

**APPENDIX IX**  
PREVIOUS REPORTS

**NO PREVIOUS REPORTS WERE PROVIDED**

**APPENDIX X**  
DEFINITIONS & ACRONYMS

# TABLE 1

## Definitions, Descriptions of Terms, and List of Acronyms

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

**activity and use limitations**—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*.

**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.

**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.

**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 8.3.4.1 of this practice.

**all appropriate inquiry**—that inquiry constituting *all appropriate inquiry* 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 threshold criteria for satisfying the *LLP's* to CERCLA liability (42 U.S.C. §9601(35)(A) & (B), §9607(b)(3), §9607(q); and §9607(r)), assuming compliance with other elements of the defense. See Appendix XI.

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

**Asbestos Containing Material (ACM)**—Regulatory agencies define ACM as a material containing greater than one (1) percent asbestos, however some states (e.g. California) define ACM as materials having 0.1% asbestos. In order to define a homogenous material as non-ACM, a minimum number of samples must be collected from the material dependant upon its type and quantity. Homogenous materials defined as non-ACM must either have 1) no

asbestos identified in all of its samples or 2) an identified asbestos concentration below the appropriate regulatory threshold. Asbestos concentrations are generally determined using polarized light microscopy or transmission electron microscopy. Point counting is an analytical method to statistically quantify the percentage of asbestos in a sample. The asbestos component of ACM may either be friable or non-friable. Friable materials, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure and have a higher potential for a fiber release than non-friable ACM. Non-friable ACM are materials that are firmly bound in a matrix by plastic, cement, etc. and, if handled carefully, will not become friable. Federal and state regulations require that either all suspect building materials be presumed ACM or that an asbestos survey be performed prior to renovation, dismantling, demolition, or other activities that may disturb potential ACM. Notifications are required prior to demolition and/or renovation activities that may impact the condition of ACM in a building. ACM removal may be required if the ACM becomes damaged or is likely to be disturbed or damaged during demolition or renovation. Abatement of friable or potentially friable ACM must be performed by a licensed abatement contractor in accordance with state rules and NESHAP. Additionally, OSHA regulations for work classification, worker training and worker protection will apply.

**Above Ground Storage Tanks (AST)**—ASTs are generally described as storage tanks less than 10% of which are below ground (i.e., buried). Tanks located in a basement, but not buried, are also considered ASTs. Whether, and the extent to which, an AST is regulated, is determined on a case-by-case basis and depends upon tank size, its contents and the jurisdiction of its location.

**Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)**—BTEX are VOC components found in gasoline and commonly used as analytical indicators of a petroleum hydrocarbon release.

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

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

**building department records**—those records of the local government in which the *property* is located indicating permission of the local government to contract, alter, or demolish improvements on the *property*. Often *building department records* are located in the building department of a municipality or county. See 8.3.4.7.

**business environmental risk**—a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of *commercial real estate*, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations, some of which are identified in Section 13.

**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, 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.

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

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**—(a.k.a. Superfund). CERCLA is the federal act that regulates abandoned or uncontrolled hazardous waste sites. Under this Act, joint and several liability may be imposed on potentiality responsible parties for cleanup-related costs.

**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*.

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

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

**contiguous property owner liability protection**—(42 U.S.C. §9607(q))—a person may qualify for the *contiguous property owner liability protection* if, among other requirements, such person owns real *property* that is contiguous to, and that is or may be contaminated by *hazardous* substances from other real *property* that is not owned by that person. Furthermore, such person conducted *all appropriate* inquiry at the time of acquisition of the *property* and did not know or have reason to know that the *property* was or could be contaminated

by a release or threatened release from the contiguous *property*. The *all appropriate* inquiry must not result in knowledge of contamination. If it does, then such person did "know" or "had reason to know" of contamination and would not be eligible for the *contiguous property owner liability protection*. See Appendix XI for the other necessary requirements that are beyond the scope of this practice.

**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.

**data failure**—a failure to achieve the historical re-search objectives in 8.3.1 through 8.3.2.2 even after reviewing the standard historical sources in 8.3.4.1 through 8.3.4.8 that are *reasonably ascertainable* and likely to be useful. *Data failure* is one type of *data gap*. See 8.3.2.3.

**data gap**—a lack of or inability to obtain information required by this practice despite *good faith* efforts by the environmental *professional* to gather such information. *Data gaps* may result from incompleteness in any of the activities required by this practice, including, but not limited to *site reconnaissance* (for example, an inability to conduct the *site visit*), and interviews (for example, an inability to interview the *key site manager*, regulatory officials, etc.). See 12.7.

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

**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*.

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

**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. See Appendix XI.

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

**engineering controls (EC)**—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).

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

are available, may be part of an environmental site assessment.

**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 CERCLA 42 U.S.C. §§9607(1) & 9607(r) and similar state or local laws.

**environmental professional**—a person meeting the education, training, and experience requirements as set forth in 40 CFR §312.10(b). See Appendix X2. The person may be an independent contractor or an employee of the user.

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

**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 CFR Parts 302 and 355.

**Federal Register (FR)**—publication of the United States government published daily (except for federal holidays and weekends) containing all proposed and final regulations and some other activities of the federal government. When regulations become final, they are included in the Code of Federal Regulations (CFR), as well as published in the *Federal Register*.

**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.

**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.

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

**hazardous substance**—a substance defined as a *hazardous substance* pursuant to CERCLA 42 U.S.C. 9601(14), as interpreted by EPA regulations and the courts:" (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (E) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title, (C) any *hazardous waste* having the characteristics identified under or listed pursuant to section 3001 of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, (42 U.S.C. §6921) (but not including any waste the regulation of which

under RCRA (42 U.S.C. §§6901 *et seq.*) has been suspended by Act of Congress), (D) any toxic pollutant listed under section 1317(a) of Title 33, (E) any hazardous air pollutant listed under section 112 of the Clean Air Act (42 U.S.C. §7412), and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator (of EPA) has taken action pursuant to section 2606 of Title 15. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a *hazardous substance* under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas)." (See Appendix XI.)

**hazardous waste**—any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of RCRA, as amended, (42 U.S.C. §6921) (but not including any waste the regulation of which under RCRA (42 U.S.C. §§6901.6992k) has been suspended by Act of Congress). RCRA is sometimes also identified as the Solid Waste Disposal Act. RCRA defines a *hazardous waste*. at 42 U.S.C. §6903, as: "a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may—(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."

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

**HREC (historical recognized environmental condition)**—an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently. The final decision rests with the *environmental professional* and will be influenced by the current impact of the *historical recognized environmental condition* on the *property*. If a past release of any hazardous substances or *petroleum products* has occurred in connection with the *property* and has been remediated, with such remediation accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition shall be considered an *historical recognized environmental condition* and included in the findings section of the Phase I Environmental Site Assessment report. The *environmental professional* shall provide an opinion of the current impact on the *property* of this *historical recognized environmental condition* in the opinion section of the report. If this *historical recognized environmental condition* is determined to be a *recognized environmental condition* at the time the Phase I Environmental Site Assessment is conducted, the condition shall be identified as such and listed in the conclusions section of the report.

**IC/EC registries**—databases of institutional controls or engineering controls that may be maintained by a federal, state or local environmental agency for purposes of tracking sites that may contain residual contamination and AULs. The names for these may vary from program to program and state to state, and include terms such as Declaration of Environmental Use Restriction database (Arizona), list of

"deed restrictions" (California), environmental real covenants list (Colorado), brownfields site list (Indiana, Missouri, Pennsylvania).

**innocent landowner defense**—(42 U.S.C. 889601(35) & 9607(b)(3))—a person may qualify as one of three types of innocent landowners: (i) a person who "did not know and had no reason to know" that contamination existed on the *property* at the time the purchaser acquired the *property*; (ii) a government entity which acquired the *property* by escheat, or through any other involuntary transfer or acquisition, or through the exercise of eminent domain authority by purchase or condemnation; and (iii) a person who "acquired the facility by inheritance or bequest" To qualify for the first type of innocent landowner LLP, such person must *have made all appropriate inquiry* on or before the date of purchase. Furthermore, the *all appropriate inquiry* must not have resulted in knowledge of the contamination. If it does, then such person did "know" or "had reason to know" of contamination and would not be eligible for the innocent *landowner defense*. See Appendix XI for the other necessary requirements that are beyond the scope of this practice.

**institutional controls (IC)**—a legal or administrative restriction (for example, "deed restrictions," restrictive covenants, easements, or zoning) on the use of, or access to, a site or facility to (1) reduce or eliminate potential exposure to *hazardous substances* or *petroleum products* in the soil or 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. An institutional control is a type of Activity and Use Limitation (AUL).

**interviews**—those portions of this practice that are contained in Section 10 and I I thereof and address questions to be asked of past and present owners, *operators*, and *occupants* of the *property* and questions to be asked of local government officials.

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

**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.

**Landowner Liability Protections (LLPs)**—*landowner liability protections* under CERCLA; these protections include the *bona fide prospective purchaser liability protection*, *contiguous property owner liability protection*, and *innocent landowner defense* from CERCLA liability. See 42 U.S.C. §§9601(95)(A), 9601(40), 9607(b), 9607(q), 9607(r).

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

**local street directories**—directories published by private (or sometimes government) sources that show ownership, occupancy, and/or use of sites by reference to street addresses. Often *local street directories* are available at libraries, or historical societies, and/or local municipal offices. See 8.34.6 of this practice.

**LUST sites**—state lists of leaking *underground storage tank* sites. 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).

**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.

**material safety data sheet (MSDS)**—written or printed material concerning a *hazardous substance* which is prepared by chemical manufacturers, importers, and employers for hazardous chemicals pursuant to OSHA's Hazard Communication Standard, 29 C.F.R. §1910.1200.

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

**Maximum contaminant level (MCL)**—This Safe Drinking Water concept (and also used by many states as a groundwater cleanup criteria) refers to the limit on drinking water contamination that determines whether a supplier can deliver water from a specific source without treatment.

**National Contingency Plan (NCP)**—the National Oil and Hazardous Substances Pollution Contingency Plan, found at 40 C.F.R. Part 300, that is the EPA's blueprint on how *hazardous substances* are to be cleaned up pursuant to CERCLA.

**National Emissions Standard for Hazardous Air Pollutants (NESHAP)**—(Federal Clean Air Act) This part of the Clean Air Act regulates emissions of hazardous air pollutants.

**No Further Remedial Action Planned (NFRAP)**—Facilities where there is NFRAP, as more particularly described under the Records Review section of this report.

**Notice of Violation (NOV)**—A notice of violation or similar citation issued to an entity, company or individual by a state or federal regulatory body indicating a violation of applicable rule or regulations has been identified.

**National Pollutant Discharge Elimination System (NPDES)**—(Clean Water Act) the federal permit system for discharges of polluted water.

**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.

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

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

topographic characteristics of a *property*. See 8.2.3.

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

**other historical sources**—any source or sources other than those designated in 8.3.4.1 through 8.3.4.8 that are credible to a reasonable person and that identify past uses of the *property*. The term includes, but is not limited to: miscellaneous maps, newspaper archives, internet sites, community organizations, local libraries, historical societies, current *owners* or *occupants* of neighboring properties, and records in the files and/or personal knowledge of the *property owner* and/or occupants. See 8.3.4.9.

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

**Presumed Asbestos-Containing Material (PACM)**—A material that is suspected of containing or presumed to contain asbestos but which has not been analyzed to confirm the presence or absence of asbestos.

**Polychlorinated Biphenyl (PCB)**—A halogenated organic compound commonly in the form of a viscous liquid or resin, a flowing yellow oil, or a waxy solid. This compound was historically used as dielectric fluid in electrical equipment (such as electrical transformers and capacitors, electrical ballasts, hydraulic and heat transfer fluids), and for numerous heat and fire sensitive applications. PCB was preferred due to its durability, stability (even at high temperatures), good chemical resistance, low volatility, flammability, and conductivity. PCBs, however, do not break down in the environment and are classified by the EPA as a suspected carcinogen. 1978 regulations, under the Toxic Substances Control Act, prohibit manufacturing of PCB-containing equipment: however, some of this equipment may still be in use today.

**picoCuries per Liter of Air (pCi/l)**—Unit of measurement for Radon and similar radioactive materials.

**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)."

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

**petroleum storage tank (PST)**—An AST or UST that contains a petroleum product.

**Phase / Environmental Site Assessment**—the process described in this practice.

**physical setting sources**—sources that provide information about the geologic, hydrogeologic, hydrologic, or

**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.

**Polarized Light Microscopy (PLM)**—see ACM section of the report, if included in the scope of services)

**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 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  $p^{10}p^{erly}$ , it is *not practically reviewable*.

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

**property tax files**—the files kept for *property* tax purposes by the local jurisdiction where the *property* is located and may include records of past ownership, appraisals, maps, sketches, photos, or other information that is *reasonably ascertainable* and pertaining to *the property*. See 8.34.3.

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

**Radon**—A radioactive gas resulting from radioactive decay of naturally-occurring radioactive materials in rocks and soils containing uranium, granite, shale, phosphate, and pitchblende. Radon concentrations are measured in picoCuries per liter of air. Exposure to elevated levels of radon creates a risk of lung cancer; this risk generally increases as the level of radon and the duration of exposure increases. Outdoors, radon is diluted to such low concentrations that it

usually does not present a health concern. However, radon can accumulate in building basements or similar enclosed spaces to levels that can pose a risk to human health. Indoor radon concentrations depend primarily upon the building's construction, design and the concentration of radon in the underlying soil and groundwater. The EPA recommended annual average indoor "action level" concentration for residential structures is 4.0 pCi/l.

**Resource Conservation and Recovery Act (RCRA)**—Federal act regulating solid and hazardous wastes from point of generation to time of disposal ('cradle to grave'). 42 U.S.C. 6901 et seq.

**RCRA CORRACTS/TSDs**—The USEPA maintains a database of RCRA facilities associated with treatment, storage, and disposal (TSD) of hazardous materials, which are undergoing "corrective action". A "corrective action" order is issued when there is a release of hazardous waste or constituents into the environment from a RCRA facility.

**RCRA Non-CORRACTS/TSDs**—The RCRA Non-CORRACTS/TSD Database is a compilation by the USEPA of facilities that report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.

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

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

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

**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.

**RCRA Violators List—RAATS.** RCRA Administrative Actions Taken. RAATS information is now contained in the RCRIS database and includes records of administrative enforcement actions against facilities for noncompliance.

**Resource Conservation and Recovery Information System (RCRIS)**—as defined in the Records Review section of this report.

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

**recognized environmental conditions (REC)**—the presence or likely presence of any *hazardous substances* or *petroleum products* on a *property* under conditions that indicate an existing release, a past release, or a *material* threat of a release of any *hazardous substances* or *petroleum* hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a water, or surface water of the *property*. The term includes into structures on the *property* or into the ground, ground threat

*products* to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not *recognized environmental conditions*.

**recorded land title records**—records of historical fee ownership, which may include leases, land contracts, and AULs on or of the *property* recorded in the place where land title records are, by law or custom, recorded for the local jurisdiction in *which the property* is located. (Often such records are kept by a municipal or county recorder or clerk.) *Such* records may be obtained from title companies or directly from the local government agency. Information about the title to the *property* that is recorded in a U.S. district court or any place other than where land title records are, by law or custom, recorded for the local jurisdiction in which the *property* is located, are not considered part of *recorded land title records*. See 8.3.4.4.

**records of emergency release notifications 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" (42 U.S.C. 11004).

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

**report**—the written report prepared by the *environmental professional* and constituting part of a "Phase 1 Environmental Site Assessment," as required by this practice

**State "CERCLIS" List (SCL)**—(see SPL/State Priority List, below)

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

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

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

**Solid Waste Facility List (SWF)**—A Vista Information Solutions, Inc. database of solid waste facilities listed by state.

**Solid Waste Facility/Landfill (SWLF)**—The IEPA maintains a database of sites located within Illinois. The database information may include the facility name, class, operation type, area, estimated operational life, and owner.

**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 processes including but not limited to the manufacture of paints and coatings for industrial and household purposes, equipment clean-up, and surface degreasing in metal fabricating indus-

tries.

**Spill Prevention, Control and Countermeasures (SPCC)**—SPCC plans are required under federal law (Clean Water Act and Oil Pollution Act) for any facility storing petroleum in tanks and/or containers of 55-gallons or more that when taken in aggregate exceed 1,320 gallons. SPCC plans are also required for facilities with underground petroleum storage tanks with capacities of over 42,000 gallons. Many states have similar spill prevention programs, which may have additional requirements.

**State Hazardous Waste Sites (SHWS)**—The IEPA maintains a database of state equivalent CERCLIS facilities in the State of Illinois. This may or may not already be on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties.

**State Priority List (SPL)**—State list of confirmed sites having contamination in which the state is actively involved in clean up activities or is actively pursuing potentially responsible parties for clean up. Sometimes referred to as State "CERCLIS" List.

**standard environmental record sources**—those records specified in 8.2.1.

**standard historical sources**—those sources of information about the history of uses of *property* specified in 8.3.4.

**standard physical setting source**—a current USGS 7.5 Minute Topographic Map (if any) showing the area on which the *property* is located. See 8.2.3.

**standard practice**—the activities set forth in this practice.

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

**state registered USTs**—state lists of *underground storage tanks* required to be registered under Subtitle I, Section 9002 of RCRA.

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

**TSD facility**—treatment, storage, or disposal facility (see RCRA TSD facilities).

**Toxic Release Inventory (TRI)**—Routine EPA report on releases of toxic chemicals to the environment based upon information submitted by entities subject to reporting under the Emergency Planning and Community Right to Know Act.

**Toxic Substances Control Act (TSCA)**—A federal law regulating manufacture, import, processing and distribution of chemical substances not specifically regulated by other federal laws (such as asbestos, PCBs, lead-based paint and radon). 15 U.S.C 2601 et seq.

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

**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.

**user**—the party seeking to use Practice E 1527 to complete an environmental *site assessment* 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*. The user has specific obligations for completing a successful application of this practice as outlined in Section 6.

**USGS 7.5 Minute Topographic Map**—the map (if any) available from or produced by the United States Geological Survey, entitled "*USGS 7.5 Minute Topographic Map*," and showing the *property*.

**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.

**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.

**Wetlands**—Areas that are typically saturated with surface or groundwater that create an environment supportive of wetland vegetation (i.e., swamps, marshes, bogs). The Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1) defines wetlands as areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. For an area to be considered a jurisdictional wetland, it must meet the following criteria: more than 50 percent of the dominant plant species must be categorized as Obligate, Facultative Wetland, or Facultative on lists of plant species that occur in wetlands; the soil must be hydric; and, wetland hydrology must be present. The federal Clean Water Act which regulates "waters of the US," also regulates wetlands, a program jointly administered by the USACE and the EPA. Waters of the U.S. are defined as: (1) waters used in interstate or foreign commerce, including all waters subject to the ebb and flow of tides; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, etc., which the use, degradation, or destruction could affect interstate/foreign commerce; (4) all impoundments of waters otherwise defined as waters of the U.S., (5) tributaries of waters identified in 1 through 4 above; (6) the territorial seas; and (7) wetlands adjacent to waters identified in 1 through 6 above. Only the USACE has the authority to make a final wetlands jurisdictional determination.

**zoning/land use records**—those records of the local government in which the *property* is located indicating the uses permitted by the local government in particular zones within its jurisdiction. The records may consist of maps and/or written records. They are often located in the planning department of a municipality or county. See 8.3.4.8.

**Acronyms:**

**AULs**—Activity and Use Limitations.

**AHERA**—Asbestos Hazard Emergency Response Act

**BGS**—Below Ground Surface

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

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

**CFR**—Code of Federal Regulations.

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

**DOT**—U.S. Department of Transportation

**EPA**—United States Environmental Protection Agency.

**EPCRA**—Emergency Planning and Community Right to Know Act ((also known as SARA Title E0, 42 U.S.C. §§11001-11050 *et seq.*).

**ERNS**—emergency response notification system. 3.3.9  
**ESA**—Environmental Site Assessment (different than an environmental *compliance audit*, 3.2.27).

**FOIA**—U.S. Freedom of Information Act (5 U.S.C. §552 as amended by Public Law No. 104-231, 110 Stat.). 3.3.11 *FR*—Federal Register.

**ICs**—Institutional Controls.

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

**LUST**—Leaking Underground Storage Tank.

**MSDS**—Material Safety Data Sheet.

**NCP**—National Contingency Plan.

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

**NPDES**—National Pollutant Discharge Elimination System.

**NPL**—National Priorities List.

**OSHA**—Occupational Safety and Health Administration

**PCBs**—polychlorinated biphenyls.

**PRP**—Potentially Responsible Party (pursuant to CERCLA 42 U.S.C. §9607(a)).

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

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

**TPH**—Total Petroleum Hydrocarbons

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

**USACE**—United States Army Corps of Engineers

**USC**—United States Code.

**USGS**—United States Geological Survey.

**USNRCS**—United States Department of Agriculture-Natural Resource Conservation Service

**UST**—Underground Storage Tank.

**VCP**—Voluntary Cleanup Program

**VOC**—Volatile Organic Compound

**Significance and Use**

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

**APPENDIX XI**  
ASSUMPTIONS, LIMITATIONS & EXCEPTIONS

## Assumptions, Limitations & Exceptions

This ESA represents V3's professional experience and judgment, and a good faith effort to obtain all available information. Information provided to V3 by the {CLIENT COMPANY NAME}, User representatives, site contacts, and others contacted in this regard, have been accepted in good faith and assumed to be accurate, unless contradicted by more credible information. It is to be understood that V3 assumes no responsibility or liability for the accuracy of such documents or accuracy or withholding of information by any of the involved parties, that could affect the transaction. A reasonable attempt was made to obtain all information pertinent to the work scope; however, not all such information may have been received by the date of issuance of the report. Such instances are identified within this report. Consideration of such missing information is beyond the scope of this assessment.

State and federal laws and regulations referenced in this report are provided for information purposes and should not be construed as legal opinion or recommendation.

The ASTM Standard and the AAI Rule identify specific limitations to the due diligence process. These limitations provide guidance for the environmental professional and the User, in determining whether all appropriate inquiry has been conducted. The identified limitations include the following:

- No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Certain environmental conditions may exist on the site that are beyond the scope of these identified standards, but may warrant consideration.
- *All appropriate inquiry* does not mean an exhaustive assessment of a clean property.
- Not every property will warrant the same level of assessment.
- It should not be concluded or assumed that an inquiry was not all appropriate inquiry merely because the inquiry did not identify recognized environmental conditions in connection with a property.
- In the event data gaps are identified, the Environmental Professional will endeavor to comment upon the significance of those data gaps. However, the Environmental Professional cannot, and does not warrant or guarantee that no significant events, releases, or conditions arose, during the periods of such data gaps.

The AAI standard indicates that an ESA is valid for a time period of 6 months. Subsequent to this time period, the ESA must be updated in accordance with AAI guidance.

As indicated previously, an ESA is performed for the purpose of satisfying one of the requirements to qualify as an *innocent landowner*, *contiguous property owner*, or *bona fide prospective purchaser*, relative to potential CERCLA liability. It does not address additional requirements in this regard. Such additional requirements include that landowners must meet *Continuing Obligations* to achieve and maintain LLPs. Continuing obligations include “(1) complying with *land use restrictions* and *institutional controls*; (2) taking reasonable steps with respect to *hazardous substance* releases; (3) providing full cooperation, assistance, and access to persons that are authorized to conduct response actions or natural resource restoration; (4) complying with information requests and administrative subpoenas; and (5) providing legally required notices.

The findings, opinions and conclusions of this report are not scientific certainties, but rather, probabilities based on professional judgment concerning the significance of the data gathered during the course of the environmental investigation. V3 is not able to represent that the site or adjoining land contains no hazardous waste, oil, or other latent conditions beyond that detected or observed by V3 during the ESA. The possibility always exists for contaminants to migrate through surface water, air, or groundwater. The ability to completely address the environmental risk associated with transport in these media is beyond the scope of this investigation.