Extended Due Diligence:
Phase II Assessment

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EXTENDED DUE DILIGENCE: PHASE II ASSESSMENT

The second major due diligence question – how big is the problem – requires some degree of understanding about conditions in the ground. If a property has a history of investigative or remedial work when due diligence commences, existing engineering reports, investigative data and even remedial action documentation may provide a ready answer. In many cases, however, the only way to reduce unknowns to manageable dimension is to obtain data about actual site conditions.

The E1903-11 standard[60] defines a practice for "Phase II" investigation to obtain such data. Despite its title, an E1903 investigation need not follow a Phase I ESA and need not be limited to matters identified as RECs in a Phase I report; rather, it may be done "in any situation in which a User desires to obtain sound, scientifically valid data concerning actual property conditions."[61] While such a desire may involve determining whether a release has actually occurred, site conditions may be of interest for any number of reasons including the evaluation of business environmental risk and other due diligence purposes.[62]

The Phase II assessment process reflects several overarching themes.

A significant challenge of Phase II investigation in the due diligence context is that the primary and secondary transaction participants have diverse information needs. Sellers and buyers notoriously have equal and opposite views of what constitutes sufficient information. Most transactions involve lenders or other financing sources with their own underwriting or due diligence expectations. Whenever environmental insurance coverage is part of the transactional risk allocation structure, the underwriting requirements of the insurance carrier are independently relevant as well. From each of these perspectives, a "Phase II investigation" can mean different things, and a "Phase II report" that meets one set of needs may be inadequate for others. And most perilously, a "Phase II" conducted to answer focused questions may be misconstrued as a "clean bill of health" for a property as a whole.

The ASTM standard therefore requires the User and Producer to define the objectives of an investigation at the outset, then carry those objectives through as the conceptual backbone of the assessment process and the focus of the written report on the results of the investigation. It expressly acknowledges that Phase II assessments may serve a wide variety of purposes. The standard provides a non-exclusive list[63] of possible objectives that includes the following:

- Determine whether a release of hazardous substances has occurred.
- Provide information relevant to identifying, defining and implementing landowner "continuing obligations."

60 Standard E1903-11, "Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process."
61 E1903-11, section 1.2.
62 E1903-11, Section 1.2.1-6 (non-exclusive list of potential objectives for Phase II ESA).
63 E1903-11, section 1.2.

- Provide information relevant to evaluating and allocating business environmental risk in a transaction setting.
- Provide information relevant to non-environmental legal obligations such as the landowner's common-law duty to visitors concerning premises conditions, or the obligations of securities issuers to disclose liabilities and contingent liabilities in financial statements and securities disclosures.

While affording the User flexibility about objectives, E1903 also requires clarity in defining them and rigor in using them to organize the assessment process. The User and Phase II assessor therefore must to consult and develop a written "statement of objectives" incorporated in the scope of work and replicated in the written report of the investigation. The "statement of objectives" integrates with the central technical thread of the standard, which is that Phase II assessments are conducted in accordance with the scientific method. The "objective" provides the question or hypothesis to be tested through environmental assessment activities in accordance with standard experimental methodology. This too is an iterative, interactive process. The nature of the question and the degree of confidence or certainty required in the answer both influence the scope of investigation.

These considerations in turn integrate with another consideration that inevitably comes up in conducting environmental assessments, which is the cost of assessment activities. The standard encourages the User and assessor to balance cost against utility in defining the objectives. This balancing leaves room both for value-engineering to minimize costs, and for expansion of scope to achieve broader objectives if desired. The scientific method imposes a constraint on cost-based adjustments, however: if budgetary considerations impair the assessor's ability to collect information sufficient to achieve the user's objectives in a defensible manner, the objectives may have to be modified further – or the assessor may need to qualify conclusions due to data insufficiency.

A. Using E1903-11 Standard Practice for Phase II Environmental Site Assessments

The revised Phase II standard begins:

> This practice covers a process for conducting a Phase II environmental site assessment (ESA) of a parcel of property with respect to the presence or likely presence of substances including but not limited to those within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (e.g., hazardous substances), pollutants, contaminants, petroleum and petroleum products, and controlled substances and constituents thereof.[64]

This initial statement reflects three critical features of the Phase II assessment process.

First, the standard is not limited to CERCLA "hazardous substances," but may be used in reference to any "substances." This idea is deliberately broad enough to embrace not only the kinds of releases that could be of regulatory concern, but also materials that may not trigger

64 E1903-11, section 1.1.

regulatory consequences (e.g. pesticides applied in accordance with manufacturer's instructions) as well as naturally occurring materials (e.g. arsenic) that may be of concern to the User.

Second, the standard is not limited to "releases." The rubric of "presence or likely presence" derives from the Phase I standard's definition of "recognized environmental condition."[65] To this extent, the standard meshes with the Phase I REC definition and can be used in conjunction with it to evaluate areas identified as RECs in a Phase I assessment. But the lack of linkage to Phase I means that the standard works wherever the presence or likely presence of a given substance is of interest, whether to investigate a suspected release area or for any other reason.

Third, the standard does not invoke the CERCLA rubric of "good commercial or customary practice" or otherwise attempt to relate itself to AAI concepts.[66]

In all of these respects, this opening sentence positions the Phase II standard as a framework adaptable to "any situation in which a user desires to obtain sound, scientifically valid data concerning actual property conditions, whether or not such data relate to property conditions previously identified as RECs or data gaps in Phase I ESAs."[67] The standard goes on to list six non-exclusive scenarios that illustrate the range of situations in which users may seek "data to inform their evaluations, conclusions, and choices of action."[68]

Phase II assessment proceeds on the basis of core concepts derived from the fundamental principle that scope is a function of User objectives. Thus:

- The standard expressly acknowledges that "[t]he scope of a Phase II ESA is related to the objectives of the investigation."[69]

- "The user and Phase II Assessor must have a mutual understanding of the context in which the Phase II ESA is to be performed and the objectives to be met by the investigation, i.e. the specific questions to be answered or problems to be solved."[70]

- The confidence desired in the result affects the scope of investigation and evaluation of data – higher confidence may require more extensive testing and more iterations of sampling than if only general conclusions are desired.[71]

With these concepts as foundation, the assessment process proceeds as follows.

Developing and Documenting the Scope of Assessment: "Statement of Objectives"

65 See above at n. 6 and accompanying text.
66 This reflects the legal context resulting from the 2002 Brownfields Amendments, as discussed above. See above notes 2 and 5.
67 E1903-11, section 1.2, "Objectives."
68 E1903-11, section 1.2.1 through 1.2.6.
69 E1903-11, section 1.3.
70 E1903-11, section 1.4.
71 E1903-11, section 1.4.1.

The Phase II assessment begins with a mandatory consultation between the User and the assessor to develop the objectives of the assessment.[72] This step is particularly important because the objective defines the question to be answered by the assessment, which is the starting point for any "scientific inquiry."[73]

While the standard does not prescribe or limit the objectives that may emerge from this consultation, it does mandate certain parameters to provide the participants with adequate information and to promote clarity in stating and defining the objectives and assessment process.

The standard imposes responsibilities on both participants. The assessor is charged with explaining the assessment process so the User "can make informed decisions and participate in formulating objectives."[74] The User is charged with providing all pertinent information concerning the property's environmental condition that is "known to, and reasonably and practicably available to," the User.[75]

In formulating the question to be addressed, the assessor is charged with reviewing "all reasonably ascertainable information relevant to the objectives of the assessment, including any Phase I ESA report concerning the property."[76] For this purpose, the Phase II standard mirrors the Phase I standard's definition of what is "reasonably ascertainable."[77] In addition, however, the Phase II assessor must independently evaluate the sufficiency of available information for "completeness, accuracy, and sufficiency as a foundation for" identifying the substances and locations to be investigated.[78]

Acquainted with the process and armed with available information, the User and assessor work out the question or questions the assessment needs to address. The result of their consultation is memorialized in the written "statement of objectives," which in turn is integrated into the written scope of work, contract, or similar document.[79]

In keeping with the philosophy of User control, the standard does not limit the User's ability to set time or budget limitations on the assessment, or to define other constraints on the duration or intensity of the investigative program. Such constraints have the potential, of course, to affect the reliability of any conclusions or even compromise the integrity of the investigation. The standard addresses this potential primarily by requiring transparency: the written statement of objectives has to identify and describe schedule or cost limitations, including any predetermined limitations on the scope of assessment or iterations of sampling. In consulting to define objectives, the User and assessor have to think about whether such limitations will compromise their ability to comply with the standard. If so, they must either

72 E1903-11, section 5.1, 5.1.1.
73 E1903-11, section 7.1.
74 E1903-11, section 5.1.3.
75 E1903-11, section 5.1.3. "Pertinent" information includes not only previous assessment reports and environmental studies, but also knowledge concerning activities and operations that "inherently pose the potential" for substances to be present.
76 E1903-11, section 7.2.
77 Compare E1903-11, section 3.1.41, with E1527-13, section 3.2.77 ("(1) publicly available; (2) obtainable from its source within reasonable time and constraints, and (3) practically reviewable"). The Phase II standard also mirrors the Phase I definition of "practically reviewable." Compare E1903-11, section 3.1.35, with E1527-13, section 3.2.69.
78 E1903-11, section 7.2.
79 E1903-11, section 5.1.1.

redefine the objectives to be achievable within the pre-defined limitations, or include in the statement of objectives an explanation of the anticipated effect the limitations will have.[80]

Defining the question to be answered also involves a discussion of how certain the answer has to be – or how approximate it can be – to meet the User's needs.[81] More confidence requires more work, at greater cost in dollars and time, whereas more general or limited conclusions may be attainable sooner with less investment.[82]

Although the standard contemplates a systematic approach to developing the statement of objectives and the question to be answered by the assessment, it does not prescribe any particular degree of elaboration. Indeed, this is a crucial characteristic of the E1903-11 process: while the *framework* for thinking about objectives is mandatory, the *implementation* need be only as elaborate as the needs of the project dictate. Indeed, the standard elsewhere expressly provides that the assessment process as a whole is to be undertaken "in the manner and level of detail appropriate to achieving the objectives set forth in the 'Statement of Objectives.'"[83]

This concept applies to all the implementation steps described below. It is important to understand that while the standard defines the assessment process at a level of detail that provides meaningful guidance for complex projects and objectives, it affords flexibility to right-size" investigations to suit simpler sites and more limited objectives. Striking an appropriate balance between elaboration and objectives is integral to the assessment process and requires the exercise of professional judgment by the assessor in consultation with the User.

Preliminary Activities: Information Review, Target Analytes and Conceptual Model

Early in the Phase II Assessment process, the Standard calls for systematic review and analysis of information to identify the substances that are of interest and to frame a "conceptual model" to guide investigative activities and aid in interpretation of results.

Information review is important in framing the objectives, but takes on added importance in identifying areas to be investigated. For that purpose, the Phase II standard articulates two distinct categories of information that may provide guidance.

One category consists of areas identified in past Phase I reports as "recognized environmental conditions" or "data gaps."[84] Just as any given Phase II is not necessarily linked to any prior Phase I investigation, however, the mention of this category does not mandate investigation of all such areas. Rather, the assessor "must determine which areas have to be investigated *in order to meet the objectives*."[85] RECs or data gaps are included, in other words, only if they must be explained to achieve the objectives of the assessment.

80 E1903-11, section 5.1.2.
81 E1903-11, section 7.1.
82 E1903-11, section 1.4.1. See also section 7.1 ("user's objectives may also dictate thresholds of concern or confidence desired in the conclusions to be derived from the investigation").
83 E1903-11, section 6.4 (overview of "Components of the Phase II Investigation").
84 E1903-11, sections 7.3.1 (RECs), 7.3.3 (data gaps).
85 E1903-11, section 7.3 (emphasis added). The Phase II Assessor "must designate all areas" that have to be investigated to meet the objectives of the assessment. E1903-11, section 7.3.4.

The other category extends broadly to "past activities and operations conducted at the property." In particular, the standard calls for the assessor to "exercise professional judgment based on knowledge of the manner in which releases commonly occur in connection with commercial or industrial activities and operations similar to those currently or historically conducted at the *property*" to identify conditions that might have resulted in releases.[86] This idea bears emphasis: in effect, the Standard calls on the assessor not only to *identify* areas that need to be assessed, but also to *infer* such areas based on general knowledge concerning industrial processes and historical site uses.

The next step in the assessment process involves two interrelated tasks: identifying the **substances relevant to the objectives** of the investigation, and translating information and objectives into a **conceptual model**.

In the Phase II standard, the term "**Target Analytes**" denotes the substances that are of interest in relation to the stated objectives.[87] This standard-specific nomenclature avoids terminology that has settled meanings in other contexts and directly reflects the concept that the User's needs define the scope and objectives of assessment.

The term "**conceptual model**" is also not unique to this standard. Indeed, ASTM publishes an entire standard devoted to the topic of "Conceptual Site Models" for contaminated properties.[88] Rather than mandate use of that standard or any other one-size-fits-all approach, however, the Phase II standard contains a streamlined, flexible definition that again ties into the Statement of Objectives via the concept of "target analytes":

> For purposes of a Phase II ESA, the conceptual model consists of a description of the likely environmental conditions of the property relative to the presence or likely presence of target analytes in environmental media. The model hypothesizes (i.e. predicts) where specific target analytes would occur now, in light of the likely mechanisms by which target analytes were released or may otherwise be present, how and where they first contacted environmental media, the environmental behavior, fate, and transport characteristics of the particular target analytes and/or the compounds or mixtures of which they are a part, and physical characteristics of the site that would influence the persistence and distribution of the target analytes (e.g., transport or migration pathways) should a release have occurred.[89]

The "conceptual model" is a crucial component of the E1903 assessment process. In essence, it is a hypothetical framework that assists both in designing the investigation and, as will be discussed below, in interpreting results.

In developing the conceptual model, the assessor must consider a variety of parameters that influence the distribution of substances following release, including the physical state of

86 E1903-11, section 7.3.2. The requirement of professional judgment in assessment activities also appears in E1527-13, see above at notes 37-40 and accompanying text.
87 E1903-11, Section 3.1.50.
88 ASTM Standard E1689-94 (2014), "Guide for Developing Conceptual Site Models for Contaminated Sites."
89 E1903-11, section 7.4.

target analytes,[90] transformation products,[91] mechanisms of release and point of first entry into environmental media,[92] and the behavior, fate and transport characteristics of released substances in the setting of the assessment.[93] Importantly, this analysis includes hypothesizing where target analytes will be, including the location where the highest concentrations are likely to be.[94]

The next step in the assessment process is to **develop the sampling plan**, "a written plan for sampling based on the hypothesized three-dimensional distribution of target analytes represented by the conceptual model."[95] The preliminary steps of defining objectives and developing conceptual underpinnings for the investigation guide development of the sampling plan.[96] The standard emphasizes that sampling must comport with sound scientific methodology:

> The data quality objective for the Phase II ESA is to obtain information regarding the presence of target analytes at the property that is accurate and reproducible, consistent with proper scientific inquiry and the scientific method.[97]

The sampling approach may be influenced by the stated objectives of the assessment. The plan must at least target sampling locations where target analytes are expected to be found "at the highest concentrations."[98] But if the objective of the assessment requires more than a yes/no answer about the presence of target analytes, as for example when the User seeks to document the full range of concentrations or the three-dimensional distribution of target analytes, then the sampling plan may need to go beyond the minimum.[99]

When a sampling plan suited to the objectives of the assessment has been defined, the standard contemplates implementation on conventional terms, noting collateral elements largely corresponding to basic sampling best practices.[100] The sampling itself is to be conducted in conformity with the plan and any deviations must be noted.[101]

Interpreting sampling results proceeds in two conceptually distinct levels.

90 E1903-11, section 7.4.1.1.
91 E1903-11, section 7.4.12.
92 E1903-11, section 7.4.2.
93 E1903-11, section 7.4.3.
94 E1903-11, section 7.4.3.4. The hypothesis about where highest levels are expected also guides formulation of the sampling plan, which "must be devised to allow collection of the media associated with each area where target analytes are present or likely to be present at the highest concentrations." Section 7.5.1.
95 E1903-11, section 7.5.
96 Thus, for example, testing seeks target analytes "specific to the area under investigation, in accordance with the conceptual model;" if the target analytes are uncertain, broader-spectrum testing may be appropriate. E1903-11, Section 7.5.
97 E1903-11, section 7.5.
98 E1903-11, section 7.5.1. This minimum requirement is not a performance measure for the testing itself. In other words, it is not necessarily a defect in the plan if the sampling *fails* to document highest concentrations. The requirement is only to design the plan so it *targets* the locations where available information suggests the highest concentrations are most likely to be found. This is an instance where professional judgment and the uncertainties inherent to environmental investigation play a large role. Cf. E1903-11, section 4.2 (noting that assessment cannot eliminate uncertainty, inherently involves professional judgment, and may fail to detect relevant conditions even if performed in accordance with practice, etc.).
99 E1903-11, section 7.5.2.
100 Cf. E1903-11, sections 7.5.3 and 7.5.5 (sampling methods and techniques not prescribed, but must be specified in sampling plan), 7.5.4 (health and safety plan), 7.5.6 (field screening), 7.5.7 (sampling quality assurance and quality control).
101 E1903-11, section 7.6.

Comparison with conceptual model and possible iterative re-sampling may be regarded as the first level of interpretation, closely related to the sampling itself. In general, the standard contemplates a feedback loop between the conceptual model and sampling results. The results may prompt reconsideration of the model's assumptions about site conditions, release mechanics, or other variables affecting the conduct of the investigation and the interpretation of the results.[102]

At this level, the analysis includes "validating" the conceptual model. Review of sampling results should provide a basis for evaluating the operative hypotheses concerning possible releases, points of entry, migration pathways and current distribution. If the results are consistent with the model, then the model is considered validated "and is evidence that a sound understanding of site conditions has been achieved."[103] Validation of the model includes considering whether results are consistent with the assumptions on which the model was based.[104]

If the model cannot be validated, the User and assessor should consult to decide whether to pursue additional investigation, revise the conceptual model, redefine the objectives of the assessment, or otherwise recycle to an earlier step in the assessment process, all in light of the cost of further work and the likelihood that such work will improve understanding.[105] If they elect to do so, the assessment process continues as they decide.

Interpretation of results is the second and final level of review, and focuses on "the significance of the data as they relate to the objective(s) of the assessment," including whether the data indicate target analytes are present at unanticipated concentrations or from unanticipated sources relevant to the objectives.[106] Interpretation of data may include:

- Determining whether detected target analytes are naturally occurring; [107]
- Comparing detected concentrations to numerical criteria, possibly including a determination as to whether the data are representative of site conditions;[108]
- Determining whether lack of detections supports a conclusion that there is no reasonable basis to believe target analytes are present;[109]
- Interpreting data in relation to objectives of assessment, including determining whether data are insufficient to meet the objectives of the assessment, in whole or part.[110]

102 E1903-11, section 7.6 (reconcile sampling results with conceptual model, incorporate model refinements or revisions into sampling plan or subsequent sampling).
103 E1903-11, section 7.7. The model itself may be updated in light of the sampling results. Id.
104 E1903-11, section 7.7.1. Sampling data may reveal divergence from assumptions about subsurface conditions, section 7.7.1.1.
105 E1903-11, section 7.7.1.2.
106 E1903-11, section 8.1.
107 E1903-11, section 8.1.1.
108 E1903-11, section 8.1.2. Note that applicable or relevant regulatory criteria may provide such numerical criteria if relevant to the objectives of the assessment, but may also be dictated by user needs or contractual commitments.
109 E1903-11, section 8.1.3. Note that this subsection deals with the vexing problem of "proving the negative," i.e. establishing that no release has occurred. The language here makes plain that lack of detection is not "proof of no release." Rather, the standard states that if sampling is conducted in accordance with the sampling plan and QA/QC procedures, lack of detection above laboratory reporting limits provides a basis for the assessor "to render an opinion that there is no longer any reasonable basis for believing that target analytes are present." The nuance of this definition is important for the assessors who conduct and report the investigations and for the Users who receive the resulting reports. Similarly, the objectives of a given investigation may be met by assessing less than all potential release areas or by determining that target analytes occur below levels of regulatory concern, all depending on the User's objectives and the degree of confidence required in the result. E1903-11, section 8.1.4.
110 E1903-11, section 8.1.5.

The final step in the process is **the written report of the Phase II Assessment**. E1903-11 always requires a written report in order to document the essentials of the assessment – the objectives, the work performed, the rationale for it, the resulting information and data, and most importantly, "the conclusions of the Phase II Assessor in the context of the user's objectives, i.e., the problem(s) or question(s) addressed."[111] The standard does not prescribe the form of the report; its detail and complexity are a function of the setting, the assessment activities, and the user's need for detail or precision.[112]

The standard does, however, require that the written report cover the following minimum elements:

- Introduction stating the objective, including verbatim "Statement of Objectives."
- Relevant background information.
- Work performed and rationale.
- Methods used.
- Information and data acquired.
- Evaluation of information and data.
- Interpretation of results in relation to objectives and conceptual model.
- Signature of Phase II Assessor.
- Tables, figures and appendices as appropriate.[113]

Where all elements of the standard have been followed, the report will contain a statement to that effect.[114]

Getting the Most From Phase II Investigation

The E1903-11 Phase II standard, like E1527 for Phase I, details the assessment process at great length and in daunting detail. Some simple points will help Users maximize the benefit of the practice.

The most important point is that the standard provides a way of thinking systematically about the assessment process, primarily by requiring Users and assessors to begin by asking, "what are we trying to accomplish?" The resulting objectives, tailored to the needs of the User, then guide the assessor in planning and conducting the assessment and communicating its conclusions. Under the standard, the assessor must go about the investigation in a scientifically sound manner and report results clearly. Every step in this process is oriented around the objectives with which the assessment process begins and concludes.

This framework requires User engagement. A party commissioning a Phase II assessment must be involved, understand the process, and articulate its needs so the objectives can be appropriately defined. A User may default to matters identified as RECs in a prior Phase I

111 E1903-11, section 9.1.

112 E1903-11, sections 9.2.2 and 9.2.3. The standard contains sample report formats in an illustrative appendix. See E1903-11 Appendix X3.

113 E1903-11, section 9.2. With respect to tables, appendices and figures, the standard notes that they are "typically included" and "should be used as appropriate to provide a clear and complete picture of the assessment." Id.

114 E1903-11, section 9.2.1 ("We have performed a Phase II environmental site assessment at the property at (address) in conformance with the scope and limitations of ASTM Practice E1903-XX and for the following objectives: [list 'statement of objectives' developed pursuant to section 5.1]").

assessment; many Users routinely do so. A User may also take a more hands-on approach and customize the assessment to its particular interests and risk tolerance. But it is not enough simply to order "a Phase II." Unlike the Phase I process, each Phase II assessment must be scoped individually in consultation with the User.

Flexibility to tailor the assessment allows the User to "right-size" the project. The User is even at liberty to impose time and budget limitations, but must do so in dialogue with the assessor to assure that the objectives can still be achieved – or to refine the objectives on terms that can be achieved within available resources. This level of User involvement means the results of a Phase II assessment should be more useful: the assessment will be a process to address the User's concerns, not just an abstract science project.

The challenge of getting Users to participate is real and should not be underestimated. As much as some Users desire control over the process, many are difficult to engage or simply can't be bothered. But it is also a challenge to get Users to discharge the responsibilities assigned to them in the E1527 Phase I standard. User involvement is critical to the success of both Phase I and Phase II assessment. Standards designed to express good practice cannot compromise important tasks to accommodate the least engaged or committed Users.

A standard such as E1903-11 can be particularly useful in multi-jurisdiction transactions. Variations in local practice contribute to the fundamental problem that "Phase II assessment" has no fixed meaning, particularly where local law, regulations or regulatory agency practices influence expectations. A national standard provides a common frame of reference not only in conducting the assessment but also in evaluating its results. It also provides a procedural baseline that can help parties coordinate Phase II assessment activities.

It is particularly crucial to involve stakeholders in any Phase II assessment conducted in connection with a transaction. The obvious audiences are buyer and seller, but the transaction may depend as much if not more on the decisions of third parties such as lenders and insurers. Each will have its own expectations and requirements. In any transaction that depends on financing or requires some form of environmental insurance as part of the risk allocation framework, it pays to involve these constituencies early. The process of defining Phase II objectives helps assure that the assessment addresses the concerns or needs of lenders or insurance underwriters. Few things are worse than conducting a Phase II assessment only to have a critical stakeholder turn up its nose at the result.

Conversely, a lender or underwriter also should make its concerns and information needs known, and do so early. Institutional transaction participants may standardize their corporate approach to the Phase II process, for example by requiring a Phase I assessment first, with the Phase II scoped to address anything the Phase I identifies as a REC or data gap. This kind of sequential assessment is not mandated by E1903-11 but can be undertaken if it serves the User's objectives to do so.

It is also useful to keep in mind that line loan or insurance sales personnel are often not sophisticated about environmental matters. Lenders and insurance carriers should train non-specialists to articulate institutional or corporate expectations, speak up at appropriate times, and call for assistance when appropriate. A written Phase II report in conformity with E1903-11 should at least convey the assessment's objectives and conclusions clearly to any reader.

B. E1903 Revision: Issues Under Consideration

At this writing, proposed revisions to ASTM E1903-11 have been developed by the Task Group and have been the subject of an initial subcommittee ballot in March 2018. Subsequent Task Group meetings in April and October 2018 have worked through the feedback obtained from those ballots.

For the most part, both the proposed changes balloted in March 2018 and the matters raised by balloters have consisted of minor corrections and clarifications of the existing standard. To this extent, the revision process overall seems to reflect a general view that the standard is not in need of extensive change. One relatively major issue was raised by a negative balloter, however, and has occupied much of the Task Group's attention since: the manner in which the standard treats exposure pathways in general, and in particular the vapor exposure pathway.[115]

It is generally agreed that if vapor exposure is pertinent to the objectives of a Phase II assessment, and if site information suggests the presence of conditions potentially giving rise to vapor exposure, then the existing Phase II assessment framework should drive the assessor to incorporate activities to assess the vapor exposure pathway. Commenters most familiar with current regulatory and technical developments concerning vapor exposure have been particularly helpful in sharing their perspective.

Although the existing Phase II framework seems adequate to address relevant vapor considerations, serious consideration is being given to making further incremental changes in key portions of the standard to assure that the vapor exposure pathway is accounted for. The Task Group has considered proposals to expand those portions with text detailing investigative considerations specific to vapor exposure. Because the standard does not provide that kind of detail for other contaminant types or exposure pathways, however, the consensus appears to be that it would be inappropriate to include it for vapor – and impractical if by doing so the standard had to expand to similar details for all other contaminant types and exposure pathways.

115 The matters noted in the text reflect the author's observations as Chair of the Task Group responsible for revision of ASTM E1903, including discussions at Committee Week in October 2018. As with similar comments above concerning E1527 (see Part II.B. above at n.42 and accompanying text), however, these observations do not constitute a complete report of Task Group proceedings to date or a prediction as to the consensus that will ultimately emerge from the standard revision process.