

## Technical Brief

### EDR's ASTM E 1527 Revisions Webinar: Q & A

Below is EDR Insight's summary of the most interesting questions that were submitted by the attendees of the December 14th webinar titled [Upcoming Revisions to ASTM E 1527: Are You Prepared for 2013?](#)

The questions are presented by category based on the key areas of proposed revisions covered by speaker Anthony Buonicore during his presentation. Some of the questions below were addressed during the live event, and others have been added that were not addressed due to time constraints.

#### RECs, HRECs & CRECs

**Q:** If a property has been cleaned up to industrial/commercial standards, but the zoning is residential, would this be a CREC?

**Anthony J. Buonicore:** For a CREC to exist, there must be a land use restriction. If, for example, a property has been cleaned up to industrial/commercial standards, it is likely the NFA letter would specify that the cleanup met regulatory requirements so long as the property remained commercial/industrial. If for whatever reason the plan was to re-develop the property in the future to incorporate residential, e.g., a multifamily development, then the NFA would no longer be valid. In my view, this scenario would constitute a cleanup with a land use restriction and would therefore represent a CREC, and be defined in the Phase I as a REC, despite the fact that at the time of the Phase I there really was no outstanding environmental problem! In my presentation, I consider a CREC to be a "good" REC, and certainly unlikely to prevent a prospective purchaser from acquiring the property, assuming there is no intention to develop the property into an unacceptable use as defined by the regulatory agency.

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**Q:** What is a "material" threat of a future release in the REC definition? If there are hazardous waste drums stored on the property, would this constitute a REC since there could be spills from these drums in the future?

**AJB:** The E1527 Standard defines "material threat" as a physically observable or obvious threat reasonably likely in the EP's professional opinion to lead to a release. The standard actually gives an example of a damaged above ground storage tank containing a hazardous substance – the damage would represent a material threat if the EP considers it serious enough that it may cause or contribute to integrity failure with a consequent release to the environment. Hazardous waste drums stored on a property would therefore not represent a material threat unless you physically observed damage or have some other evidence that leads you to believe a release to the environment may occur in the future.

**Q:** Can you go through the REC-HREC-CREC relationship again?

**AJB:** Of course. If you have a known or suspect contamination on a target property arising from activities on the property or nearby, and the contamination has not been addressed, you have a REC ("bad" REC). If it has been addressed, such as through a risk-based cleanup, then the first question to ask is whether there have been any changes in regulatory requirements, for example, which might change the way regulators today would view the cleanup that was performed in the past. If so, this past contamination and risk-based cleanup may be inadequate today and therefore represent a REC ("bad" REC). However, assuming there are none, then the next question is if there are any land use restrictions or activity and use limitations. If the answer is yes, you have a CREC, which would be identified as a REC in the conclusions section of your Phase I report ("good" REC). If the answer is no, you have an HREC, which is not a REC!

#### Vapor Migration

**Q:** Why did you say that Tier 1 in E2600 should be used for VEC screening?

**AJB:** In my opinion, there are three reasons why Tier 1 in E2600 should be used for VEC screening: (i) the methodology including the numerical criteria was developed by industry experts through the ASTM consensus process, and relying on the standard enables you to use the numerical criteria in the standard (such as the critical distance criteria); (ii) the standard has considerable flexibility to incorporate professional judgment (which effectively would likely be what you are doing if you use your own methodology); (iii) to not rely on it means you must document the methodology you are using and provide sufficient detail in the Phase I report to enable a third party EP to reconstruct what you did and reach the same conclusion.

**Q:** Does a Phase I have to address vapor intrusion into buildings on the property if vapors are potentially migrating onto a property?

**AJB:** Vapor intrusion assessment is not part of a Phase I. However, vapor migration is, and if vapors are not potentially encroaching upon a target property (per the Tier 1 VEC screen), vapor intrusion becomes a moot point. If the vapors are potentially encroaching upon the target property, then of course there is the possibility of vapor intrusion into buildings on the property, but this can only be established by a separate investigation, typically following the state's VI

guidance document, assuming one is available, or EPA's VI guidance.

**Q:** When do I have to start including vapor screening in my Phase Is? Is there a problem with waiting until the revised E1527-13 standard is published next year which addresses it?

**AJB:** According to lawyers participating on the ASTM E50 committee, CERCLA includes a definition of "release" and "environment" that makes it clear vapor migration onto a target property should always have been considered in Phase I investigations, no differently than contaminated groundwater migration is considered. However, it is my personal opinion that while this may be the case, there wasn't an accepted methodology to perform a non-intrusive assessment (and the Phase I is a non-intrusive investigation) to assess the impact of potential vapor migration from nearby contaminated sites, at least not until 2008 when ASTM E2600-08 was published. Moreover, industry surveys suggest it was not routine and customary practice to consider vapor migration as part of the Phase I investigation. Once the E2600-10 standard was published, this for the first time clarified that vapor migration should be treated no differently than contaminated groundwater migration in Phase I investigations, and in the E1527 revision process which began at about that same time, the Phase I standard was revised to clarify that vapor migration is part of the Phase I investigation. ASTM E1527-13 will make this absolutely clear. This is a long-winded way of saying that if you are doing Phase Is today, in my opinion you should be considering vapor migration. I would also recommend you discuss this with your firm's legal counsel.

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**Q:** Do you have to specifically address vapor migration in the report even if the RECs would not generate vapors (e.g., metals in soil)?

**AJB:** E1527 requires sufficient documentation to be included in the Phase I report such that a third party EP can reconstruct what you did and come to the same conclusion. As such, I would document in your Phase I report, perhaps in the Findings section, that you considered potential vapor migration on or to the target property and what conclusion you reached and why. If the vapor issue does not result in a REC, it does not have to be mentioned in the Conclusions section. If you have metals in soil on the target property, the only question is whether or not they are volatile, e.g., mercury. If they are not volatile, vapor is not an issue.

**Q:** Can you explain again what you mean by vapor migration is to be treated no differently than contaminated groundwater migration in the Phase I?

**AJB:** Let me use an example for what I mean. Prior to vapor emerging as a due diligence issue, if a former dry cleaner was located up-gradient and relatively close to a TP, most EPs would identify it as creating a REC on the TP because of the high probability there were releases from the dry cleaner and that these releases contaminated groundwater below the property. As the groundwater is flowing directly toward the TP, there is a distinct possibility the contaminated groundwater would have reached the TP. As such, the EP would likely define this as a REC and recommend GW sampling in a Phase II follow-on investigation to gain more certainty. Similarly today, knowing what we know about vapor migration, if a former dry cleaner was located cross-gradient and abutting the TP, most EPs would likely identify it as creating a VEC on the TP. Due to the high probability of there having been releases of volatile cleaning solvent (PERC) from the dry cleaner with PERC vapors volatilizing into the vadose zone from contaminated groundwater and potentially migrating to the target property, most EPs would likely consider this to be a REC and recommend soil gas testing at the TP boundary in a Phase II follow-on investigation to gain more certainty. Contaminant migration onto the TP is contaminant migration onto the TP, whether it be by the groundwater or vapor pathway. And CERCLA/AAI does not differentiate by pathway!

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## Regulatory Agency File Reviews

**Q:** Does the E1527 standard address when it is not reasonably ascertainable to do regulatory agency file reviews?

**AJB:** No. The standard, however, identifies what constitutes something as not being reasonable ascertainable, i.e., not publicly available, or not practically reviewable, or not available within reasonable time for a reasonable cost. And reasonable time and reasonable cost are for you to determine. If you have to drive over a great distance, for example, to access the files, or if you have to FOIA them and the time frame to receive them is unknown or unacceptably long, or if the agency has significant charges to access or copy the files, these all could represent a not reasonably ascertainable situation.

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**Q:** How can I price the cost of visiting regulatory agency offices to review files of adjoining properties when I have no idea at the proposal stage whether or not there are any problem properties adjoining my target property, nor how extensive any files are that may be available?

**AJB:** I personally do not think you can, unless of course the agency makes the information available on-line. That is why I would be inclined to identify the adjoining property causing the concern as creating a REC on the target property and indicate to the client that to get more certainty, a follow-on investigation

(which of course is priced separately) to review the regulatory agency files on that adjoining property is recommended. As an alternative, you could include a regulatory agency file review in the Phase I quote, but cap the time and cost. So, for example, you can advise the client you included in your quote up to say 4 hours for this review, but if the review entails more time and costs (such as for copying), these will be billed on a T&M basis under a change order.

## General Questions

**Q:** If a gas station with no records of a release is identified on or next to my property, do I as an EP need to evaluate tank tightness testing results and the results of monitoring to determine if a release occurred with potential vapor migration implications?

**AJB:** If a gas station is on or next to the target property and it is RCRA compliant with no evidence of spills or releases to the environment, then you as an EP must decide if releases (not releases that would be considered de minimis) to the environment may have occurred which are not obvious. It is your professional opinion about possible releases that may or may not bring in the issue of vapors being a possible concern. If a gas station is on the target property, you likely will be able to review the most recent tank testing report, as well as monitoring results and potential violations, all of which can help you make your decision. If the gas station is off-site, there likely will not be as much information available. In the final analysis, you might want to put vapors aside, and simply ask yourself what would you want to see from a groundwater migration perspective if the gas station was up-gradient next to your target property. Remember, vapor migration is to be considered no differently than contaminated groundwater migration.

**Q:** Does ASTM define "adjoining" (i.e., is a property that is located immediately across the street from the subject site considered to be adjoining?) Or, is it limited to the properties that share a common property boundary?

**AJB:** ASTM E1527 does define an adjoining property as any property the border of which is contiguous or partially contiguous to the target property, or that would be contiguous or partially contiguous but for a street, road, or other public thoroughfare dividing them. This means directly abutting or directly across the street.

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EDR Insight is committed to helping you prepare for the clarifications to the E 1527 standard. Beginning in January, we will kick off a new monthly series of technical briefs on these topics:

- Meeting the Challenges of Agency File Reviews
- Vapor Migration in the Phase I ESA
- Making CREC Determinations
- Complying with User Responsibilities
- And more!

If you do not already receive EDR Insight's biweekly emails with links to our latest research, [sign up here](#).

Stay tuned for the latest and greatest developments as ASTM E 1527 moves closer to its next iteration.

## About EDR Insight

Our [Research Agenda](#) focuses on the forces driving property assessments and how best practices for environmental risk management are evolving. Through up-to-date research and a proprietary market model, EDR Insight fosters a broader understanding of the commercial property assessment market and the importance of managing environmental risk.

**NOTE TO READERS:** EDR Insight wishes to thank Anthony Buonicore for his contribution to this Q&A brief based on the December 14th webinar.

## Questions or comments?

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