

## PART B

### GUIDANCE SECTION 1: INTRODUCTION

#### B.1 TOPIC: General comments on Section 1 of the guidance

##### Comment B.1.1 (paraphrased, 2 commenters, 2 comments):

We feel that this section is very well written, very complete, and provides a thorough overview of the definition and scope of the vapor intrusion issue.

##### Response B.1.1:

Comment noted.

##### Comment B.1.2:

The guidance does a careful job of defining the concept of vapor intrusion for the uninitiated. Further, Section 1 offers an excellent overview of the various pathways and factors affecting vapor intrusion. By listing the environmental and building factors, and the various sources of volatile chemicals the guidance is bringing vapor intrusion into a context we can all understand – a highly desirable outcome.

It is also noteworthy that Section 1 points out that, "[e]xposure to a volatile chemical due to vapor intrusion does not necessarily mean that health effects will occur." Understanding this will be important when the remediation and redevelopment of brownfields in urban areas is undertaken.

It is also logical, and Section 1 provides, that the guidance document is a general approach to evaluating vapor intrusion. With no two sites being the same, a site-specific flexible approach must be taken when conducting a vapor intrusion investigation.

Also, it is significant that the guidance provides, "[t]he need for actions to minimize or prevent exposures typically does not preclude the site from being used for a desired purpose or from being developed." This is particularly important in the context of the remediation and redevelopment of urban brownfields.

##### Response B.1.2:

Comment noted.

#### B.2 TOPIC: Definitions

##### Comment B.2.1 (paraphrased, 2 commenters, 2 comments):

Volatile chemicals with the potential to cause vapor intrusion impacts should be defined based on vapor pressure and Henry's Law constant.

##### Response B.2.1:

Chemical fate and transport in unsaturated soils (i.e., the vadose zone) is complex and dynamic, and is not dependent upon vapor pressure and Henry's Law constants alone. It is difficult to generically predict chemical behavior (and hence a chemical's potential to cause vapor intrusion impacts) in the vadose zone without information about both site-specific conditions (e.g., soil moisture content, soil organic content, volume of contaminated soils at a site, porosity, depth to groundwater, concentrations in

groundwater, etc.) and chemical-specific properties (e.g., sorption partition coefficient ( $K_d$ ), Henry's Law constant ( $K_H$ ), etc.). Therefore, the definition in the guidance remains as follows: "Chemicals that can emit vapors are called 'volatile chemicals.' Volatile chemicals include volatile organic compounds (VOCs), some semi-volatile organic compounds (SVOCs), and some inorganic substances such as elemental mercury."

Comment B.2.2:

Volatile chemicals are defined to include volatile organic chemicals, elemental mercury and some semi-volatile chemicals. The semi-volatile chemicals of concern are loosely discussed in the guidance but these are related primarily to petroleum compounds which are identified as having low odor thresholds and therefore are noticeable before they are a health issue. Semi-volatiles are frequently found in NYC [New York City] sites due to historic fill and fuel spills. The guidance should indicate that they too are either not a concern or it should set forth a specific list of semi-volatiles and concentrations that would trigger application of the guidance.

Response B.2.2:

The guidance does not differentiate among semi-volatile organic compounds. At this time, not enough is known about the behavior of different semi-volatile chemicals to support classifying them as "not a concern" or generating a list of "trigger" concentrations (as suggested). The guidance has not been revised as suggested in the comment.

Comment B.2.3 (paraphrased, 2 commenters, 2 comments):

The definition of "potential exposures" and other similar phrases is unclear or too broad.

Response B.2.3:

An exposure pathway is the way a chemical may contact or enter a person's body to cause a health effect. An exposure pathway includes the following five elements:

- [1] a source of a chemical's release,
- [2] chemical movement,
- [3] a place where people can come into contact with the chemical,
- [4] a route of human exposure (i.e., the manner in which the chemical actually enters the body), and
- [5] a population that could be exposed.

In a potential exposure pathway, at least one pathway element is missing or is uncertain, thus indicating that exposure to a chemical could have occurred in the past, could be occurring, or could occur in the future. These concepts are reflected in the discussion of soil vapor intrusion and human exposure, as well as in the definition of "potential exposures," provided in Section 1.2 of the guidance.

Comment B.2.4:

A definition of a "site" (e.g., specific spill locations or entire facility footprint) would be helpful in identifying "sites" at which a vapor intrusion pathway investigation is required.

Response B.2.4:

Acknowledged. The word "site" refers to the location of known or suspected environmental contamination. A site may include a location being evaluated voluntarily by a corporation, a municipality, or private citizen. A site may also include a location being evaluated within one of New York State's environmental remediation programs. Examples of the latter include RCRA Corrective Action sites, inactive hazardous waste disposal sites (State Superfund), Voluntary Cleanup Program sites, Brownfield Cleanup Program sites, Environmental Restoration Program sites, and petroleum spill sites. Sections 1.2 and 1.7 of the guidance have been revised for clarification.

Comment B.2.5:

A clearer definition of a subsurface source of volatile chemicals would be useful in determining if a vapor intrusion pathway investigation is necessary when groundwater or subsurface soils do not exceed appropriate criteria. As written, a subsurface source could be interpreted to be separate from groundwater or subsurface soil containing concentrations of volatile chemicals.

Response B.2.5:

Section 1.1 of the guidance identifies potential subsurface sources of volatile chemicals. Data collected to date has demonstrated that soil vapor contamination may result from any concentration of volatile chemicals present in subsurface soil or groundwater. Therefore, the current state of knowledge regarding soil vapor intrusion does not support the use of pre-determined concentrations of volatile chemicals (i.e., screening criteria) in either groundwater or soil vapor to trigger a need for a soil vapor intrusion investigation. Section 2.1 of the guidance has been revised to clarify this point.

Comment B.2.6:

The document mentions the "State" without any reference to a specific agency (e.g., NYSDOH or the New York State Department of Environmental Conservation (NYSDEC)). It would be more meaningful to replace "State" with the specific agency which would have approval authority.

Response B.2.6:

The term "State" refers to the NYSDEC and the NYSDOH, which work cooperatively to evaluate soil vapor intrusion at remedial sites throughout New York State. Text has been added to the Preface and Section 2.3 of the guidance to define the term.

**B.3 TOPIC: Description of soil vapor intrusion**Comment B.3.1:

Section 1.1 — We suggest that the first sentence be re-worded to read: "When contaminated vapors are present in the vicinity of, or under the foundation of a building,...". Underground conduits (sewers, utility connections, etc.) can provide a means of transport to structures not "directly next to" a contaminated zone.

Response B.3.1:

This comment refers to the third paragraph of Section 1.1. The comment is accurate. However, the language in the guidance (that contaminated vapors "present in the zone directly next to or under the foundation of a building" make vapor intrusion possible) allows for this: vapors must be present in conduits outside the building in order to be transported into the building. Table 1.1 does refer specifically to underground conduits as a possible preferential pathway for soil vapor migration.

**B.4 TOPIC: Factors affecting soil vapor migration and intrusion**Comment B.4.1:

Impacts of biodegradation on limiting vapor intrusion impacts for certain classes of VOCs should be discussed.

Response B.4.1:

The guidance continues to identify biodegradation processes as an environmental factor that may affect soil vapor intrusion (Table 1.1). Given the lack of data collected at sites where biodegradation is believed to be minimizing the potential for soil vapor intrusion, a detailed discussion of the effects of biodegradation (as suggested in the comment) has not been added to the guidance. [See also Comment A.10.2.]

Comment B.4.2:

Section 1.3 — The first paragraph suggests that vapor intrusion potential cannot be predicted based on the locations of groundwater plumes when, in fact, review of groundwater data is the first logical step when evaluating vapor intrusion and the geographic area requiring further investigation (e.g., see EPA, 2002 and the NYSDEC Program Policy). While soil vapor concentrations might not exactly mimic groundwater contaminant plumes patterns, empirical data have shown that the overall extent of potential vapor intrusion impacts is generally bounded by the groundwater contaminant plume footprint (e.g., see Folkes 2002). Vapor intrusion impacts are unlikely to be seen more than 100 feet + beyond the edges of the groundwater contaminant plume, absent significant preferential pathways, consistent with diffusion theory (e.g., Eklund and Lowell, 2004) and the 100 foot criteria used by EPA (2002) and the NYSDEC Program Policy (at p.5). The general relationship between groundwater contaminant plumes and the likely maximum extent of vapor impacts, if any, should be explained more clearly in this section of the guidance.

Response B.4.2:

Data collected thus far in New York State do not support the development of criteria like these that would be generally applicable and protective at sites throughout the state. As such, the NYSDEC has removed the reference to a 100 foot criterion from their policy document (NYSDEC 2006). As discussed throughout Section 2 of the guidance, decisions about the scope of a vapor investigation are made on a site-by-site basis by considering, among other factors, the information available about the nature and location of a vapor source. The guidance has not been revised as suggested in the comment.

Comment B.4.3:

Section 1.3 — The Guidance states: Operation of kitchen vents in restaurants, or elevators in office buildings may induce pressure gradients that result in migration of vapor-phase

contaminants away from a groundwater source and toward these buildings. Although such conclusion may have been inferred from a small number of past projects, our experience suggests that significant lateral migration under pressure gradients would depend on relatively unique site conditions. We believe that the inclusion of this discussion in the Guidance puts too much emphasis on inference derived from limited and perhaps undocumented observations.

Response B.4.3:

Kitchen vents and elevators are mentioned as examples of the types of building operations that may affect vapor intrusion, and the discussion remains in the guidance. Furthermore, mention of the operation of heating, ventilating and air-conditioning (HVAC) equipment has also been added to the section.

Comment B.4.4:

The guidance should also clarify that operation of typical residential HVAC equipment is unlikely to cause convective flow of vapors more than 1 to 2 m from the building foundations (e.g., see EPA 2002). We are not aware of any literature documenting the potential for commercial HVAC equipment and elevator operation to pull vapors from a significantly larger distance (e.g., say more than 100 feet) that would affect estimations of the extent of potential vapor intrusion impacts. This issue should be addressed on a case-by-case basis (clearly, this equipment could result in greater building depressurization and larger soil vapor fluxes into the buildings, but this is a different issue).

Response B.4.4:

The State has observed cases where restaurant kitchen hoods and elevators have resulted in convective flow of contaminated vapors much greater than 1 to 2 meters from the building foundation. There have been special circumstances in these cases, such as differential permeability in utility bedding material and native soil, as well as surface confining layers (e.g., blacktop) between the source and the receptor. We agree that these issues should be addressed on a case-by-case basis. The guidance has not been revised as suggested in the comment.

## **B.5 TOPIC: Tables 1.1, 1.2 and 1.3**

Comment B.5.1:

Tables 1.1, 1.2 and 1.3: These tables provide a useful summary of important factors to be considered when evaluating the vapor intrusion pathway.

Response B.5.1:

Comment noted.

Comment B.5.2:

We also recommend that more emphasis be placed on developing a site conceptual model that considers both environmental and building conditions in developing an appropriate scope of investigative work and such considerations should be reflected in the discussions in Tables 1.1 and 1.2.

Response B.5.2:

Section 1 of the guidance provides discussion of the conceptual site model components respective to the vapor intrusion pathway: potential sources, pathways and receptors. As discussed in the comments and responses provided in Part B.7, references to the development of a conceptual site model have been added to Section 1.6 of the guidance. The tables given in Section 1 are intended as an overview of factors to be considered when evaluating vapor intrusion at a site. The tables have not been changed as recommended in the comment.

Comment B.5.3:

The relationship among the various environmental and building factors that may affect vapor intrusion is complex. The text and tables should note that many of the descriptions of individual environmental and building factors reflect general concepts. For this reason, we recommend that the tables in Section 1.3 be re-titled "Factors that May Influence Vapor Intrusion Potential" or "Considerations in Assessing Vapor Intrusion Potential."

Response B.5.3:

Acknowledged. The information in Tables 1.1 and 1.2 is intended to give a general overview of environmental and building factors that may affect vapor intrusion and that should be considered when evaluating vapor intrusion at a site. The word "may" has been added to the titles of Tables 1.1 and 1.2 to reflect this intent better.

Comment B.5.4:

Table 1.1 — Weather conditions also affect movement of subsurface vapors to outdoor air and introduction of outdoor air into the soil. In addition to biodegradation processes, soil adsorption/desorption processes and soil pore water solution/volatilization process may affect migration of VOCs and [semi-volatile organic compounds] SVOCs.

Response B.5.4:

The word "indoor" has been deleted from description of "weather conditions" in Table 1.1, so that it covers the effects of weather on the exchange of soil vapor and outdoor air (which may, in turn, affect vapor intrusion). Adsorption, desorption, pore-water solution and volatilization are among the processes that contribute to the effect of "soil conditions" on vapor intrusion.

Comment B.5.5:

Table 1.1 — The Guidance should add a discussion of sources in soil vapor including ambient air and indoor air (the reverse of vapor intrusion), and sources not from a site but present in urban soil gas from fill, gasoline stations, etc. or refer to this discussion provided in 3.2.3, p. 29.

Response B.5.5:

Section 1 of the guidance discusses factors affecting soil vapor migration and intrusion, not potential sources. Tables 1.1 and 1.2 are provided to complement this discussion and, as such, have not been modified to include a discussion of potential sources in soil vapor. See also Comment D.3.1 (reverse process from soil vapor intrusion).

Comment B.5.6:

Table 1.1 — The Guidance should acknowledge that there are biological sources of VOCs in subsurface. For example, acetone and other ketones are oxidation products of humic materials in soil.

(<http://www.inchem.org/documents/ehc/ehc/ehc207.htm#SectionNumber:3.1>)

Response B.5.6:

Agreed. "Biodegradation of natural organic matter in soil" has been added to the list of sources of subsurface vapors in Section 3.2.3 of the guidance.

Comment B.5.7:

In Table 1.1 under "volatile chemical concentrations," it is stated that "the potential for vapor intrusion generally increases with increasing concentrations of volatile chemicals in groundwater..." While such statement may be *generally* accurate, however, based on the interrelationships and variability among other environmental factors, it may not always be accurate. We believe that a footnote to the table qualifying the statement is warranted (e.g. significant variability may result from the actual interaction among the environmental factors in a given setting.)

Response B.5.7:

The information in Table 1.1 is intended as a general overview of factors that may affect vapor intrusion. Therefore, Table 1.1 has not been changed in response to this comment.

Comment B.5.8:

In Table 1.1, under "soil conditions," it should be noted that understanding vadose zone stratigraphy is important to assessing vapor intrusion potential. For example, the presence of even thin layers or zones of finer-grained soils at higher volumetric moisture contents may significantly influence vapor migration potential and hydrology.

Response B.5.8:

The description of "soil conditions" in Table 1.1 indicates that soil grain size and moisture content may affect vapor intrusion. Therefore, Table 1.1 has not been changed in response to this comment.

Comment B.5.9:

In Table 1.1, under "fractures in bedrock and/or tight soils" it should be noted that fractures in bedrock and/or tight soils may increase potential for vapor intrusion over what would be expected for the bulk-unfractured matrix.

Response B.5.9:

Agreed. The description in Table 1.1 has been changed as suggested.

Comment B.5.10:

In Table 1.1, under "underground conduits," it should be noted that under certain circumstances underground conduits may serve as preferential pathways, generally where the native soils are fine grained and have high moisture contents.

Response B.5.10:

The description, which refers to conduits "with highly permeable bedding materials relative to native materials," has not been changed.

Comment B.5.11:

The Guidance should allow for documentation of positive pressure ventilation conditions as a means for screening out buildings for further assessment of vapor intrusion. For this reason, in Table 1.2 we recommend that it be noted that "Buildings operated with positive pressure HVAC systems may be effectively protected from vapor intrusion. Positive pressure ventilation is one of many acceptable mitigation techniques."

Also in Table 1.2, under "air exchange rates," it should be noted that exchanges of indoor air occur under natural draft conditions and draft conditions induced by HVAC systems. Newer energy efficient construction may increase the stack effect due to combustion drafts; this does not necessarily cause accumulation of vapors.

Response B.5.11:

Table 1.2 describes general building factors that may affect vapor intrusion. Mitigation techniques are discussed in Section 4 of the guidance, not in the discussions of Section 1.3 or Table 1.2. The table indicates that limiting the exchange of indoor and outdoor air may increase the effect of vapor intrusion on indoor air quality. Therefore, Table 1.2 has not been changed in response to this comment.

Comment B.5.12:

Although conventionally, earthen floors and fieldstone walls may be expected to increase vapor intrusion potential, field observations and vapor transport modeling sensitivity analyses indicate that the fraction of foundation surface area that is open to the subsurface is not a sensitive parameter to vapor intrusion. For this reason, in Table 1.2, under "foundation types," it should be noted that earthen floor and fieldstone walls may be significant conditions to be addressed during implementation of substructure ventilation systems.

Response B.5.12:

This change is inappropriate for Table 1.2. Construction of substructure ventilation systems is discussed in Section 4 of the guidance, not in Section 1.3. Table 1.2 has not been revised as suggested in the comment.

Comment B.5.13:

In Table 1.3, under "off-gassing," inclusion of contaminated groundwater infiltration into a basement is not consistent with the definition of alternate source provided in this subsection, where alternate sources in indoor air are attributed to chemicals found in indoor air of homes are not caused by contamination of groundwater or soil vapor.

Response B.5.13:

Acknowledged. The text in Section 1.4 has been changed to read "...chemicals are found in indoor air of homes not affected by intrusion of contaminated soil vapor." Both infiltration of contaminated groundwater and off-gassing from contaminated tap water are still mentioned in the table.

Comment B.5.14:

In Table 1.3, under "occupant activities," there should be a discussion regarding the past use of volatile chemicals, as the indoor air quality may be influenced by past uses of chemicals.

Response B.5.14:

Agreed. Historical use of volatile chemicals has been added to Table 1.3 under "Off-gassing." [See also Comment D.7.1 (consideration of historic building uses).]

Comment B.5.15:

There should be a text clarification that external sources of VOCs such as dry cleaners and gas stations can be considered part of ambient (outdoor air) anthropogenic background so long as a release to the subsurface has not occurred.

Response B.5.15:

As stated in Section 1.4 of the guidance, "Certain commercial and industrial facilities, such as gasoline stations and dry cleaners, and vehicle exhaust are examples of possible sources of volatile chemicals in outdoor air." Table 1.3 mentions dry cleaners and gasoline stations because their active operations may be sources of volatile chemicals detected in air due to the exchange of outdoor and indoor air in buildings through natural ventilation, mechanical ventilation or infiltration; releases to the subsurface are irrelevant to this consideration. The guidance has not been revised as suggested in the comment.

**B.6 TOPIC: Description of the general approach to evaluating soil vapor intrusion**Comment B.6.1 (paraphrased, 1 commenter, 1 comment):

Section 1.5 should discuss, in general terms, that the vapor intrusion pathway must be complete in order to proceed with an investigation.

Response B.6.1:

The investigative process is necessary to determine whether the vapor intrusion pathway exists and whether current or potential exposures to contaminated subsurface vapors could occur via soil vapor intrusion. As stated in the guidance, under certain circumstances (e.g., undeveloped parcels), the investigation may be delayed where the data is not necessary to address potential current exposures or to identify remedial actions. However, a vapor intrusion investigation may be necessary at a later date should the property use change (e.g., construction of a building on the property).

Comment B.6.2 (paraphrased, 1 commenter, 1 comment):

We suggest re-wording the second paragraph of Section 1.5 to "This data gathering and review process should be repeated until each of the following questions can be answered:".

Response B.6.2:

Agreed. Section 1.5 of the guidance has been revised accordingly.

Comment B.6.3 (paraphrased, 1 commenter, 1 comment):

The criterion to repeat data gathering and review process until it is determined whether subsurface vapors are contaminated is vague because "contamination" could be defined by any degree of VOC presence. For clarification, we recommend that the criterion be revised to say, "Do subsurface vapors exhibit contamination that indicates conditions substantially different from background?"

Response B.6.3:

As discussed in Section 3.3.1, there are currently no databases available of background levels of volatile chemicals in soil vapor. In the absence of this information, the guidance recommends that soil vapor results be compared to many factors, including the following: themselves "as a whole" to identify trends and spatial variations in the data, background outdoor air levels (from databases and from site-specific results), NYSDOH's guidelines for volatile chemicals in air, the results of other environmental sampling, and the site conceptual model. The overall objective of the comparisons is to put the soil vapor results into perspective. This is consistent with the intent of the comment. Therefore, Section 1.5 of the guidance has not been revised as suggested.

Comment B.6.4:

Section 1.5: Defining the "nature and extent of contamination" should be focused exclusively on volatile organic chemicals (VOCs) for the purposes of this guidance document.

Response B.6.4:

The guidance indicates that the focus of a soil vapor intrusion evaluation is on volatile chemicals, not just VOCs. As stated in Section 1.1, "Volatile chemicals include volatile organic compounds (VOCs), some semi-volatile organic compounds (SVOCs), and some inorganic substances such as elemental mercury." Therefore, Section 1.5 has not been changed in response to this comment.

Comment B.6.5:

Section 1.5: There are typically not "exposures" to subsurface vapors; exposure occurs at the point of human contact, which would be inside the building of concern.

Response B.6.5:

Agreed. The section refers to the evaluation of a soil vapor intrusion pathway, of which the point of exposure is one component. Section 1.5 of the guidance has been revised for clarification.

**B.7 TOPIC: Conceptual site model**Comment B.7.1:

The Guidance should, from the beginning, describe a conceptual site model that includes all sources, all pathways, and all receptors. It may be that some of the sources or pathways are beyond the scope or jurisdiction of those conducting the evaluation, but I believe there is no way to conduct a comprehensive investigation without understanding them. If the agency or private party conducting an investigation is not in a position to address a source

or pathway, then those who are responsible should be notified, at the very least. The receptors — the affected residents or other people in the area — deserve no less.

Response B.7.1:

In accordance with the NYSDEC's *Draft DER-10: Technical Guidance for Site Investigation and Remediation* (NYSDEC 2002), subsurface vapors and soil vapor intrusion should be included in an overall conceptual model for the site. The components of a conceptual site model specific to soil vapor intrusion are provided in Section 1.5, and throughout Section 1 of the guidance. The general approach for evaluating soil vapor intrusion described in Section 1.5 is analogous to the development of a conceptual site model specific to soil vapor intrusion. Section 1.6 of the guidance has been revised to describe the relationship between the described general approach to evaluating soil vapor intrusion and a conceptual site model. The conceptual site model will vary from site to site. Therefore, a description of a specific conceptual site model in the guidance is not considered appropriate.

For additional information about the use of conceptual site models in the investigation and remediation of sites or a description of the conceptual site model process, the reader is referred to the NYSDEC's technical guidance.

If a soil vapor intrusion investigation needs to continue beyond the boundaries set forth in the requirements for a participant in a specific environmental remediation program, then the NYSDEC and NYSDOH will make sure appropriate actions are taken to complete the investigation and remediation, as well as to address exposures. This would include identifying any additional responsible parties and enrolling them into an appropriate remedial program.

Comment B.7.2 (paraphrased, 1 commenter, 1 comment):

By requiring collection and evaluation of soil gas concurrent with soil and groundwater characterization, the NYSDOH does not allow for development of a conceptual site model (CSM). For example, the CSM provides critical information on the types of chemicals likely to be found at a site. If a site's chemicals of potential concern have been characterized based on groundwater data, subsurface soil data, or information about site-related chemical uses, soil vapor intrusion sampling and analysis should only be performed for those select chemicals.

Response B.7.2:

As discussed in Section 2.3 of the guidance, there is no single phase of an investigation during which soil vapor samples must be taken. Additionally, the guidance does not require that soil vapor samples be collected concurrently with groundwater and soil samples. The phased, iterative nature of the soil vapor intrusion investigation is similar to investigation of other environmental media (e.g., soil, groundwater, etc.) and analytical data collected as part of this effort are intended to be incorporated into a conceptual site model. Section 1.6 of the guidance has been revised to describe the relationship between the general approach to evaluating soil vapor intrusion and a conceptual site model.

As discussed in Section 2.9, the analyte list for a soil vapor intrusion investigation is typically determined on a site-specific basis in consideration of several variables, including the status of the site investigation and the site-specific sampling objectives. If the site's chemicals of potential concern have been adequately characterized, then a

site-specific analyte list may be considered for the vapor intrusion investigation. Sections 2.9.1 and 2.9.2 of the guidance have been revised to clarify this point.

### **B.8 TOPIC: Applicability of guidance**

#### Comment B.8.1 (paraphrased, 6 commenters, 6 comments):

The phrase "anywhere a soil vapor intrusion investigation is warranted" is ambiguous and without definition. A more definitive statement is needed; for instance, "This guidance is applicable for any soil vapor intrusion investigation conducted within the state, whether that investigation is mandated by one or more State agencies, or whether it is undertaken voluntarily."

#### Response B.8.1:

Acknowledged. Section 1.7 of the guidance has been revised as follows: "This guidance should be considered anywhere soil vapor intrusion is evaluated in the State of New York, whether the evaluation is being undertaken voluntarily by a corporation, a municipality, or private citizen, or under one of the state's environmental remediation programs."