

## Technical Brief for Environmental Professionals & Commercial Real Estate Lenders

### Webinar Q & A: Revisions to ASTM E 1527-13 Standard - Are You Prepared?

**Author:** Anthony J. Buonicore, CEO, The Buonicore Group

On Tuesday, April 23, 2013, EDR Insight hosted a webinar titled [Revisions to the ASTM E 1527 Standard: Are You Ready? Anthony J. Buonicore, CEO of The Buonicore Group](#) presented in detail his summary of the final revisions to the ASTM Phase I ESA standard, the rationale behind these changes and valuable tips on how environmental professionals and risk managers at financial institutions can deal with these changes in their own practice.

More than 600 environmental consultants, risk managers, attorneys and other professionals tuned in from locations as far away as Chile and India, and the flood of questions that came in provide a first-hand look into what the market is most concerned about as it collectively waits for the sixth version of E 1527 to be published. The flood of questions that came in exceeded the time available to answer them so Anthony graciously offered to provide his answers to the ones that were not addressed during our event here.

**Question:** *Why should a target property owner/prospective purchaser be concerned about vapor from an off-site dry cleaner? After all, doesn't the dry cleaner have responsibility?*

**Anthony J. Buonicore:** The target property owner/prospective purchaser would likely be concerned for a number of reasons. First of all, if any kind of development is anticipated for the site, the possible existence of hazardous vapors could present a problem during construction (resulting in a delay or additional costs). Secondly, if the source of the hazardous vapors, i.e., the dry cleaner, has no financial resources to do a clean-up, the problem will continue to exist and worsen the situation on the target property. If the target property owner has the "deepest" pocket, whether he or she likes it or not, involvement in expensive litigation may be unavoidable. Thirdly, there may be other good business reasons to take action, e.g., tenants could threaten to leave (possibly even breaking their leases due to there not being a "safe" working environment) or it may become more difficult to attract tenants. The negative PR could be damaging and would likely adversely impact the value of the property. Certainly the target property owner could sue the dry cleaner, but if the dry cleaner has no financial resources or pollution coverage, this would go nowhere. Finally, certain courts, e.g., First and Fourth District Courts, have viewed contaminant migration on a target property caused by an off-site source to be "passive migration" and if the target property owner allows the situation to continue, the courts have attributed a clean-up liability to the target property owner.

**Q:** *If a property has been remediated to the level of applicable industrial or commercial standards, but the zoning is residential, would this be a CREC?*

**AJB:** By definition, for this situation to be a CREC, there must be a land use restriction on the property. If as you state, a property has been cleaned up to industrial or commercial standards, the NFA letter would likely specify that the cleanup met regulatory requirements provided that the property use remained commercial/industrial. If for whatever reason, for example, it was re-developed in the future to incorporate a residential component (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 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 issue! In my presentation, I considered this to be a "good" REC, and something that would not likely prevent a prospective purchaser from acquiring the property.

**Q:** *Under the REC definition, what is a "material" threat of a future release? Specifically, if I'm dealing with hazardous waste drums stored on the property, would this constitute a REC since there could be spills from these drums down the road?*

**AJB:** "Material threat" is defined in E 1527 as a physically observable (or obvious) threat that is reasonably likely to lead to a release. The standard goes on to give an example of a damaged aboveground storage tank containing a hazardous substance. In this example, the damage would represent a material threat if the EP considers it serious enough that it may cause or contribute to tank integrity failure with a release to the environment. In this context, the hazardous waste drums you mentioned that are stored on a property would therefore not represent a material threat unless you physically observe damage or have some other evidence that there could be a future release to the environment.

**Q:** *You stated in your presentation today that Tier 1 in the ASTM E2600 standard should be used to conduct a VEC screening. Why?*

**AJB:** I can give you three good reasons why I believe Tier 1 in E2600 should be used for VEC screening:

1. The methodology (including the numerical criteria) was developed by industry experts through the ASTM consensus process. Relying on the standard enables you to use the numerical criteria in the standard (e.g., the 100 feet critical distance, etc.);
2. The standard has considerable flexibility to allow you to exercise professional judgment (which effectively would likely be what you would do if you relied on your own methodology);
3. To not rely on Tier 1 in E2600 means you have to document the methodology you are using and provide sufficient detail in the Phase I ESA report to enable a third party EP to reconstruct what you did and reach the same conclusion.

**Q:** *Does my Phase I ESA need to address vapor intrusion into buildings on my target property if I'm dealing with a situation where vapors are potentially migrating onto the property?*

**AJB:** Vapor migration is part of a Phase I ESA. Vapor intrusion assessment is not. If vapors are not potentially capable of encroaching upon a target property (per the Tier 1 VEC screen), vapor intrusion becomes irrelevant. 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 follow-on investigation, typically applying 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 later this year?*

**AJB:** According to a number of knowledgeable lawyers participating on the ASTM E50.02 subcommittee, CERCLA has always included a definition of "release" and "environment" that made it clear to them that vapor migration should always have been considered in Phase I assessments, no differently than contaminated groundwater migration has been considered. In my personal opinion, however, while this may have been the case, there was not a widely-accepted methodology, particularly in evaluating off-site sources, at least not until 2008 when ASTM E2600-08 was published. Further, surveys clearly suggest that vapor migration screening was not considered "customary practice" in the industry. When the E2600-10 standard was published, it 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 that same time, the Phase I standard clarified that vapor migration was part of the Phase I investigation, and this is absolutely clear in the revised standard. What I am suggesting is that if you are doing a Phase I today, it would be prudent to considering vapor migration. If you prefer to wait until it is made clear in the revised E1527 standard, you certainly will not have to wait long.

**Q:** *What are your business suggestions for how my firm can adequately account for the effort/cost of visiting regulatory agency offices to review files of adjoining properties in my Phase I price? I have no idea at the proposal stage whether or not there are any problem properties adjoining my target property or how extensive any files are that may be available!*

**AJB:** How can you? One alternative would be to identify the adjoining property causing the concern as creating a REC on the target property and indicate to the client in your recommendation that to get more certainty, you recommend a follow-on investigation (which you can price separately from the Phase I) to review the regulatory files on that property. Another option is for you to consider including the cost of a regulatory file review in the Phase I quote, but make sure that you cap the time and cost. For instance, you might advise the client that you are including in the quote up to, for example, 4 hours for this file review, but if the review entails more time and costs (e.g., for copying), this added level of effort will then be billed on a T&M basis under a change order.

**Q:** *Under the new revisions to E1527, does it address when it wouldn't be reasonably ascertainable for me to do an agency file review in my Phase I?*

**AJB:** Not exactly, but the standard does identify what constitutes something not being reasonable ascertainable. For example, it says if it is not publicly available, or if it is not practically reviewable, or if it is 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 to access the files, or if you have to FOIA them and the time frame to receive them is excessive, or if the agency has significant charges to access or copy the files, these all could represent a not reasonable ascertainable situation that should be documented in your Phase I report.

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

**AJB:** Consider this example: A former drycleaner is located up-gradient (and relatively close) to a target property. In this case, most EPs would consider this a REC given the high probability of releases from the dry cleaner and the likelihood of releases contaminating groundwater below the property. If the groundwater was flowing directly toward the target property, there is a distinct possibility the contaminated groundwater would have reached the property. As such, the EP would define this as a REC and likely recommend groundwater sampling in a Phase II follow-on investigation to gain more certainty. Similarly, if you're dealing with a former drycleaner located cross-gradient and abutting the target property, most EPs familiar with E2600-10 would likely identify it as creating a VEC on the target property. Due to the high probability that there were releases of volatile cleaning solvent (PERC) from the dry cleaner with PERC vapors volatilizing into the vadose zone from contaminated groundwater, most EPs would likely consider this to be a REC and recommend soil gas testing at the property boundary in a Phase II follow-on investigation to gain more certainty. The key point here is this: migration onto a target property is migration onto the target property, whether or not it is groundwater or vapor.

**Q:** *How do you consider an Environmental Lien in your evaluation of RECs?*

**AJB:** An environmental lien may be placed on the property by entities such as the EPA to get paid for the cost of cleaning up the property. Assuming the property has been cleaned up, the environmental lien issue is really a financial issue (EPA wants to get paid back). The EP doing a Phase I would still need to investigate the remediation conducted and use professional judgment to determine whether or not a REC exists. If the cleanup is not complete, then clearly a REC exists. If the cleanup is complete with no restrictions, then the condition constitutes an HREC. If there are restrictions, the condition constitutes a CREC.

**Q:** *If I'm dealing with an adjacent property to the target property that is a historical dry cleaner still operating from 1950's, there no documentation of spills but dry sump pump pits are identified in the basement of the target property listed as area of concern, does this fall into tier 2?*

**AJB:** If there is a dry cleaner operating adjacent to the target property and has been so since the 1950s, it is highly likely that there were releases. In order to evaluate if a VEC exists on the target property, it would be helpful to know if the dry cleaner is up-gradient, cross-gradient or down-gradient from the target property. Once this is known, the distances in the tables shown in my presentation slides could help evaluate whether or not a VEC would be likely.

**Q:** *Do you expect the EPA regs for VI, which I hear are coming out in final form this summer/fall will be consistent with 1527-13?*

**AJB:** EPA's final vapor intrusion guidance is directed at vapor intrusion into structures. The vapor screening identified in the upcoming ASTM E1527-13 standard is directed at vapor migration onto a target property, and says nothing about whether the vapor potentially migrating on the target property might result in a vapor intrusion problem. The two standards are consistent.

**Q:** *Is a "suspect REC" defined?*

**AJB:** There is no such thing as a "suspect REC" in E1527.

**Q:** *If ASTM E1527-13 is published, let's say on September 1, could an updated Phase I ESA (that that now exceeds its 180-day Continued Viability) be conducted as an update using E1527-13, or would a completely new Phase I ESA be required in accordance with the new ASTM standard?*

**AJB:** ASTM E1527 defines what should be done to update a Phase I report beyond its 180 day "life." If the original Phase I did not consider vapor migration, the update would need to do this. The same is true to deal with the regulatory file review and CREC issues. It is likely many EPs would suggest a new Phase I be conducted.

**Q:** *How is gas handled under E1527-13? For example, landfill gas - carbon dioxide, carbon monoxide and methane, which are not solids, liquids or vapors...are they excluded and considered non-scope? This is common in older sites with older or non-regulated landfills.*

**AJB:** Methane is not a hazardous substance or petroleum product, which is what a REC is designed to consider. As such, it is a non-scope issue for an ASTM E1527 Phase I. However, depending upon what was disposed in the non-regulated landfill and where it is located with respect to the target property, it may result in a REC on the target property anyway.

**Q:** *How would you know if vapor migration exists without sampling and testing...which takes it out of scope of a Phase I, Yes/No?*

**AJB:** Vapor encroachment screening is just that – screening. If the potential is there and you want more certainty, than sampling certainly may be appropriate. It would be just like the potential for contaminated groundwater migrating to the target property. If you want more certainty, than a Phase II investigation makes sense.

**Q:** *Known vs. suspect REC: this is confusing. I thought it was up to the EP to make a final determination about whether something is a REC or not. There is no "suspected REC," correct?*

**AJB:** There is no such thing as a "suspect REC" in E1527.

**Q:** *What do you mean by "de minimis" conditions?*

**AJB:** Two conditions must be met. The first is that the condition should present no adverse impact on public health or the environment. The second is that if the regulatory agencies were aware of the condition, there would not be an enforcement action.

**Q:** *How can an HREC not be a REC? I understand the argument, but the letters, R, E, and C are included in the acronym HREC....*

**AJB:** Welcome to the confusion!

**Q:** *Is it not true that depending on the property and the user's intent, a CREC could be a "bad rec" too? If for example, the CREC site was to be turned from industrial (where the AUL might be meaningless, and hence the CREC is "good") into residential use, the CREC is just as bad as a REC, from "the user might have to do something" standpoint.*

**AJB:** From a prospective purchaser position, it would be unlikely (not never) that the existence of a CREC would kill the transaction. If the target property is industrial/commercial with AULs, and the prospective purchaser wants to convert this to residential, it may be the actual AUL (not the fact that a CREC exists) that dictates the need for addition remediation on the site. I would think this would all be raised as an issue by the EP conducting the Phase I.

**Q:** *So....if a material exits on the site in any way, shape, or form...it poses a threat of a release, regardless of whether it is legally contained and managed, based on item #3 of the new rule?!*

**AJB:** No. There must be a “material threat.” Refer to the definition in E1527.

**Q:** *Can I begin using CREC now?*

**AJB:** Until such time as E1527-13 is published by ASTM and replaces E1527-05, E1527-05 is the applicable standard and E1527-05 does not contain the CREC term. As such, in my opinion it would not be appropriate to begin using the CREC term now.

**NOTE TO READERS:** EDR Insight wishes to thank Anthony Buonicore for his contribution to this Q&A brief based on his April 23rd webinar.

#### Questions or comments?

**Dianne P. Crocker** | *Principal Analyst*

**Email:** [dcrocker@edrnet.com](mailto:dcrocker@edrnet.com)

[www.edrnet.com/edrinsight](http://www.edrnet.com/edrinsight)

[www.twitter.com/edrinsight](http://www.twitter.com/edrinsight)

Unauthorized reproduction, distribution or use of EDR Insight's Strategic Briefs and Technical Briefs is strictly prohibited.

© 2012 Environmental Data Resources Inc. All rights reserved.