

All Appropriate Inquiries (AAI) Training

October 30, 2023

Patricia Overmeyer, OBLR

Kevin Palaia, P.G., ICF



Module 1

- CERCLA Liability & AAI

Module 2

- AAI Regulatory Requirements

Module 3

- Phase I ESA and AAI Activities

Module 4

- Phase I ESA and AAI Reporting



Poll Question 1

How many years of experience do you have in Brownfields assessment, cleanup, and redevelopment?

- Less than 2 years
- 2 to 5 years
- 5 to 10 years
- 10 to 20 years



Poll Question 2

Describe your level of experience with Phase I ESA/AAI assessments?

- No experience
- Reviewed Phase I ESA/AAI reports
- Conducted Phase I ESA/AAI activities
- Overseen/managed Phase I ESA/AAI projects



All Appropriate Inquiries

- The process of evaluating a property's environmental conditions and assessing potential liability for any contamination
- A Phase I Environmental Site Assessment (ESA)
- A necessary step to obtain protection from potential liability for past contamination at a property, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)



AAI in Perspective

- All Appropriate Inquiries (AAI) often is the first step in a continuum of property investigations
 - AAI / Phase I ESA
 - Phase II ESA / Sampling and Analysis
 - Additional Site Characterization
- Investigate environmental contamination at a property so that contamination can be properly addressed to protect public health and the environment



How Does AAI Affect Brownfields Grantees?

Threshold Criteria for Brownfields Grant Applicants

- Grantees are **prohibited from using Brownfields grant monies to address contamination for which a grantee is the responsible party**
- Potential grantee may need to demonstrate that it is not responsible for contamination and is protected from CERCLA liability to be eligible for a grant

Recipients of Brownfields Assessment Grants

- Must conduct Phase I ESA assessments in compliance with AAI

Liability Determinations

- Parties seeking protection from CERCLA liability must conduct AAI prior to purchasing property

Targeted Brownfields Assessment (TBA)

- In most cases, TBAs should be performed in compliance with AAI or ASTM E1527-21 to ensure prospective property owner's liability protection and ensure eligibility for future cleanup grant



Objectives of Training

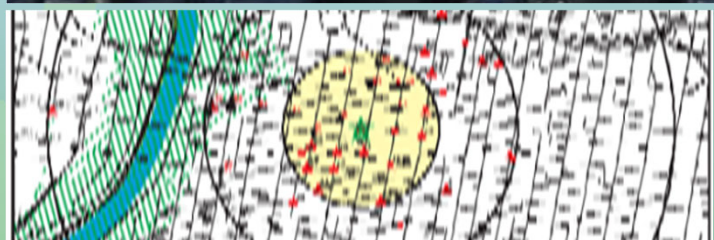
Familiarize you with AAI requirements

Provide overview of how AAI impacts Brownfields grant process

Provide overview of technical requirements of what constitutes an AAI-compliant Phase I ESA and what is good practice within the industry

Review AAI reporting requirements





Module 1: CERCLA Liability and AAI

1

2

3

4



Liability under CERCLA

- **Prior to the 2002** amendments to CERCLA, property owners could be held strictly, and jointly and severally, liable for contamination at a property
 - **Strict liability:** without fault or culpability
 - **Joint and Several liability:** current and past owners can be held accountable individually or collectively
- Any owner within a property's chain of title could be held liable for contamination at a property, regardless of whether any particular owner caused the contamination.



1986 Amendments to CERCLA: Innocent Landowner

- Parties can claim defense to liability **if** they can demonstrate that they did not know *AND had no reason to know* of contamination at time of property acquisition
- Parties have to conduct “all appropriate inquiries” prior to property acquisition to determine past uses and ownership
- If reason to believe property could be contaminated is found, then no defense



2002 Brownfields Amendments to CERCLA

- *Small Business Liability Relief and Brownfields Revitalization Act* – Amended CERCLA
 - Provided liability protections for certain property owners:
 - **Innocent landowners** (amended 1986 provisions)
 - **Contiguous property owners** (codified EPA contaminated groundwater policy)
 - **Bona fide prospective purchasers** (can purchase with knowledge of contamination)
 - Amended the All Appropriate Inquiries provisions of CERCLA
- Eligible entities need to establish a defense from CERCLA liability to be eligible for site-specific assessment grants and direct cleanup grants under EPA's Brownfields Program
- Parties receiving Brownfields assessment grants must conduct assessments in compliance with AAI



Statutory Requirements for CERCLA Liability Protections

Threshold Criteria

- Purchaser is **not** a responsible party and not **affiliated with** a responsible party
- Conduct All Appropriate Inquiries **prior to** purchase
- All disposal of hazardous substances at property occurred **before** acquisition

Continuing Obligations – after purchase



Continuing Obligations

Required **following acquisition** of property:

- Comply with land use restrictions
- Do not impede effectiveness or integrity of institutional controls
- Take “reasonable steps” to stop on-going releases
- Prevent or limit human and environmental exposure to any previous releases
- Provide cooperation, assistance, and access to property
- Comply with CERCLA information requests and subpoenas



Brownfields Grants – Applicants, generally

Brownfields grantees are prohibited from using grant money to pay for a response cost for which the recipient of the grant **is potentially liable** under CERCLA section 107

Therefore, grant applicants must demonstrate they are not liable for contamination that will be addressed / funding by grant

- Government entity acquired property involuntarily per exemptions from definition of owner / operator at CERCLA 101(20)(D))
- Government entity acquired property by eminent domain (CERCLA 101(35)(A)(ii))
- Government Entity purchased property prior to January 11, 2002 and did not cause or contribute to contamination.
- Eligible entity is a bona fide prospective purchaser (BFPP), contiguous property owner, or innocent landowner



Brownfields **Assessment** Grants

Parties who receive grants under EPA's Brownfields program to perform site characterization and assessment of brownfields **must** conduct such activities in compliance with the standards and practices established by EPA for the conduct of all appropriate inquiries. (CERCLA section 104(k)(2)(B)(ii))



Brownfields **Cleanup** Grants

Applicant must own property that is to be cleaned up with grant funding and can not be liable for contamination at the property

Applicants, including federally recognized tribes, must have completed a Phase I site assessment (AAI) and a Phase II assessment on the property to be eligible for a cleanup grant



Program Development and Enhancement Grants to States and Tribes

Grants provided to States and Tribes under the authority of CERCLA 128(a) are not subject to the provisions of CERCLA 104(k)

Therefore, brownfields assessments conducted by states or tribes using 128(a) funding **DO NOT** have to be conducted in compliance with AAI

It may be prudent to conduct such assessments in compliance with AAI to ensure the property owner's ability to assert protection from CERCLA liability and ensure property owner's eligibility for future brownfields cleanup grants



Referenced ASTM Standards

Parties can use:

ASTM E1527-21 Phase I ESA Standard
and ASTM E2247-16 Forestland Standard

- Compliant with the regulatory standards

Parties cannot use ASTM Transaction
Screen standard or ASTM Phase II ESA
standard to comply with AAI



Quiz Question 1

True or False: Phase I ESA's conducted using EPA Brownfields assessment grant funds must be completed in compliance with the Final AAI Rule or appropriate ASTM Phase I standards?

- True
- False

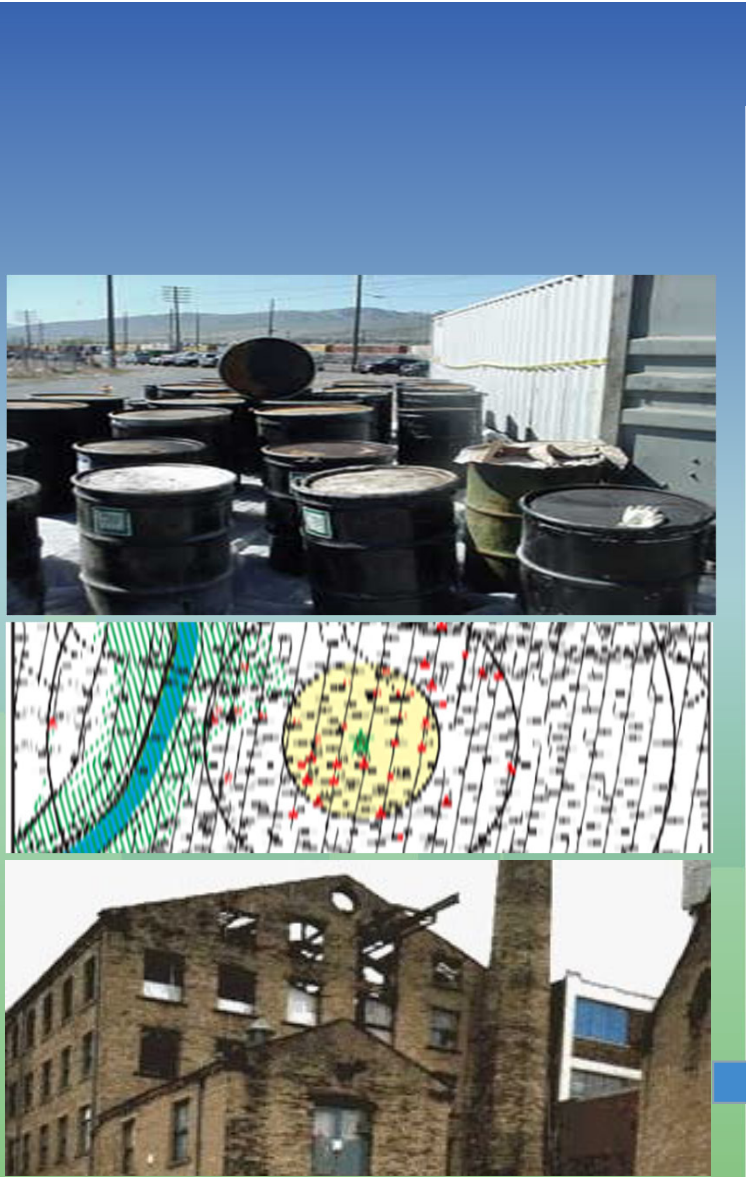


Quiz Question 2

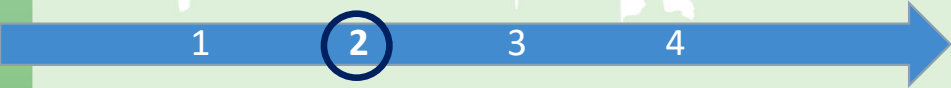
True or False: Applicants must have completed a Phase I ESA/AAI and a Phase II assessment on the property to be eligible for a cleanup grant?

- True
- False





Module 2: AAI Regulatory Requirements



When Must AAI be Performed?

- Any party seeking liability protection must perform AAI before acquiring the property (before date of title transfer)
- AAI must be conducted or updated within *one year prior* to date of acquisition
- Interviews, records review, site inspection, and the environmental cleanup lien search must be conducted or updated within 180 days prior to the date of acquisition



Who Can Perform AAI?

- Person who supervises or oversees the conduct of AAI must meet the definition of Environmental Professional (EP) in the AAI regulation
- Person who does not qualify as an EP may assist in the conduct of AAI if he or she is under the supervision or responsible charge of an EP
- **Person meeting definition of EP is required to sign AAI-compliant reports and attest that investigation was done in compliance with the regulation**



Definition of Environmental Professional

An EP is a person who has:

(1) sufficient specific education, training, and experience to exercise professional judgment to develop opinions and conclusions regarding the presence of releases or threatened releases of hazardous substances; **AND**

(2a) Holds a professional engineer or professional geologist license, or other state, federal, or tribal certification or environmental professional license and has 3 years of relevant full-time experience; **OR**
(2b) Has a degree in science or engineering and 5 years of relevant full-time experience; **OR**
(2c) Has 10 years of relevant full-time experience.

Relevant experience:

Participation in the performance of all appropriate inquiry investigations, environmental site assessments, or other site investigations that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions



Objectives and Performance Factors

Identify conditions indicative of releases or threatened releases of hazardous substances

Identify particular information

- Uses and occupancies of property
- Uses of hazardous substances
- Waste management activities
- Corrective actions and response activities
- Institutional and engineering controls
- Nearby and adjoining properties with environmental conditions

Continued...



Objectives and Performance Factors

Gather information required to meet standards that is:

- Publicly available,
- Obtainable within reasonable time and cost constraints, and
- Can be practically reviewed

Review and evaluate thoroughness and reliability of information gathered



Contaminants of Concern

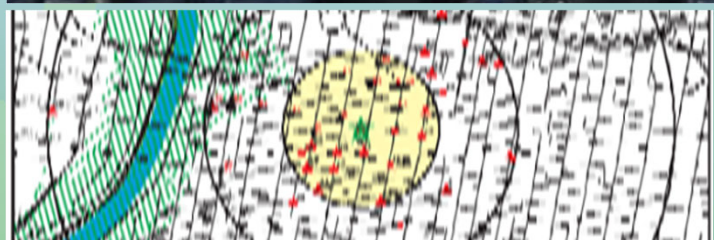
Parties seeking CERCLA defense

- Releases and threatened releases of CERCLA hazardous substances

EPA Brownfields Grant recipients (potentially, if included in scope of cooperative agreement)

- Releases and threatened releases of:
 - CERCLA hazardous substances, pollutants or contaminants,
 - Petroleum and petroleum products,
 - Controlled substances (e.g., meth lab wastes), and
 - Mine-scarred land wastes





Module 3: Phase I ESA and AAI Activities



Phase I ESA or AAI

Initial assessment of a site to identify potential presence of environmental contamination or Recognized Environmental Conditions (RECs) or conditions indicative of releases or threatened releases of hazardous substances.

Conducted for real estate transactions, site discovery, CERCLA liability protection, Brownfields grants, assess business environmental risk concerns

ASTM Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process (E1527-21)

Does not delineate contamination or quantify risk



Purpose of AAI

- Identify previous owners and operators
- Identify previous land uses
- Identify types and quantities of hazards substances used
- Identify previous waste management practices
- Look at the property / observe current conditions
- Understand uses and conditions of surrounding properties
- Identify conditions that are indicative of releases or threatened releases of hazardous substances – Identify “recognize environmental conditions”

AAI Key Requirements

Interviews with present and past owners, operators, and occupants

Reviews of historical sources of information

Reviews of federal, state, tribal, and local government records

Reviews of activity and use limitations

Visual inspections of the facility and of adjoining properties



AAI Key Regulatory Requirements

AAI rule retains four requirements from previous innocent landowner provisions (1986 SARA amendments):

- Relationship between purchase price vs. value of property, if not contaminated (312.29);
- Specialized knowledge (312.28);
- Commonly known and reasonably ascertainable information (312.30); and
- Degree of obviousness and ability to detect (312.31)



Interviews – Subject Property

AAI regulation requires interviews of the following:

- Current owner(s)/occupant(s) (312.23(a),(b))
 - Major occupants
 - Occupants likely to use, store, treat, handle, or dispose of hazardous substances
- Additional parties, as necessary to achieve objectives and performance factors, including one or more of following (312.23(c)):
 - Current and past facility managers, owners, operators or occupants of the subject property
 - Employees of past and current occupants of the subject property



Interviews – Abandoned Properties

AAI regulation requires

- Interviewing owners or occupants of neighboring or nearby properties, if the subject property is abandoned (312.23(d))
- 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 there on 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.”* (312.10(b))

Interview Methods and Sources

How?

- In person, telephone, in writing
- Checklist, questionnaire, protocol

When?

- Before, during, after site visit

Who?

- Owners/occupants
- Property manager
- EHS manager
- Employees familiar with operations/processes
- Human resources employees
- Financial manager
- Attorneys

Common Interview Questions

Have investigations/remedial actions occurred?

What permits do you have and have there been violations?

Have any known spills/releases occurred?

Has site been subject to any EH&S regulatory action?

Has site been subject to any EH&S complaints or lawsuits?

Are there any active/abandoned septic systems?

Are there any wells at the site? Use?

Does the property have any ASTs or USTs? How many? Ages?

Where does stormwater discharge to?

Does facility discharge air pollutants? Have air pollution controls?



Interviews – State/Local/Tribal Government

Gather information of environmental conditions on the site and surrounding property

Interview sources

- Fire department
- Health department/Boards of Health
- Agencies with jurisdiction over hazardous waste disposal and other environmental conditions
- Agencies responsible for issuing building permits, water use permits, well permits (Building Departments, Water Department, Engineering Department)
- Tribal government offices



Records Review

AAI regulation requires review of:

- Historical documents and records (312.24(a)),
and
- Federal, state, tribal, and local government records or databases of government records for the subject and nearby or adjoining properties (312.26(b),(c))



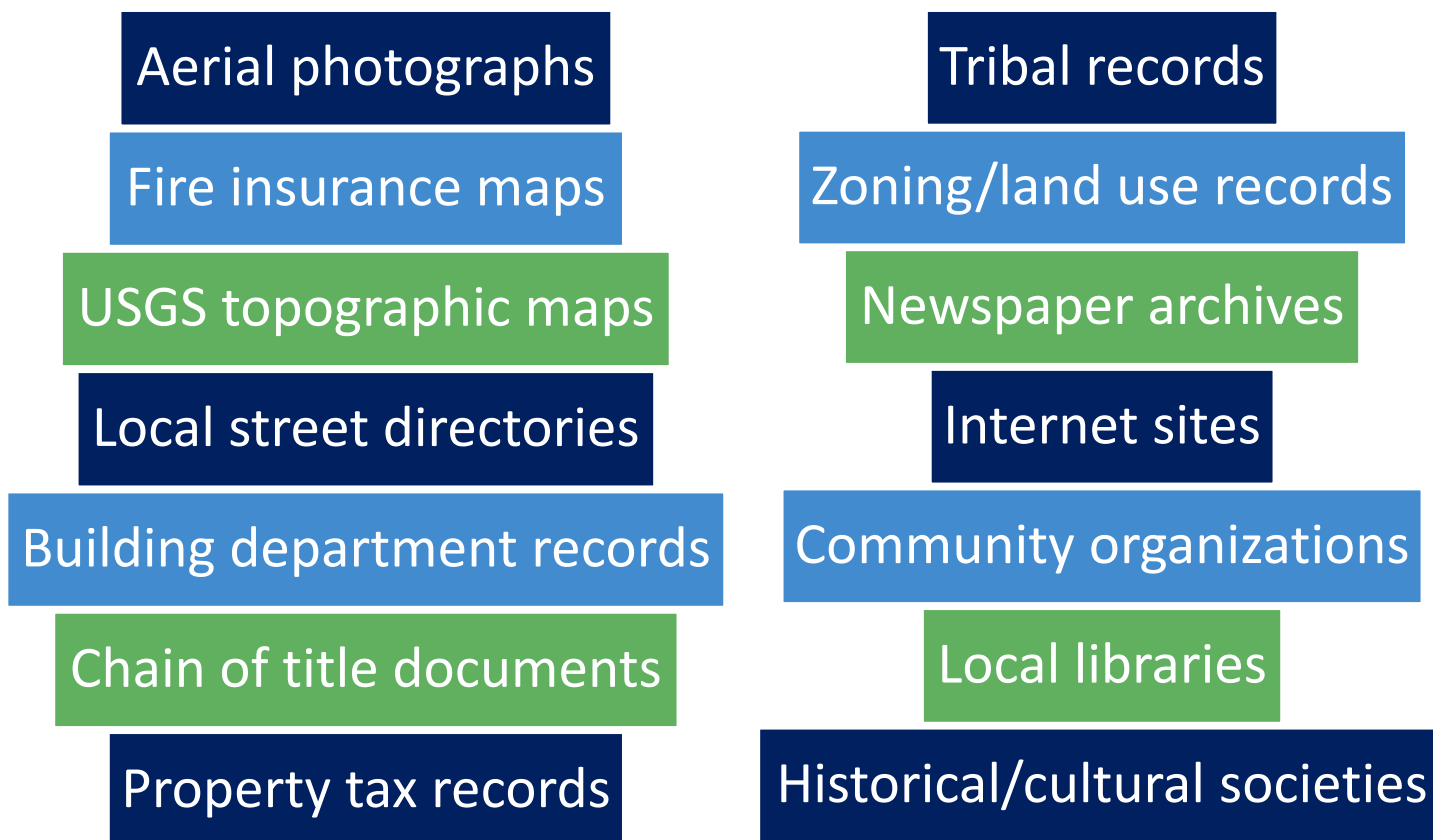
Review of Historical Sources of Information

Review must cover a period of time as far back as:

- When property first contained structures, and
- First used for residential, agricultural, commercial, industrial, and governmental purposes (312.24(b))



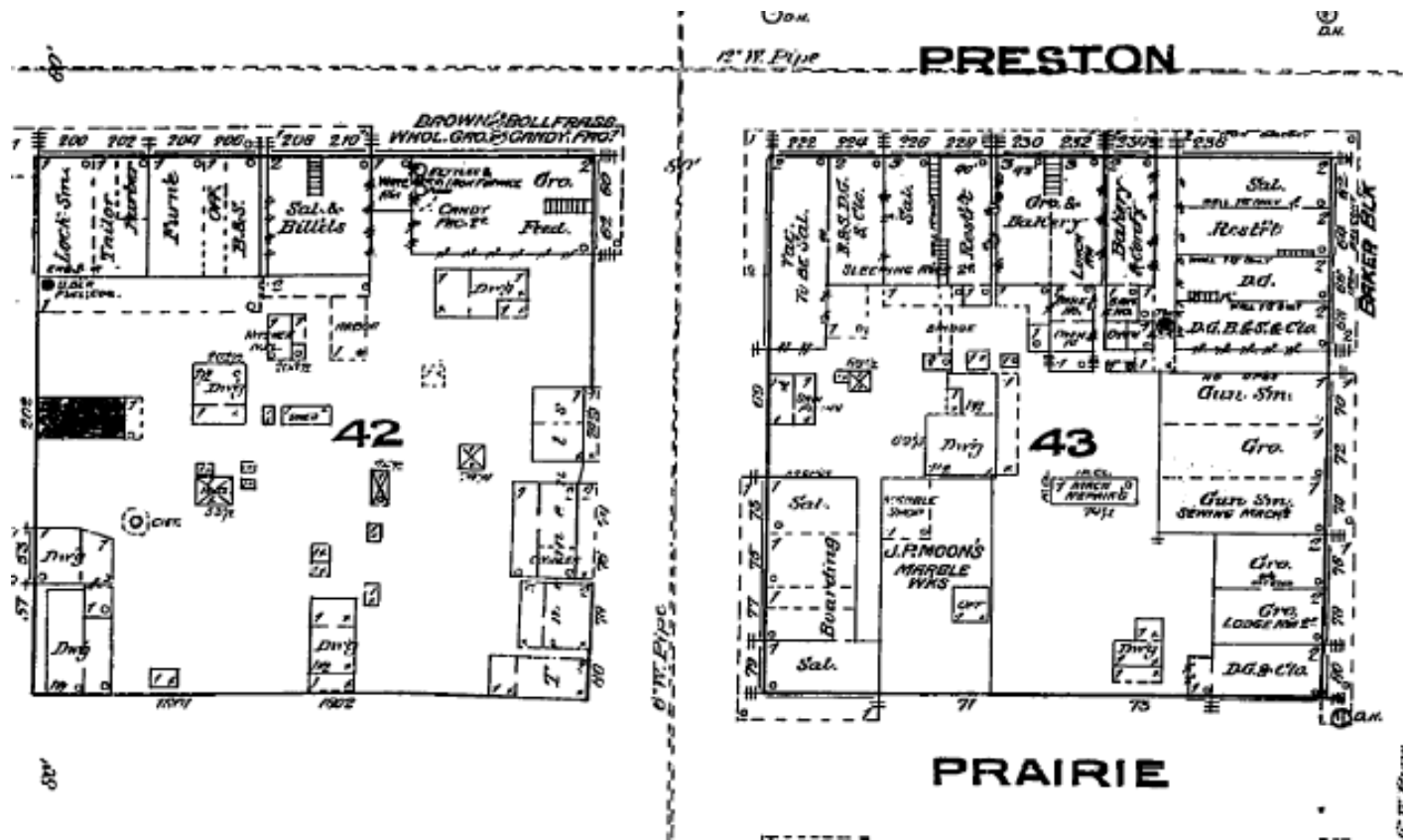
Common Historical Sources



Aerial Photographs



Fire Insurance Maps



Government Records Review

- AAI requires review of federal, state, and local government records (or databases containing government records) for
 - Subject property (312.26(b))
 - Nearby and adjoining properties (312.26(c)(1,2))
- Review tribal records, if property is located on or near tribal-owned lands
- **ASTM E1527-21:** Agency file reviews *IF* property or adjoining property identified on environmental record (database) searches



Government Records Review – Federal/State/Tribal

TABLE 2 Types of Government Records to be Reviewed

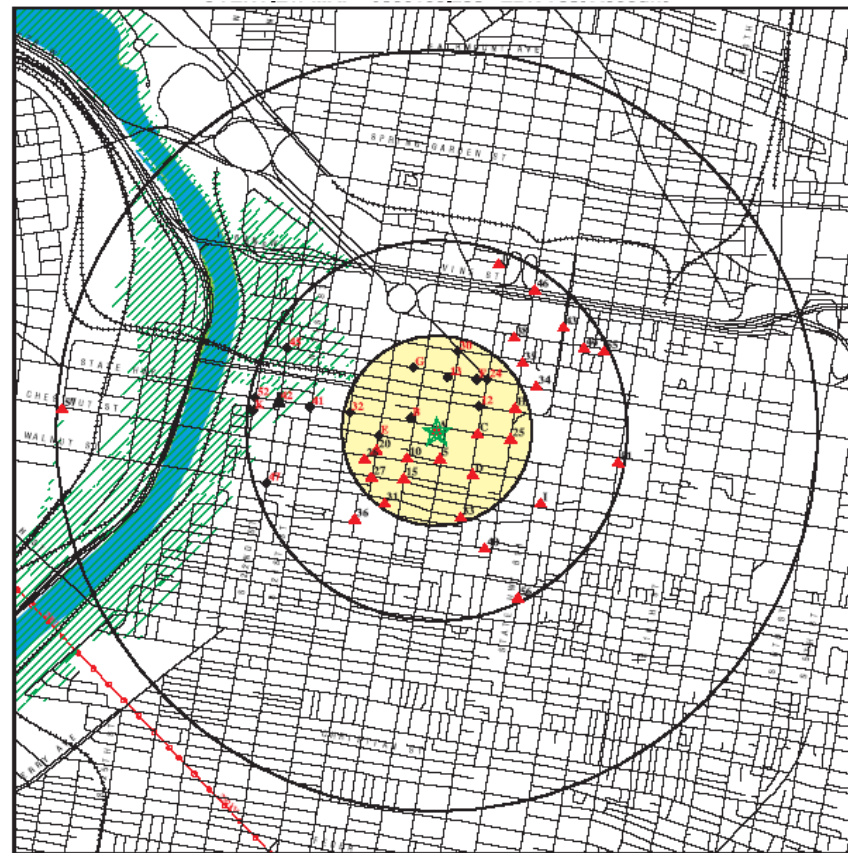
<i>Standard Environmental Record Resources (where available)</i>	<i>Common Sources for Government Records</i>	<i>Approximate Minimum Search Distance miles (kilometers)</i>
Lists of Federal <i>NPL</i> (Superfund) sites	U.S. EPA Website and available EPA databases listing currently listed sites	1.0 (1.6)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

^A Records should be researched for both currently active and formerly active sites.

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



Environmental Database Search Results



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone
- Federal Wetlands

TARGET PROPERTY:	Pennsylvania Sample	CUSTOMER:	EDR Test Account
ADDRESS:	1735 Market Street	CONTACT:	Paul Schiffer
CITY/STATE/ZIP:	Philadelphia PA 19103	INQUIRY #:	0955185,29s
LAT/LONG:	39.9529 / 75.1689	DATE:	May 25, 2004 4:43 pm



Records Review – Others

Facility/property plot plan or map

Description of operations

Assessment, remediation, and monitoring reports

Compliance audit reports

Permits/permit applications

UST and AST inventory

Chemical inventory/MSDS

Spill/release inventory

Air emission/ wastewater discharge monitoring data

Transformer inventory

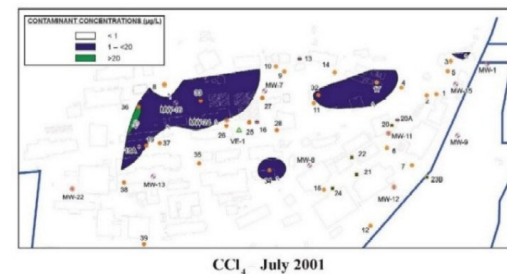
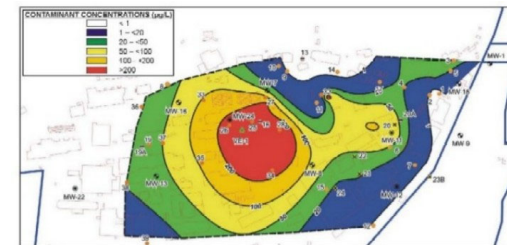
Inspection/enforcement correspondence

Community right-to-know plans

Preparedness and prevention plans

Spill prevention, countermeasure, and control plans

Legal correspondence/litigation



Records Review - Principal Contaminants

Common Sources	Contaminants
Petroleum/Fuels	Benzene; Ethylbenzene; Toluene; Xylene; MTBE; PAHs
Dry Cleaning	Trichloroethane, PCE, TCE
Commercial Solvents	Benzene; Ethylbenzene; Toluene; Xylene
	Acetone; Carbon Tetrachloride; Chloroform; Bromoethane; Ethylene Dibromide; Methylene Chloride; Tetrachloroethane; Tetrachloroethene; Trichloroethene; Vinyl Chloride
Combustion	PAHs; PCDDs/PCDFs; Particulates, Metals
Pesticides	Chlorinated Ethanes; DDT; Lindane
	Cyclodienes (Aldrin; Chlordane; Dieldrin; Endrin); Chlorocyclohexanes
	Organophosphate: Diazanone; Dichlorovos; Malathion; Parathion; Carbamate: Aldicarb
Electrical Transformers	Polychlorinated Biphenyls (PCBs)
Herbicides	Chlorophenoxy Compounds; 2,4- Dichlorophenoxyacetic Acid
Paint and Building Materials	Lead, Asbestos, PCBs



Records Review - Units of Measure

Part per million (ppm)	= 1 ug/g	microgram per gram
	= 1 mg/kg	milligram per kilogram
	= 1 mg/L	milligram per liter
	= 1 ug/ml	microgram per milliliter
Part per billion (ppb)	= 1 ug/kg	microgram per kilogram
	= 1 ng/g	nanogram per gram
	= 1 ug/L	microgram per liter
	= 1 ng/ml	nanogram per milliliter
Part per trillion (ppt)	= 1 pg/g	picogram per gram
	= 1 ng/kg	nanogram per kilogram
	= 1 pg/ml	picogram per milliliter
	= 1 ng/L	nanogram per liter



Records Review - Units of Measure

*Few drops of
water in a
bathtub =*
1 ppm

*1 pinch of salt
in 10 tons of
potato chips =*
1 ppb

*1 grain of sand
in an Olympic
size pool =*
1 ppt

*1 postage
stamp in the
area of Texas =*
1 ppq



Search for Environmental Cleanup Liens

AAI regulation requires search for environmental cleanup liens against the subject property that are filed or recorded under federal, tribal, state, or local law (312.25(a))

- Recorded land title records – record of historical fee ownership which may include leases, land contracts, activity and use limitations
- Usually at municipal or county recorder or clerk
- Obtained by title companies or local government agency



Visual Inspections

Subject property inspection:

- On-site

Adjoining property inspection from:

- Subject property
- Public rights-of-way
- Aerial photographs

Limitations must be noted:

- Snow-covered ground surface
- Limited access to certain areas of site
- Safety concerns



Visual Inspections – General Site Setting

- Current/past uses of subject property
- Current/past uses of adjoining properties
- Description of structures
- Topography - condition of ground surface/pavement
- Soil staining, stressed vegetation, discolored water
- New gravel or paved areas, evidence of remediation
- Nearby water bodies
- Discharge of storm water runoff
- Proximity to sensitive receptors (wetlands, wildlife refuge)
- Proximity to residential/heavily populated areas, schools, etc.
- Roads, railroad, rights-of-way



Visual Inspections – Interior and Exterior

- Hazardous substances and petroleum products
- Storage tanks, drums, containers
- Odors
- Pools of liquid
- PCBs
- Heating/cooling – fuel sources
- Stains and corrosion
- Drains and sumps
- Solid waste & waste water treatment
- Septic systems, pits, ponds, and lagoons
- Wells (dry, injection, public supply, monitoring, abandoned)



Visual Inspections

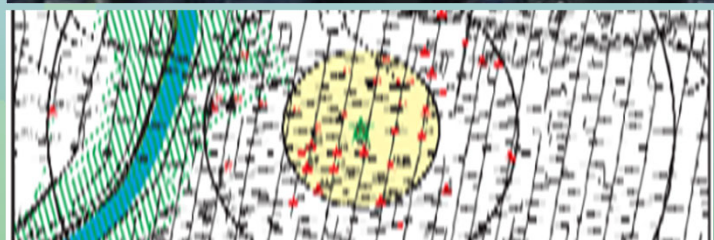


Quiz Question 3

Which of the following is not a required activity of a Phase I ESA/AAI ?

- Visual inspection of property
- Interviews with owners/occupants
- Asbestos and lead-based paint sampling
- Review of historical sources of information





Module 4: Phase I ESA and AAI Reporting

1

2

3

4



AAI Reporting Requirements

AAI regulation requires results of the inquiry to be documented in a written report (312.21(c))

Written report must include, at a minimum:

- EP's opinion as to whether the inquiry identified conditions indicative of releases or threatened releases of hazardous substances (312.21(c)(1)),
- Identification of significant data gaps – **if** the data gaps affect the EP's ability to draw conclusions regarding environmental conditions (312.21(c)(2)),
- Qualifications of the EP (312.21(c)(3) and 312.21(d)),
 - Declaration that person(s) signing meets definition of EP,
 - Declaration that AAI was developed and performed in conformance with the standards and practices set forth in 40 CFR Part 312, and
- Signature of the EP (312.21(d)) – **All Reports MUST be signed and dated!**



Report – EP Opinion

EP must include *opinion* as to whether the inquiry identified conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the subject property

EP must include an *opinion regarding additional appropriate investigation*, if the EP has such an opinion



Report – EP Opinion

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



Identification of Data Gaps

- **Significant data gaps** must be identified and discussed *if* they affect the ability of the environmental professional to identify conditions indicative of releases (312.21(c)(3))
- The significance of the data gaps must be discussed
- Common data gaps
 - Unknown site usage during certain time periods
 - Inability to conduct visual inspection
 - Inability to interview the key site manager, regulatory officials, etc.
 - Data from previous site investigation not available for review



Report – EP Qualifications and Signature

EP must place the following statements in document

- *“[I, We] declare that, to the best of [my, our] professional knowledge and belief, [I, we] meet the definition of Environmental professional as defined in § 312.10 of 40 C.F.R. § 312”*
- *“[I, We] have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. [I,We] have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 C.F.R. Part 312.”*

EP who oversaw work must sign and date the document



Report – Format

AAI regulation does not recommend format, structure, or length

ASTM 1527-21 has a recommended format

- **Executive Summary**
 - Findings, opinions, and conclusions
- **Introduction**
 - Subject property and purpose of Phase I ESA
 - Contractual details, limiting conditions, deviations, exceptions, assumptions, special terms and conditions
- **User-Provided Information**
- **Site Reconnaissance**
 - General site setting, interior and exterior observations
 - Uses and conditions of property and adjoining property
- **Records Review**
 - Review of physical setting sources and other records
 - Historical use information



Continued...

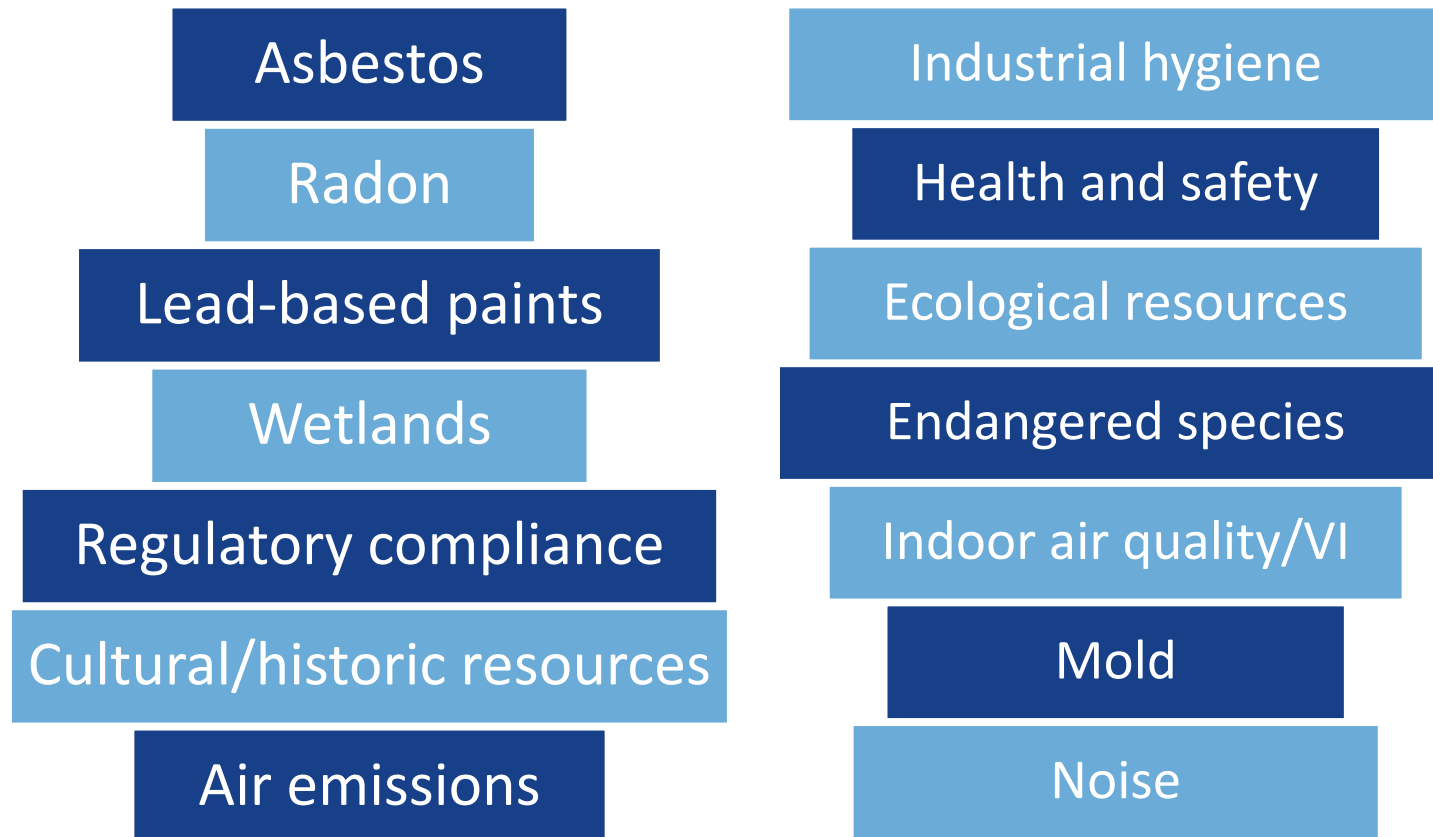
Report – Format

ASTM 1527-21 has a recommended format

- **Interviews**
 - Past and present owners and occupants
 - State and local government officials
- **Non-Scope Services**
 - Additional services
- **Findings and Opinions**
 - Including any significant data gaps and deletions
- **Conclusions**
 - Including recommendations
- **Environmental Professional Statement**
- **References**
- **Appendices**
 - Supporting documentation
 - Figures, Photographs
 - Qualifications of EP



Phase I ESA Non-Scope Considerations



Phase I – Possible Outcomes

No Recognized Environmental Conditions (RECs) identified and data are complete and timely

- No further assessment or study needed

Significant data gaps exist, additional information needed to determine if RECs are present

- Conduct additional Phase I activities and update Phase I Report, or
- Conduct Phase II

RECs are present and require investigation to determine potential risks and if remedial actions are necessary

- Proceed to Phase II ESA



Phase I Reports – Review

It is important for the Grant Manager or other knowledgeable individual to review the AAI or ASTM Phase I report to look for

- Compliance with the standard including all documentation requirements
- Reasonableness of results
- Errors and missing information

Grantees must complete and sign the AAI Checklist.



Phase I Reports – Checklist

For Grant Program Managers

- **Required:**
 - EP Opinion of environmental conditions
 - ID of significant data gaps
 - Qualifications and signature of EP
 - EP Opinion regarding additional investigation
- Available on EPA AAI website and from your grants project officer

<https://www.epa.gov/brownfields/all-appropriate-inquiries-reporting-requirements-checklist-assessment-grant-recipients>

Checklist for Phase I Site Assessments Conducted using EPA Brownfields Assessment Grant Funds	
<u>Contact Information</u>	
Grantee Name:	_____
Grant Number:	_____
ACRES Property ID:	_____
Program Manager Name: (Point of Contact)	_____
Contact Phone Number:	_____
Name / Address of Property Assessed:	_____
<u>Checklist</u>	
Please indicate that each of the following All Appropriate Inquiries documentation requirements were met for the Phase I assessment conducted at the above listed property:	
<input type="checkbox"/>	An <i>opinion</i> as to whether the inquiry has identified conditions indicative of releases or threatened releases of hazardous substances, and as applicable, pollutants and contaminants, petroleum or petroleum products, or controlled substances, on, at, in, or to the subject property.
<input type="checkbox"/>	An identification of “ <i>significant</i> ” data gaps (as defined in §312.10 of AAI final rule and §12.5 of ASTM E1527-21), if any, in the information collected for the inquiry, as well as comments regarding the significance of these data gaps. Significant data gaps including missing and unattainable information that affects the ability of the environmental professional to identify conditions indicative of releases or threatened releases of hazardous substances, and as applicable, pollutants and contaminants, petroleum or petroleum products, or controlled substances, on, at, in, or to the subject property.
<input type="checkbox"/>	Qualifications and signature of the environmental professional(s). The environmental professional must place the following statements in the document and sign the document: <ul style="list-style-type: none"> <input type="checkbox"/> “[I, We] declare that, to the best of [my, our] professional knowledge and belief, [I, we] meet the definition of Environmental Professional as defined in §312.10 of this part.” <input type="checkbox"/> “[I, We] have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. [I, We] have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.” Note: Please use either “I” or “We.”
In compliance with §312.31(b) of the AAI final rule and §12.6 of ASTM E1527-21, the environmental professional must include in the final report an <i>opinion regarding additional appropriate investigation</i> , if the environmental professional has such an opinion.	
_____ Signature of Grantee Program Manager	_____ Date



Phase I Reports – Common Problems

Missing Environmental Professional signature or declaration of qualifications

Deviation from required language in required statements

Missing declaration of conformance with AAI/ASTM

Opinion is vague or no discussion of appropriateness of additional investigations

Expired shelf life (> 1 year old)

No or limited owner/occupant interviews

Minimal discussion of site visit or site characteristics

No aerial photos, fire insurance (Sanborn) maps, site photos

No search for cleanup liens or institutional controls

Incomplete references

Difficult to read – overly technical



Updates and Revisions to ASTM E1527 Standard

How E1527-21 Differs from E1527- 13

New instructions and clarifications

- Key terms
- Required site research and reconnaissance
- Address emerging contaminants of potential future concern

Updates and Revisions to ASTM E1527 Standard

How E1527-21 Differs from E1527- 13

- Several changes in wording of language, mostly related to three key terms
 - Recognized Environmental Conditions
 - Historical Recognized Environmental Condition
 - Controlled Recognized Environmental Condition
- Definitions of these three terms revised, but not the concepts and ramifications



Updates and Revisions to ASTM E1527 Standard

Section 8.3, *Historical Research*, significantly revised

- EP should consider that properties may be different in use, size, configuration, or address than in the past
- Now includes interviews, as well as other sources
- If use is retail, industrial, or manufacturing, then standard historical resources shall be reviewed if they are likely to identify a more specific use and are reasonably ascertainable
- Aerial photographs, fire insurance maps, local street directories, and historical topographic maps must be reviewed if they are reasonably ascertainable, likely to be useful, and applicable to the subject property
- If these four historical sources were researched for the subject property, provide coverage of one or more adjoining properties, and are likely to be useful in satisfying the historical research section object, then these sources should also be reviewed for the adjoining properties.



Updates and Revisions to ASTM E1527 Standard

Section 9, *Site Reconnaissance* generally revised

- Clarified that the Phase I report should describe which of the specific features, activities, uses, and conditions both were and were not present at the subject property



Updates and Revisions to ASTM E1527 Standard

Notable additions to Phase I report

- A site plan and photographs, as defined in Section 12.3, *Contents of the Report*
- Identification of significant data gaps in the Findings of the report per Section 12.5.1, *Significant Data Gaps*
- All recognized environmental conditions, controlled recognized environmental conditions, and significant data gaps listed in the Conclusions of the report per Section 12.7, *Conclusions*



Updates and Revisions to ASTM E1527 Standard

Section 12.8, *Additional Investigation*, and Note 6

- Clarifies that an opinion should be provided in the report that additional investigations may be appropriate
- This requirement is different than a recommendation that provides a specific course of action, which is not required and falls outside the scope of the Phase I Environmental Site Assessment standard

Updates and Revisions to ASTM E1527 Standard

New discussion around emerging contaminants

- Sections 13.1.5.15 and X6.10 note that substances not defined as hazardous substance under CERCLA, including some substances generally referred to as emerging contaminants because human understanding is evolving (e.g., per- and polyfluoroalkyl substances, or PFAS), are not included in the scope of a Phase I report.
- However, emerging contaminants may want to be assessed in connection with commercial real estate, because once defined as a hazardous substance under CERCLA, then these substances must be evaluated within the scope of E1527-21.

Updates and Revisions to ASTM E1527 Standard

Appendices significantly revised

- Updated legal background on CERCLA and the application of AAI (X1)
- An additional examination of the recognized environmental condition definition and logic (X4)
- Expanded suggestions for the Phase I Environmental Site Assessment report format (X5)
- Discussions of emerging contaminant and petroleum product non-scope issues (X6)

Useful Resources/Links

EPA Brownfields and Land Revitalization	epa.gov/brownfields
Brownfields All Appropriate Inquiries	epa.gov/brownfields/brownfields-all-appropriate-inquiries
EPA Clu-In	clu-in.org
Interstate Technology and Regulatory Council	itrcweb.org/home
Cleanups in My Community	epa.gov/cleanups/cleanups-my-community
Environmental Protection in Indian Country	epa.gov/tribal
Envirofacts	enviro.epa.gov



Questions?

