ESA Report
SEPTEMBER 2007
THE LATEST IN ENVIRONMENTAL SITE ASSESSMENTS
VOLUME XII, NUMBER 9

EXPERTS WEIGH IN: IS AN ONSITE DRY CLEANER A REC?

One of the most challenging aspects of conducting Phase I environmental site assessments involves making determinations about whether a condition constitutes a "recognized environmental condition" under the ASTM E 1527-05 standard. In recent discussions with Phase I environmental site assessment professionals, real estate attorneys and investors, it became obvious that the industry has varied expectations and habits when using and hearing the term REC as applied to dry cleaners. For this month's feature story, EDR assembled a team of leading experts in the environmental due diligence world to share their opinions on this controversial question: Should an onsite dry cleaner be characterized as a REC?

Before we address this question, it is useful to step back and take a look at the history of perchloroethylene (PCE or perc). Neighborhood dry cleaners across the U.S. have been using perc in their operations for more than 60 years. In fact, an estimated 30,000 operations are still using it. In 1993, EPA imposed restrictions on perc usage based upon evidence of serious health effects and environmental impacts from releases. At that time, environmental consultants who had viewed dry cleaners as benign found themselves in lawsuits over the issue. As things progressed, a phase out of the most problematic dry cleaning equipment began. In 2006, EPA strengthened requirements and began a phaseout of perc dry cleaners co-located in residential buildings. Many states followed suit and adopted or expanded these regulations. Currently, most states have dry cleaner enforcement programs and some have established clean up funds for contamination tied to dry cleaners' perc use. Worker exposure studies and data from soil and groundwater investigations are readily available on the dangers to human health that have been tied to perc.

The controversy about the risk posed by the presence of an onsite dry cleaner revolves around differing interpretations of ASTM's E 1527-05 definition of a REC (see graphic on p.4). Below are the insights from three leading environmental consultants and a well-known environmental attorney on this important topic.

Ben Strong, Vice President
VERTEX Environmental Services, Inc.
Weymouth, MA

Let's first consider what a REC is, both from a technical standpoint and from a practical standpoint. Included in the ASTM definition is "...a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property."

Photo of neighborhood dry cleaner having no known violations.
Source: PSI, Inc.

Point #1: Despite newer technologies with closed loop systems, we see—time and time again—impacts to the subsurface directly beneath a dry cleaning unit that uses PCE, even when the unit is less than two years old. Granted, the concentrations may sometimes be limited to soil, but many times in areas where groundwater is shallow, it doesn't take much of a release to trigger an actionable situation. Additionally, if there are low level impacts, there is always the potential that the concentrations will increase and may impact groundwater since chlorinated solvents will sink - this is especially problematic when there is no known release and the system is functioning properly, but there are impacts. As such, the presence of a dry cleaner onsite should meet the REC definition.

> *"I don't think I know of anyone who would say there is absolutely no risk of impact to a site from an existing dry cleaner that uses chlorinated solvents."*
>
> Ben Strong, Vice President
> VERTEX Environmental Services, Inc.

Point #2: Regardless of the text in the ASTM standard or the semantics debate that rages among consultants, task force leaders and attorneys, the vast majority of lenders, buyers, and other stakeholders will consider the presence of a dry cleaner as a 'practical' REC—meaning there is the potential of a release from a dry cleaner, and they will want to know if there has been a release by looking at subsurface data. I don't think I know of anyone who would say there is absolutely no risk of impact to a site from an existing dry cleaner that uses chlorinated solvents—hence we trip the practical REC definition.

continued on page 4

INSIDE

continued from page 5

Alan Agadoni, Senior Vice President
ATC Associates Inc.
Marietta, GA

Note: The comments below are those of Alan Agadoni and do not necessarily reflect the opinion of ATC Associates.

One of the best tools to assist in the REC determination is the "REC Tree" I introduced in the April 2006 edition of *ESA Report*. The six-step REC Tree encourages EPs to conduct a methodical analysis of ESA data based upon ASTM E 1527-05's definitions and logic. While the REC Tree was designed to evaluate actual conditions on a property, the decision-making logic can also work to address our question.

First of all, perc is a hazardous substance and thus falls within the scope of E 1527-05. Further, I will assume that a typical onsite perc dry cleaner is likely to have a past, present or material threat of release on the property. The definitions in E 1527-05 for both REC and "material threat" use the word "likely" to describe the probability for a release. "Likely" is used in the same way as "probable" but is clearly "something less than reasonably certain" (Black's Law Dictionary). Applying the standard's "de minimis" language is the most controversial step for this exercise. It requires the EP to determine whether or not the perc release at our hypothetical dry cleaner would meet two premises (see graphic on p.4). If the release fails either premise, and meets all other requirements, then it would be considered a REC.

1) "threat to human health" – Regarding whether a release of perc to soil or groundwater beneath a typical dry cleaner is generally a threat to human health, I note that you can find studies that show serious nervous and respiratory system effects from exposure of perc through inhalation or ingestion. Perc has also been identified as a probable carcinogen to humans. Those familiar with industrial hygiene might say the risk from our hypothetical dry cleaner depends on the location, quantity and concentration of the release as well as the route for exposure to humans. However, in the vast majority of cases, there is insufficient data available during the ESA to accurately characterize the nature of the release. Even if an EP's experience suggests that a "typical" dry cleaner release is generally "low level" and would not likely be a threat, should one reasonably assume for a specific case that generally no threat is posed by a subsurface dry cleaner condition? There are numerous critical data points needed to make this determination that are often simply not available from the results of the ESA (e.g., the term of operation, type of equipment and work practices by past and current operators, and the location and quantity of accidental or intentional releases). Should an EP "roll the dice" and assign a level of threat to human health for a specific dry cleaner based on a general assumption of likelihood? When you address the subsurface conditions beneath dry cleaners, I say no. That conclusion is supported by the Code of Ethics for Engineers to which many EPs abide. The Code clearly states, "Engineers, in the fulfillment of their professional duties, shall: 1. Hold paramount the safety, health and welfare of the public."

2) "subject of an enforcement action" - The problem here is that the term "enforcement action" is not defined in E 1527-05. Enforcement may vary based on the nature of the actual release and differences in rules among federal, state and local jurisdictions. Let's assume that in the case of a major release to soil and groundwater, no EPs would argue it would not be subject to enforcement. What about a "low level" release? Once more, we must ask whether an EP can justifiably assume the severity of release based on insufficient ESA data. But for arguments sake, let's assume that beneath our hypothetical dry cleaner there are "typical low levels" of perc in soil and groundwater. For this example, let's apply the rules of my home state. The Georgia Hazardous Site Response Act (HSRA) requires agency notification if a known release of perc results in a concentration above the naturally-occurring background concentration (usually 5 ppb). In addition, the concentration for notification in soil is a very low 180 ppb. At a minimum, a notification of a release would trigger the enforcement process. This starts with a "risk ranking" of the property for consideration of further action by the State. Environmental agencies have a range of authorities and response mechanisms for enforcement that includes requiring monitoring, testing, reporting, shut downs, cleanup actions, fines and imprisonment among others. In this light, limiting the definition of "enforcement action" to conditions that require cleanup seems unduly narrow. Therefore, in Georgia this hypothetical condition may be considered "subject to enforcement action" if a known "low level" perc release triggers notification to the state.

Obviously, this is not a black and white issue. I suggest that before you assume a perc dry cleaner is always a REC, consider the scenario outlined above. There may be cases where sufficient data is available from the ESA (including recent Phase II results) for the EP to reasonably conclude that the condition is not a REC. However, those cases would require a substantial amount of supportive data that would not usually be found during a typical ESA at a dry cleaner.

Richard S. Porter, Attorney at Law
Hinshaw & Culbertson LLP
Rockford, IL

In my opinion, the mere presence of a dry cleaner onsite does not justify automatic designation as a REC. It is important to remember that by definition, a REC excludes de minimis conditions that generally do not present a threat to human health or the environment, and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The climate of strict environmental regulation which has permeated the dry cleaning industry in recent years suggests that there is no basis for unilaterally equating the presence of a dry cleaning facility with a condition indicating an existing release, or the material threat of release, of a hazardous substance.

There may, however, be a legitimate basis for concern over past releases from facili-

continued on page 8