohio 2000).

[195] *See United States v. Serafini*, 706 F. Supp. 346 (M.D. Pa. 1988), 791 F. Supp. 107 (M.D. Pa. 1990) (By entertaining disputed facts as to the custom and practice of viewing land prior to purchase, the court implied that appropriate inquiry necessarily varies on a site-by-site basis); *United States v. Pacific Hide and Fur Depot, Inc*., 716 F. Supp. 1341 (D. Idaho 1989) (No inquiry was required by those who received an ownership interest in property via corporate stock transfer and warranty deed under the facts of this case); *International Clinical Laboratories, Inc. v. Stevens*, 1990 U.S. Dist. LEXIS 3685 (E.D.N.Y. Jan. 12,1990) (Despite a long history of toxic *wastewater* disposal and presence of the site on the state's hazardous waste disposal site list, the purchaser was able to establish the *innocent landowner* defense since there were no visible environmental problems at the site, the defendant had no knowledge of environmental problems at the site, and the purchase price did not reflect a reduction on account of the problem).

[196] H.R. Rep. No. 962, 99th Cong., 2d Sess. 187 (1986), reprinted at 1986 U.S.C.C.A.N. 3276, 3280.

[197] *United States v. Domenic Lombardi Realty, Inc*., 290 F. Supp.2d 198 (D.R.I. 2003).

willing to find certain purported AAI reports deficient.[198] One court found that a Phase I Report may not be used by a person to whom the report was not addressed.[199] A separate court followed this line of logic to disallow a landowner to use a Phase I Report to satisfy AAI where the Phase I Report was addressed to a separate company within the same corporate group as the landowner.[200] Another court found that failure to conduct certain *interviews* resulted in a defective Phase I Report.[201] There is limited precedential value on preliminary orders that are not directly appealed, but *users* seeking *LLPs* should nonetheless take care to ensure the requirements of AAI are completed in accordance with applicable standards.

X1.7 **Title Searches for Environmental Liens and *AULs***:

X1.7.1 *AAI Requirements for Finding Recorded Environmental Liens and AULs*—CERCLA requires and, in turn, EPA's AAI rule requires that AAI must include "[s]earches for recorded environmental cleanup liens."[202] The AAI rule's preamble further explains that "recorded environmental cleanup liens are encumbrances on property for the recovery of incurred cleanup costs on the part of a state, tribal, or federal government agency or other third party."[203] CERCLA also requires that EPA's AAI regulations cover government records, namely "[r]eviews of Federal, State, and local government records … concerning contamination at or near the facility."[204] In turn, EPA's AAI rule requires the review of "registries or *publicly available* lists of *institutional controls*, including environmental land use restrictions, applicable to the *subject property*."[205] As to government record reviews,[206] EPA explains that "information on *institutional controls* and *engineering controls* may be recorded in local land records."[207] *Institutional control* information may be identified as "restrictions of record on title" by title company reports.[208] As EPA explains, the AAI process "may want to request information on restrictions of record on title."[209] Speaking specifically about where to search for environmental cleanup liens, EPA did not provide specific instructions but, instead, explained "we advise that prospective landowners and grantees to seek the advice of a local realtor, real estate attorney, title company, or other real estate professional."[210]

X1.7.2 *Land Title Records*—"Title" is a legal construct that describes the various property rights affecting land – often described as a bundle of rights.[211] The bundle of rights, as a practical matter, are fashioned as separate legal documents including ownership deeds, as well as those that encumber the rights of ownership. Such encumbrances include liens, covenants, easements, mortgages, boundary agreements, mineral claims, development rights, leases, and many more.[212] A given parcel could have 50-75 recorded interests that affect it.[213] The "title" to land is the combination of all of these things. Subject to a complex body of property law (beyond the scope of this Appendix), recorded interests ordinarily "run with the land," which means that interests recorded against a parcel in the past will remain as an interest affecting the parcel, even if the ownership interest transfers to another. Pursuant to state recording acts,[214] the county recorder's office (or similarly named custodian or records) stores the *land title records* for the County.[215] The recording of *land title records* provides the important purpose of giving "constructive notice" (imputed knowledge to the world) that the recorded interest exists.

X1.7.3 *Environmental Cleanup Liens and AULs in Land Title Records:*

X1.7.3.1 EPA regulations first contemplated the use of *AULs* in 1990.[216] While there are different types of *AULs*[217] (some of which do not ordinarily get recorded in *land title*

[198] *Voggenthaler v. Maryland Square LLC*, 724 F.3d 1050, 1063 (9th Cir. 2013).

[199] *Mt. Kisco Associates LLC v. Carozza*, No. 7:2015cv05346, 2019 WL 6998008, at *15 (S.D.N.Y. Dec. 20, 2019) (local government *interviews* are essential to completion of the Phase I, but there was no reliance letter or other document linking the party seeking to use the *report* with the actual *report* itself).

[200] *Von Duprin LLC v. Moran Electric Service Inc*., No. 1:16-cv-01942, 2019 WL 535752, at *15 (S.D. Ind. Feb. 11, 2019) (entry on the parties' cross-motions for summary judgment) (Phase I ESA report was prepared for Major Tool and Machine, but Major Holdings was the nominal owner of the parcel). That same court also determined that tenants must perform AAI prior to occupying the property. *Von Duprin LLC v. Moran Electric Service Inc*., No. 1:16-cv-01942-TWP-DML, 2020 WL 1501876, at *14 (S.D. Ind. Mar. 3, 2020), appeal docketed, No. 0:20-cv-01793 (7th Cir. May 12, 2020). (Note that the trial court did not require the use of Practice E1527 or 40 C.F.R. Part 312 to satisfy AAI).

[201] *BankUnited, N.A. v. Merritt Envtl. Consulting Group*, 360 F. Supp. 3d 172, 180 (S.D.N.Y. 2018) (failure to conduct *interviews* produced a "defective and misleading Phase I Report")

[202] 42 U.S.C. § 9601(35)(b)(iii) (regulations shall address "Searches for recorded environmental cleanup liens against the facility that are filed under Federal, State, or local law"); 40 C.F.R. § 312.25 (a).

[203] Standards and Practices for All Appropriate Inquiries and Notice of Public Meeting to Discuss Standards and Practices for All Appropriate Inquiries, 69 Fed. Reg. 52542, 52562 (Aug. 26, 2004).

[204] 42 U.S.C. § 9601(35)(b)(iii).

[205] 40 C.F.R. § 312.26 (b)(7) (government records or data bases must be reviewed).

[206] See Standards and Practices for All Appropriate Inquiries; Final Rule, 70 Fed. Reg. 66070, 66092 (Nov. 1, 2005) (providing "*What Are the Requirements for Reviewing Federal, State, Tribal, and Local Government Records*").

[207] *Id.* at 66093; see also Jack S. Levey, A Beginner's Guide to the Commitment for *Owner's* Title Insurance, 14 Probate & Property 34, 39 (May/June 2000) (restrictions of record include easements and covenants that limit use).

[208] *Id.*

[209] *Id.* (internal quotations omitted).

[210] *Id.* at 66092.

[211] AMERICAN LAND TITLE ASSOCIATION, LAND TITLE INSTITUTE, Ch. 1, p. 1-2 (2001).

[212] *Id.*

[213] *Id.* at 3-3.

[214] Tom Hayden and Jordan Kelner, *The Value of Title Insurance*, 15 J. Bus & Tech. L. 305, 320 (2020) ("The nation's recording system is based on state law").

[215] "Real estate records may be filed in the office of the register or registrar of deeds, recorder, county clerk, clerk of courts, the Torrens officer, or the probate registrar." J. Bushnell Nielsen, Real Estate Closing, Title Examination and Title Insurance Policy Procedures and Customs in the United Stated by Region (Aug. 08, 2018) (avail. at https://www.reinhartlaw.com/knowledge/real-estate-closing-title-examination-and-title-insurance-policy-procedures-and-customs-in-the-united-states-by-region/) (visited Jan. 31, 2021) (hereafter *Nielsen*).

[216] 40 C.F.R. § 300.430(a)(1)(3) (1990); National Oil and Hazardous Substances Pollution Contingency Plan Final Rule, 55 Fed. Reg. 8666 (Mar. 8, 1980).

[217] William R. Weissman & J. Michael Sowinski, Jr., *Revitalizing the Brownfields Revitalization and Environmental Restoration Act: Harmonizing the Liability Defense Language to Achieve Brownfield Restoration*, 33 Va. Envtl. L.J. 257, 285-287 (2015).

records), *AULs* recorded in *land title records*, such as environmental covenants, are a critical type of *AUL*. Approximately half of the states have enacted UECA statutes[218] which, among other things, expressly require environmental covenants to be recorded in *land title records*.[219] Various non-UECA states have similarly enacted statutes addressing recorded *AULs* or, instead, simply rely on common law to govern the use of recorded *AULs*.[220] Following the UECA-based or similar templates provided by states, recorded *AULs* are ordinarily fashioned as free-standing documents that define the land affected as well as the restrictions or conditions associated with environmental impacts.[221]

X1.7.3.2 In 1980, CERCLA established Federal Superfund Liens. Under CERCLA, the costs and damages owed by a liable party to the United States constitute a lien against the person's real *property*.[222] To establish priority of the Superfund Lien over other secured interests, a notice of the lien needs to be filed in "the appropriate office within the State (or county or other governmental subdivision), as designated by State law, in which the real property subject to the lien is located".[223] Nearly all states have passed legislation modeled after the Uniform Federal Lien Registration Act, which defines the appropriate local records office in which to file federal liens.[224] While state laws differ, they commonly provide that federal liens must be filed in the county recorder office.[225] EPA guidance instructs EPA staff to file notice of liens in accordance with state laws and adds that where there is any doubt, the notice should be filed in the local records office as well as the United States district court.[226] In addition to federal CERCLA liens, some State Superfund statutes establish liens for state-incurred or other cleanup related costs.[227] Notice of State Superfund liens are often filed in the same manner as Federal Superfund liens.[228]

X1.7.4 *Title Insurance*—Property purchase transactions routinely involve the buyer's purchase of title insurance.[229] Title insurance indemnifies the property purchaser if they suffer monetary loss or damage because of defects in title.[230] Importantly, title insurance does not cover defects that the policy excludes or excepts from coverage. Accordingly, the issuance of title insurance involves a search and examination of *land title records* that results in a written itemization of the defects, liens, and encumbrances affecting the title and, in turn, excepted from coverage.[231] Indeed, insurers spend a vast majority of policy premium revenues to comprehensively search and examine *land title records* for title defects, liens, or encumbrances.[232]

X1.7.4.1 *Title commitments*—Before issuing the final title insurance policy, title insurers prepare a "title commitment" (or similarly named document).[233] Title commitments act as a promise to provide title insurance subject to the exclusions, exceptions, and other terms of the commitment. In an American Land Title Association-provided (or very similar) format, title commitments provide a standard means for listing each encumbrance and lien. If title commitments fail to identify title defects, the insured can seek compensation from the title company under the contractual terms of the policy or, in some jurisdictions, based on tort liability theories such as "negligence searching."[234] While serving to except liens and encumbrances from policy coverage, the title commitment also provides the property purchaser with knowledge of the encumbrances.[235] Indeed, as some commenters explain, "purchasers of real estate often rely on the title insurance company to serve

[218] The Uniform Environmental Covenants Act (UECA) provides a model state statute defining a perpetual real estate interest that restricts use at contaminated property when it is transferred. See Unif. Law Comm'n, Environmental Covenants Act (avail. at https://www.uniformlaws.org/committees/community-home?CommunityKey=ce3a1f73-4bc5-4de2-82a9-f4f54ce70294) (visited Jan. 31, 2021).

[219] "An environmental covenant and any amendment or termination of the covenant must be recorded in every [county] in which any portion of the real property subject to the covenant is located." Id. at § 8(a).

[220] ASTM, Guide for Use of Activity and Use Limitations, Including Institutional and Engineering Controls E2091-17, 6.6.2-6.6.3 (discussing state statute and common law on recorded *AULs*).

[221] See, for example, Pennsylvania Dep't Envt'l Prot., Model Environmental Covenant (avail. at https://www.dep.pa.gov/Business/Land/LandRecycling/Pages/Uniform-Environmental-Covenants.aspx) (visited Jan. 31, 2021).

[222] 42 U.S.C. § 9607(l)(1).

[223] EPA, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, GUIDANCE ON FEDERAL SUPERFUND LIENS, Directive 9832912, p.5 (Sept. 22, 1987) (citing 42 U.S.C. § 9607(1)(3)).

[224] See Unif. Law Comm'n, Environmental Covenants Act, Federal Lien Registration Act (avail. at https://www.uniformlaws.org/committees/community-home?communitykey=a1cec079-1996-418e-aff0-8ec5a34f619b&tab=groupdetails) (visited Jan. 31, 2021).

[225] American Bankruptcy Institute, *Secured Creditors Beware The Latest Tool in the Creditors Committee Toolbox Aiding and Abetting in the Breach of a Fiduciary Duty* (Oct. 2004) (avail. at https://www.abi.org/abi-journal/searching-for-federal-tax-liens-the-typical-search-for-ucc-financing-statements-may-not) (visited Jan. 31, 2021) (for "real property, the state statutes appear to be quite uniform"); see NETROnline, Environmental Lien and *AUL* Statutes (avail. at https://environmental.netronline.com/lienStatutes.aspx) (visited Jan. 31, 2021) (listing and summarizing state statutes addressing federal liens and state liens).

[226] EPA, Office of Solid Waste and Emergency Response, Guidance on Federal Superfund Liens, Directive 9832912, p.6 (Sept. 22, 1987).

[227] *Id.* at 3.

[228] *Id.* at 6.

[229] "Title Insurance has become the prevailing method by which real estate purchasers and mortgage lenders protect themselves against the risk of defects in title." James Bruce Davis, More Than They Bargained For: Are Title Insurance Companies Liable in Tort for Undisclosed Title Defects?, 45 Cath. U.L. Rev 71 (Fall 1995).

[230] *Nielsen* (*citing* J. Bushnell Nielsen, Title and Escrow Claims Guide, 2017 Edition, American Land Title Association, § 9.1.1).

[231] "Schedule B, Section 2 of the commitment lists the risks that the underwriter proposes to exclude from coverage." Jack S. Levey, A Beginner's Guide to the Commitment for *Owner's* Title Insurance, 14 Probate & Property 34, 35 (May/June 2000).

[232] *Id.* (*citing* A.M. Best Special Report, *Market Review: Title*, December 13, 2010, pp. 4-6, 14; A.M. Best, *Title & Mortgage Industry Fundamentals*, 2014, p. 1; and Robert Bozarth, *Lawyers Notes: Customers ask about title insurance forms and policies*, in *Lawyers Title News*, Fall 1995, p. 16).

[233] "A title commitment also has the synonyms: preliminary title report or PTR, title binder, title report, commitment to insure, preliminary title, or just preliminary." *Id*.

[234] *Id.* (*citing* J. Bushnell Nielsen, Title and Escrow Claims Guide, 2017 Edition, American Land Title Association, § 15.2); *see generally* James Bruce Davis, More Than They Bargained For: Are Title Insurance Companies Liable in Tort for Undisclosed Title Defects?, 45 Cath. U.L. Rev 71 (Fall 1995).

[235] "Because the title insurance policy insures the title to land, and defects in title exist in full or not at all, title insurers can eliminate a risk by identifying it…." Tom Hayden and Jordan Kelner, *The Value of Title Insurance*, 15 J. Bus & Tech. L. 305, 315 (2020). "As a result of their extensive knowledge of local land and title law, established title insurers know what they must do to eliminate risk." *Id*.

not only as the insurer, but also as a supplier of information regarding the titles they will acquire."[236]

X1.7.4.2 *Title searches for the title commitment*—Whether because of the potential exposure to claims or because of the requirements set forth in state title insurance laws to perform "reasonable examinations" of title (or otherwise addressing title searches),[237] title searching to find liens and encumbrances is an integral part of the title commitment. A common search technique, a grantor-grantee index search, begins with the current *owner* (the most recent grantee) and reviews the grantee index backwards in time to find when and from whom the current *owner* received the interest, and when and from that party received it and so on, identifying each grantee and grantor of the property backwards in time. After "chaining" the title, the search then looks to find which other interests (easements, covenants, mortgages, etc.) the grantor conveyed during their ownership,[238] thereby identifying each interest that may affect title. Another common method, and in some states a required method,[239] searches *land title records* via title plants – described by some as being very efficient and comprehensive – which rely on information technology to reliably access *land title records*.[240] As a California appellate court described, "a title plant is essentially a duplicate of county land records, but reorganized to indicate relevant data on a geographic or parcel-by-parcel basis."[241] Title insurance companies have invested heavily to construct their title plants.[242] Because of their comprehensiveness and efficiency, title plants are "the primary source used by title insurance companies and their agents in the process of producing commitments."[243] Regardless of the search method, the question exists as to how far back in time does a title search need to extend. How far back depends on local customs or, where applicable, marketable title statutes.[244] Generally, local custom demands a search backward as far as 50 to 60 years.[245] In states with marketable title statutes, this period is shortened to usually extend from approximately 30 to 50 years.[246]

X1.7.5 *Title Searching for Informational Purposes*—Title search information reports are not associated with an offer for title insurance, and therefore operate separately from the laws and rules governing title insurance. Based on the need and desire for land record information for purposes other than title insurance, these reports serve the marketplace that seeks select *land title record* information. Often considered as an attractive feature, title search information offerings can be tailored to meet various needs. For example, on one extreme, title search reports might simply identify the current *owner* of real estate or, on the other extreme, such reports can provide a detailed abstract of every *land title record* ever recorded against a *property*. Common title search information reports go by the name "condition of title," "title abstracts," "ownership and encumbrance," or similar names. The breadth and nature of the report are ordinarily based on the scope of work or contractual agreement between the provider and the requesting party. Similarly, the extent to which such reports look back in time can also be tailored. Some title information vendors directly address *AULs* in products titled "*AUL and Environmental Lien Search*" (or similar). These offerings arose as a direct result of the need required by AAI.

[236] James Bruce Davis, *More Than They Bargained For: Are Title Insurance Companies Liable in Tort for Undisclosed Title Defects?*, 45 Cath. U.L. Rev 71, 76 (Fall 1995). "[A]lthough title insurers do not tout the fact that buyers and lenders review the title insurance commitment to determine what defects, liens, and encumbrances affect the title, it does serve that purpose." *Nielsen* (avail. at https://www.reinhartlaw.com/knowledge/real-estate-closing-title-examination-and-title-insurance-policy-procedures-and-customs-in-the-united-states-by-region/) (visited Jan. 31, 2021).

[237] See James L. Gosdin, Title Insurance A Comprehensive Overview, pp.172-241 (2nd ed. 2000) (summarizing title search provision of state title insurance laws).

[238] Barlow Burke, Law of Title Insurance (2006 Supp.), p. 12-9.

[239] "Ten states have statutory title plant requirements." Tom Hayden and Jordan Kelner, *The Value of Title Insurance*, 15 J. Bus & Tech. L. 305, 318 (2020).

[240] "[T]itle companies implement technology at the title plants to make searches of the title plant's records far more comprehensive." *Id.* at 318.

[241] *Coldwell Banker & Co. v. Department of Insurance* (1980) 102 Cal.App.3d 381. "Generally, title plants duplicate public records for real property, adding information and additional cross-references that are not tracked by public record keepers." Tom Hayden and Jordan Kelner, *The Value of Title Insurance*, 15 J. Bus & Tech. L. 305, 318 (2020).

[242] "For generations, established title insurance companies have been adding information to their title plants, organizing the legal documents in a manner optimized for searching and identifying legal risks that would be impossible for new entrants…." *Id.* at 318.

[243] *Id.* at 318-319.

[244] Marketable title statutes "require a title company to review title knowledge going back a certain amount of years before producing a policy showing marketable title." Tom Hayden and Jordan Kelner, *The Value of Title Insurance*, 15 J. Bus & Tech. L. 305, 318 (2020).

[245] American Land Title Association, Land Title Institute, Ch. 3, p. 5 (2001). Barlow Burke, Law of Title Insurance (2006 Supp.), pp. 12-4 through 12-5.

[246] *Id.*

X2. DEFINITION OF ENVIRONMENTAL PROFESSIONAL AND RELEVANT EXPERIENCE THERETO, PURSUANT TO 40 C.F.R. § 312.10

X2.1 Environmental Professional

X2.1.1 *Environmental Professional* means:

X2.1.1.1 A person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of *releases* or threatened *releases* (see § 312.1(c)) on, at, in, or to a *property*, sufficient to meet the objectives and performance factors in §§ 312.20(e) and (f).

X2.1.1.2 Such a person must: (i) hold a current Professional Engineer's or Professional Geologist's license or registration from a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) and have the equivalent of three (3) years of full-time relevant experience; or (ii) be licensed or certified by the federal government, a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in § 312.21 and have the equivalent of three (3) years of full-time relevant experience; or (iii) have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of five (5) years of full-time relevant experience; or (iv) have the equivalent of ten (10) years of full-time relevant experience.

X2.1.1.3 An *environmental professional* should remain current in his or her field through participation in continuing education or other activities.

X2.1.1.4 The definition of *environmental professional* provided above does not preempt state professional licensing or registration requirements such as those for a professional geologist, engineer, or site remediation professional. Before commencing work, a person should determine the applicability of state professional licensing or registration laws to the activities to be undertaken as part of the inquiry identified in § 312.21(b).

X2.1.1.5 A person who does not qualify as an *environmental professional* under the foregoing definition may assist in the conduct of *all appropriate inquiries* in accordance with this part if such person is under the supervision or responsible charge of a person meeting the definition of an *environmental professional* provided above when conducting such activities.

X2.2 Relevant Experience

X2.2.1 *Relevant experience*, as used in the definition of *environmental professional* in this section, means: participation in the performance of *all appropriate inquiries* investigations, *environmental site assessments*, or other site investigations that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of *releases* or threatened *releases* (see § 312.1(c)) to the *subject property*.

X3. USER QUESTIONNAIRE

INTRODUCTION

To qualify for one of the *Landowner Liability Protections (LLPs)*[247] offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*"),[248] the *user* must conduct the following inquiries required by 40 C.F.R. §§ 312.25, 312.28, 312.29, 312.30, and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The *user* should provide the following information to the *environmental professional*. Failure to conduct these inquiries could result in a determination that "*all appropriate inquiries*" is not complete.

(1.) Environmental liens that are filed or recorded against the *subject property* (40 C.F.R. § 312.25).
Did a search of *land title records* (or judicial records where appropriate, see Note 1 below) identify any *environmental liens* filed or recorded against the *subject property* under federal, tribal, state, or local law?

NOTE 1—In certain jurisdictions, federal, tribal, state, or local statutes, or regulations specify that *environmental liens* and *AULs* be filed in judicial records rather than in *land title records*. In such cases judicial records shall be searched for *environmental liens* and *AULs*.

(2.) *Activity and use limitations* that are in place on the *subject property* or that have been filed or recorded against the *subject property* .
Did a search of *land title records* (or judicial records where appropriate, see Note 1 above) identify any *AULs*, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the *subject property* and/or have been filed or recorded against the *subject property* under federal, tribal, state or local law?

(3.) Specialized knowledge or experience of the person seeking to qualify for the *LLP* (40 C.F.R. § 312.28).
Do you have any specialized knowledge or experience related to the *subject property* or nearby *properties*? For example, are you involved in the same line of business as the current or former *occupants* of the *subject property* or an *adjoining property* so that you would have specialized knowledge of the chemicals and processes used by this type of business?

(4.) Relationship of the purchase price to the fair market value of the *subject property* if it were not contaminated (40 C.F.R. § 312.29).
Does the purchase price being paid for this *subject property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *subject property*?

(5.) Commonly known or *reasonably ascertainable* information about the *subject property* (40 C.F.R. § 312.30).
Are you aware of commonly known or *reasonably ascertainable* information about the *subject property* that would help the *environmental professional* to identify conditions indicative of *releases* or threatened *releases*? For example,
(a.) Do you know the past uses of the *subject property*?
(b.) Do you know of specific chemicals that are present or once were present at the *subject property*?
(c.) Do you know of spills or other chemical *releases* that have taken place at the *subject property*?
(d.) Do you know of any environmental cleanups that have taken place at the *subject property*?

(6.) The degree of obviousness of the presence or likely presence of contamination at the *subject property*, and the ability to detect the contamination by appropriate investigation (40 C.F.R. § 312.31).
Based on your knowledge and experience related to the *subject property*, are there any *obvious* indicators that point to the presence or likely presence of *releases* at the *subject property*?

---

[247] *Landowner Liability Protections*, or *LLPs*, is the term used to describe the three types of potential defenses to Superfund liability in EPA's *Interim Guidance Regarding Criteria Landowners Must Meet in Order to Qualify for Bona Fide Prospective Purchaser, Contiguous Property Owner, or Innocent Landowner Limitations on CERCLA Liability* ("*Common Elements*" Guide) issued on March 6, 2003.
[248] P.L. 107-118.

X3.1 In addition, certain information should be collected, if available, and provided to the *environmental professional* conducting the *Phase I Environmental Site Assessment*. This information is intended to assist the *environmental professional*, but is not necessarily required to qualify for one of the *LLPs*. The information includes:

X3.1.1 The reason why the Phase I is being performed;

X3.1.2 The type of *property* and type of *property* transaction, for example, sale, purchase, exchange, etc.;

X3.1.3 The complete and correct address for the *subject property* (a map or other documentation showing *subject property* location and boundaries is helpful);

X3.1.4 The scope of services desired for the Phase I (including whether any parties to the *property* transaction may have a required standard scope of services or whether any considerations beyond the requirements of Practice E1527 are to be considered);

X3.1.5 Identification of all parties who will rely on the Phase I *report*;

X3.1.6 Identification of the site contact and how the contact can be reached;

X3.1.7 Any special terms and conditions which must be agreed upon by the *environmental professional*; and

X3.1.8 Any other knowledge or experience with the *subject property* that may be pertinent to the *environmental professional* (for example, copies of any available prior *environmental site assessment reports*, documents, correspondence, etc., concerning the *subject property* and its environmental condition).

X4. ADDITIONAL EXAMINATION OF THE RECOGNIZED ENVIRONMENTAL CONDITION DEFINITION AND LOGIC

X4.1 *Recognized Environmental Condition*—Definition Broken down

The definition of a *recognized environmental condition* is found in 3.2.73:

"*recognized environmental condition*—**(1)** the presence of *hazardous substances* or *petroleum products* in, on, or at a *subject property* due to a *release* to the *environment*; **(2)** the likely presence of *hazardous substances* or *petroleum products* in, on, or at a *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 a *subject property* under conditions that pose a *material threat* of a future *release* to the *environment*. A *de minimis condition* is not a *recognized environmental condition*."

To understand better the concept of *recognized environmental condition*, the definition can be broken down as follows:

(1) "The presence of *hazardous substances* or *petroleum products* in, on, or at a *subject property* due to a *release* to the *environment*."

a) "*Presence*"—This is definitive.
   i) *Hazardous substances* or *petroleum products* are observed, or
   ii) There is the documented or known presence of *hazardous substances* or *petroleum products*.

b) "In, on, or at a *subject property*."
   i) There can be no off-site (that is, off *subject property*) *recognized environmental conditions*.
   ii) There can be *recognized environmental conditions* because of off-site *releases* (that is, the presence of *hazardous substances* or *petroleum products* in, on, or at a *subject property* because of an off-site *release* to the *environment* that has *migrated* to the *subject property*) – for this to be a *recognized environmental condition* under condition 1) of the definition, both the *release* at the off-site *property* and the presence in, on, or at the *subject property* are known.

c) "Due to a *release* to the *environment*."
   i) There is direct evidence of a *release*, that is, there is/are observations, data, documentation, or other information indicating that a *release* of *hazardous substances* or *petroleum products* has occurred.
      (1) Observations could include pooled liquids and stressed vegetation around a *drum* storage area, stained soil under an aboveground petroleum storage tank, and so forth.
      (2) Data could be from the analysis of samples of environmental media collected at the *subject property*, from information in a commercial database *report*, and so forth.
      (3) Documentation could be from an *underground storage tank* closure inspection form indicating an observed leak condition (that is, a *release*), government records, and so forth.
      (4) Other information could be from *interviews* (for example, the *key site manager* has *actual knowledge* that an *underground storage tank* removed from the *subject property* was found to be leaking).
   ii) "*Release*" is not intended to relate to most naturally occurring conditions such as heavy metals.
      (1) See X1.1.1 for further discussion of "*release*."
      (2) See X1.1.1 for further discussion of "*environment*."

(2) "The likely presence of *hazardous substances* or *petroleum products* in, on, or at a *subject property* because of a *release* or likely *release* to the *environment*."

Unlike the certainty expressed in condition 1 above, condition 2 does not require the known presence, but the likely presence.

a) The likely presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* from a likely *release* at the *subject property*.
   i) The two subjective conditions – likely *release* and likely presence – exist in conjunction with each other.
   ii) Information indicates that a *release* of *hazardous substances* or *petroleum products* has likely occurred at the *subject property*.
   iii) The opinion that a *release* is (was) likely is subjective, and should be based upon the *environmental professional's* experience, observations made during the *site reconnaissance*, and on other *reasonably ascertainable* information collected as part of the assessment, and so forth. Some of the factors to consider include:
      (1) Features, conditions, or operations on or at the *subject property* involving *hazardous substances* or *petroleum products*;
      (2) Duration of the features, conditions, or operations in, on, or at the *subject property* involving *hazardous substances* or *petroleum products*;
      (3) Period of time in which operations took place (for example, the operations at the *subject property* took place when there was or may have been a lack of management practices and/or regulatory oversight and/or when common work practices at that time may likely have resulted in a *release*); and
      Note—Petroleum storage/dispensing, dry cleaning, manufacturing, and so forth operating at the *subject property* for a significant period of time prior to regulatory controls, or a bare-steel *underground storage tank* installed at the *subject property* decades ago without any leak detection systems may be examples of such a *recognized environmental condition* if the *environmental professional* believes there has likely been a *release* of *hazardous substances* or *petroleum products* associated with those uses and features.
      (4) Other information obtained during the assessment.

b) Likely presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* from a known *release* at an off-site *property* (if the known *release* is at the *subject property*, refer to condition 1 above.)
   i) The single subjective condition – likely presence – exists in the context of a known off-site *release*.
   ii) The opinion that a known *release* of *hazardous substances* or *petroleum products* at an off-site property has, in the opinion of the *environmental professional*, likely impacted the *subject property* is subjective and should be based upon the *environmental professional's* experience, observations made during the *site reconnaissance*, and other *reasonably ascertainable* information collected as part of the assessment, and so forth. Some of the factors to consider include:
      (1) Location of the source of the *release* with respect to the *subject property* (for example, adjoining the *subject property*, or proximate to the *subject property*, and so forth);
      (2) Topographic, geologic, and hydrogeologic conditions in the vicinity of the *subject property* and the location of the *release* (for example, up-gradient in an area with sandy soils and shallow groundwater); and
      (3) Other information obtained during the assessment (for example, reports, data or information from a regulatory authority or commercial database provider, prior assessment reports, and so forth).

c) Likely presence of *hazardous substances* or *petroleum products* in, on, or at the *subject property* from a likely *release* at an off-site *property*.
   i) The two subjective conditions – likely *release* and likely presence – exist in conjunction with each other.
   ii) The opinion that an off-site *release* is (was) likely is subjective, and should be based upon the *environmental professional's* experience, observations made during the *site reconnaissance*, other *reasonably ascertainable* information collected as part of the assessment, and so forth. The *environmental professional* should consider the factors in 2) a) iii) above.
   iii) The opinion that the likely off-site *release* has, in the opinion of the *environmental professional*, likely impacted the *subject property* is subjective, and should be based upon the *environmental professional's* experience, observations made during the *site reconnaissance*, and other *reasonably ascertainable* information collected as part of the assessment, and so forth. The *environmental professional* should consider the factors in 2) b) ii) above.

(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*."

a) This practice defines *material threat* as "an *obvious* threat which is likely to lead to a *release* and that, in the opinion of the *environmental professional*, would likely result in impact to public health or the *environment*."
b) This practice defines *obvious* as "that which is plain or evident; a condition or fact that could not be ignored or overlooked by a reasonable observer."
c) The *environmental professional* shall believe that the likely future *release* might result in impact to public health or the *environment*.

Note — Examples of conditions that pose a *material threat* of a future *release* to the *environment* might include *drums* of *hazardous substances* precariously stacked on pallets, or bulging *petroleum product* tanks; the condition(s) would represent a *material threat* only if the *environmental professional* deems the condition(s) serious enough that it would cause or contribute to a *release* of *hazardous substances* or *petroleum products* to the *environment*.

X4.2 **REC Logic Diagram—**See Fig. X4.1.

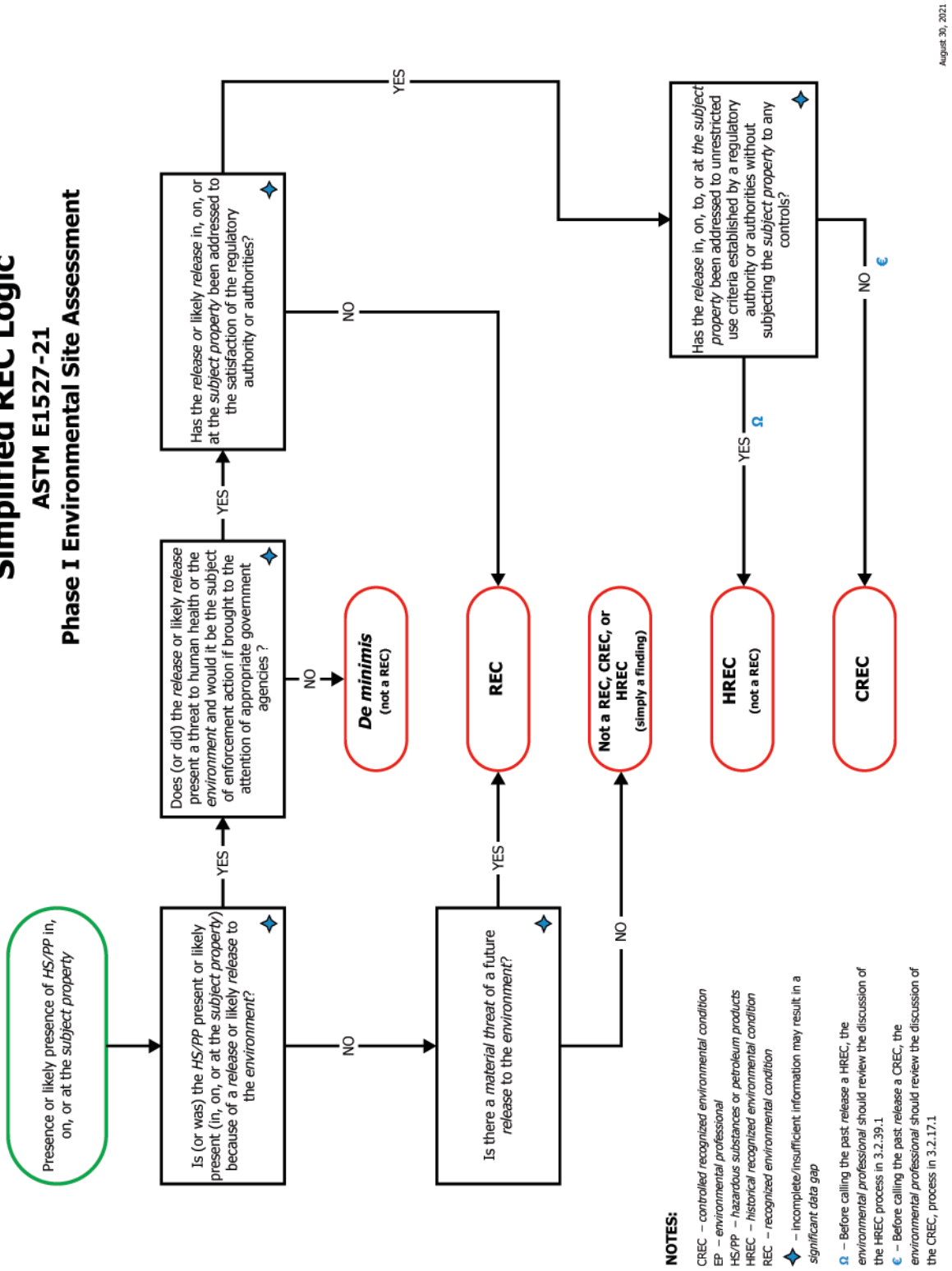

FIG. X4.1 Simplified REC Logic

X4.3 Examples to Accompany Simplified REC Logic Diagram

These examples are meant to accompany the preceding REC Logic Diagram and are provided for illustrative purposes only. Nothing herein is meant to suggest that these opinions are absolute or to be universally applied in similar situations. *Environmental professionals* shall always consider the totality of *subject property*-specific information to identify *recognized environmental conditions*.

Example 1—Not a REC
During a *site visit* to an occupied 70-year-old office building (the *subject property*) heated by a natural-gas-fired boiler, the assessor observes a *drum* of boiler treatment product. The *drum's* label indicates it is a corrosive compound containing sodium metabisulfite and potassium hydroxide (a CERCLA *hazardous substance*). The *drum* appears to be in good, non-leaking condition and there are no stains or corrosion of the floor around the *drum*.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, the *drum* contains a *hazardous substance* and is at the *subject property*.

Have hazardous substances been released to the environment? (are the hazardous substances present because of a release or likely release to the environment)—NO, the *hazardous substance* is contained within the *drum* and there is no evidence of a release.

Is there a material threat of a future release to the environment?—NO, the *drum* appears in good condition.

Result—The *drum* in this example is a finding and there is not a *recognized environmental condition* associated with the *drum*.

Example 2—REC (Material Threat)
During a *site visit* to a warehouse (the *subject property*), the assessor observes an aboveground storage tank that reportedly contains diesel fuel (a *petroleum product*) for an emergency generator. The tank is outside on a gravel surface and is not protected by a roof, bollards, or a containment structure. The tank shows evidence of damage. There appears to be no staining under the tank.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, the tank contains a *petroleum product* and is at the *subject property*.

Have petroleum products been released or likely released to the environment? (are the petroleum products present a result of a release or a likely release to the environment) —NO, *the petroleum product* is contained within the aboveground storage tank.

Is there a material threat of a future release to the environment? —YES, in the assessor's opinion the *obvious* conditions of the aboveground tank are reasonably likely to lead to a future *release* that might result in impact to public health or the *environment*.

Result—There is a *recognized environmental condition* associated with the tank (because of the *material threat* of a *release*).

Example 3—De Minimis Condition
During a *site visit* to a manufacturing facility (the *subject property*), the assessor observes a small, localized stain of what appears to be oil on the parking lot beside the building.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property— YES, the stain appears to be petroleum on the *subject property*.

Have petroleum products been released? (are the petroleum products present because of a release or a likely release to the environment)—YES, the (presumed) oil on the ground surface would constitute a *release* to the *environment*.

Does the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—NO, the *environmental professional's* experience leads the *environmental professional* to believe that the regulators in that jurisdiction would not pursue enforcement action.

Result—The oily stain is a *de minimis condition*.

Example 4—REC (Conditions Indicative of a Release)
During a *site visit* to an automobile dealership (the *subject property*), the assessor observes staining on the pavement where *drums* of waste motor oil and degreasers were formerly stored. The staining extends to the adjacent grassy area (on-site) where the assessor observes blackened soil and stressed vegetation. Government records in the database report reviewed prior to the *site visit* indicated that the dealership had been a RCRA generator, disposing of waste chlorinated *solvents*, specifically trichloroethylene (a CERCLA hazardous substance).

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, government records indicate the use, storage, and management of *petroleum products* and *hazardous substances* at the *subject property*.

Have hazardous substances or petroleum products been released? (are the hazardous substances or petroleum products present because of a release or a likely release to the environment)—YES, in the *environmental professional's* opinion the staining and stressed vegetation are conditions indicative of a *release* of *hazardous substances* or *petroleum products* to the *environment*.

Does the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—YES, the *environmental professional's* experience leads the *environmental professional* to believe that such a *release* of *hazardous substances* and *petroleum products* is not a *de minimis condition* and that regulators in that jurisdiction would pursue enforcement of the state spill response rule.

Has release (or likely release) been addressed?—NO.

Result—There is a *recognized environmental condition* associated with the stained soil and stressed vegetation.

Example 5—REC (Likely Presence)
During an assessment of a small, asphalt-paved parking lot (the *subject property*), the assessor learns from historical records that the *adjoining property* was formerly occupied by a gas station and *historical fire insurance maps* from 1958 and 1970 depict three gas tanks at this *adjoining property* very near the *property* line shared with the *subject property*. The *adjoining property* is listed in the LUST and Spills databases. Information indicates that three gasoline *underground storage tanks* were removed from that *adjoining property* in 1990 and that the local fire inspector observed odors in the excavation area, staining of the soil surrounding the tanks, and a sheen on the water in the *UST* excavation. There are no records of a response action and the case is still "open." The *adjoining property* is hydrogeologically up-gradient, groundwater is believed to be less than 15 ft (4.5 m) below ground surface, and near-surface soils in the area are sand and gravel.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, the *environmental professional's* experience with *USTs* suggest that there is a likely presence of *petroleum product* at the *subject property* as a result of contaminant *migration* from the past *release* of *petroleum product* at the *adjoining property*.

Have petroleum products been released?—YES, the *environmental professional* believes that the *petroleum product* likely present at the *subject property* is a result of a *release* of *petroleum product* at the *adjoining property*.

Does the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—YES, the regulatory records indicate that cleanup was required at the *adjoining property* by the regulatory authority, and in the *environmental professional's* opinion, the concentrations of contaminants likely present at the *subject property* would require a response action.

Has release (or likely release) been addressed?—NO.

Result—There is a *recognized environmental condition* associated with the *petroleum product release*.

Example 6—HREC
During an assessment of a commercial *property* (the *subject property*), the assessor learns from regulatory records that a leaking *underground storage tank* containing petroleum was removed from the *subject property* several years ago. The information indicates that the responsible party excavated the impacted soil and that the regulatory authority subsequently issued a closure letter. The assessor completes a file review and learns that even though the closure letter was issued before the adoption of a tiered approach to closure options (namely, "risk-based closure"), the data collected would satisfy the current unrestricted use criteria without subjecting the *subject property* to any controls.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property— YES, there was *petroleum product* stored at the *subject property* in an *underground storage tank*.

Have petroleum products been released?—YES, there is documentation of a *release* (the regulatory records).

Did the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—YES, the regulator required a response action.

Has release (or likely release) been addressed?—YES, the responsible party removed impacted soil and the regulator issued a closure notification ("no further action letter," "site rehabilitation completion order," or other documentation as used by the presiding government authority).

Has the release been addressed meeting unrestricted use criteria, without subjecting the property to any required controls?—YES, the data indicate conformance to current unrestricted use criteria.

Result—The *release* from the former leaking tank is a *historical recognized environmental condition*.

Example 7—REC, not a CREC or HREC
During an assessment of a commercial *property* (the *subject property*), the assessor learns from regulatory records that a leaking *underground storage tank* containing petroleum was removed from the *subject property* several years ago. The information indicates that the responsible party excavated the impacted soil and that the regulatory authority subsequently issued a closure letter based on meeting the unrestricted use criteria at the time. However, review of the post-excavation data included in the regulatory file revealed that petroleum concentrations in the soils remaining at the *subject property* exceed the current state regulatory levels for unrestricted use (that is, the standards have changed).

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, there was *petroleum product* stored at the *subject property* in an *underground storage tank*.

Have petroleum products been released?—YES, there is documentation of a *release* (the regulatory records).

Did the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—YES, the regulator required a response action.

Has release (or likely release) been addressed?—YES, the responsible party removed impacted soil and the regulator issued a closure notification.

Has the release been addressed meeting unrestricted use criteria, without subjecting the property to any required controls?—The regulatory authority granted closure without an *activity and use limitation* or other *property use limitation* because the post-excavation data met unrestricted use criteria at the time of the closure.

Result—REC—The *release* from the leaking tank is not a *historical recognized environmental condition* because the data show that conditions at the *subject property* do not meet current unrestricted use standards, despite the previous regulatory closure letter that was issued prior to the current cleanup standards. The *release* is also not a *controlled recognized environmental condition* because there are no documented controls applicable to the *subject property*. The *release* is a *recognized environmental condition*.

Example 8—CREC
During an assessment of a commercial *property* (the *subject property*), the assessor learns from regulatory records of a *release* from a dry cleaner at the *subject property*. The *subject property* was enrolled in the state's voluntary cleanup program as part of a *property* transfer. The records indicate that contaminated soil was excavated; the post-excavation data meet restricted use criteria established by the applicable state regulation, guidance, or policy; and the regulatory authority issued a Certificate of Completion. The state environmental agency required that a restrictive covenant be recorded in the land records prior to issuing a Certificate of Completion for the *subject property*.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, the dry cleaner used *hazardous substances* at the *subject property*.

Has the hazardous substance been released?—YES, the *hazardous substance* in the soil is from a *release* documented in the government records.

Does the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—YES, the residual *hazardous substance* concentrations exceed unrestricted use criteria.

Has release (or likely release) been addressed?—YES, the responsible party removed impacted soil, documented that the remaining impact(s) met the restricted use criteria established by the applicable regulatory authority, and the responsible party received a closure notification from the authority.

Has the release been addressed meeting unrestricted use criteria, without subjecting the property to any required controls?—NO, the closure was based on meeting restricted use criteria, and the regulatory authority stated in the restrictive covenant that the *subject property* may not be used for residential purposes (that is, an *AUL*).

Result—The residual *hazardous substance* is a *controlled recognized environmental condition*.

Example 9—CREC
During an assessment of a commercial *property* (the *subject property*), the assessor learns from regulatory records that a leaking *underground storage tank* containing petroleum was recently removed from the *subject property*. The records indicate that contaminated soil was excavated; the post-excavation data meet restricted use criteria established by the applicable state regulation, guidance, or policy; and the regulatory authority issued a closure letter. The assessor reviews other information and learns from the data that some petroleum contamination exceeding unrestricted use criteria cleanup standards (but not exceeding the restricted use criteria cleanup standards) was allowed to remain at the *subject property*.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, some residual petroleum remains in the soil at the *subject property*.

Has the petroleum product been released?—YES, the petroleum in the soil is from a *release* documented in the government records.

Does the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—YES, the residual petroleum concentrations exceed unrestricted use criteria.

Has release (or likely release) been addressed?—YES, the responsible party removed impacted soil, documented that the remaining impact(s) met the restricted use criteria established by the applicable regulatory authority, and the responsible party received a closure notification from the authority.

Has the release been addressed meeting unrestricted use criteria, without subjecting the property to any required controls?—NO, the closure was based on meeting restricted use criteria, and the regulatory authority stated that *subject property* may not be used for residential purposes (that is, a *property use limitation*).

Result—The residual petroleum is a *controlled recognized environmental condition*.

Example 10—CREC
During an assessment of a commercial *property* (the *subject property*), the assessor learns from the *key site manager* that a *release* of a CERCLA *hazardous substance* occurred at the *subject property*. The assessor reviews the provided reports documenting the response actions and learns that active agency involvement was not required. The *reports* indicate that contaminated soil was excavated, and the post-excavation residual contamination concentrations meet state regulations, guidance, or policy establishing restricted use criteria.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, some residual *hazardous substance* remains in the soil at the *subject property*.

Have hazardous substances been released?—YES, the *hazardous substance* in the soil is from a documented *release*.

Does the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—YES, the residual *hazardous substance* concentrations that remain exceed unrestricted use criteria.

Has release (or likely release) been addressed?—YES, the responsible party removed impacted soil and documented that the remaining impact met (and still meets) the restricted use criteria.

Has the release been addressed meeting unrestricted use criteria, without subjecting the property to any required controls?—NO, the closure was based on meeting restricted use criteria, and the *subject property* shall continue to be used for non-residential purposes (that is, a *property use limitation*).

Result—The *release* of the *hazardous substance* at the *subject property* is a *controlled recognized environmental condition*.

Example 11—REC, not a CREC
During an assessment of a commercial *property* (the *subject property*), the assessor learns from regulatory records that a leaking *underground storage tank* containing petroleum was removed from the *subject property* at some point in the past. Records available on-site indicate that contaminated soil was excavated, and data show that some petroleum contamination was left in-place at the *subject property*. The state regulatory agency did not provide response action oversight, there are no risk-based state closure standards, and there is no state mechanism for third-party *environmental professional* oversight of the property *owner's* response.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, some residual *petroleum* remains in the soil at the *subject property*.

Have petroleum products been released?—YES, the petroleum in the soil is from a documented *release*.

Does the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—YES, regulators in that jurisdiction were likely to pursue enforcement action when the tank was removed, and contaminated soil was initially encountered.

Has release (or likely release) been addressed?—YES, the responsible party removed impacted soil; however, there is no basis for finding that the conditions at the *subject property* "ha[ve] been addressed to the satisfaction of the applicable regulatory authority or authorities…"

Has the release been addressed meeting unrestricted use criteria, without subjecting the property to any required controls?—NO.

Result—The *release* from the leaking tank is a *recognized environmental condition*.

Example 12—HREC
During an *interview* of the current *owner* of the *subject property*, the *environmental professional* is advised that a self-directed cleanup took place at the *subject property* several years ago. The cleanup was in an area on the *subject property* where lead-acid batteries were disposed. The *owner* provides the *environmental professional* a copy of the consultant's response action report and tells the *environmental professional* that there was no filing with a regulatory agency as none was required. The records indicate that contaminated soil was excavated, and the post-excavation data meet current state regulations, guidance, or policy establishing criteria for unrestricted (for example, residential) use where active agency involvement is not required.

Presence or likely presence of hazardous substances or petroleum products in, on, or at the subject property—YES, in the opinion of the *environmental professional* some residual *hazardous substance* likely remains in the soil at the *subject property*.

Have the hazardous substances been released? (are the hazardous substances present because of a release or a likely release to the environment)—YES, the *owner* stated, and the report documented, that there had been staining on the bare ground and damaged batteries beneath the ground surface that would have constituted a *release* to the *environment*.

Does the release (or likely release) present a threat to human health or the environment and would it be the subject of enforcement action?—In the opinion of the *environmental professional*, the original *release* was not a *de minimis condition*, and required response actions.

Result—HREC—Upon reviewing the response action report, it was the *environmental professional's* opinion that adequate and representative closure sampling of applicable media was conducted. The *environmental professional* agreed that the impacted media was removed to the unrestricted use conditions.

NOTE X4.1—These examples are provided for illustrative purposes only. Nothing herein is meant to suggest that these opinions are absolute or to be universally applied in similar situations. *Environmental professionals* shall always consider the totality of *subject property*-specific information to identify *recognized environmental conditions*.

X5. SUGGESTED TABLE OF CONTENTS AND REPORT FORMAT

INTRODUCTION

The table of contents and report format and appendixes outlined in Appendix X5 comprise a suggested format only; the sections outlined, either in whole or in part, may be included elsewhere in the *report* at the discretion of the *environmental professional*.

X5.1 *Executive Summary*—This section provides a summary of the *Phase I Environmental Site Assessment* process and may include findings, opinions, and conclusions. An Executive Summary provides a concise and clear overview of the main findings of the Phase I ESA. The Executive Summary should provide key evidence used to justify the identification of RECs, CRECs, HRECs, *significant data gaps*, *de minimis conditions*, and recommendations (if provided), without repeating the detailed presentation of data or information in the body of the *report*. The *user* should be able to understand critical information provided in the Executive Summary and, if necessary, make an executive decision based on that information.

X5.1.1 In general, a Phase I ESA Executive Summary should be no more than two pages; longer than that usually does not constitute a summary. It may include, but should not consist solely of, a summary table which identifies RECs,

CRECs, HRECs, or *de minimis conditions*, but which does not provide sufficient explanation of the basis for those findings.

X5.1.2 The Executive Summary should include supporting or explanatory language, as needed, but should avoid unnecessary technical details. For example, the body of the *report* will include a detailed *subject property* history meeting the requirements of 8.3, or may include details of past subsurface investigations including sampling methodologies, locations, dates, analytical data, and so forth. The Executive Summary should provide a "big picture" summary of this information *without* repeating all details, that is, do not "copy and paste" entire sections from the *report* into the Executive Summary.

X5.1.3 The Executive Summary should not introduce or provide information not provided elsewhere in the *report*, including findings, opinions, or conclusions.

X5.1.4 As provided in 12.10 of the practice, recommendations are not required to be included in a Phase I ESA. If, however, recommendations are to be provided based on the *user's* request, they should be included in the Executive Summary, if the suggested format is followed.

X5.2 *Introduction*—This section identifies the *subject property* (location and legal description) and the purpose of the *Phase I Environmental Site Assessment*. This section also provides a place to discuss contractual details (including scope of work or constraints due to contracted timing) as well as limiting conditions, deviations, exceptions, significant assumptions, and special terms and conditions.

X5.3 *User-Provided Information*—This section presents information under Section 6 *User's* Responsibilities and may include information from the *User* Questionnaire (see Appendix X3), if completed.

X5.4 *Site Reconnaissance*—This section includes *site reconnaissance* observations as discussed in Section 9 *Site Reconnaissance*, including general *subject property* setting, interior and exterior observations, and uses and conditions of the *subject property* and *adjoining properties*.

X5.5 *Records Review*—This section presents a review of *physical setting resources*, *standard government environmental record resources* and additional government environmental record sources, and historical use information regarding the *subject property* and surrounding area as detailed in Section 8, *Records Review*. The *Records Review* should be segregated into separate report sections, including *(1)* Physical Setting, *(2)* Historical *Records Review*, and *(3)* Regulatory *Records Review*. It should be noted that the Physical Setting information may be presented earlier in the report if deemed appropriate by the *environmental professional*.

X5.6 *Interviews*—This section provides a summary of *interviews* conducted as detailed in Section 10, *Interviews* with Past and Present *Owners* and *Occupants*, and Section 11, *Interviews* with State and Local Government Officials.

X5.7 *Non-Scope Services*—This section, if needed, summarizes additional services discussed in Section 13, which are not a part of this practice. This section should be included as agreed upon between the *user* and the *environmental professional*, and, as such, this should be clearly stated in the *report*.

X5.8 *Findings and Opinions*—These sections document the findings and opinions of the *Phase I Environmental Site Assessment* as stated in Section 12, and may be combined into one section at the discretion of the *environmental professional*. These sections also include *significant data gaps* and deletions. Non-Scope Services, if requested, and accompanying *business environmental risks (BERs)* may also be discussed in this section.

X5.9 *Conclusions*—This section documents the conclusions, and, if requested, recommendations of the *Phase I Environmental Site Assessment*, as stated in Section 12. *BERs* associated with non-scope services, if requested by the *user*, may also be discussed in this section.

X5.10 *Environmental Professional Statement*—This section is where *environmental professionals*, as described in 3.2.30 and Appendix X2, provide their statement and signature(s).

X5.11 *References*—This section identifies referenced resources relied upon in preparing the *Phase I Environmental Site Assessment*. Each referenced resource should be adequately annotated to facilitate retrieval by another party.

X5.12 *Appendixes*—This section contains supporting documentation and the qualifications of the *environmental professional* and other personnel who may have conducted the *site reconnaissance* and *interviews*. Supporting documentation includes *subject property* figures, photographs, historical documentation, regulatory database information, relevant prior reports/report excerpts, and relevant regulatory file information. Supporting documentation should also include documentation of *Activity and Use Limitations* and/or *Institutional Controls/Engineering Controls (IC/EC)* in effect at the *subject property*.

X5.12.1 *Figures—Subject property* figures should encompass the entire *subject property*. The site plan should include a north arrow, approximate scale, all major structures, and *occupants*/business names or land uses on the *subject property* and *adjoining properties*. The site plan should include locations of features, activities, uses, and conditions such as above or *underground storage tanks*, *sumps*, clarifiers, floor drains/trenches, wells, chemical storage areas, disposal areas, marked pipelines, significant staining, and other features of potential environmental concern.

X5.12.2 *Photographs*—The Photograph Appendix should include color photographs of the *subject property* (exterior and interior), on-site significant features (refer to the list in X5.12.1), *recognized environmental conditions* (as applicable), and any *adjoining properties* or nearby *properties* of note. Significant features depicted in photographs should also be described the *report* text. Photographs should have captions identifying the location on the *subject property* or features of note in the photograph.

X6. SUMMARY OF COMMON NON-SCOPE ISSUES (COMMON NON-SCOPE CONSIDERATIONS)

INTRODUCTION

Note that the EPA was not a party to the development of Appendix X6 and the information and conclusions, provided in the appendix do not in any way reflect the opinions, guidance, or approval of the EPA. *Users* of this appendix are cautioned that statutes, regulations, guidance, case law, and/or other authorities analyzed and/or referenced in the appendix may have changed since the publication of this appendix. Thus, before relying on any of the analyses, conclusions, and/or guidance provided by this appendix, *users* should ensure that those analyses, conclusions, and/or guidance are current and correct at the time use is made of this appendix. In addition, this appendix is provided for background information purposes only and does not alter, amend, or change the meaning of Practice E1527. If any inconsistency between this appendix and Practice E1527 arises, Practice E1527 applies, not this appendix or any interpretation based on this appendix.

The objective of Practice E1527 is to help *users* qualify for one of the CERCLA *Landowner Liability Protections (LLPs)*. *Users* should be aware that there are other federal, state, and local environmental laws and regulations that can impose liabilities and obligations on *owners* and *operators* of *property* that are outside the scope of this practice. This appendix explains by illustration that this practice does not address all possible environmental liabilities that a *user* may need to consider in the context of a *commercial real estate transaction*. Therefore, *users* may desire to expand the scope of prepurchase *due diligence* to assess other *business environmental risks* that exist beyond CERCLA liability associated with the *subject property*.

Subsection 3.2.11 defines a *business environmental risk (BER)* as a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of *commercial real estate*, and is not necessarily an issue required to be investigated under this practice. A *BER* may include one or more of the non-scope issues contained in 13.1.5 (Non-Scope Considerations). Evaluation of non-scope items, including those addressed in this appendix, is not required nor relevant for compliance with the AAI Rule or Practice E1527. Inclusion of any non-scope item in a Phase I *report* is entirely within the discretion of the *user* based on its own risk tolerance, the particular requirements of a specific transaction, and the factors discussed in 3.2.11. As a result, this appendix should not be construed as requiring the inclusion of any non-scope issues in a Phase I *report*.

The items in this appendix are some of the more common non-scope items that may be encountered in *commercial real estate transactions*. Those non-scope items discussed in this appendix should not be construed as being more important than any non-scope items that are not addressed by this appendix. Furthermore, it is noteworthy that, in some circumstances, a non-scope consideration in an old Phase I analysis may represent a *recognized environmental condition* for a subsequent Phase I analysis based on the rise of potential CERCLA liability. For example, asbestos-containing building materials within an existing structure are excluded from CERCLA. However, following the demolition of the building, asbestos-containing materials buried in soil may no longer fall within the exclusion from the definition of a CERCLA *release*. To more fully understand the circumstances under which a particular non-scope consideration could result in potential CERCLA liability, readers should consult the Legal Appendix (Appendix X1).

This appendix discusses nine of the non-scope considerations listed in 13.1.5 in more detail:

X6.1 *Asbestos-Containing Building Materials*—Asbestos is a naturally occurring mineral fiber that was once widely used in building materials and products for its thermal insulating properties and fire resistance. EPA defines asbestos-containing material (ACM) as material that contains more than 1 % asbestos. Building products containing ACM are often referred to as asbestos containing building materials (ACBM). Undisturbed ACBM generally does not pose a health risk. However, ACBM may pose an increased risk if damaged, disturbed in certain manners, or if it deteriorates so that asbestos fibers can

be released into building air.

X6.1.1 Asbestos has been specifically designated as a *hazardous substance* pursuant to CERCLA § 102 (42 U.S.C. § 9602) but ACBM abatement costs generally are not recoverable under CERCLA. For more information, please consult the Legal Appendix (Appendix X1). There are other federal and state environmental statutes that impose obligations with respect to ACM. Although CERCLA does not provide a remedy for asbestos abatement, *property owners* may still be subject to liability for exposure to asbestos fibers under other federal or state environmental statutes and common laws. For example, under the Clean Air Act (CAA), EPA adopted a National Emission Standard for Hazardous Air Pollutants (NESHAP) for asbestos that regulates or restricts certain uses of asbestos and imposes certain work practices for demolition and renovation projects that disturb certain thresholds of regulated ACM (See 40 C.F.R. Part 61 for more information). Local rules may be more stringent than the federal asbestos NESHAP.

X6.1.2 Many building materials such as structural steel fireproofing, acoustic finishes, ceiling texture, ceiling tile, suspended ceiling panels, textured and elastomeric paints, window putty, flexible duct connectors, rubbery pipe insulation tape, building wiring insulation, pipe insulation, boiler insulation, vessel insulation, interior plaster, and duct insulation commonly contained asbestos until the late 1970s. Other types of ACMs were commonly used until the middle to late 1980s such as drywall, joint compound, exterior stucco, sheet vinyl flooring, vinyl flooring products, flooring and other mastics (adhesives), roof tiles and coatings, asbestos-cement products, and flues. Under the Toxic Substance Control Act (TSCA), EPA bans the use of asbestos in many products. Building materials that post-date the 1989 and 1993 partial bans, but pre-date the 2019 significant new use rule (SNUR), may contain asbestos. Nevertheless, NESHAP requires sampling prior to renovation and demolition activities regardless of the age of the building. A complete list of these products may be found in docket identification (ID) number EPA-HQOPPT-2018-0159 at www.regulations.gov.

X6.1.3 EPA recommends that *owners* and managers of office buildings, shopping centers, apartment buildings, hospitals, and similar facilities that may contain ACM, implement an Asbestos Operations and Maintenance (O&M) program to minimize risk posed by ACBM. EPA suggests that ACBM O&M plans should include work practices so that ACM is maintained in good condition, to ensure proper cleanup of asbestos fibers previously released, to prevent further releases of asbestos fibers, and to monitor the condition of ACBM. OSHA also regulates worker exposure to asbestos. [For more information on ACM Assessment and Abatement, readers may refer to Guide E2308 and Practice E2356.]

X6.1.4 Some areas of the country have naturally-occurring asbestos (NOA). Although NOA is not commonly an issue for real estate transactions, some jurisdictions with NOA have adopted local ordinance or regulations that require construction activities that would disturb NOA to observe certain work practices to minimize release of fibers.

X6.2 *Radon*—Radon is a radioactive gas that is produced from the natural decay of uranium, radium, and thorium in soil, rock, and groundwater. As uranium naturally breaks down, it releases radon gas which is a colorless, odorless, radioactive gas. Radon gas enters homes through dirt floors, cracks in concrete walls and floors, floor drains, and *sumps*. When radon becomes trapped in buildings and concentrations accumulate and increase indoors, exposure to radon can become a concern. Sometimes radon enters the home through well water.

X6.2.1 CERCLA generally prohibits recovery for radon mitigation costs where the presence of radon gas in a building is a result from naturally-occurring materials. For more information, readers should consult the Legal Appendix (Appendix X1).

X6.2.2 EPA has divided the country into three radon zones based on the potential for indoor radon levels. Counties in Radon Zone 1 have a predicted average indoor radon screening level greater than the 4.0 picocuries per liter (pCi/L), Radon Zone 2 counties have a predicted average indoor radon screening level between 2 and 4 pCi/L, and Radon Zone 3 counties have a predicted average indoor radon screening level less than 2 pCi/L. EPA recommends homeowners take steps to reduce radon levels when homes have radon levels of 4 pCi/L or more. For new construction in Radon Zone 1 areas, EPA also recommends use of radon-resistant construction design. Because there is no known safe level of exposure to radon, EPA also recommends radon mitigation measures for homes with radon levels above 2 pCi/L (see http://www.epa.gov/radon/aboutus.html).

X6.2.3 Because the danger posed by radon rises when radon gas accumulates in an interior space, “energy efficient” structures with reduced airflow can contribute to radon problems, and radon testing may be especially warranted. However, actual radon exposures can be affected by diverse factors such as building construction, heating, ventilation, and air conditioning (HVAC) systems, and occupancy patterns. [For more information about radon assessment, readers may refer to Practices D7297, E2121, and E1465.]

X6.2.4 Costs to investigate and mitigate radon may be material in certain transactions. In addition, failing to account for these risks, or inadequately responding to such risks, may give rise to possible exposure to personal injury law suits and/or judgments.

X6.3 *Lead-Based Paint (LBP)*—Lead is a soft, bluish metallic element that has been used in a wide variety of products. According to EPA, paint manufacturers frequently used lead as a primary ingredient in many oil-based interior and exterior house paints through the 1940s and gradually decreased its use in the 1950s and 1960s as latex paints became more widespread. The federal Department of Housing and Urban Development (HUD) estimated that 30 % of the houses built in the United States before 1978 contain some lead-based paint, and 44 % contain significant lead-based paint hazards. Lead from paint, chips, and dust can pose health hazards if not properly managed. The Consumer Product Safety Commission (CPSC) prohibited use of lead in paint for residential use in 1978 in

concentrations greater than 0.05 percent lead by weight. It should be noted that the use of LBP in commercial and industrial buildings has not been prohibited.

X6.3.1 Because CERCLA authorizes EPA to address *releases* of *hazardous substances* into the environment, the agency has limited authority to use the federal Superfund program to address exposure from interior LBP. In limited circumstances, EPA may use its CERCLA authority to conduct response actions for soils contaminated by a *release* of lead-contaminated paint from building exteriors that pose a lead hazard and to prevent recontamination of soils that have been remediated. In general, EPA has determined that lead contamination in soils at or exceeding 400 parts per million in play areas and 1200 parts per million in other residential areas where children below 6 years of age are present may pose serious health risks that can justify time-critical removal actions. CERCLA generally does not provide cost recovery for LBP abatement. However, response costs for remediation of lead in soil may be recoverable even where the source of the presence of lead may be from damaged exterior LBP. Please refer to the Legal Appendix (Appendix X1) for more information.

X6.3.2 LBP debris from renovation or demolition projects can be regulated as a RCRA hazardous waste. EPA has also adopted certain work practices for renovation, repair, and painting projects that will disturb certain thresholds of LBP. OSHA also regulates worker exposure to lead.

X6.4 *Lead-in-Drinking-Water (LIW)*—The major source of LIW is leaching of lead from household plumbing materials or water service lines used to bring water from the main to the home. Lead can leach into drinking water through contact with the plumbing, solder, fixtures and faucets (brass), and fittings. The amount of lead in drinking water will be influenced by the type and amount of minerals in the water, how long the water stays in the pipes, the amount of wear in the pipes, and the water's acidity and temperature.

X6.4.1 Since 1986, the Safe Drinking Water Act (SDWA) has required that only "lead free" pipe, solder, or flux can be used in plumbing in residential or non-residential facilities providing water for human consumption. The SDWA also required businesses selling plumbing supplies to sell solder or flux that is "lead free" after August 6, 1996. Moreover, after that date the SDWA prohibited any person from introducing into commerce any solder or flux containing lead unless a label was attached to the solder or flux stating that it is illegal to use the solder or flux to install or repair plumbing providing water for human consumption. However, "lead free" does not mean "no lead." Products such as solders and flux may be considered "lead free" if they contain less than 0.2 % lead. Similarly, pipes and pipe fittings will be considered "lead free" if they contain less than 8 % lead. Thus, lead may still be introduced in new homes with brass or chrome-plated brass faucets and fixtures.

X6.4.2 The SDWA requires EPA to establish enforceable maximum contaminant levels (MCLs) for a variety of contaminants in drinking water. Because lead contamination of drinking water often results from corrosion of the plumbing materials belonging to water system customers, EPA established a treatment technique rather than an MCL for lead. A treatment technique is an enforceable procedure or level of technological performance which water systems shall follow to ensure control of a contaminant. The treatment technique regulation for lead (referred to as the Lead and Copper rule) requires water systems to control the corrosivity of the water. The regulation also requires systems to collect tap samples from sites served by the system that are more likely to have plumbing materials containing lead. If more than 10 % of tap water samples exceed the lead action level of 15 parts per billion, then water systems are required to take additional actions. Local rules may be more stringent than the federal SDWA.

X6.5 *Wetlands*:

X6.5.1 Wetlands provide a number of economically and environmentally important functions such as flood control, water quality protection, groundwater recharge, spawning areas for commercially important fish, and wildlife habitat. Wetlands are evaluated using three indicators: hydrology, hydrophytic vegetation, and hydric soils. Section 404 of the Clean Water Act requires a permit before dredged or fill material may be discharged into regulated wetlands (known as Jurisdictional Wetlands). The Army Corps of Engineers has primary responsibility for making wetlands jurisdictional determinations and issuing wetlands permits. A number of activities are authorized through the use of nationwide permits.

X6.5.2 The presence of wetlands may impede or eliminate the potential for planned activities at a *property*, including proposed construction or expansion. In addition, it is possible that the existence of wetlands will increase the costs associated with any planned development. Furthermore, in some instances, structures may have been constructed on illegally filled wetlands. While *owners* are rarely required to demolish completed buildings on illegally filled wetlands, they could become subject to civil or criminal fines, and also be required to perform mitigation projects or make payments to a conservation bank to offset the loss of the wetlands.

X6.6 *Regulatory Compliance (Includes Health and Safety)—Properties* used for industrial, commercial, and even residential purposes are frequently subject to a panoply of environmental laws and regulations that relate to many aspects of operations conducted at the *subject property*. In the context of a *property* transaction, noncompliance with environmental laws and regulations may create a material risk of financial loss for both building *operators* and *owners* of the *properties*.

X6.6.1 *Common Sources of Federal Compliance Obligations*—Many federal regulations apply to industrial, commercial, and residential *properties*. *Owners* or *operators* of facilities that generate, store, treat, or dispose of *hazardous wastes* may be subject to regulation under the RCRA, 42 U.S.C. § 6901 *et seq.* For example, *properties* with petroleum storage tanks, dry cleaners that use chlorinated *solvents*, and photograph developing operations may be required to comply with RCRA. Facilities that manufacture and use many hazardous or toxic substances may be subject to the Toxic Substances

Control Act (TSCA), 15 U.S.C. § 2601 *et seq.* Manufacturing operations that emit air pollutants, and commercial or residential *properties* that burn fossil fuels, may be required to obtain permits and install emissions control equipment under the Clean Air Act (CAA), 42 U.S.C. § 7401, *et seq.* Facilities that discharge pollutants into waters of the United States and public sewer systems may be required to comply with the Clean Water Act (CWA), 33 U.S.C. § 1251, *et seq.* Many commercial *properties* will also be required to comply with stormwater permitting requirements under the CWA. Facilities that store or use certain volumes of hazardous chemicals and extremely *hazardous substances*, which can include warehouses and distribution centers, may be required to comply with the reporting requirements of the Emergency Planning and Community Right-To-Know Act (EPCRA), 42 U.S.C. 11001, *et seq.*. In addition, the Occupational Safety & Health Administration (OSHA) has promulgated regulations pursuant to the Occupational Safety and Health Act, 29 U.S.C. § 651, *et seq.* that establish operating standards and work practices for employees in certain industrial and commercial facilities.

X6.6.2 *Common Sources of State and Local Compliance Obligations*—Many state agencies have been delegated authority to implement state versions of these federal laws in lieu of EPA. For example, state agencies may be designated to issue permits and bring enforcement actions under the CAA, CWA, or RCRA. Even where a state agency has been delegated authority to implement the federal environmental programs, EPA often retains the ability to veto a permit or take enforcement action where EPA disagrees with a state agency's enforcement decision or where the state has declined enforcement. In some cases, state regulations may be broader in scope or stricter than the federal rules. In addition, state laws also implement state-specific regulatory regimes. For example, several states retain permitting and enforcement authority for flood control or construction in floodways. Furthermore, local government bodies can impose an entirely distinct set of operating restrictions or compliance obligations as well; for example, building code requirements, green building mandates, zoning requirements, and local licensing requirements.

X6.6.3 *Potential Effects of Noncompliance*—Depending on the circumstances, noncompliance with various regulatory requirements could result in material costs to *owners* and *operators* of industrial, commercial, or residential *properties*, including fines or other monetary penalties, injunctions, or other equitable relief that slows or eliminates productivity, and could result in increased transaction costs associated with defending claims of noncompliance. Furthermore, even in the absence of administrative or legal enforcement proceedings, the costs to bring facilities into compliance with applicable regulatory requirements could be material in some circumstances.

X6.7 *Endangered Species Act*—Under the Endangered Species Act, the government protects endangered and threatened plants and animals (listed species) and their habitats. The presence of listed species can restrict use of *property* to ensure that the proposed activities do not adversely affect endangered or threatened species as well as their critical habitats.

X6.8 *Indoor Air Quality*—(excluding impacts to indoor air from releases of *hazardous substances* into the *environment*)—There are many sources of indoor air pollution. These include combustion sources such as oil, gas, kerosene, coal, wood, tobacco products, asbestos-containing materials, wet or damp carpet, formaldehyde, certain pressed wood products, cleaning and maintenance chemicals, and pesticides. EPA estimates that indoor levels of air pollutants can be two to five times higher, and occasionally 100 times higher, than outdoor levels. In general, EPA does not regulate indoor air quality except to the extent that indoor air impacts are caused by *releases* of *hazardous substances* into subsurface soil or groundwater (vapor intrusion). For more information, please refer to the Legal Appendix (Appendix X1). [For more information about assessing indoor air quality, refer to Practice D7297.]

X6.9 *Mold*—Molds are organisms that belong to the Fungi Kingdom. Molds are present virtually everywhere in the outdoor and indoor environments. Molds lack chlorophyll and survive by digesting organic materials for food such as some types of building materials. To grow, molds require a food source and moisture. Molds can produce toxic substances called mycotoxins that may result in human health effects. Some compounds produced by molds are volatile and are released directly into the air. These are known as microbial volatile organic compounds (mVOCs). In addition, spores may contain allergens that can remain allergenic for years, even if the mold is dead.

X6.9.1 Currently, there are no federal regulations or standards for airborne mold contaminants. However, EPA and some states or local jurisdictions have issued publications discussing mold issues. In addition, under the OSHA General Duty Clause (29 U.S.C. § 654), an employer has an obligation to protect workers from serious and recognized workplace hazards, even where there is no standard. Thus, it is possible that the OSHA general duty clause may impose a duty on employers to disclose hazards relating to mold to employees, although the disagreement on the degree of hazard, if any, makes this uncertain. Significant mold contamination may fall under the general disclosure requirements for real estate transactions in various jurisdictions. For more information on investigating and assessing mold, readers may refer to Guide E2418.

X6.9.2 Mold in a building(s) on a *property* could result in a variety of business risks such as litigation for exposures by tenants and *occupants*, abatement costs, loss of tenants, adverse publicity, and loss in property value.

X6.10 *Substances Not Defined as Hazardous Substances*—As defined in 3.2.36 of this practice, *hazardous substance* means "those substances defined as a *hazardous substance* pursuant to CERCLA 42 U.S.C. § 9601(14), as interpreted by EPA regulations and the courts." There are some substances that non-*environmental professionals* and others may assume to be *hazardous substances* that are not defined (or not yet defined) as *hazardous substances* under CERCLA through interpretation by EPA regulations and the

courts. These substances may include: *(1)* some substances that occur naturally or through biological digestion (for example, methane), and *(2)* substances about which human understanding is evolving (for example, per- and polyfluoroalkyl substances, also known as "PFAS"). These and any other "emerging contaminants," where they are not identified as a *hazardous substance* by CERCLA, as interpreted by EPA regulations and the courts, are not included in the scope of this practice. Some of these substances may be considered a "*hazardous substance*" (or equivalent) under applicable state laws. In those instances, where a *Phase I Environmental Site Assessment* is performed to satisfy both federal and state requirements, or as directed by the *user* of the *report*, it is permissible to include analysis and/or discussion of these substances in the same manner as any other Non-Scope Consideration. If and when such emerging contaminants are defined to be a *hazardous substance* under CERCLA, as interpreted by EPA regulations and the courts, such substances shall be evaluated within the scope of this practice.

X6.11 *Petroleum Products—Petroleum products* are included within the scope of this practice because they are of concern with respect to *commercial real estate*, and current custom and usage is to include an inquiry into the presence of *petroleum products* when doing an *environmental site assessment* of *commercial real estate*. Inclusion of *petroleum products* within the scope of this practice is not based upon the applicability, if any, of CERCLA to *petroleum products*. (See X1.1.2.1 for discussion of *petroleum exclusion* to CERCLA liability.)