



Designation: E1528 – 14^{ε1}

Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process¹

This standard is issued under the fixed designation E1528; 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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

^{ε1} NOTE—Question 21 of the Transaction Screen Questionnaire (see Section 6) and footnote 6 were editorially corrected in January 2017.

1. Scope

1.1 *Purpose*—The purpose of this practice is to define a good practice in the United States of America for conducting a *transaction screen*² for a parcel of *commercial real estate* where the *user* wishes to conduct limited environmental *due diligence* (that is, less than a *Phase I Environmental Site Assessment*). If the driving force behind the environmental *due diligence* is a desire to qualify for one of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) *Landowner Liability Protections (LLPs)*, this practice should not be applied. Instead, the ASTM E1527: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or ASTM E2247: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property may be used.

1.1.1 This practice will not satisfy the requirement to conduct *all appropriate inquiries* into the previous ownership and uses of the *property* consistent with “generally accepted good commercial and customary standards and practices” as defined in 42 U.S.C. §9601(35)(B) to qualify for one of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) *Landowner Liability Protections (LLPs)*. *Users* who desire to conduct environmental *due diligence* to qualify for one of the CERCLA LLPs should conduct assessment activities in conformity with “Standards and Practices for All Appropriate Inquiries,” 40 C.F.R. Part 312, ASTM E1527: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process or ASTM E2247: Standard Practice for Environmental Site

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

1.2 An evaluation of business environmental risk associated with a parcel of *commercial real estate* may necessitate investigation beyond that identified in this practice. See Sections 1.4 and 11.

1.2.1 *Potential Environmental Concerns*—The goal of conducting a transaction screen is to identify *potential environmental concerns*, as defined in 3.2.35.

1.2.2 *Other Federal, State, and Local Environmental Laws*—This practice does not address requirements of any state or local laws or of any federal laws. *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 other legal obligations with regard to *hazardous substances* or *petroleum products* discovered on *property* that are not addressed in this practice and may pose risks of civil and/or criminal sanctions for non-compliance.

1.3 *Objective*—The objective guiding the development of this practice is to facilitate standardized *transaction screens*.

1.3.1 *Note of Caution*—The *user* should be cautious in applying this practice to properties with known current or historic handling of *hazardous substances* or *petroleum products*.

1.4 *Considerations Beyond the Scope*—The use of this practice is strictly limited to the scope set forth in this section. Section 11 of this practice identifies, for informational purposes, certain environmental conditions (not an all-inclusive list) that may exist on a *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 scope of services should be evaluated based upon, among other factors, the nature of the *property* and the reasons for performing the assessment (for example, a more comprehensive evaluation of business environmental risk) and should be agreed upon as additional services beyond the scope of this practice prior to initiation of the *Transaction Screen Process*.

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 Jan. 15, 2014. Published February 2014. Originally approved in 1993. Last previous edition approved in 2006 as E1528–06. DOI: 10.1520/E1528-14E01.

² Whenever terms defined in 3.2 or described in 3.3 are used in this practice, they are in *italics*.

1.5 *Organization of This Practice*—This practice has several parts and one appendix. Section 1 is the Scope. Section 2 refers to other ASTM standards in the Referenced Documents. Section 3, Terminology, has definitions of terms not unique to this practice, descriptions of terms unique to this practice, and acronyms. Section 4 is Significance and Use of this practice. Section 5 is the Introduction to the *Transaction Screen Questionnaire*. Section 6 sets forth the *Transaction Screen Questionnaire* itself. Sections 7 – 10 contain the Guide to the *Transaction Screen Questionnaire* and its various parts. Section 11 provides additional information regarding non-scope considerations. See 1.4.

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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:³

E1527 Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process

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

2.2 Federal Statutes:

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.*

Freedom of Information Act, 5 U.S.C. §552, as amended by Public Law No. 104-231, 110 Stat. 3048

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

3. Terminology

3.1 *Scope*—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 this written practice and its use.

3.2 Definitions:

3.2.1 *activity and use limitations (AULs)*—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 or ground 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 or ground water on the *property*.⁴

3.2.2 *actual knowledge*—the 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.

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

3.2.4 *aerial photographs*—photographs taken from an aerial platform with sufficient resolution to allow identification of development and activities of areas encompassing the *property*. *Aerial photographs* are often available from government agencies or private collections unique to a local area. See Question 22 of the questionnaire in this practice and 10.2.2.

3.2.5 *all appropriate inquiries*—that inquiry constituting “*all appropriate inquiries* into the previous ownership and uses of the *property* consistent with good commercial or customary practice” as defined in CERCLA, 42 U.S.C. §9601(35)(B), 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.

3.2.6 *approximate minimum search distance*—the area for which records must be obtained and reviewed pursuant to the *records review* section of Practice E1528, subject to the limitations provided in that section. The term *approximate minimum search distance* may include areas outside the *property* and shall be measured from the nearest *property* boundary. The term *approximate minimum search distance* is used instead of radius to include irregularly shaped properties.

3.2.7 *commercial real estate*—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 building of such *dwellings* for profit). This term includes but is not limited to undeveloped real *property* and real *property* used for industrial, retail, office,

³ 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.

⁴ The term AUL is taken from the ASTM Standard 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.” The Department of Defense and the International County/City Management Association use “Land Use Controls.” The term “land use restrictions” is used but not defined in the Brownfields Amendments).

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.

3.2.8 *Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)*—the list of sites compiled by EPA that EPA has investigated or is currently investigating for potential *hazardous substance* contamination for possible inclusion on the National Priorities List.

3.2.9 *CORRACTS list*—a list maintained by EPA of *hazardous waste* treatment, storage, or disposal facilities and other RCRA-regulated facilities (due to past interim status or storage of *hazardous waste* beyond 90 days) that have been notified by the U.S. Environmental Protection Agency to undertake corrective action under RCRA. The *CORRACTS list* is a subset of the EPA database that manages RCRA data.

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

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

3.2.12 *due diligence*—the process of inquiring into the environmental characteristics of a parcel 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.

3.2.13 *dwelling*—structure or portion thereof used for residential habitation.

3.2.14 *engineering controls*—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 ground water on the *property*. *Engineering controls* are a type of *activity and use limitation (AUL)*.

3.2.15 *environmental lien*—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 section 107(l) of CERCLA (42 U.S.C. §9607(l)) and similar state or local laws.

3.2.16 *environmental professional*—a person meeting the education, training, and experience requirements as set forth in 40 C.F.R. §312.10(b). The person may be an independent contractor or an employee of the *user*.

3.2.17 *ERNS list*—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.

3.2.18 *fill dirt*—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.

3.2.19 *fire insurance maps*—maps produced for private fire insurance map companies that indicate uses of properties at specified dates and that encompass the *property*. These maps are often available at local libraries, historical societies, private resellers, or from the map companies who produced them. See Question 22 of the questionnaire in this practice and 10.2.2.

3.2.20 *hazardous substance*—a substance defined as a *hazardous substance* pursuant to section 101(14) of CERCLA, (42 U.S.C. §9601(14)), as interpreted by EPA regulations (see 40 C.F.R. §302.4) and the courts: “(A) any substance designated pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act, (B) any element, compound, mixture, solution, or substance designated pursuant to section 102 of this Act, (C) any *hazardous waste* having the characteristics identified under or listed pursuant to section 3001 of [RCRA] (but not including any waste the regulation of which under [RCRA] has been suspended by Act of Congress), (D) any toxic pollutant listed under section 307(a) of the Federal Water Pollution Control Act, (E) any hazardous air pollutant listed under section 112 of the Clean Air Act, and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator [of EPA] has taken action pursuant to section 7 of the Toxic Substances Control Act. 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).”

3.2.21 *hazardous waste*—any solid 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 *et seq.*) has been suspended by Act of Congress). RCRA is sometimes also identified as the Solid Waste Disposal Act. RCRA defines a *hazardous waste*, in section 1003 (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.”

3.2.22 *landfill*—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.

3.2.23 *Landowner Liability Protections (LLPs)*—*Landowner liability protections* under CERCLA pursuant to the Small Business Liability Relief and Brownfields Revitalization Act amendments to CERCLA (42 U.S.C. §§9601(35) & 9607(b)(3)); these protections include the bona fide prospective

purchaser liability protection, contiguous *property owner* liability protection, and innocent landowner defense from CERCLA liability.

3.2.24 *local street directories*—directories published by private (or sometimes government) sources that show ownership, occupancy, use of sites, and/or by reference to street addresses. Often local street directories are available at libraries of local governments, colleges or universities, or historical societies. See Question 22 of the questionnaire in this practice and 10.2.2.

3.2.25 *LUST sites*—state lists of leaking *underground storage tank* sites. Section 9003(h) of Subtitle I of RCRA gives EPA and states, under cooperative agreements with EPA, authority to clean up releases from UST systems or require *owners* and operators to do so. 42 U.S.C. §6991b(h).

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

3.2.27 *National Priorities List (NPL)*—list compiled by EPA pursuant to CERCLA (42 U.S.C. §9605(a)(8)(B)) of properties with the highest priority for cleanup pursuant to EPA’s hazard ranking system. See 40 C.F.R. Part 300.

3.2.28 *obvious*—that which is plain or evident; a condition or fact which could not be ignored or overlooked by a reasonable observer while *visually or physically observing* the *property*.

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

3.2.30 *owner*—generally the fee *owner* of record of the *property*.

3.2.31 *petroleum exclusion*—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).”

3.2.32 *petroleum products*—those substances included within the meaning of the terms within 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 that 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, kerosene, diesel oil, jet fuels, and fuel oil, pursuant to *Standard Definitions of Petroleum Statistics*.⁵)

3.2.33 *Phase I Environmental Site Assessment*—the process described in Practice E1527.

3.2.34 *pits, ponds, or lagoons*—man-made 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.

3.2.35 *potential environmental concerns*—The term *potential environmental concerns* means the possible presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate the possibility of an existing release, a past release, or a threat of a future release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, ground water, or surface water of the *property*. The term includes *hazardous substances* or *petroleum products* even under conditions in compliance with laws. (Note that “threat of release” is generally understood to be present when *hazardous substances* or *petroleum products* are poorly managed (for example in corroded tanks or damaged containers) but the release of the contaminants has not yet occurred, and there is an opportunity to take response action to prevent a release of the contaminants.)

3.2.36 *practically reviewable*—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 *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 *property* or a geographic area in which the *property* is located are not generally *practically reviewable*. Most databases of public records are *practically reviewable* if they can 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 facility 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 data is generated that it cannot be feasibly reviewed for its impact on the *property*, it is not *practically reviewable*.

3.2.37 *preparer*—the person preparing the *transaction screen questionnaire* pursuant to this practice, who may be

⁵ *Standard Definitions of Petroleum Statistics*, American Petroleum Institute, Fifth Edition, 1995.

either the *user* or the person to whom the *user* has delegated the preparation. See 4.3. In selecting options permitted by the *Transaction Screen*, preparers should satisfy themselves that they are qualified to undertake the analysis contemplated by that option. Unless otherwise agreed to by the *user* and the preparer, it is not the responsibility of the preparer to draw conclusions regarding affirmative or unknown answers. See 4.3 and 5.6.

3.2.38 *property*—the real *property* that is the subject of the *transaction screen* described in this practice. Real *property* includes buildings and other fixtures and improvements located on the *property* and affixed to the land.

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

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

3.2.41 *RCRA generators list*—list kept by EPA of those persons or entities that generate *hazardous wastes* as defined and regulated by RCRA.

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

3.2.43 *RCRA TSD Facilities list*—list kept by EPA of those facilities on which treatment, storage, and/or disposal of *hazardous wastes* takes place, as defined and regulated by RCRA.

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

3.2.44.1 *Discussion*—For additional information on the meaning of “reasonable time and cost constraints,” see Practice E1527 at 8.1.5.

3.2.45 *records of emergency release notifications (EPCRA §304)*—Section 304 of EPCRA (42 U.S.C. §11004) requires operators of facilities to notify their local emergency planning committee (as defined in EPCRA) and State Emergency Response Commission (as defined in EPCRA) of any release beyond the facility’s boundary of any reportable quantity of any extremely *hazardous substance*. Often the local fire department is the local emergency planning committee. Records of such notifications are “*Records of Emergency Release Notifications*.”

3.2.46 *records review*—that part of the *transaction screen* that is contained in Section 6 of this practice and addresses which records shall or may be reviewed.

3.2.47 *solid waste disposal site*—a place, location, tract of land, area, or premises used for the *landfill* 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.

3.2.48 *solvent*—a chemical compound that is capable of dissolving another substance and may itself be a *hazardous substance* used in a number of manufacturing/industrial pro-

cesses 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.

3.2.49 *site visit*—the visit to the *property* during which observations are made constituting the *site visit* requirement of this practice.

3.2.50 *standard environmental record sources*— those records specified in Section 6 of this practice of the *records review* section.

3.2.51 *standard practice*—the activities set forth in this practice for the conduct of a transaction screen.

3.2.52 *standard sources*—sources of environmental or historical records specified in the *records review* section (Section 6) of this practice.

3.2.53 *state registered USTs*—state lists of *underground storage tanks* required to be registered under Section 9002 of RCRA (42 U.S.C. §6991a).

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

3.2.55 *transaction screen questionnaire*—the questionnaire set forth in Section 6 of this practice.

3.2.56 *transaction screen process (transaction screen)*—the process described in Practice E1528 whereby a person or entity seeks to determine if a particular parcel of real *property* (including improvements) is subject to *potential environmental concerns*.

3.2.57 *TSD Facility*—treatment, storage, or disposal facility (see definition of *RCRA TSD Facilities*).

3.2.58 *underground storage tank (UST)*—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.

3.2.59 *user*—the party seeking to use the *transaction screen process* of this practice to conduct limited environmental *due diligence* of the *property*. A *user* may include, without limitation, a potential purchaser of *property*, a potential tenant of *property*, an *owner* of *property*, a lender, or a property manager. It is the *user’s* responsibility to draw conclusions regarding affirmative or unknown answers (see 5.6).

3.2.60 *visually and/or physically observed*—during a *site visit* pursuant to this practice, this term means observations made by vision while walking through a *property* and the structures located on it and observations made by the sense of smell, particularly observations of noxious or foul odors. The term “walking through” is not meant to imply that disabled persons who cannot physically walk may not conduct a *site visit*; they may do so by the means at their disposal for moving through the *property* and the structures located on it.

3.2.61 *wastewater*—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.

3.3 Acronyms:

3.3.1 *AULs*—Activity and Use Limitations.

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

3.3.3 *CERCLIS*—Comprehensive Environmental Response, Compensation and Liability Information System (maintained by EPA).

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

3.3.5 *CORRACTS*—facilities subject to Corrective Action under RCRA.

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 *et seq.*).

3.3.8 *ERNS*—Emergency Response Notification System.

3.3.9 *FOIA*—U.S. Freedom of Information Act (5 U.S.C. §552 *et seq.*).

3.3.10 *LLP*—Landowner Liability Protections.

3.3.11 *LUST*—leaking underground storage tank.

3.3.12 *NCP*—National Contingency Plan.

3.3.13 *NFRAP*—former CERCLIS sites where no further remedial action is planned under CERCLA.

3.3.14 *NPL*—National Priorities List.

3.3.15 *PCBs*—polychlorinated biphenyls.

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

3.3.17 *SARA*—Superfund Amendments and Reauthorization Act of 1986 (amendment to CERCLA; also contains law not part of CERCLA).

3.3.18 *TSD Facility*—hazardous waste treatment, storage or disposal facility.

3.3.19 *U.S.C.*—United States Code.

3.3.20 *UST*—underground storage tank.

4. Significance and Use

4.1 *Uses*—This practice sets forth a procedure for conducting limited environmental *due diligence*. This practice is intended for use on a voluntary basis by parties who wish to assess the environmental condition of *commercial real estate* where a *Phase I Environmental Site Assessment* is, initially, deemed to be unnecessary by the *user* and the parties do not seek CERCLA *LLPs*. This practice is intended primarily as a commercially prudent or reasonable approach to conducting an inquiry designed to identify *potential environmental concerns* in connection with a *property*.

4.2 Clarifications on Use:

4.2.1 *Use Not Intended for CERCLA Liability Protection*—This document is not intended to permit a *user* to satisfy CERCLA *LLPs*, that is, the practices that constitute “*all appropriate inquiries* into the previous ownership and uses of the *property* consistent with good commercial or customary practice” as defined in 42 U.S.C. §9601(35)(B).

4.2.2 *Transaction Screen Does Not Identify Recognized Environmental Conditions*—This practice does not define a scope of assessment sufficient to identify recognized environmental conditions as defined in 3.2.74 of Practice E1527 and 3.2.80 of Practice E2247.

4.2.3 *Residential Tenants/Purchasers and Others*—Although this document is not intended for residential purposes, it may be used at the *user's* discretion for residential tenants of multifamily residential buildings, tenants of single-family homes or other residential real estate, or purchasers of *dwellings* for residential use, to conduct a transaction screen in connection with these transactions.

4.2.4 *Site-Specific*—This practice is site-specific in that it relates to assessment of environmental conditions on a specific parcel of *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*—The *transaction screen process* may be conducted by the *user*, or some other person, including environmental consultants, lenders, brokers, appraisers, corporations, lawyers, government agencies or any other party looking to screen environmental *property* risk. The *transaction screen process* can be performed by, but does not require the judgment of an *environmental professional*. If an *environmental professional* is contracted to prepare a *transaction screen questionnaire*, nothing in this practice requires the professional to develop opinions and conclusions. Nothing in this practice precludes a *user* from contracting with any person identified herein for mutually agreed upon additional services.

4.4 *Inquiry Beyond the Transaction Screen Process*—If further inquiry is needed after performance of the *transaction screen process*, the *user* must determine, in the exercise of the *user's* reasonable business judgment, whether further inquiry may be limited to those specific issues identified as of concern or should proceed to further inquiry (see 5.8).

4.5 No *transaction screen* can wholly eliminate uncertainty regarding the potential for environmental concern in connection with a *property*.

4.5.1 Not every *property* will warrant the use of a limited environmental assessment such as the *transaction screen*. The appropriate use of the *transaction screen* will be guided by the type of *property* subject to assessment, the expertise and risk tolerance of the *user*, and the information developed in the course of the inquiry.

4.5.2 *Transaction screens* 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 or *transaction screens* 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.

4.6 *Continued Viability of Transaction Screen*—A *transaction screen* meeting or exceeding this practice and completed more than 180 days previously may be used to the extent allowed by 4.6.1 and 4.6.2.

4.6.1 Subject to 4.6.2, a prior *transaction screen* or other *due diligence* may be used in its entirety or as an information source if, in the reasonable judgment of the *user*, the prior *transaction screen* or other *due diligence* meets or exceeds the requirements of this practice and the conditions at the *property* likely to affect *potential environmental concerns* in connection with the *property* are not likely to have changed materially since the last *transaction screen* or other *due diligence* was conducted. In making this judgment, the *user* should consider the type of *property* assessed and the conditions in the area surrounding the *property*.

4.6.2 If the *user*, or any other *preparer(s)* conducting a *transaction screen* has *actual knowledge* that the information being used from a prior *transaction screen* is not accurate or if it is *obvious*, based on other information obtained by means of the *transaction screen* or known to the person conducting the *transaction screen*, that the information being used is not accurate, such information from a prior *transaction screen* may not be used.

4.7 The contractual and legal obligations between prior and subsequent *users* of *transaction screens* or between those who conducted prior *transaction screens* and those who would like to use such prior *transaction screens* are beyond the scope of this practice.

4.7.1 The contractual and legal obligations between a *preparer* and a *user* (and other parties, if any) are beyond the scope of this practice.

4.8 If the *user* is aware of any specialized knowledge or experience that is material to *potential environmental concerns* in connection with the *property*, and the *preparer* is not the *user*, it is the *user's* responsibility to communicate any information based on such specialized knowledge or experience to the *preparer*. The *user* should do so before the *preparer* makes the *site visit*.

5. Introduction to Transaction Screen Questionnaire⁶

5.1 *Process*—The *transaction screen process* consists of asking questions contained within the *transaction screen questionnaire* of *owners* and *occupants* of the *property*, observing site conditions at the *property* with direction provided by the *transaction screen questionnaire*, and, to the extent *reasonably ascertainable*, conducting limited research regarding certain government records and certain standard historical sources. The questions asked of *owners* are the same questions as those asked of *occupants*.

5.2 *Guide*—The *transaction screen questionnaire* is followed by a guide designed to assist the person completing the *transaction screen questionnaire*. The guide to the *transaction screen questionnaire* is set out in Sections 7 – 10 of this practice. The guide is divided into three sections: Guide for Owner/Occupant Inquiry, Guide to Site Visit, and Guide to Government Records/Historical Sources Inquiry.

5.2.1 To assist the *user*, its employee or agent, or the *preparer* in preparing a report, the guide repeats each of the questions set out in the *transaction screen questionnaire* in both the guide for *owner/occupant* inquiry and the guide to *site visit*. The questions regarding government records/historical sources inquiry are also repeated in the guide to that section.

5.2.2 The guide also describes the procedures to be followed to determine if reliance upon the information in a prior *transaction screen* is appropriate under this practice.

5.2.3 A *user*, his employee or agent, or *preparer* conducting the *transaction screen process* should not use the *transaction screen questionnaire* without reference to or without familiarity with the guide based on prior use of the guide.

5.3 The *user* may either conduct the *transaction screen process*, or delegate it to an employee or agent or may contract with a third party to prepare the questionnaire on behalf of the *user*. No matter who prepares the questionnaire, the *user* remains responsible for the decision to conduct limited environmental *due diligence* and the impact of that decision on risk management.

5.4 The *preparer* conducting the *transaction screen process* should use good faith efforts in determining answers to the questions set forth in the *transaction screen questionnaire*. The *user* should take time and care to check whatever records are in the *user's* possession and forward relevant information or specialized knowledge to the *preparer*.

5.5 *Knowledge*—All answers should be given to the best of the *owner's* or *occupant's* knowledge. The most knowledgeable person available should be chosen to answer the questions.

5.5.1 While the person conducting the *transaction screen* has an obligation to ask the questions in the *transaction screen questionnaire*, others may have no obligation to answer them.

5.5.2 The *transaction screen questionnaire* and the *transaction screen* guide sometimes include the phrase “to the best of your knowledge.” This phrase does not impose a constructive knowledge standard. It is intended as an assurance to the person being questioned that he or she is not obligated to search out information he or she does not currently have in order to answer the particular question.

5.6 *Conclusions Regarding Affirmative or Unknown Answers*—Once a *transaction screen questionnaire* has been completed, it shall be presented to the *user*. Subject to 5.6 through 5.7, an affirmative, unknown, or no response is presumed to be a *potential environmental concern*. If any of the questions set forth in the *transaction screen questionnaire* are answered in the affirmative, the *preparer* must document the reason for the affirmative answer. If any of the questions are not answered or the answer is unknown, the *user* should document such nonresponse or answer of unknown and evaluate it in light of the other information obtained in the *transaction screen*

⁶ Available from ASTM International Headquarters. Order Adjunct No. ADJEE152817-E-PDF. Original adjunct produced in 2000. Adjunct last revised in 2017.

process, including, in particular, the *site visit* and the government records/historical sources inquiry. If the *user* decides no further inquiry is warranted after receiving no response, an answer of unknown, or an affirmative answer, the *user* must document the reasons for any such conclusion.

5.6.1 Upon obtaining an affirmative answer, an answer of unknown or no response, the *user* should first refer to the guide. The guide may provide sufficient explanation to allow a *user* to conclude that no further inquiry is appropriate with respect to the particular question.

5.6.2 If the guide to a particular question does not, in itself, permit a *user* to conclude that no further inquiry is appropriate, then the *user* should consider other information obtained from the *transaction screen process* relating to this question. For example, while on the site performing a *site visit*, a person may find a storage tank on the *property* and therefore answer Question 10 of the *transaction screen questionnaire* in the affirmative. However, during or subsequent to the *owner/occupant* inquiry, the *owner* may establish that substances now or historically contained in the tank (for example, water) are not likely to cause contamination.

5.6.3 If either the guide to the question or other information obtained during the *transaction screen process* does not permit a *user* to conclude no further inquiry is appropriate with respect to such question, then the *user* must determine, in the exercise of the *user's* reasonable business judgment, based upon the totality of unresolved affirmative answers or answers of unknown received during the *transaction screen process*, whether further inquiry may be limited to those specific issues identified as of concern.

5.7 *Presumption*—A presumption exists that further inquiry is necessary if an affirmative answer is given to a question or because the answer was unknown or no response was given. In rebutting this presumption, the *user* should evaluate information obtained from each component of the *transaction screen process* and consider whether sufficient information has been obtained to conclude that no further inquiry is necessary. The *user* must determine, in the exercise of the *user's* reasonable business judgment, the scope of such further inquiry.

5.8 *Further Inquiry*—Upon completing the *transaction screen questionnaire*, if the *user* concludes that further inquiry or action is needed (for example, consult with an environmental consultant, contractor, governmental authority, or perform additional governmental and/or historical records review), the *user* should proceed with such inquiry. (Note that if the *user* determines to proceed with a Phase I Environment Site Assessment, the *user* may apply the current Practice E1527, Practice E2247, or alternatively the provisions of EPA's regulation "Standards and Practices for All Appropriate Inquiries," 40 C.F.R. Part 312.)

5.9 *Signature*—The *user* and the *preparer* of the *transaction screen questionnaire* must complete and sign the questionnaire as provided at the end of the questionnaire.

6. Transaction Screen Questionnaire

6.1 *Persons to Be Questioned*—The following questions should be asked of (1) the current *owner* of the *property*, (2) any major *occupant* of the *property* or, if the *property* does not have any major *occupants*, at least 10 % of the *occupants* of the *property*, and (3) in addition to the current *owner* and the *occupants* identified in (2), any *occupant* likely to be using, treating, generating, storing, or disposing of *hazardous substances* or *petroleum products* on or from the *property*. A major *occupant* is any *occupant* using at least 40 % of the leasable area of the *property* or any anchor tenant when the *property* is a shopping center. In a multifamily *property* containing both residential and commercial uses, the *preparer* does not need to ask questions of the residential *occupants*. The *preparer* should ask each person to answer all questions to the best of the respondent's *actual knowledge* and in good faith. When completing the *site visit* column, the *preparer* should be sure to observe the *property* and any buildings and other structures on the *property*. The guide to this *transaction screen questionnaire* (see Sections 7 – 10) provides further details on the appropriate use of this questionnaire. (See Note 1.)

NOTE 1—Unk = "unknown" or "no response."

Description of Site/Address:

Question	Owner			Occupants (if applicable)			Observed During Site Visit	If yes, provide description
1a. Is the <i>property</i> used for an industrial use?	Yes	No	Unk	Yes	No	Unk	Yes	No
1b. Is any <i>adjoining property</i> used for an industrial use?	Yes	No	Unk	Yes	No	Unk	Yes	No
2a. Did you observe evidence or do you have any prior knowledge that the <i>property</i> has been used for an industrial use in the past?	Yes	No	Unk	Yes	No	Unk	Yes	No

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
	Yes	No	Unk	Yes	No	Unk	Yes	No	
2b. Did you observe evidence or do you have any prior knowledge that any <i>adjoining property</i> has been used for an industrial use in the past?	Yes	No	Unk	Yes	No	Unk	Yes	No	
3a. Is the <i>property</i> used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk	Yes	No	Unk	Yes	No	
3b. Is any <i>adjoining property</i> used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk	Yes	No	Unk	Yes	No	
4a. Did you observe evidence or do you have any prior knowledge that the <i>property</i> has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk	Yes	No	Unk	Yes	No	
4b. Did you observe evidence or do you have any prior knowledge that any <i>adjoining property</i> has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?	Yes	No	Unk	Yes	No	Unk	Yes	No	
5a. Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the <i>property</i> or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	No	
5b. Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the <i>property</i> or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	No	
6a. Are there currently any industrial <i>drums</i> (typically 55 gal (208 L)) or <i>sacks</i> of chemicals located on the <i>property</i> or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	No	

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
	Yes	No	Unk	Yes	No	Unk	Yes	No	
6b. Did you observe evidence or do you have any prior knowledge that there have been previously any industrial <i>drums</i> (typically 55 gal (208 L)) or sacks of chemicals located on the <i>property</i> or at the facility?	Yes	No	Unk	Yes	No	Unk	Yes	No	
7a. Did you observe evidence or do you have any prior knowledge that <i>fill dirt</i> has been brought onto the <i>property</i> that originated from a contaminated site?	Yes	No	Unk	Yes	No	Unk	Yes	No	
7b. Did you observe evidence or do you have any prior knowledge that <i>fill dirt</i> has been brought onto the <i>property</i> that is of an unknown origin?	Yes	No	Unk	Yes	No	Unk	Yes	No	
8a. Are there currently any <i>pits</i> , <i>ponds</i> , or <i>lagoons</i> located on the <i>property</i> in connection with waste treatment or waste disposal?	Yes	No	Unk	Yes	No	Unk	Yes	No	
8b. Did you observe evidence or do you have any prior knowledge that there have been previously, any <i>pits</i> , <i>ponds</i> , or <i>lagoons</i> located on the <i>property</i> in connection with waste treatment or waste disposal?	Yes	No	Unk	Yes	No	Unk	Yes	No	
9a. Is there currently any stained soil on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	
9b. Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	
10a. Are there currently any registered or unregistered storage tanks (above or underground) located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	
10b. Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	
11a. Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the <i>property</i> or adjacent to any structure located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	
11b. Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the <i>property</i> or adjacent to any structure located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	
12a. Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings, or exposed grounds on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
	Yes	No	Unk	Yes	No	Unk	Yes	No	
12b. Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring drains, walls, ceilings or exposed grounds on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	
13a. If the <i>property</i> is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?	Yes	No	Unk	Yes	No	Unk	Yes	No	
13b. If the <i>property</i> is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environmental/health agency?	Yes	No	Unk	Yes	No	Unk	Yes	No	
14. Does the <i>owner</i> or <i>occupant</i> of the <i>property</i> have any knowledge of <i>environmental liens</i> or governmental notification relating to past or recurrent violations of environmental laws with respect to the <i>property</i> or any facility located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk			
15a. Has the <i>owner</i> or <i>occupant</i> of the <i>property</i> been informed of the past existence of <i>hazardous substances</i> or <i>petroleum products</i> with respect to the <i>property</i> or any facility located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk			
15b. Has the <i>owner</i> or <i>occupant</i> of the <i>property</i> been informed of the current existence of <i>hazardous substances</i> or <i>petroleum products</i> with respect to the <i>property</i> or any facility located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk			
15c. Has the <i>owner</i> or <i>occupant</i> of the <i>property</i> been informed of the past existence of environmental violations with respect to the <i>property</i> or any facility located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk			
15d. Has the <i>owner</i> or <i>occupant</i> of the <i>property</i> been informed of the current existence of environmental violations with respect to the <i>property</i> or any facility located on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk			
16. Does the <i>owner</i> or <i>occupant</i> of the <i>property</i> have any knowledge of any <i>environmental site assessment</i> of the <i>property</i> or facility that indicated the presence of <i>hazardous substances</i> or <i>petroleum products</i> on, or contamination of, the <i>property</i> or recommended further assessment of the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk			

Question	Owner			Occupants (if applicable)			Observed During Site Visit		If yes, provide description
	Yes	No	Unk	Yes	No	Unk	Yes	No	
17. Does the <i>owner</i> or <i>occupant</i> of the <i>property</i> know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any <i>hazardous substance</i> or <i>petroleum products</i> involving the <i>property</i> by any <i>owner</i> or <i>occupant</i> of the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk			
18a. Does the <i>property</i> discharge <i>waste-water</i> (not including sanitary waste or storm water) onto or adjacent to the <i>property</i> and/or into a storm water system?	Yes	No	Unk	Yes	No	Unk	Yes	No	
18b. Does the <i>property</i> discharge waste water (not including sanitary waste or storm water) onto or adjacent to the <i>property</i> and/or into a sanitary sewer system?	Yes	No	Unk	Yes	No	Unk	Yes	No	
19. Did you observe evidence or do you have any prior knowledge that any <i>hazardous substances</i> or <i>petroleum products</i> , unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the <i>property</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	
20. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of <i>PCBs</i> ?	Yes	No	Unk	Yes	No	Unk	Yes	No	

Government Records/Historical Sources Inquiry

(See guide, Section 10, and Practice E1527)

21. Do any of the following federal, state, or tribal government record systems list the *property* or any *property* within the search distance noted below (where available):

	Approximate Minimum Search Distance, miles (kilometres)	Yes	No
Federal <i>NPL</i> site list	1.0 (1.6)	Yes	No
Federal Delisted <i>NPL</i> site list	0.5 (0.8)	Yes	No
Federal CERCLIS list	0.5 (0.8)	Yes	No
Federal CERCLIS NFRAP site list	0.5 (0.8)	Yes	No
Federal RCRA CORRACTS facilities list	1.0 (1.6)	Yes	No
Federal RCRA non-CORRACTS TSD Facilities list	0.5 (0.8)	Yes	No
Federal <i>RCRA generators list</i>	<i>property and adjoining properties</i>	Yes	No
Federal institutional control/engineering control registries	<i>property only</i>	Yes	No
Federal <i>ERNS list</i>	<i>property only</i>	Yes	No
State and tribal lists of <i>hazardous waste sites</i> identified for investigation or remediation:			
State-and tribal-equivalent <i>NPL</i>	1.0 (1.6)	Yes	No
State-and tribal-equivalent CERCLIS	0.5 (0.8)	Yes	No
State-and tribal- <i>landfill</i> and/or <i>solid waste disposal site lists</i>	0.5 (0.8)	Yes	No
State-and tribal-leaking storage tank lists	0.5 (0.8)	Yes	No
State and tribal registered storage tank lists	<i>property and adjoining properties</i>	Yes	No
State and tribal <i>institutional control/engineering control registries</i>	<i>property only</i>	Yes	No
State and tribal voluntary cleanup sites	0.5 (0.8)	Yes	No
State and tribal Brownfield sites	0.5 (0.8)	Yes	No

22. Based upon a review of *fire insurance maps*, *local street directories*, or *aerial photographs*, all as specified in the guide (10.2.1), are any buildings or other improvements on the *property* or on an *adjoining property* identified as having been used for an industrial use or that could possibly lead to contamination of the *property*?

Yes No Unavailable

Result: _____

The *Owner* questionnaire answers were provided was completed by:

Name
Title
Firm
Address

Phone number
Date
Role(s) at the site
Number of years at the site
Relationship to *user* (for example, principal, employee, agent, consultant)

The *Occupant* questionnaire answers were provided by:

Name
Title
Firm
Address

Phone number
Date
Role(s) at the site
Number of years at the site
Relationship to *user* (for example, principal, employee, agent, consultant)

The *Site Visit* questionnaire was completed by:

Name
Title
Firm
Address

Phone number
Date
Relationship to site
Relationship to *user* (for example, principal, employee, agent, consultant)

The *Government Records and Historical Sources Inquiry* questionnaire was completed by:

Name
Title
Firm
Address

Phone number
Date
Relationship to site
Relationship to *user* (for example, principal, employee, agent, consultant)

User's relationship to the site (for example, *owner*, prospective purchaser, lender, etc.)

If the *preparer(s)* is different from the *user*, complete the following:

Name of *User*
User's address

User's phone number

Copies of the completed questionnaires have been filed at:

Copies of the completed questionnaires have been mailed or delivered to:

Preparer represents that to the best of the *preparer's* knowledge the above statements and facts are true and correct and to the best of the *preparer's actual knowledge* no material facts have been suppressed or misstated.

Signature _____ Date _____
Signature _____ Date _____
Signature _____ Date _____

If the *user* is different from the *preparer(s)*, the *user* shall sign below affirming that the completed questionnaire has been received. *It is the user's responsibility to draw conclusions regarding affirmative or unknown answers.*

Signature _____ Date _____

7. Guide to Transaction Screen Questionnaire

7.1 The following sets forth the guide to the *transaction screen questionnaire*. The guide accompanies the *transaction screen questionnaire* to assist the *preparer* in completing the questionnaire. Questions found in the *transaction screen questionnaire* are repeated in the guide.

7.2 If the *preparer* completing the *transaction screen questionnaire* is familiar with the guide from prior usage, the questionnaire may be completed without reference to the guide.

7.3 The *site visit* portion of the guide considers most of the same questions set forth in the guide to *owner/occupant* inquiry because the *transaction screen process* requires both questions of *owners* and *occupants* of the *property* and observations of the *property* by the *preparer*.

7.4 Prior *transaction screen* usage procedures are contained in the guide to *owner/occupant* inquiry and the guide to government records/historical sources inquiry. The information supplied in connection with the *site visit* portion of a prior *transaction screen* may be used for guidance, but may not be relied upon without determining through a new *site visit* whether any conditions that are material to potential environmental concerns in connection with the *property* have changed since the prior *transaction screen*. Therefore, the guide to the *site visit* does not contain any prior assessment procedures.

7.5 In performing the *site visit* portion of the *transaction screen process*, the *preparer* should *visually and physically observe* the *property* and any structure located on the *property* to the extent not obstructed by bodies of water, cliffs, adjacent buildings, or other impassable obstacles.

7.5.1 The periphery of the *property* should be *visually and physically observed*, as well as the periphery of all structures on the *property*, and the *property* should be viewed from all adjacent public thoroughfares. Any overgrown areas should be inspected, including roads or paths with no apparent outlet that should be *visually and physically observed* to their ends.

7.5.2 On the interior of structures on the *property*, accessible common areas expected to be used by building *occupants* or the public (such as lobbies, hallways, utility rooms, and recreation areas), a representative sample of *owner* and *occupant* spaces, and maintenance and repair areas, including boiler rooms, should be *visually and physically observed*. It is not necessary to look under floors, above ceilings, or behind walls.

7.5.3 After completing the *site visit*, the *preparer* of the *transaction screen questionnaire* may obtain “yes” answers that require the *preparer* once again to ask questions of the *owner* of the *property* or *occupants* of the *property* to satisfy the *user* that no further inquiry is necessary.

7.6 In addition to asking questions of the *owner* of the *property* and *occupants* of the *property* (Section 8) and *visually and physically observing* the *property* (Section 9), the *user* completing the *transaction screen process* should determine, either from governmental agencies or through commercial services providing government environmental records, whether certain known or suspected contaminated sites or activities involving the release of *hazardous substances* or *petroleum products* has occurred on or near the *property*. See Section 10.

7.6.1 These records may be obtained either directly from the government agencies or from commercial services that provide the records for a fee. Because of the numerous sources that must be searched and the response time of government agencies, commercial services are available that provide a single source for federal and state records.

7.6.2 If government information is obtained from a commercial service, the firm should provide assurances that its records stay current with the government agency record sources. Government information obtained from non-government 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 updated information available to the public.

7.6.3 The identity of firms providing this type of government information may be obtained through local telephone directories or through an inquiry of *environmental professionals* in the area of the *preparer* completing the *transaction screen questionnaire*.

8. Guide for Owner/Occupant Inquiry

8.1 Is the *property* used for an industrial use?
 Yes No Unknown

8.1.1 Is any *adjoining property* used for an industrial use?
 Yes No Unknown

	Land Use
Property:	
Adjoining properties north:	
Adjoining properties south:	
Adjoining properties east:	
Adjoining properties west:	

8.1.2 *Guide:*

8.1.2.1 It is recommended that the *preparer* describe the use of the *property* and *adjoining properties*.

8.1.2.2 Certain industrial uses on the *property* may raise concerns regarding the possibility of contamination affecting the *property*. For purposes of the *transaction screen questionnaire*, an industrial use is an activity requiring the application of labor and capital for the production or distribution of a product or article, including, without limitation, manufacturing, processing, extraction, refining, warehousing, transportation, and utilities. Manufacturing is defined as a process or operation of producing by hand, machinery, or other means a finished product or article from raw material. Industrial uses may be categorized as light or heavy industrial uses, depending upon the scale of the operations and the impact upon surrounding *property* in terms of smoke, fumes, and noise. Regardless of such categorization, the concern for purposes of the *transaction screen process* is whether the use involves the processing, storage, manufacture, or transportation of *hazardous substances* or *petroleum products*. For example, further inquiry would be necessary if the industrial use concerned the

manufacture of paints, oils, *solvents*, and other chemical products but not if the use concerned the storage of inert goods in containers.

8.1.2.3 To use the information supplied in response to this question in a prior *transaction screen*, the *preparer* must determine if there were changes in the use of the *property* or any adjoining *property* since the prior *transaction screen* that are material to *potential environmental concerns* in connection with the *property*. If not, using information in the prior *transaction screen* is appropriate. If so, the information requested must be supplied for each *property* for which the use has so changed.

8.2 Did you observe evidence or do you have any prior knowledge that the *property* has been used for an industrial use in the past?

Yes No Unknown

8.2.1 Did you observe evidence or do you have any prior knowledge that any *adjoining property* has been used for an industrial use in the past?

Yes No Unknown

8.2.2 *Guide*—See guide for question 8.1.

	Owner	Use	Dates
Previous use of property	_____	_____	_____
Previous use of properties to north	_____	_____	_____
Previous use of properties to south	_____	_____	_____
Previous use of properties to east	_____	_____	_____
Previous use of properties to west	_____	_____	_____

8.3 Is the *property* used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard, or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

Yes No Unknown

8.3.1 Is any *adjoining property* used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

Yes No Unknown

	Land Use
Property:	_____
Adjoining properties north:	_____
Adjoining properties south:	_____
Adjoining properties east:	_____
Adjoining properties west:	_____

8.3.2 *Guide*:

8.3.2.1 It is recommended that the *preparer* describe the uses of the *property* and *adjoining properties*.

8.3.2.2 Gasoline stations, motor vehicle repair facilities (with or without supplying gas for the motor vehicles), dry cleaners, photo developing laboratories, commercial printing

facilities, junkyards or *landfills*, and waste treatment, storage, disposal, processing, or recycling facilities all involve the use of *hazardous substances* or *petroleum products* and therefore require further inquiry concerning the possible release of such substances.

8.3.2.3 To rely on the information supplied in response to this question in a prior *transaction screen*, the *preparer* must determine if there were changes in the use of the *property* or any *adjoining property* since the prior *transaction screen* that are material to *potential environmental concerns* in connection with the *property*. If not, then use of information in the prior *transaction screen* is appropriate. If so, the information requested must be supplied for each *property* for which the use has so changed.

8.4 Did you observe evidence or do you have any prior knowledge that the *property* has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or *landfill*, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

Yes No Unknown

8.4.1 Did you observe evidence or do you have any prior knowledge that any *adjoining property* has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or *landfill*, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

Yes No Unknown

8.4.2 *Guide*—See guide for question 8.3.

	Owner	Use	Dates
Previous use of property	_____	_____	_____
Previous use of properties to north	_____	_____	_____
Previous use of properties to south	_____	_____	_____
Previous use of properties to east	_____	_____	_____
Previous use of properties to west	_____	_____	_____

LAND ISSUES

8.5 Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the *property* or at the facility?

Yes No Unknown

8.5.1 Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the *property* or at the facility?

Yes No Unknown

8.5.2 *Guide*:

8.5.2.1 Are there any containers on the site that may contain any of these items or *petroleum products*? Is there any reason to suspect that chemicals or *hazardous substances* in such quantities or *petroleum products* may be stored on the site?

Sheltered areas, cartons, sacks, storage bins, large canisters, sheds, or cellars of existing improvements are examples of containers and areas where chemicals or *hazardous substances* or *petroleum products* may be stored. If the answer to this question is “yes,” list the items and the location(s) where they are stored. If unfamiliar with the contents of any container located on the site, the question must be answered “yes” until the materials are identified.

8.5.2.2 *Hazardous substances* may often be unmarked. The preparer should never open any containers that are unmarked because they may contain explosive materials or acids.

8.5.2.3 Consumer products in undamaged containers used for routine office maintenance or business, such as copy toner, should not create a need for further inquiry unless the quantity of such products is in excess of what would be customary for such use. The Environmental Protection Agency has published a guidance document that identifies *hazardous substances* that must be reported under Sections 311 and 312 of EPCRA.⁷

8.5.2.4 A preparer should not rely exclusively upon a prior *transaction screen* in supplying this information.

8.6 Are there currently any industrial *drums* (typically, 55 gal (208 L)) or sacks of chemicals located on the *property* or at the facility?

Yes No Unknown

8.6.1 Did you observe evidence or do you have any prior knowledge that there have been previously any industrial *drums* (typically 55 gal (208 L)) or sacks of chemicals located on the *property* or at the facility?

Yes No Unknown

8.6.2 *Guide:*

8.6.2.1 Chemicals are frequently stored in large 55-gal (208-L) *drums* and dry chemicals are often stored in 20-lb (9-kg) sacks. See **Appendix X1** for examples of 55-gal (208-L) *drums* and for surface staining resulting from improper *drum* storage.

8.6.2.2 A preparer should not rely exclusively upon a prior *transaction screen* in supplying this information.

8.7 Did you observe evidence or do you have any prior knowledge that *fill dirt* has been brought onto the *property* that originated from a contaminated site?

Yes No Unknown

8.7.1 Did you observe evidence or do you have any prior knowledge that *fill dirt* has been brought onto the *property* that is of an unknown origin?

Yes No Unknown

8.7.2 *Guide:*

8.7.2.1 The origin of *fill dirt* brought onto the *property* should be investigated to determine whether such dirt originated from a contaminated site. The term *fill dirt* is defined in the definitions and the preparer should refer to the definitions if the preparer has any question concerning the meaning of the term.

8.7.2.2 If any structures have been demolished on the *property*, the preparer should investigate whether the structures were demolished in place and *fill dirt* compacted over them because such *demolition debris* may contain asbestos or *hazardous substances*.

8.7.2.3 To use the information supplied in response to this question in a prior *transaction screen*, the preparer must determine if there has been any filling at the site since the prior *transaction screen*. If not, then using information in the prior *transaction screen* is appropriate. If so, the information requested must be supplied for any *fill dirt* brought on the *property* since the prior *transaction screen*.

8.8 Are there currently any *pits, ponds, or lagoons* located on the *property* in connection with waste treatment or waste disposal?

Yes No Unknown

8.8.1 Did you observe evidence or do you have any prior knowledge that there have been previously, any *pits, ponds, or lagoons* located on the *property* in connection with waste treatment or waste disposal?

Yes No Unknown

8.8.2 *Guide:*

8.8.2.1 The presence of *pits, ponds, or lagoons*, together with waste treatment or waste disposal may indicate contaminated *property*. See the definitions with respect to the definition of *pits, ponds, or lagoons* in **3.2.34**.

8.8.2.2 A preparer should not rely exclusively upon a prior *transaction screen* in supplying this information.

8.9 Is there currently any stained soil on the *property*?

Yes No Unknown

8.9.1 Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the *property*?

Yes No Unknown

8.9.2 *Guide:*

8.9.2.1 Stained soils are frequently associated with contamination and often are an indication of either current or previous leakage associated with piping and liquid storage containers. Soils that are stained show a marked discoloration as compared to other soils in the immediate vicinity.

8.9.2.2 A preparer should not rely exclusively upon a prior *transaction screen* in supplying this information.

8.10 Are there currently any registered or unregistered storage tanks (above or underground) located on the *property*?

Yes No Unknown

8.10.1 Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the *property*?

Yes No Unknown

8.10.2 *Guide:*

8.10.2.1 Tanks are often used to store heating fuels, chemicals, and *petroleum products*; while tanks may be associated with the storage of chemicals, they are most often associated with liquid fuel heating systems (for example, oil furnaces).

⁷ EPA, List Of Lists—Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and Section 112(f) of the Clean Air Act, EPA 550-B-12-003 (Oct. 2012).

8.10.2.2 To use the information supplied in response to this question in a prior *transaction screen*, the *user* must determine if there were storage tanks installed on the site since the prior *transaction screen*. If not, then using information in the prior *transaction screen* is appropriate. If so, the information requested must be supplied on all storage tanks installed on the site since the prior *transaction screen*.

8.11 Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?
 Yes No Unknown

8.11.1 Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?
 Yes No Unknown

8.11.2 *Guide:*

8.11.2.1 Vent or fill pipes often signal the current or previous existence of *underground storage tanks*.

8.11.2.2 Additionally, in answering this question the *owner* and occupant should consider any asphalt or concrete patching that would indicate the possibility of previous *underground storage tank* removal. Examples of vent and fill pipes are illustrated in [Appendix X1](#).

8.11.2.3 A *preparer* should not rely exclusively upon a prior *transaction screen* in supplying this information.

STRUCTURE ISSUES

8.12 Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings or exposed grounds on the *property*?
 Yes No Unknown

8.12.1 Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings or exposed grounds on the *property*?
 Yes No Unknown

8.12.2 *Guide:*

8.12.2.1 Stains (other than water stains) or foul odors may indicate leaks or spills of *hazardous substances* or *petroleum products* or other contaminants. Floor drains located within a building adjacent to *hazardous substance* storage areas or connected to an on-site disposal system (for example, septic system) present a potential source of subsurface discharge of contaminants.

8.12.2.2 A *preparer* should not rely exclusively upon a prior *transaction screen* in supplying this information.

OTHER ISSUES

8.13 If the *property* is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?
 Yes No Unknown

8.13.1 If the *property* is served by a private well or non-public water system, is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environmental/health agency?
 Yes No Unknown

8.13.2 *Guide:*

8.13.2.1 Private wells and non-public water systems are not monitored daily for water quality as municipal systems are monitored. If the system is private, it probably has been tested for contamination or evidence that it is free from contamination, and the results of any such tests should be produced by the *owner* or occupant of the well. The *preparer* is not required to test the water system to conduct the *transaction screen*.

8.13.2.2 A *preparer* should not rely exclusively upon a prior *transaction screen* in supplying this information.

8.14 Does the *owner* or occupant of the *property* have any knowledge of *environmental liens* or governmental notification relating to past or recurrent violations of environmental laws with respect to the *property* or any facility located on the *property*?
 Yes No Unknown

8.14.1 *Guide:*

8.14.1.1 In most cases, the federal or state government will notify the *property owner* prior to filing a lien on the *property*. Sections 302, 311, 312, and 313 of EPCRA (42 U.S.C. §§11002, 11021-23) and other provisions of federal and state environmental laws establish reporting requirements with respect to businesses storing or using *hazardous substances* in excess of certain quantities. These businesses should be making periodic reports to a federal, state, or local environmental department, agency, or bureau. The government may periodically inspect such facilities to ensure compliance with environmental laws. In the event of a release of a reportable quantity within a 24-h period (as defined in CERCLA and the regulations promulgated pursuant to CERCLA), the person in charge of the facility is obligated to notify the U.S. EPA of the release. Any notification or response by any governmental entity will be in writing.

8.14.1.2 The information supplied in response to this question in a prior *transaction screen* may be used provided it is updated to the present time.

8.15 Has the *owner* or *occupant* of the *property* been informed of the past existence of *hazardous substances* or *petroleum products* with respect to the *property* or any facility located on the *property*?
 Yes No Unknown

8.15.1 Has the *owner* or *occupant* of the *property* been informed of the current existence of *hazardous substances* or *petroleum products* with respect to the *property* or any facility located on the *property*?
 Yes No Unknown

8.15.2 Has the *owner* or *occupant* of the *property* been informed of the past existence of environmental violations with respect to the *property* or any facility located on the *property*?
 Yes No Unknown

8.15.3 Has the *owner* or *occupant* of the *property* been informed of the current existence of environmental violations

with respect to the *property* or any facility located on the *property* ?

Yes No Unknown

8.15.4 *Guide:*

8.15.4.1 Consider whether any *environmental professionals* familiar with *hazardous substances* or *petroleum products* have observed or determined that contamination existed on the *property*. *Hazardous substances* or *petroleum products* from the *property* may have affected soils, air quality, water quality, or otherwise affected structures located on the *property*.

8.15.4.2 The information supplied in response to this question in a prior *transaction screen* may be used provided it is updated to the present time.

8.16 Does the *owner* or *occupant* of the *property* have any knowledge of any *transaction screen* for the *property* or facility that indicated the presence of *hazardous substances* or *petroleum products* on, or contamination of, the *property* or recommended further assessment of the *property*?

Yes No Unknown

8.16.1 *Guide:*

8.16.1.1 Copies of *reasonably ascertainable* prior *transaction screens* of the *property* or any portion thereof should be obtained and examined to determine whether further action or inquiry is necessary in connection with any environmental problems raised by a prior *transaction screen*.

8.16.1.2 The information supplied in response to this question in a prior *transaction screen* may be used provided it is updated to the present time.

8.17 Does the *owner* or *occupant* of the *property* know of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any *hazardous substance* or *petroleum products* involving the *property* by any *owner* or occupant of the *property*?

Yes No Unknown

8.17.1 *Guide:*

8.17.1.1 The *user* is not required to make an independent investigation or search of records on file with a court or public agency in answering this question; this question is to be answered by the *owner* or *occupant* based upon their respective *actual knowledge* and review of *reasonably ascertainable* records in their possession.

8.17.1.2 The information supplied in response to this question in a prior *transaction screen* may be used provided it is updated to the present time.

8.18 Does the *property* discharge *wastewater* (not including sanitary waste or storm water) onto or adjacent to the *property* and/or into a storm water system?

Yes No Unknown

8.18.1 Does the *property* discharge *wastewater* (not including sanitary waste or storm water) onto or adjacent to the *property* and/or into a sanitary sewer system?

Yes No Unknown

8.18.2 *Guide:*

8.18.2.1 The *owner* and each *occupant* should be asked where drain traps lead and the purpose of drainage pipes at the facility. The reference to *wastewater* does not include domestic sewage.

8.18.2.2 To use the information supplied in response to this question in a prior *transaction screen*, the *preparer* must determine if there was any change in discharge practices at the facility since the prior *transaction screen*. If not, using information in the prior *transaction screen* is appropriate. If so, the information requested must be supplied for all new or changed discharge practices.

8.18.2.3 Some jurisdictions require facilities with large roof or paved areas and construction sites to collect and divert runoff through a treatment process prior to discharging the stormwater runoff to municipal, separate storm sewer systems, or the waters of the United States. Such units are often called stormwater treatment systems. Oil-water separators are most often found outside a building under a manhole and require routine servicing to remove oil. Oil-water separators are usually in restaurants, repair garages, and service stations. An example of an oil-water separator is shown in **Appendix X1**. If any such oil-water separators or treatment systems have been installed at the *property* since a prior *transaction screen*, the requested information must be supplied for each new installation.

8.19 Did you observe evidence or do you have any prior knowledge that any *hazardous substances* or *petroleum products*, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned on the *property*?

Yes No Unknown

8.19.1 *Guide:*

8.19.1.1 Past waste disposal practices should be examined because these may have resulted in *hazardous substances* or *petroleum products* being released on the *property*. Does the *property* evidence any mounds or depressions that suggest a disposal site?

8.19.1.2 To use the information supplied in response to this question in a prior *transaction screen*, the *preparer* must determine if there was any dumping, burying, or burning of such materials at the site since the prior *transaction screen*. If not, then using information in the prior *transaction screen* is appropriate. If so, the information requested must be supplied for all such events since the prior *transaction screen*.

8.20 Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?

Yes No Unknown

8.20.1 *Guide:*

8.20.1.1 *PCBs* are regulated by the Toxic Substances Control Act (15 U.S.C. §2601 *et seq.*). The provisions of CERCLA may apply if there is a release of *PCBs*. Accordingly, if an affirmative answer is obtained to this question, the further focus should be on whether there have been any instances of insulating oil leakage and, if so, whether these are suspected of being *PCB* or *PCB*-contaminated.

8.20.1.2 Transformers containing *PCBs* may have many different sizes and shapes. Some of the more commonly used transformers are set forth in **Appendix X1**. Transformers are to be registered pursuant to 40 C.F.R. §761.30.

8.20.1.3 Elevators and auto lifts are often run by hydraulically controlled systems containing *PCBs*. If inspection or

maintenance records for the elevator, capacitor, or other hydraulic equipment indicate no release has occurred or that regular, scheduled maintenance has taken place and the machinery does not appear to be damaged or leaking, no further inquiry is required.

8.20.1.4 To use the information supplied in response to this question in a prior *transaction screen*, the *preparer* must determine if there were any transformers installed at the site since the prior *transaction screen* that are not owned by a utility, cooperative, or association. If not, then using information in the prior *transaction screen* is appropriate, except that for any transformer identified in the prior *transaction screen*, the *PCB* status should be updated. If new transformers have been installed, their *PCB* status should also be verified.

9. Guide to Site Visit

9.1 Is the *property* used for an industrial use?
 Yes No

9.1.1 Is any *adjoining property* used for an industrial use?
 Yes No

	Land Use
Property:	_____
Adjoining properties north:	_____
Adjoining properties south:	_____
Adjoining properties east:	_____
Adjoining properties west:	_____

9.1.2 *Guide:*

9.1.2.1 It is recommended that the *preparer* describe the uses of the *property* and *adjoining properties*.

9.1.2.2 Certain industrial uses on the *property* may raise concerns regarding the possibility of contamination affecting the *property*. For purposes of the *transaction screen questionnaire*, an industrial use is an activity requiring the application of labor and capital for the production or distribution of a product or article, including, without limitation, manufacturing, processing, extraction, refining, warehousing, transportation, and utilities. Manufacturing is defined as a process or operation of producing by hand, machinery, or other means, a finished product or article from raw material. Industrial uses may be categorized as light or heavy industrial uses, depending upon the scale of the operations and the impact upon surrounding *property* in terms of smoke, fumes, and noise. Regardless of such categorization, the concern for purposes of the *transaction screen process* is whether the use involves the processing, storage, manufacture, or transportation of *hazardous substances* or *petroleum products*. For example, further inquiry would be necessary if the industrial use concerned the manufacture of paints, oils, *solvents*, and other chemical products but not if the use concerned the storage of inert goods in containers.

9.1.2.3 The term *adjoining properties* means any real *property* or properties the border of which is contiguous or partially contiguous with that of the *property*, or that would be contiguous or partially contiguous with that of the *property* but for a street, road, or other public thoroughfare separating them.

9.2 Did you observe evidence or do you have any prior knowledge that the *property* has been used for an industrial use in the past?

Yes No

9.2.1 Did you observe evidence or do you have any prior knowledge that any *adjoining property* has been used for an industrial use in the past?

Yes No

9.2.2 *Guide:*

9.2.2.1 The *user* should inspect for any indications present on the *property* that would cause the *user* to suspect an industrial facility may once have existed on the site. Old buildings, pipes, containers, or other debris are indicators of previous industrial use of the site.

9.2.2.2 See guide for 9.1.

	Owner	Use	Dates
Previous use of property	_____	_____	_____
Previous use of properties to north	_____	_____	_____
Previous use of properties to south	_____	_____	_____
Previous use of properties to east	_____	_____	_____
Previous use of properties to west	_____	_____	_____

9.3 Is the *property* used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or *landfill*, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

Yes No

9.3.1 Is any *adjoining property* used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or *landfill*, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

Yes No

	Land Use
Property:	_____
Adjoining properties north:	_____
Adjoining properties south:	_____
Adjoining properties east:	_____
Adjoining properties west:	_____

9.3.2 *Guide:*

9.3.2.1 It is recommended that the *preparer* describe the uses of the *property* and *adjoining properties*.

9.3.2.2 Gasoline stations, motor vehicle repair facilities (with or without supplying gas for the motor vehicles), dry cleaners, photo developing laboratories, commercial printing facilities, junkyards or *landfills*, and waste treatment, storage, disposal, processing, or recycling facilities all involve the use of *hazardous substances* or *petroleum products* and therefore require further inquiry concerning the possible release of such substances.

9.3.2.3 The term *adjoining properties* means any real *property* or properties the border of which is contiguous or partially contiguous with that of the *property*, or that would be contiguous or partially contiguous with that of the *property* but for a street, road, or other public thoroughfare separating them. *Adjoining properties* include those that border the *property* and include properties across the street or any right of way from the *property*.

9.4 Did you observe evidence or do you have any knowledge that the *property* has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or *landfill*, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

Yes No

9.4.1 Did you observe evidence or do you have any prior knowledge that any *adjoining property* has been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or *landfill*, or as a waste treatment, storage, disposal, processing, or recycling facility (if applicable, identify which)?

Yes No

9.4.2 *Guide*—See guide for 9.2 and 9.3.

	Owner	Use	Dates
Previous use of property	_____	_____	_____
Previous use of properties to north	_____	_____	_____
Previous use of properties to south	_____	_____	_____
Previous use of properties to east	_____	_____	_____
Previous use of properties to west	_____	_____	_____

LAND ISSUES

9.5 Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the *property* or at the facility?

Yes No

9.5.1 Did you observe evidence or do you have any prior knowledge that there have been previously any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of >5 gal (19 L) in volume or 50 gal (190 L) in the aggregate, stored on or used at the *property* or at the facility?

Yes No

9.5.2 *Guide*:

9.5.2.1 Are there any containers on the site that may contain any one of these items? Is there any reason to suspect that chemicals or *hazardous substances* or *petroleum products* in such quantities may be stored on the site? Sheltered areas, cartons, sacks, storage bins, large canisters, sheds, or cellars of existing improvements should be investigated because these are areas where chemicals or *hazardous substances* or *petroleum products* may be stored. If the answer to this question is “yes,” list the items and the location(s) where they are stored. If you are unfamiliar with the contents of any container located

on the site, the question must be answered “yes” until the materials are identified. The existence of any damaged or opened containers identified as containing *hazardous substances* or *petroleum products* requires further investigation.

9.5.2.2 *Hazardous substances* or *petroleum products* may often be unmarked. The *preparer* should never open any unmarked containers at the facility because they may contain explosive materials or acids.

9.5.2.3 Consumer products in undamaged containers used for routine office maintenance or business, such as copy toner, should not create a need for further inquiry unless the quantity of such products is in excess of what would be customary for such use. If a *preparer* has a question regarding whether the substance is a *hazardous substance* under CERCLA, the *preparer* may refer to the list of lists or 40 C.F.R. Part 302.⁸

9.6 Are there currently any industrial *drums* (typically, 55 gal (208 L)) or sacks of chemicals located on the *property* or at the facility?

Yes No

9.6.1 Did you observe evidence or do you have any prior knowledge that there have been previously any industrial *drums* (typically 55 gal (208 L)) or sacks of chemicals located on the *property* or at the facility?

Yes No

9.6.2 *Guide*—If found, they will require further examination with respect to any *hazardous substance* associated with them.

9.7 Did you observe evidence or do you have any prior knowledge that *fill dirt* has been brought onto the *property* that originated from a contaminated site?

Yes No

9.7.1 Did you observe evidence or do you have any prior knowledge that *fill dirt* has been brought onto the *property* that is of an unknown origin?

Yes No

9.7.2 *Guide*—*Fill dirt* brought onto the *property* may appear as mounds or depressions that do not appear to be naturally occurring. *Fill dirt* may be added in construction of a facility. The term *fill dirt* is defined in the definitions, and the *preparer* should refer to the definitions if the *preparer* has any question concerning the meaning of the term.

9.8 Are there currently any *pits, ponds, or lagoons* located on the *property* in connection with waste treatment or waste disposal?

Yes No

9.8.1 Did you observe evidence or do you have any prior knowledge that there have been previously, any *pits, ponds, or lagoons* located on the *property* in connection with waste treatment or waste disposal?

Yes No

9.8.2 *Guide*—The presence of *pits, ponds, or lagoons*, together with waste treatment or waste disposal may indicate contaminated *property*. See the definitions with respect to the definition of *pits, ponds, or lagoons* in 3.2.34.

⁸ EPA, List Of Lists—Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and Section 112(r) of the Clean Air Act, EPA 550-B-12-003 (Oct. 2012); see also 40 C.F.R. §302.4.

9.9 Is there currently any stained soil on the *property*?

Yes No

9.9.1 Did you observe evidence or do you have any prior knowledge that there has been previously, any stained soil on the *property* ?

Yes No

9.9.2 *Guide*—Stained soils are frequently associated with contamination and often are an indication of either current or previous leakage associated with piping and liquid storage containers. Soils that are stained show a marked discoloration as compared to other soils in the immediate vicinity.

9.10 Are there currently any registered or unregistered storage tanks (above or underground) located on the *property*?

Yes No

9.10.1 Did you observe evidence or do you have any prior knowledge that there have been previously, any registered or unregistered storage tanks (above or underground) located on the *property*?

Yes No

9.10.2 *Guide*—Tanks are often used to store heating fuels, chemicals, and *petroleum products*; while tanks may be associated with storage of chemicals, they are most often associated with liquid fuel heating systems (that is, oil furnaces). Examples of tanks are illustrated in [Appendix X1](#).

9.11 Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?

Yes No

9.11.1 Did you observe evidence or do you have any prior knowledge that there have been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the *property* or adjacent to any structure located on the *property*?

Yes No

9.11.2 *Guide*—Vent or fill pipes often signal the current or previous existence of *underground storage tanks*. Additionally, observations should be made regarding any asphalt or concrete patching that would indicate the possibility of previous *underground storage tank* removal. Examples of vent and fill pipes are illustrated in [Appendix X1](#).

STRUCTURE ISSUES

9.12 Is there currently evidence of leaks, spills or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings or exposed grounds on the *property*?

Yes No

9.12.1 Did you observe evidence or do you have any prior knowledge that there have been previously any leaks, spills, or staining by substances other than water, or foul odors, associated with any flooring, drains, walls, ceilings or exposed grounds on the *property*?

Yes No

9.12.2 *Guide*—Stains (other than water stains) or foul odors may indicate leaks of *hazardous substances* or *petroleum products* or contaminants. Floor drains located within a building adjacent to *hazardous substance* storage areas or connected

to an on-site disposal system (for example, septic system) present a potential source of subsurface discharge of contaminants.

OTHER ISSUES

9.13 If the *property* is served by a private well or non-public water system, is there evidence or do you have prior knowledge that contaminants have been identified in the well or system that exceed guidelines applicable to the water system?

Yes No

9.13.1 If the *property* is served by a private well or non-public water system is there evidence or do you have prior knowledge that the well has been designated as contaminated by any government environmental/health agency?

Yes No

9.13.2 *Guide*—Evidence of well water generally consists of a 4 to 12-in. (102 to 305-mm) diameter low level pipe protruding from the ground that is capped, as illustrated in [Appendix X1](#).

9.14 Does the *property* discharge *wastewater* (not including sanitary waste or storm water) onto or adjacent to the *property* and/or into a storm water system?

Yes No

9.14.1 Does the *property* discharge *wastewater* (not including sanitary waste or storm water) onto or adjacent to the *property* and/or into a sanitary sewer system?

Yes No

9.14.2 *Guide*:

9.14.2.1 All drain traps and pipes should be examined and their end points should be determined. Any ditches or streams on or adjacent to the site should be *visually and physically observed* for *wastewater* flow.

9.14.2.2 Some jurisdictions require facilities with large roof or paved areas and construction sites to collect and divert such runoff through a treatment process prior to discharging the stormwater runoff to municipal, separate storm sewer systems, or the waters of the United States. Such units are often called stormwater treatment systems. Oil-water separators are most often found outside a building under a manhole and require routine servicing to remove oil. Oil-water separators are usually in restaurants, repair garages, and service stations. An example of an oil-water separator is shown in [Appendix X1](#).

9.15 Did you observe evidence or do you have any prior knowledge that any *hazardous substances* or *petroleum products*, unidentified waste materials, tires, automotive or industrial batteries, or any other waste materials have been dumped above grade, buried and/or burned, on the *property*?

Yes No

9.15.1 *Guide*—Past waste disposal practices should be examined because these may have resulted in *hazardous substances* being released on the *property*. Does the site evidence any mounds or depressions that suggest a disposal site?

9.16 Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs?

Yes No

9.16.1 *Guide*:

9.16.1.1 *PCBs* are regulated by the Toxic Substances Control Act (15 U.S.C. §2601 *et seq.*). The provisions of CERCLA may apply if there is a release of *PCBs*. Accordingly, if an affirmative answer is obtained to this question, the further focus should be on whether there have been any instances of insulating oil leakage and, if so, whether these are suspected of being *PCB* or *PCB*-contaminated.

9.16.1.2 Elevators and auto lifts are often operated by hydraulically controlled that may contain *PCBs*. If inspection or maintenance records for the elevator, capacitor, or other hydraulic equipment indicate no release has occurred and the machinery does not appear to be damaged or leaking, no further inquiry is required.

9.16.1.3 Transformers containing *PCBs* may have many different sizes and shapes. Some of the more commonly used transformers are set forth on **Appendix X1**. Transformers are to be registered pursuant to 40 C.F.R. §761.30.

10. Guide to Government Records/Historical Sources Inquiry

10.1 Do any of the following Federal, State, or Tribal government record systems list the *property* or any *property* within the search distance noted below:

Federal NPL Site List—within 1.0 mile (1.6 km)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Federal CERCLIS List—within 0.5 mile (0.8 km)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Federal RCRA CORRACTS Facilities—within 1.0 mile (1.6 km)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Federal RCRA non-CORRACTS TSD Facilities—within 0.5 mile (0.8 km)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
State and tribal leaking storage tank lists—within 0.5 mile (0.8km)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

10.1.1 Guide:

10.1.1.1 If the *preparer* elects to obtain the records directly from government agencies, it may be necessary to request those records through a formal written request to the office within each agency that is responsible for maintaining the records or for responding to public requests for records. Some agency offices will respond to informal requests for records. If a formal request is necessary, these requests at the federal level are governed by the Freedom of Information Act (FOIA). FOIA requires a written request and the request should identify the records the *preparer* requires and should identify the site and geographic area for which the *preparer* needs the records (for example, the address of the site and the appropriate city, county, or zip code to be searched). The request should be directed to the FOIA officer for the regional EPA office responsible for the region in which the site is located. A list of the FOIA offices for each of the EPA regions may be obtained from the federal government or local library. From the federal EPA offices, the *preparer* should anticipate a response no sooner than four to eight weeks.

10.1.1.2 If government information is obtained from a commercial service, the firm should provide assurances that its records stay current with the government agency record sources. Government information obtained from commercial 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 updated information available to the public.

10.1.1.3 The information supplied in response to this question in a prior *transaction screen* may be used provided it is updated to the present time.

10.1.1.4 Although many states do not have specific Freedom of Information laws, if the *preparer* elects to obtain the records directly from government agencies, a similar written request for state records should be made to the primary state agency responsible for environmental regulation in that state. Typically, the office responsible for maintaining the records and for responding to requests for records is the same. Once again, the written request should identify the specific records requested and identify the site and geographic area for which the *preparer* needs the records. The state agency response will vary from state to state and agency to agency, but the *preparer* should anticipate a minimum of four weeks for a response.

10.1.1.5 In some cases, the request should be directed to a specific state office. For example, *leaking underground storage tank* requests should be made through either the state agency's ground water management division, the state Fire Marshall's office, or the state Emergency Planning and Management Agency.

10.1.1.6 The identity of the state office to which the request should be made can be obtained by contacting the primary state environmental agency. Also, there are publications listing agency sources for each state. The local public library may contain these publications.

10.1.1.7 The NPL or National Priorities List is a list compiled by EPA pursuant to CERCLA, 42 U.S.C. §9605(a)(8)(B), of properties with the highest priority for cleanup pursuant to EPA's Hazard Ranking System. See 40 C.F.R. Part 300, Apps. A & B.

10.1.1.8 The *Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS)* is the list of sites compiled by EPA that EPA has investigated or is currently investigating for potential *hazardous substance* contamination for possible inclusion on the *National Priorities List*.

10.1.1.9 *RCRA CORRACTS* is a list of hazardous waste facilities subject to RCRA corrective action. The list of corrective action sites is a subset of EPA's RCRAInfo.

10.1.1.10 The *LUST* list is a list of sites containing one or more *underground storage tanks* that have been identified as having leaked or are potentially leaking their contents into the ground or ground water; these sites may be involved in a state cleanup program.

10.1.1.11 The solid waste/landfill facilities list is a list of sites that currently accept, or have accepted in the past, waste of any kind for disposal on site. Solid waste/landfill facilities lists typically are obtained through a state office of solid waste management that is often a division of the primary state environmental agency.

10.1.1.12 Based upon a review of *fire insurance maps, local street directories, or aerial photographs*, are any buildings or other improvements on the *property* or on an *adjoining property* identified as having been used for an industrial use or uses (such as dry cleaners or gas stations) likely to lead to contamination of the *property*?

Yes No Unavailable

10.2 Guide:

10.2.1 The focus of this research is to determine whether any past use of the *property* would suggest the presence of contamination associated with the *property* due to releases of *hazardous substances* or *petroleum products*. If *reasonably ascertainable*, one of three sources of historical data must be examined: *fire insurance maps*, *local street directories* or historical *aerial photographs*. If the first source examined yields insufficient information from the present back to 1940, then the second source, if *reasonably ascertainable*, must be selected and examined. If this source also yields insufficient information, then the third source, if *reasonably ascertainable*, must be examined. If all three sources yield insufficient information or are not *reasonably ascertainable*, lack of historical information is presumed to be a *potential environmental concern* subject to 5.6 through 5.7. However, if the *user* has first-hand knowledge of the use of the *property* from the present back to 1940 or if the *preparer* interviewed disinterested people with such knowledge, then the *preparer* may eliminate this research and answer “not applicable” to the questions above. In addition, the *preparer* may eliminate this research and answer “unavailable” to the question if the *preparer* is unable to find appropriate sources of *fire insurance maps*, *local street directories*, or *aerial photographs* after making a reasonable effort in good faith to locate such information or if the information is otherwise not *reasonably ascertainable*.

10.2.2 *Fire insurance maps* (defined in 3.2.19) include detailed information regarding town and building information in approximately 12 000 U.S. towns and cities from 1867 to present day. The majority of these maps are in more developed, central business district, urban and suburban areas. *Local street directories* (defined in 3.2.24) are listings (names) of residents, businesses, organizations or institutions, giving their street address in a city and are available in many developed towns, cities and hamlets across the country. Historical *aerial photographs* (defined in 3.2.4) are available for most areas of the country, developed and undeveloped. *Fire insurance maps*, *local street directories* or *aerial photographs* may be available for review from public libraries, colleges, and local historical societies, or from commercial services.

10.2.3 A source is deemed to be sufficient if it covers the *property* and provides relevant information about the likely presence of *hazardous substance* or *petroleum product* releases connected with the *property* from the present back to 1940.

10.2.4 If the *preparer* is unable to find sources of *fire insurance maps*, *local street directories*, or *aerial photographs*, or they are otherwise not *reasonably ascertainable*, after making a reasonable effort in good faith to locate such information, the *preparer* may eliminate this research and answer “unknown” to the question.

10.2.5 Subject to 10.2.1 – 10.2.4, the *preparer* must obtain *fire insurance maps* or *local street directories*, or historical *aerial photographs* for periods not covered by the first-hand

knowledge of the *user* or of those interviewed, or by the source of historical data initially examined.

10.2.6 In examining a *fire insurance map* or *aerial photographs*, the *user* is only required to review those areas shown in the given source. For example, if the *property* is at the edge of a map sheet, the *user* need not order the adjoining sheet. If a source covers a large area, the *user* need only review the area within approximately 1/8 mile (200 m) of the *property*.

10.2.7 *Fire insurance maps* or *local street directories* or *aerial photographs* reviewed as part of a prior *transaction screen* do not need to be searched for or reviewed again, but the *preparer* should make a reasonable effort to determine the uses of the *property* since the last use identified in a prior *transaction screen*.

11. Non-Scope Considerations

11.1 General:

11.1.1 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 (the non-scope considerations). Some substances may be present on a *property* in quantities and under conditions that may lead to contamination of the *property* or of nearby properties but are not included in CERCLA’s definition of *hazardous substances* (42 U.S.C. §9601(14)). In any case, they are beyond the scope of this practice.

11.1.2 Whether or not a *user* elects to inquire into non-scope considerations in connection with this practice or any other *transaction screen*, no assessment of such non-scope considerations is required for appropriate inquiry as defined by this practice.

11.1.3 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.

11.1.4 Following are several non-scope considerations that persons may want to assess in connection with *commercial real estate*. No implication is intended as the relative importance of inquiry into such non-scope considerations, and this list of non-scope considerations is not intended to be all-inclusive:

- 11.1.4.1 Asbestos-containing materials,
- 11.1.4.2 Radon,
- 11.1.4.3 Lead-based paint,
- 11.1.4.4 Lead in drinking water,
- 11.1.4.5 Wetlands,
- 11.1.4.6 Regulatory compliance,
- 11.1.4.7 Cultural and historic resources,
- 11.1.4.8 Industrial hygiene,
- 11.1.4.9 Health and safety,
- 11.1.4.10 Ecological resources,
- 11.1.4.11 Endangered species,
- 11.1.4.12 Indoor air quality,
- 11.1.4.13 High voltage power lines, and
- 11.1.4.14 Mold.

APPENDIX

X1. PHOTOGRAPHS SHOWING EXAMPLES OF POTENTIAL ENVIRONMENTAL CONCERNS FOR USE IN CONNECTION WITH THE STANDARD PRACTICE FOR LIMITED ENVIRONMENTAL DUE DILIGENCE: TRANSACTION SCREEN PROCESS



FIG. X1.1 Indoor chemical and used oil storage in 55-gal (208-L) steel drums.



FIG. X1.3 Typical pole-mounted electrical transformers that may contain PCBs.



FIG. X1.2 Outdoor chemical storage in 55-gal (208-L) plastic and steel drums.



FIG. X1.4 Manhole covers outside a vehicle repair shop leading to a two-stage oil-water separator. Oil-water separators are often located under manholes inside or outside repair garages, oil change facilities, restaurants or at any location where it is necessary to separate oil from water prior to discharge of the water to the sanitary sewer system, an on-site septic system, or to surface waters.



NOTE 1—Floor drains come in various shapes and sizes. Floor drains may lead to the sanitary sewer, the storm sewer, an oil-water separator, an on-site drain field/septic system, surface waters, or discharge directly into the ground below the drain. It is important to know the point of discharge of any floor drain in order to determine if the liquids reaching the floor drain are being properly disposed.

FIG. X1.5 Example of Floor Drain, Example 1



NOTE 1—Floor drains come in various shapes and sizes. Floor drains may lead to the sanitary sewer, the storm sewer, an oil-water separator, an on-site drain field/septic system, surface waters, or discharge directly into the ground below the drain. It is important to know the point of discharge of any floor drain in order to determine if the liquids reaching the floor drain are being properly disposed.

FIG. X1.6 Example of Floor Drain, Example 2



FIG. X1.7 Fill pipe and vent pipe leading to an underground storage tank containing fuel oil in the yard of a single family home.



FIG. X1.9 Fill pipe for an underground storage tank containing fuel oil located on the back porch of a single family home.
Storage Tank



FIG. X1.8 Four vent pipes attached to the exterior wall of a commercial building indicating the presence or former presence of four underground storage tanks nearby.



FIG. X1.10 Staining on the concrete floor from improper storage and dispensing of petroleum products. Heavy staining like this may indicate repeated leaks or spills that could migrate through the concrete to the underlying soils.



NOTE 1—Photograph shows an approximately 8-in. diameter outer well casing in the yard of a home. Releases of chemicals or petroleum products near or into a well can result in the contamination of the groundwater aquifer in which the well is constructed.

FIG. X1.11 Water Supply Well, Example 1



NOTE 1—Photograph shows a manhole-sized access leading to the well casing located in a field near a farm outbuilding. Releases of chemicals or petroleum products near or into a well can result in the contamination of the groundwater aquifer in which the well is constructed.

FIG. X1.12 Water Supply Well, Example 2

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