



What You Need to
Know About the
ASTM E1527-13
Phase I ESA
Standard Practice

EHSICC
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Agenda

- > Status: E1527-13 Standard Practice for Environmental Site Assessments
- > Key Changes: E1527-13 v. E1527-05
- > Discussion on Most Frequently Raised Questions Regarding:
 - > REC/HREC/CRECs?
 - > Vapor migration screening?
 - > Regulatory file reviews?
 - > Pricing impact of E1527-13?
- > Case Studies on Implementation



Status of the E1527-13 Phase I ESA Standard

- > ASTM Phase I Task Group approved revisions to E1527-05 at the end of 2012
- > Revisions submitted to EPA for AAI (All Appropriate Inquiry Rule) approval
- > On August 15, 2013 EPA amends AAI Rule to state ASTM E1527-13 as revised satisfies AAI and seeks public comment
- > Comment period ended September 16, 2013, some negative comments
- > EPA plans to publish final rule by the end of this year
- > ASTM E1527-13 was published on November 6, 2013
- > ASTM E1527-13 “preferred” over ASTM E1527-05
- > UPDATE: on June 17, 2014 EPA amended the CERCLA All Appropriate Inquiry Rule to officially acknowledge the replacement of the -05 practice with -13



E1527-13 v. E1527-05

Key Changes

- > Recognized Environmental Condition (REC) and related definitions
- > Vapor Migration Screening
- > Regulatory File Review



RECs

- > REC definition improved
- > Historical REC (HREC) definition revised
- > New definition for a “controlled” REC (CREC)



Improved REC Definition

Old Definition: (emphasis mine)

*“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 products **into structures** on the property, or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws.”*

New Definition:

*“the presence or likely presence of any hazardous substances or petroleum products **in, on, or at** a property: (1) due to any **release** to the environment; (2) under conditions **indicative of a release** to the environment; or (3) under conditions that pose a **material threat of a future release** to the environment.”*



CERCLA Definition of a “Release”

*42 U.S.C. § 9601(22) defines a **release** as “any spilling, leaking, pumping, pouring, **emitting**, emptying, discharging, injecting, escaping, leaching, dumping, or disposing **into the environment** (including the abandonment or discharging of barrels, containers, and other closed receptacles containing any hazardous substances or pollutant or contaminant”*

(refer to Terminology Section of the E1527-13 Standard)



CERCLA Definition of “Environment”

*42 U.S.C. § 9601(8) defines **environment** to include (A) the navigable waters, the waters of the contiguous zone, and the ocean waters...and (B) any other surface water, groundwater, drinking water supply, land surface or **subsurface** strata...”*

(refer to Terminology Section of the E1527-13 Standard)



Revised HREC Definition

Old Definition:

“an environmental condition which in the past would have been considered a REC, but which may or may not be considered a REC currently.”

New Definition:

*“a **past release** of any hazardous substances or petroleum products that has occurred in connection with the property and **has been addressed** to the satisfaction of the applicable regulatory authority or **meeting unrestricted use criteria** established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restrictions, AULs, institutional controls, or engineering controls). Before calling the past release an HREC, the **EP must determine whether the past release is a REC at the time the Phase I ESA is conducted** (e.g., if there has been a change in the regulatory criteria). If the EP considers this past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.”*

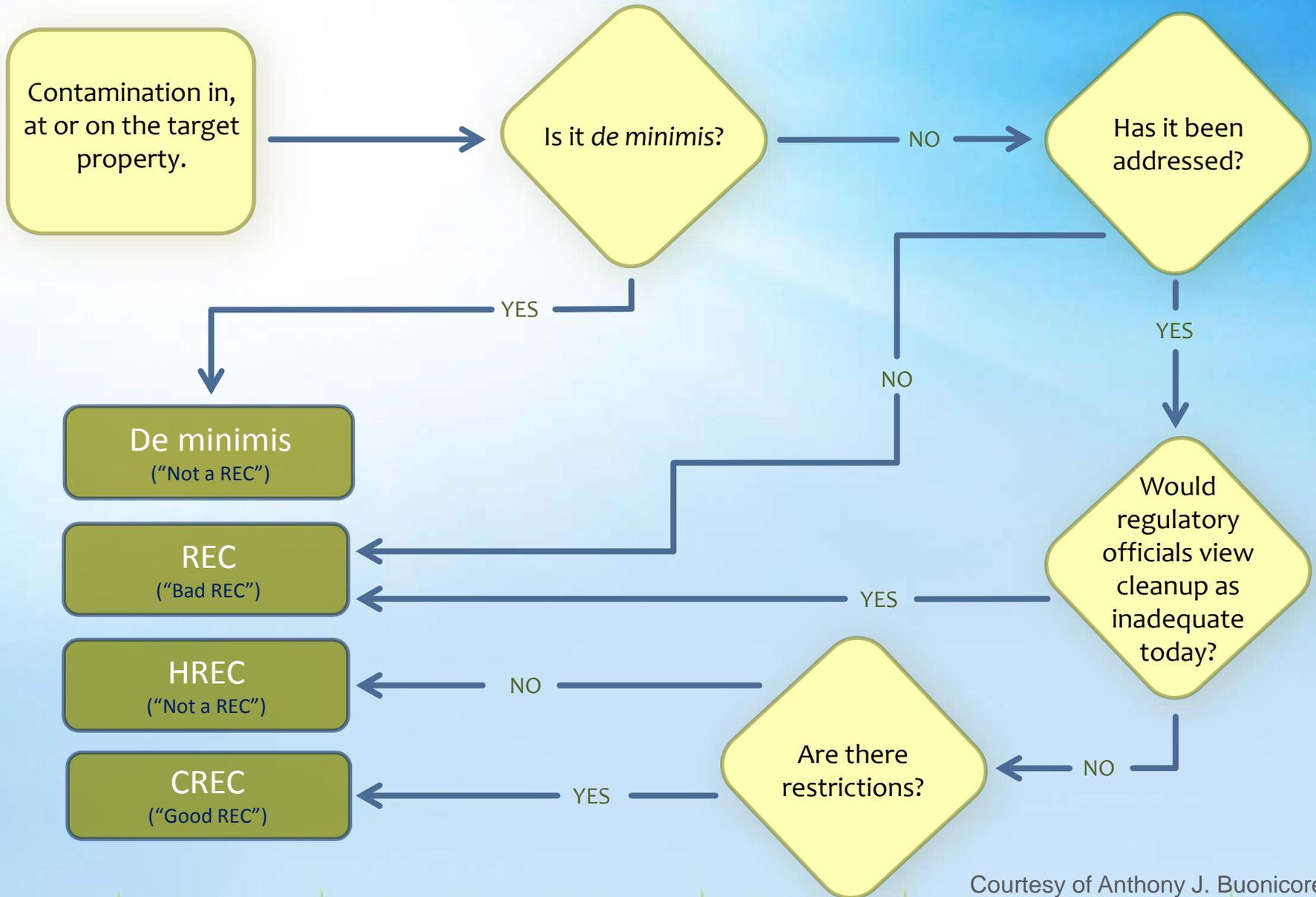


New CREC Definition

*“a REC resulting from a **past release** of hazardous substances or petroleum products that **has been addressed** to the satisfaction of the applicable regulatory authority (e.g., as evidenced by the issuance of a NFA letter or equivalent, or meeting risk-based criteria established by regulatory authority), with **hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls** (e.g., property use restrictions, AULs, institutional controls, or engineering controls)... a **CREC** shall be listed in the Findings Section of the Phase I ESA report, **and as a REC* in the Conclusions** Section of the...report.”*

** Section 12.8 of E1527-13 requires that the conclusions section of the report summarize all RECs (including CRECs) connected with the property.*

REC-HREC-CREC Relationship



Courtesy of Anthony J. Buonicore, P.E.



Vapor Migration Included in Phase I Investigation

- > CERCLA/AAI do not differentiate the form (e.g., solid, liquid, vapor) of the *release to the environment* (refer to CERCLA definition of “*release*” and “*environment*”)
- > Vapor migration is to be treated no differently than contaminated groundwater migration
- > *Migrate/migration* now defined in E1527-13 and includes “vapor in the subsurface”
- > E2600-10 is a referenced document in E1527
- > While vapor migration assessment is part of an ASTM E1527-13 Phase I, vapor intrusion assessment is outside the scope



Regulatory File Review

- > New section 8.2.2 added on *Regulatory Agency File and Records Review*
- > If the TP or any adjoining property is identified in government records search, “pertinent regulatory files and or records associated with the listing **should** be reviewed” - at the discretion of the environmental professional
- > If in the EP’s opinion such a file review is not warranted, the EP **must** provide justification in the Phase I report
- > As an alternative, EPs may review files/records from alternative sources such as on-site records, user-provided records, records from local government agencies, interviews with regulatory officials, etc.
- > Summary of information obtained from the file review **shall** be included in the Phase I report and **EP must include opinion** on the sufficiency of the information obtained



Case Studies on Implementation of E1527-13

> Is a condition a REC, HREC or CREC?



REC/HREC/CREC?

The target property (shopping center) has been remediated (source of petroleum contamination has been eliminated and contaminated soil removed). State agency is allowing the contamination in the groundwater to attenuate naturally. However, the state agency requires quarterly groundwater sampling, which is currently being performed. How would this be treated under the new REC/HREC/CREC definitions in E1527-13?



Response

- > Groundwater contamination above state standards exists on the site – ordinarily would represent a REC, **but...**
- > When a state allows remediation via natural attenuation, this is typically supported with a risk assessment to protect public health and the environment
- > In this case, the state agency added a “restriction,” i.e., quarterly groundwater sampling needs to be conducted until contaminant levels comply with remediation standards
- > Thus a **CREC!**



REC/HREC/CREC

A target property site (shopping center) had been remediated (perc dry cleaner) ten years ago using risk-based cleanup. The state agency approved closure and issued an NFA letter at that time. A Phase I is currently being performed for a transaction and it was determined that the vapor pathway was not considered when the initial risk-based clean-up took place. How would this be treated under the new REC/ HREC/ CREC definitions in E1527-13?



Response

- > Contamination still exists on the property
- > Risk-based cleanup was conducted before vapor intrusion was recognized as a serious problem and when there was little understanding of the vapor pathway
- > State NFA letters typically say that no further action is required at this time, but if new information becomes available, the case may be re-opened
- > Vapor intrusion concern represents “new information”
- > Thus a **REC!**



REC/HREC/CREC

A target property site (office complex) has been remediated to industrial/commercial soil and groundwater cleanup standards (less restrictive than residential standards). The state agency issued an NFA letter with the restriction that it is acceptable so long as the property remains industrial/commercial. The property is now being acquired and a Phase I performed. How would this be treated under the new REC/HREC/CREC definitions in E1527-13?



Response

- > Contamination still exists on the property above residential remediation standards, but below industrial/commercial remediation standards
- > State NFA letter says that no further action is required at this time so long as the property remains industrial/commercial.
- > Property has been remediated to the satisfaction of the state regulatory agency, but agency adds restriction that property must remain industrial/commercial
- > Thus a **CREC!***

** However, when the EP provides professional opinion on the CREC, client will be advised of the situation and it is unlikely the CREC will create a problem in the property transaction (unless the prospective purchaser plans to develop a residential use on the property).*



REC/HREC/CREC

A LUST on a multifamily property has been remediated (UST excavated and disposed, contaminated soil removed and contaminated groundwater remediated to residential cleanup standards using air stripping). State issued an NFA letter with no restrictions on use. Property is being acquired and a Phase I conducted. How would this be treated under the new REC/HREC/CREC definitions in E1527-13?



Response

- > Contamination still exists on the property but below residential remediation standards
- > Property meets “unrestricted use” criteria in the HREC definition
- > Thus an **HREC!**



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