

ASTM E1527-21: Implementing the New Phase I Environmental Site Assessment Standard Practice

Meeting Appropriate Inquiry Requirements and Limiting CERCLA Liability

TUESDAY, JANUARY 25, 2022

1pm Eastern | 12pm Central | 11am Mountain | 10am Pacific

Today's faculty features:

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Implementing the New E1527-21 Phase I Environmental Site Assessment Standard Practice

January 2022

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E1527 Revision Drivers

- ▶ CERCLA and the All Appropriate Inquiries rule require that assessments be conducted “*consistent with good commercial and customary practice*”
- ▶ ASTM uses a consensus-based method among Users and Producers to develop a **consistent** process that is expected to result in a **consistent** deliverable.
- ▶ Inconsistencies in process and quality signaled the areas where the standard could be improved.
- ▶ Review of recent litigation and claims also provided insight for areas where the standard could be improved.

Revision Process

- E1527 Task Group formally convened Feb 2018.
- Task Group objectives were:
 - Clarify and improve existing language
 - Update to reflect current customary practice
 - Strengthen the deliverable
- Over 75 meetings (in-person and virtual)
- Revised Standard balloted multiple times



Availability

- ▶ E1527-21 Published November 2021
- ▶ Available through astm.org (redline also available)
- ▶ E1527-13 now a “historical standard,” but nothing prevents its continued use
- ▶ ASTM has submitted a formal request to EPA to reference E1527-21 as compliant with All Appropriate Inquiries

The Role of ASTM E1527

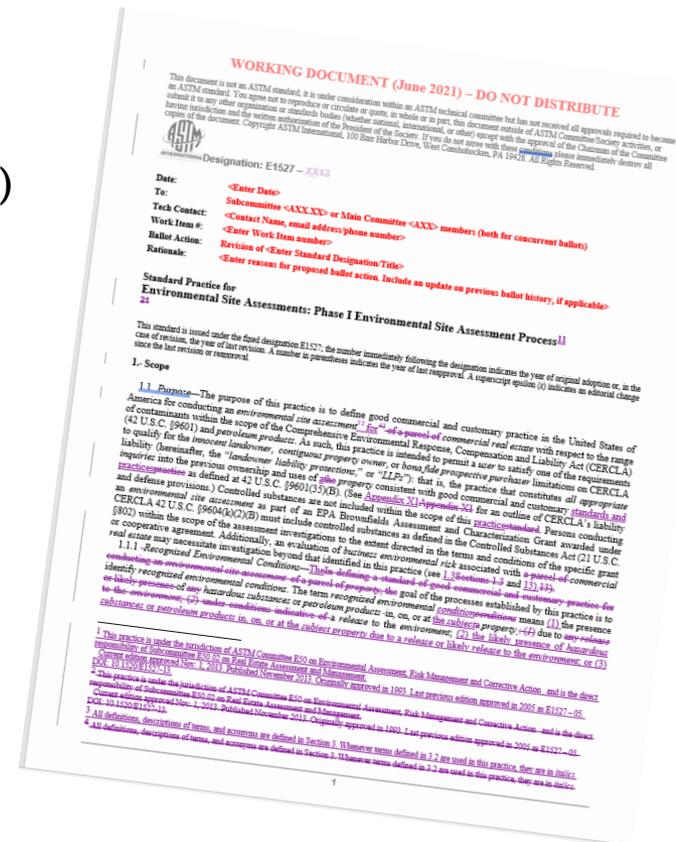
- ▶ AAI defines “What” must be done to assert the CERCLA Landowner Liability Protections (inquiries that must be performed).
- ▶ ASTM defines “How” the inquiries are to be performed
- ▶ ASTM also reflects the evolution of “*good commercial and customary practice.*”

Why Do We Perform Phase 1 ESA_s?

- ▶ Satisfy federal and state liability protections for purchasers, tenants, ground lessees, etc.
 - Innocent Landowner (ILO)
 - Contiguous Property Owner (CPO)–not NY
 - Bona Fide Prospective Purchaser (BFPP)–not NY
 - But not NJ Innocent Purchaser
- ▶ Establish post-acquisition “due care” obligations
- ▶ Seller pre-positioning property
- ▶ Understand/Allocate Environmental Risks
- ▶ Brownfield Grantees
- ▶ NEPA and state environmental review requirements
 - NYC “e” designation
 - Affordable Housing Funding
- ▶ Foreclosing lenders
- ▶ Tax foreclosure/sales
- ▶ Eminent Domain

Key Changes

- Revised Definitions (stronger, clearer)
- Guidance Language (“Discussion”)
- Historical Research
- Site Reconnaissance
- Report
- Appendices



What the Heck is a REC?

Recognized Environmental Condition (REC) definition reworded:

1. **Presence** of HS or PP due to a release to the environment
2. **Likely** presence of HS or PP due to a release or **likely** release to the environment, or
3. Presence of HS or PP under conditions that pose a **material threat** of a future release to the environment

Revised REC Definition (§3.2.73)

(1) the presence of any hazardous substances or petroleum products in, on, or at a the *subject property* due to any release to the environment; (2) the likely presence of any hazardous substances or petroleum products in, on, or at the *subject property* (1) due to release to the environment; (a 2-release) under conditions indicative of or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the *subject property* under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.

What is “Likely”?

New Note added to the REC Definition:

“Likely” is that which is neither certain nor proved, but can be expected or believed by a reasonable observer based on the logic and/or experience of the environmental professional, and/or available evidence, as stated in the report to support the opinion given therein.

New “Likely” Definition (§3.2.73.1)

“For the purposes of this definition, “likely” is that which is **neither certain nor proved**, but can be **expected or believed** by a **reasonable** observer based on the **logic and/or experience** of the environmental professional, and/or **available evidence**, as stated in the report to support the opinions given therein.”

Note: Legal definition of “likely” is having a high probability of occurring or being true (typically 67% to 90% certainty)

New CREC Discussion (§3.2.17.1)

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

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

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

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

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

Revised HREC Definition (§3.2.39)

“a ~~past~~ **previous** release of **any** hazardous substances or petroleum products that ~~has occurred in connection with~~ **affecting the subject** property ~~and that~~ has been addressed to the satisfaction of the applicable regulatory authority **or authorities** and meeting unrestricted use criteria established by a regulatory authority, **the applicable regulatory authority or authorities** without subjecting the **subject** property to any required controls (for example, ~~property use restrictions, activity and use limitations, institutional controls, or other engineering controls~~ **property use limitations**). ~~Before calling the past A release a historical recognized environmental condition, the environmental professional must determine whether the past release is not a recognized environmental condition. at the time~~ **For examples** of Phase I Environmental Site Assessment historical is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the ~~past release to be a recognized environmental condition~~ **conditions**, at see **Appendix X4** the time the Phase I-ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition.”

New HREC discussion (§3.2.39.1)

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

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

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

REC vs HREC vs CREC

- ▶ Recognized Environmental Conditions:
 - Presence or likely presence of a release . . . to the environment
- ▶ ~~Historical Recognized Environmental Condition~~ (revised in 2013)
 - Past releases affecting the subject property, addressed to unrestricted use
 - ~~Must consider current regulatory framework (rules change)~~
 - HRECs are not RECs
- ▶ ~~Controlled Recognized Environmental Condition~~ (introduced in 2013)
 - Past releases affecting the subject property, addressed to anything above unrestricted use
 - CRECs are a subset of RECs (meets the “presence” test) and must be included in the conclusions section of the report

All “Closures” Are Not Created Equal



CERCLA NFRAP



LUST NFA



VCP COC



NFRAR



No Constituents of Concern Remain

CREC

- ▶ A release that has been addressed to risk-based concentrations is based on some type of control such as:
 - Commercial or industrial use (even if implied or inferred)
 - Distance from sensitive receptors
 - Environmental covenant
 - Agency No Further Action letter and supporting data meeting risk-based criteria
 - Self-directed response meeting risk-based criteria adopted by regulatory authority
- ▶ It is critical to understand the data and the applicable regulatory program
- ▶ It is critical to identify **any** residual contamination above unrestricted use criteria as a REC or a CREC – see next slide

REC vs HREC vs CREC

- ▶ If there is residual contamination **present** at concentrations above unrestricted use criteria, that condition, by definition, will be either a REC (not yet fully addressed) or a CREC (fully addressed and controls understood).
- ▶ If there is residual contamination **present** at concentrations above unrestricted use criteria, that condition cannot by definition, be an HREC.

New Definition: Property Use Limitation

- ▶ Not a new concept. E1527-13 states
“... controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)”
- ▶ Task Group replaced “property use restrictions” (not previously defined) with “property use limitations” (now defined)”
- ▶ E1527-21: PUL defined broadly to capture a wide variety of risk-based mitigation end points:
“limitation or restriction on current or future use of a *property* in connection with a response to a *release*, in accordance with the applicable regulatory authority or authorities that allows *hazardous substances* or *petroleum products* to remain in place at concentrations exceeding unrestricted use criteria.”

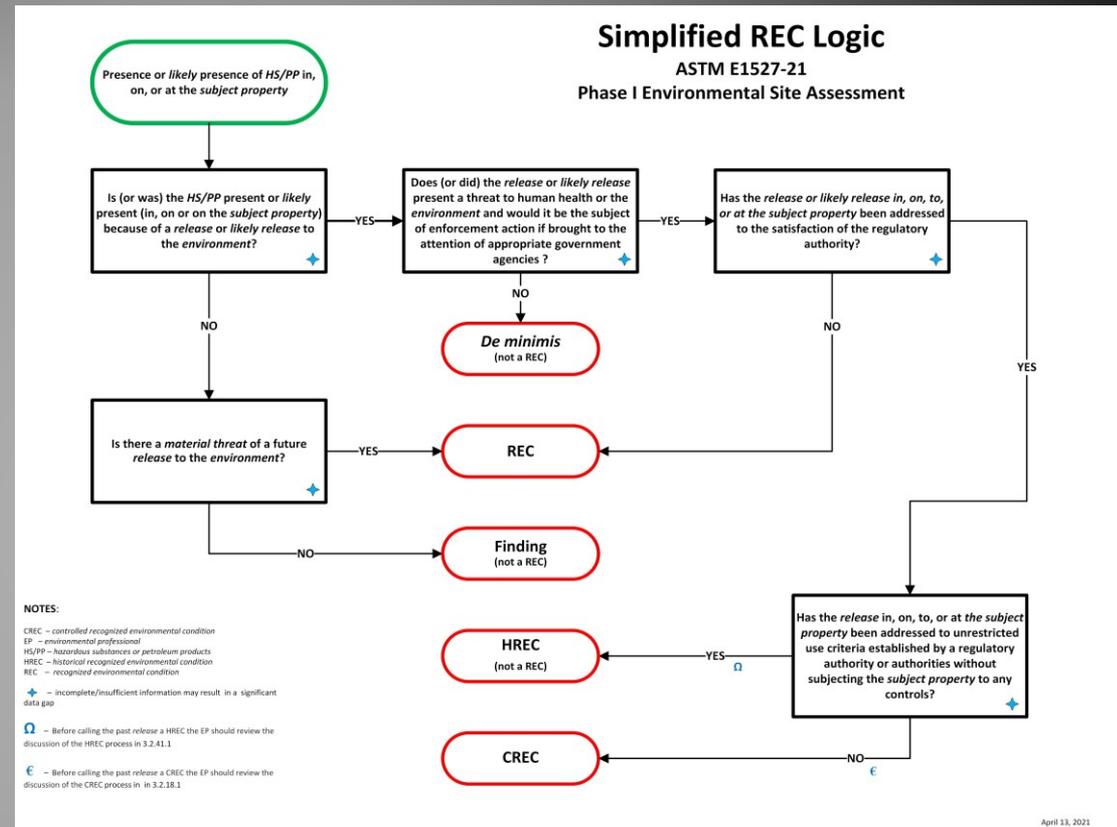
“Property Use Limitation”(§3.2.67)

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

New Tool - REC Appendix

- New REC Appendix (X4)

- REC Definition Broken Down
- Simplified REC Logic Diagram
- Examples of (simple) scenarios



Physical Setting Review

- ▶ Include physical setting source information obtained from agency file reviews

BOREHOLE LOG									
Project xxxxxx Job No. xxxxxx Project 44-00-cv Contractor 22 00 xx Contractor S. of 4							BOREHOLE NO xxx-BH01 Sheet 1 of 4		
SAMPLES & TESTS		TEST RESULTS		STRATA		DESCRIPTION		CORRECTION	
Depth	Type	Test	Result	Depth	Description	Correction	Remarks	Correction	Remarks
0.00-1.10				0.00	0.00 - 0.30 Loose light grayish brown silty fine to medium sand (SP-SM)				
1.10-1.35	SPT	N64	100	1.10	0.30 - 1.40 Loose grayish brown silty clayey fine to medium grained (SC)				
1.35-2.30	SPT	N64	100	1.40	1.40 - 2.00 Loose grayish brown to light orange brown clayey fine to medium grained (SC)				
2.30-2.45	SPT	N64	100	2.00	2.00 - 2.10 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
2.45-2.85	DRELEBY	Ref	100	2.10	2.10 - 2.15 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
2.85-3.10	SPT	N-24	0	2.15	2.15 - 2.20 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
3.10-3.30	SPT	N-24	100	2.20	2.20 - 2.30 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
3.30-4.30			82	2.30	2.30 - 2.40 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
4.30-4.42	BHELEBY	Ref	100	2.40	2.40 - 2.50 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
4.42-4.87	SPT	N-30	100	2.50	2.50 - 2.60 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
4.87-6.30			100	2.60	2.60 - 2.70 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
6.30-6.45	SPT	N-30	64	2.70	2.70 - 2.80 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
6.45-6.90			40	2.80	2.80 - 2.90 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
6.90-7.30	SPT	N-40	100	2.90	2.90 - 3.00 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
7.30-7.45	BHELEBY	Ref	70	3.00	3.00 - 3.10 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				
7.45-8.00			80	3.10	3.10 - 3.20 Very stiff gray to light gray silty clayey fine to medium grained (CL-ML) Organic fine to medium sand (CL-ML) with occasional fine to medium grained gravel (CL-ML)				

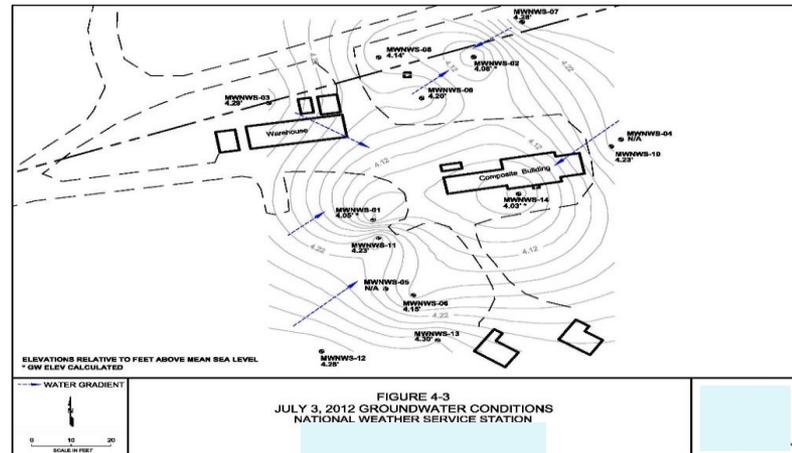


FIGURE 4-3
JULY 3, 2012 GROUNDWATER CONDITIONS
NATIONAL WEATHER SERVICE STATION

New Definition: “Land Title Records” (§3.2.45)

“records that affect the title of real estate, which may include, among other things, deeds, mortgages, leases, land contracts, court orders, easements, liens, and *AULs recorded within the recording systems or land registration systems* created by state statute in every state and ordinarily administered in the local jurisdiction (usually the county) in which the *subject property* is located, and *available by performing a title search*. Such records are publicly accessible, though the process of performing a title search to find *land title records* often requires specialized expertise or knowledge of the local system (see Section 5.4 – *AULs and Environmental Liens in Land Title Records*). *Information* about the title to the *subject property* that is *filed or stored* in any place *other than where land title records are, by law or custom, recorded* for the local jurisdiction in which the *subject property* is located, are not considered *land title records*.”

Revised Definition “Material Threat” (§3.2.52)

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

Revised Definition

“Obvious” (§3.2.55)

“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~~ **observer** ~~property.~~”

Revised Definition “Release” (§3.2.75)

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

Revised definition “visually and/or physically observed” (§3.2.96)

“during a site visit pursuant to this practice, this term means observations made by ~~vision while walking through a~~ **visual, auditory**, ~~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 ~~or olfactory~~ site visit; they may do so by the means at their disposal for moving through **means while performing** the ~~property~~ site and reconnaissance. ~~the structures located on it.”~~”

Strengthen the Deliverable

- ▶ Consistent use of “Subject Property”
- ▶ More robust discussion about how significant data gaps affect the EP’s opinion.
- ▶ Conclusions must include RECs, CRECs, and Significant Data Gaps
- ▶ Include Photos and Site Map



Emerging Contaminants

- ▶ Per- and polyfluoroalkyl substance (PFAS)
 - Not currently regulated as hazardous substances CERCLA. However, many states recognize PFAS as a hazardous substance under state superfund laws
 - How does Revised standard address PFAS?

Emerging Contaminants(cont'd)

- ▶ Footnote 3 to Section 1.1.4
- ▶ Section 13.1.5.15 (non-scope items) and
- ▶ Appendix X6.10

Historical Research

- ▶ Objective is to identify uses back to 1940 or first developed use (unchanged)
- ▶ Intervals (unchanged):
- ▶ Standard Historical Sources (unchanged)
 - Aerial photos, fire insurance maps, street directories, topographic maps, building department records, interviews, property tax files, zoning/land use records
- ▶ Data Failure (substantially unchanged):
 - The historical research is complete when **the objective** is achieved

Historical Research

- ▶ Users and producers agreed that additional, consistent rigor needed
- ▶ Clearer emphasis on property identification:
 - The subject property is defined by its current boundaries
 - Properties may be different in use, size, configuration, or address than in the past
 - Research of additional addresses may provide further information to meet the objective
- ▶ Clarified Type of Use:
 - Specific information about uses is more helpful than general information
 - If the general type of use is retail, industrial, or manufacturing, then additional *standard resources* shall be reviewed if they are likely to identify a more specific use and are *reasonably ascertainable*
 - **Note:** Merely identifying that a building is present may not satisfy the historical research objective. For example, tenant operations in a retail building may have included past dry cleaning or other activities of concern.

Revised Historical Research – Subject Property

- ▶ The following standard resources shall be reviewed if reasonably ascertainable, likely to be useful, and applicable to the subject property
 - * Aerials
 - * Fire Insurance Maps
 - * Topos
 - * City Directories
- ▶ If not reviewed, state why
- ▶ Additional standard resources **shall** be reviewed, as needed, to satisfy **the objective**
- ▶ Can continue to use “other historical resources”

What is Good Commercial and Customary Practice for Adjoining Properties??

- ▶ EPs are currently interpreting **E1527-13** differently:
“Uses in the area surrounding the *property* shall be identified in the *report*, but this task is required only to the extent that this information is revealed in the course of researching the *property* itself”
- ▶ **E1527-13** says factors to consider include:
“. . . the time and cost involved in reviewing surrounding uses (for example . . . reviewing *local street directories* **for more than the few streets** that surround the site is typically too time-consuming)



New Section: Historical Research - Adjoining Property

- ▶ During research of the subject property, past uses of the adjoining properties that are obvious shall be identified to evaluate if those uses may have led to RECs
- ▶ If researched for the subject property, if they provide coverage the adjoining properties, and if they are likely to be useful in satisfying the objective, review the following:

Aerials

Topos

Fire Insurance Maps

City Directories

If reviewed for the subject property and not the adjoining property, say why

- ▶ Additional standard historical resources **should** be reviewed if warranted to satisfy the objective.
- ▶ Can continue to use “other historical resources.”

Historical Research – Surrounding Area

- ▶ Substantially unchanged
- ▶ Uses in the area surrounding the *subject property* shall be identified in the *report*
- ▶ This task is required only to the extent that this information is revealed in the course of researching the *subject property* itself (for example, an aerial photograph or fire insurance map of the subject property will usually show the surrounding area).
- ▶ Factors to consider in making this determination include . . . reasonably ascertainable; the time and cost . . . (for example, analyzing aerial photographs is relatively quick, but reviewing local street directories for more than the few streets that surround the subject property is typically too time-consuming); information is useful, accurate, and complete . . .

New Definition: Significant Data Gap

§3.2.84

- ▶ *significant data gap—a data gap that affects the ability of the environmental professional to identify a recognized environmental condition.*
- ▶ Phase 1 must discuss how significant data gaps affected the EP's ability to make conclusions regarding RECs.
- ▶ Significant Data Gaps must be listed in the Conclusions section of the Phase I ESA.

Shelf life

- ▶ ASTM E1527-21 **clarifies** that the 180-day shelf life “**begins to run**” from the **earliest date** of the following inquiries is commenced (not the *date of issuance* of the report):
 - Interviews with knowledgeable persons
 - Review of government records
 - Review of environmental liens
 - Visual inspection of the property; or,
 - Declaration by the EP.
- Note, for phase 1 reports **6 to 12 months old**, the above five inquiries must be repeated within 180 days of the transaction date.

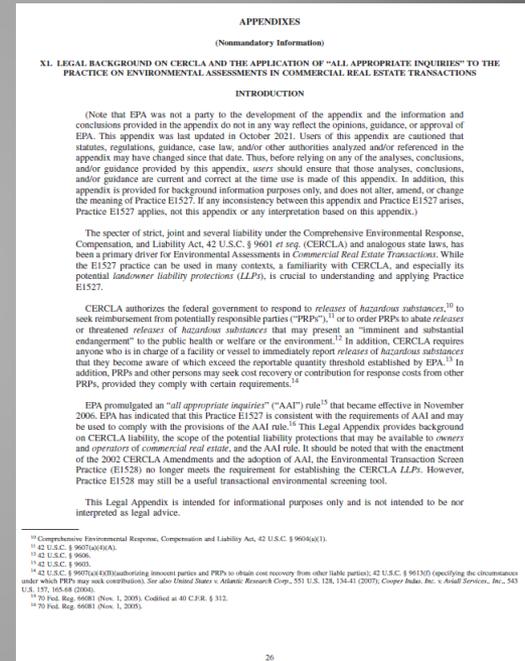
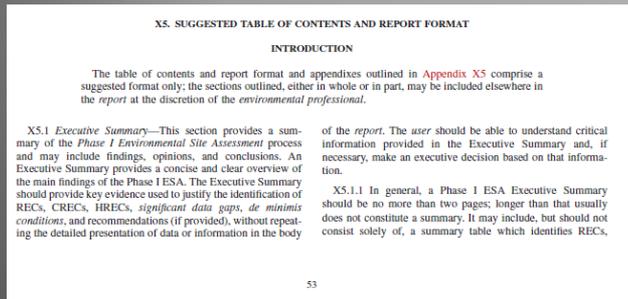


Society of Women
Environmental Professionals
New Jersey Chapter



Updated Appendices

- Rewritten legal appendix (X1)
- New REC Appendix (X4)
- Revised Table of Contents (X5)



Final Thoughts on Changes to E1527

- ▶ Latest revisions reflect input from across the country - from users and producers – representing current good commercial and customary practice and are expected to result in consistent, quality deliverables
- ▶ EPs producing quality deliverables will likely see little substantive change in their process
- ▶ Read the Standard; don't let the redline scare you
- ▶ Double check and confirm that your reports conform with the current standard.
- ▶ Consider joining ASTM E50.02 Committee



When Will E1527-21 Affect Me?

- ▶ **E1527-13** is recognized by EPA as conforming with AAI
- ▶ EPA's updated CERCLA reference to **E1527-21** may take a year to process.

▶ OPTIONS

- Continue using/citing **E1527-13** until EPA references **E1527-21**
- Use **E1527-21** and cite as such in reports
- Use and cite **E1527-13** (the standard referenced in the AAI Rule), and note that the assessment also satisfies the requirements in **E1527-21**
- Use **E1527-21** and cite both **E1527-13** and **E1527-21** as the applicable standards



Recent Litigation Involving AAI/BFPP

- ▶ *TC Rich, LLC v. Shaikh*, 2021 U.S. Dist. LEXIS 69483 (C.D. Cal. 02/22/21)
- ▶ *Von Duprin vs Major Holdings, LLC*, 12 F.4th 751 (7th Cir. 2021)
- ▶ *United States v. P.R. Indus. Dev. Co.*, 2021 U.S. App. LEXIS 34123 (1st Cir. 11/17/2021)
- ▶ *Stratus Redtail Ranch LLC v. IBM*, 2022 U.S. Dist. LEXIS 8723(D.Col. 1/18/22)

Contact Information



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Comments or Questions?