DER-13 / Strategy For Evaluating Soil Vapor Intrusion at Remedial Sites in New York

New York State Department of Environmental Conservation

DEC Program Policy

Issuing Authority: Carl Johnson	**Title: Deputy Commissioner Office of Air and Waste Management**
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I. SUMMARY:

Improvements in analytical techniques and knowledge gained from site investigations in New York and other states has led to an increased awareness of soil vapor as a medium of concern and of the potential for exposures from the soil vapor intrusion pathway. Based on this additional information, New York is currently re-evaluating previous assumptions and decisions regarding the potential for soil vapor intrusion exposures at sites. As a result, all past, current, and future contaminated sites will be evaluated to determine whether these sites have the potential for exposures related to soil vapor intrusion. These include all Resource Conservation and Recovery Act (RCRA) Corrective Action sites, inactive hazardous waste disposal sites (State Superfund), Voluntary Cleanup Program sites, Brownfield Cleanup Program sites, and Environmental Restoration Program sites. New York's approach to evaluating the soil vapor intrusion pathway at remedial sites is described in two complementary documents: this New York State Department of Environmental Conservation (Department) Program Policy and the New York State Department of Health (DOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York." The combined goal of these documents is to conduct soil vapor intrusion evaluations as efficiently and effectively as possible at remedial sites. This policy describes the approach by which the Agencies (the Department, in consultation with the DOH) will address soil vapor intrusion at remedial sites. The approach presented reflects the following:

1. Soil vapor intrusion evaluations are among the Agencies' top priorities;
2. the likelihood of soil vapor intrusion-related exposures varies from site to site;
3. the number of sites at which soil vapor intrusion evaluations are warranted is quite large; and
4. revisiting this issue concurrently at all volatile chemical sites where remedial or corrective actions have been implemented is not feasible.

The Department is evaluating soil vapor intrusion at all sites currently in the pre-remedial decision phase and will evaluate soil vapor intrusion at all future sites during the remedial investigation phase. The identification and prioritization procedures described in Section V.2 of this policy were used to identify past sites with the highest potential for soil vapor intrusion. Past sites are defined as sites with known or suspected volatile organic compound (VOC) contamination where remedial decisions for part or all of the site were made prior to January 1, 2003.

II. POLICY:

The soil vapor intrusion pathway will be evaluated at all contaminated sites in New York. This includes sites that are currently being reviewed under one of the Department of Environmental Conservation's (DEC's) remedial programs which include sites that are reviewed in the future as well as sites where remedial decisions have already been made.

III. PURPOSE AND BACKGROUND:

Purpose

This guidance, coupled with the DOH "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" serve differing, but complementary purposes. The combined purpose of the documents is to develop a process to conduct soil vapor intrusion evaluations as efficiently and effectively as possible at all remedial sites.

This Department strategy describes the process by which the Agencies will prioritize remedial sites for soil vapor intrusion evaluations. The approach presented reflects the following:

1. Soil vapor intrusion evaluations are among the Agencies' top priorities;
2. the likelihood of soil vapor intrusion-related exposures varies from site to site;
3. the number of sites at which soil vapor intrusion evaluations are warranted is quite large, and
4. revisiting this issue concurrently at all volatile chemical sites where remedial or corrective actions have been implemented is not feasible.

The companion DOH document provides general guidance for parties evaluating soil vapor intrusion in New York State. Specifically, the DOH document provides guidance on the following:

1. Collecting appropriate and relevant data;
2. evaluating investigation data;
3. selecting appropriate actions to address potential and current human exposures;
4. implementing soil vapor intrusion mitigation methods; and
5. carrying out community outreach.

Taken together, the two documents provide a basis for deciding how, where, and when to conduct soil vapor intrusion evaluations. Because the evaluation of soil vapor intrusion is an evolving process, the Agencies anticipate that knowledge gained from the investigation and mitigation of soil vapor intrusion sites in New York and other states will be used to refine and improve our approach to addressing soil vapor intrusion. Consequently, these documents are viewed as dynamic tools that may be refined and revised over time.

Background

Soil vapor intrusion is the migration of volatile chemicals (in vapor form) from the subsurface into overlying or adjacent buildings. Volatile chemicals can be found in buried wastes, contaminated soils, and/or contaminated groundwater and can emit vapors that may migrate through subsurface soils into buildings. Typically, if vapors migrate into buildings, the levels are relatively low and health concerns,

if any, relate to chronic effects based on long term exposure to low chemical concentrations. In extreme cases, the vapors may accumulate in buildings to levels that may pose near-term safety hazards (e.g., explosion), acute health effects, or aesthetic problems (e.g., odors). In the past, soil vapor intrusion was considered to be a phenomenon caused by soil vapors emanating from a source of volatile chemicals (separate-phase or sorbed) located adjacent to or directly beneath the foundation of an occupied building. Investigation of potential human exposure to these volatile chemicals generally involved soil vapor surveys and indoor air sampling. If an off-site dissolved contaminant plume flowing beneath a home or business was deep, the assumption was that the concentrations of any vapors entering buildings above would be so low by the time it reached the basement level that it would not represent an indoor air concern.

Although the Agencies may have previously evaluated the soil vapor pathway at a site, improvements in analytical techniques and knowledge gained from the investigation of sites in New York and other states has led to an increased awareness regarding soil vapor as a media of concern and the potential for exposures from the soil vapor intrusion pathway. Based on this additional information, New York is currently re-evaluating previous assumptions and decisions regarding the potential for soil vapor intrusion exposures at sites. The result is that additional work may be required to investigate and, where appropriate, remediate sites. This includes sites that are in the operation, maintenance and monitoring phase or have been delisted.

Based on a review of the Division of Environmental Remediation's (DER's) database of remediation sites, as well as information from the Division of Solid and Hazardous Materials (DSHM), it is estimated that solvents or other volatile organic compounds have been disposed at over 750 sites (chlorinated and nonchlorinated), resulting in contaminated soil or groundwater. Many of these sites have already been remediated and are either in the long-term monitoring phase or were closed once remedial objectives established for the cleanup were met. However, based on recent evidence and a better understanding of soil vapor intrusion and mobility, the soil vapor intrusion pathway may need to be re-evaluated at these sites since current exposures related to soil vapor intrusion may exist despite remedial actions having already been completed.

IV. RESPONSIBILITY:

This policy was jointly developed by staff from the DER, DSHM, and DOH. Responsibility for interpreting and updating this document will reside with the DER.

V. PROCEDURE:

This policy divides the universe of sites into two groups: 1) sites where remedial decisions have not yet been made (ongoing sites) and, 2) sites where remedial decisions for part or all of the site were made prior to January 1, 2003 (past sites).

1. Evaluation of Ongoing Sites

For ongoing sites where final remedial decisions have not been made, the soil vapor intrusion pathway will be evaluated as a component of the investigation. This is consistent with the State’s approach to any other media (e.g., groundwater and soil). Guidance on evaluating the soil vapor intrusion pathway in New York (e.g., investigation procedures, data interpretation, and mitigation or remediation

alternatives) is presented in the DOH companion document: "Guidance for Evaluating Soil Vapor Intrusion in the State of New York." Based on the findings of the soil vapor intrusion evaluation, appropriate decisions will be made and will be included as part of the remedy selected for the site, or as an interim remedial measure, if warranted.

2. Evaluation of Past Sites

All past sites will be evaluated for the potential for soil vapor intrusion. Evaluations at past sites will be completed in the same manner that ongoing sites are evaluated in accordance with "Guidance for Evaluating Soil Vapor Intrusion in the State of New York." Priority will be placed upon those sites where CVOCs (chlorinated volatile organic compounds) were disposed of or detected in soil or groundwater. CVOCs include many of the common organic solvents used at former industrial sites and dry cleaning facilities (e.g., trichloroethene, tetrachloroethene). The Department is targeting sites with CVOC contamination first (as opposed to non-chlorinated volatile chemicals) because they are found at the vast majority of contaminated sites, they do not readily biodegrade, and they may accumulate indoors without being noticed by the occupant because of their high odor threshold. Review of our records has generated a list of 421 sites where CVOCS were involved.

The Department recognizes that although non-chlorinated VOCs (such as benzene and naphthalene) also have some potential for soil vapor intrusion, they represent less of a priority in the evaluation of past sites for two reasons: non-chlorinated VOCs readily biodegrade in the presence of oxygen, which is generally available in the vadose zone (zone above the groundwater table) through which contaminants must pass before entering a basement or crawl space; and non-chlorinated volatile compounds also generally have an odor or taste when they are present in drinking water or breathing space and are noticed by impacted individuals. Sites having these characteristics are currently addressed as they are identified. For these reasons, action at the majority of sites with non-chlorinated VOCs will be deferred while the results of further monitoring are evaluated and used to verify these assumptions. The priority of non-chlorinated VOC sites may be modified at a later date based on new information and a revised conceptual understanding of soil vapor intrusion.

The Department, the DOH, and the United States Environmental Protection Agency (USEPA) will either lead or provide oversight to the soil vapor intrusion evaluation. The USEPA has agreed to be the lead at all former and current sites on the National Priorities List (NPL) that are located in New York State. The Department will be the lead at all remaining sites. The Department will seek to have the parties responsible for contaminating the site conduct soil vapor intrusion evaluations. Attachment 1 depicts who will lead the evaluation of the different groups of sites. Letters have been sent to the responsible parties asking them to perform the evaluation and provide the Department with any data or information pertaining to the potential for soil vapor intrusion. At remedial sites where responsible parties are unwilling or unable to conduct a soil vapor intrusion evaluation, or there are no responsible parties to do so, the Department will proceed with the evaluation. The Department will subsequently seek to recover the costs incurred as part of that evaluation where appropriate and authorized by law.

Because it is not feasible to conduct soil vapor intrusion evaluations concurrently at all sites where the Department is responsible for leading or overseeing the evaluation, a process to prioritize the evaluation of past sites has been developed. The process involves an initial screening step followed by a scoring and ranking step. The prioritization process was developed to assist the Agencies in conducting soil vapor intrusion investigations as effectively and efficiently as possible at past remedial sites.

Initial Screening

The initial screening process was designed to be applied with a general knowledge of the site and the chemicals known or reasonably suspected to be present in the subsurface. It acknowledges that soil vapor intrusion may be driven by contamination within the groundwater, within the soil or both. Attachment 2 is a flowchart that depicts the decision logic used to screen the sites.

Ranking and Prioritization of Department-Lead Sites

The following procedure applies to the prioritization of Department-lead sites where responsible parties are unwilling or unable to conduct a soil vapor intrusion evaluation, or there are no responsible parties to do so. The ranking criteria were chosen based on site conditions that are believed to play a significant role in the soil vapor intrusion pathway. The following four criteria were chosen:

1. Total chlorinated volatile organic compound (CVOC) concentration
2. Depth to contamination
3. Soil characteristics
4. Land use at and adjacent to the site above impacted soil or groundwater

A set of weighting factors were then assigned to each of the criteria. The weighting factors (shown on the attached score sheets) for the various criteria were selected in order to distinguish the potential for soil vapor intrusion and to establish separation between sites on the list. For example, a site where the depth to contaminated groundwater is between 15 and 50 feet below grade would be assigned a weighting factor of 4 for that criterion but a site where the depth to groundwater is greater than 60 feet would only be assigned a weighting factor of 1 because depth to groundwater is considered inversely proportional to the potential for soil vapor intrusion. Additional sampling points may be added, or subtracted in some cases, based on such site conditions as proximity to sensitive receptors (e.g., daycare facilities, schools, and hospitals), presence of grossly contaminated soil or NAPL, or current information pertaining to the completion of remedial activities.

Separate score sheets, one for soil (Attachment 3) and one for groundwater (Attachment 4), have been developed to help in the prioritization of past sites. Separate sheets have been developed because the mechanism for soil vapor intrusion (either soil driven or groundwater driven) are not necessarily related. Initially, sites with soil contamination and sites with groundwater contamination will be prioritized separately. As we move forward with soil vapor intrusion investigations at these older sites, we will use the new information to assess whether the assigned weighting factors serve as a useful tool for predicting whether soil vapor intrusion is likely to be a significant exposure pathway at a site. Adjustments to the weighting factors may be made to improve their usefulness as predictors.

Score sheets were completed for each of the past sites in order to prioritize the sites. The sources of information that were used to complete the score sheets were Records of Decision (ROD), Statements of Basis (SOB), Facility Fact Sheets, and other summary-level data sources. After reviewing the available information, the Department ranked each of the sites.

The list of sites generated through the identification and prioritization process outlined above was cross-checked with other efforts that have identified sites with the potential for soil vapor intrusion issues, such as those brought to the Department's attention by county health departments or citizens groups. As a final measure, staff were requested to review the prioritized list and confirm the information used to score and rank the sites.

Evaluation process

The process of conducting a soil vapor intrusion evaluation will begin with a review of available historical data that was generated since the remedial decision was made. In some cases, there may be sufficient historical data to evaluate the soil vapor intrusion pathway without further investigation. For instance, where historical data indicate that VOCs are no longer present, either on-site or off-site, and the Agencies concur that there is no potential for soil vapor intrusion, then the soil vapor intrusion evaluation will be deemed complete.

At sites where it is determined that further investigation is required, it may be necessary to collect any or all of the following samples: groundwater, soil vapor, sub-slab vapor, and indoor and outdoor air. Site-specific vapor investigations performed by the Department will be planned and implemented in accordance with the DOH guidance document.

Schedule

The Agencies' goal is to evaluate the past sites for soil vapor intrusion impacts as quickly as possible. Attachment 1 outlines who will conduct these evaluations. For those sites that the U.S. EPA has agreed to lead, the evaluations will be completed according to a schedule set by the U.S. EPA. At sites where a responsible party has been identified, the Department has requested that they complete the evaluations as soon as possible. Agency staff will work with the responsible parties to facilitate this effort. For the remaining sites, the Department will proceed with the evaluations generally in priority order utilizing the process described in this policy. In general, sites where the perceived potential for soil vapor intrusion is greatest (corresponding to the sites with the highest score), will be addressed first. Soil vapor intrusion evaluations have already commenced. As we gain experience in performing soil vapor intrusion evaluations, this experience will be applied to future investigations as well as be incorporated into future State guidance.

VI. RELATED REFERENCES:

New York State Department of Health (DOH) "Guidance for Evaluating Soil Vapor Intrusion in the State of New York." http://www.health.state.ny.us/nysdoh/gas/svi_guidance/index.htm

Attachments:

Attachment 1- Vapor Intrusion Evaluation of Legacy Sites - Who Will Conduct The Evaluation ?

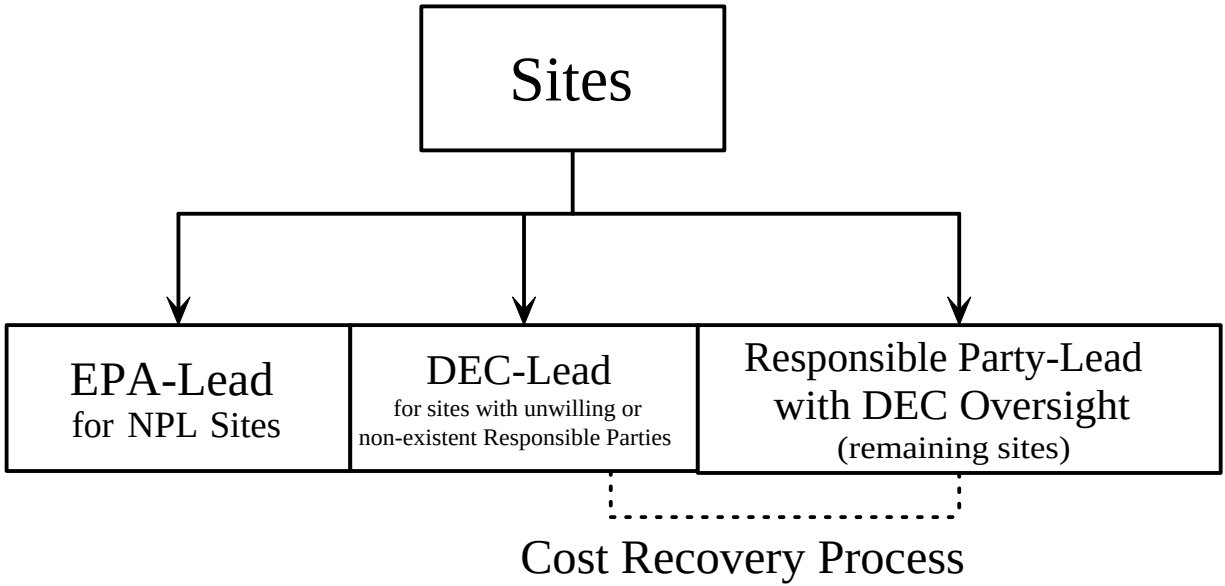
Attachment 2 - Vapor Intrusion Screening Approach Used to Prioritize Soil Vapor Intrusion Evaluations of " DEC - Lead" Legacy Sites

Attachment 3 - Soil Weighting Factors Used to Prioritze " DEC - Lead" Legacy Sites For Soil Vapor Intrusion Evaluations

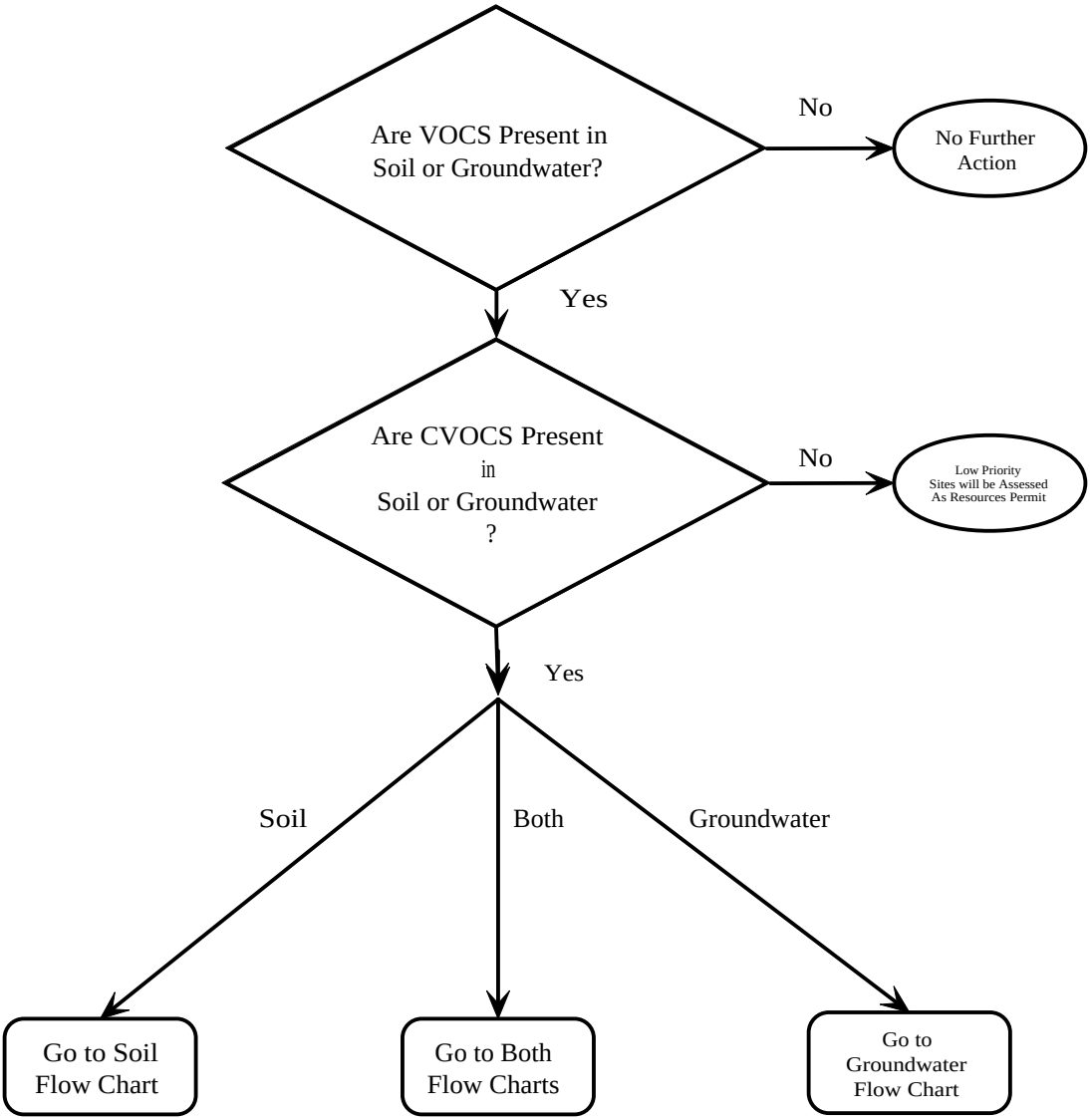
Attachment 4 - Groundwater Weighting Factors Used to Prioritze " DEC - Lead" Legacy Sites For Soil Vapor Intrusion Evaluations

Attachment 1
Vapor Intrusion Evaluations of Legacy Sites

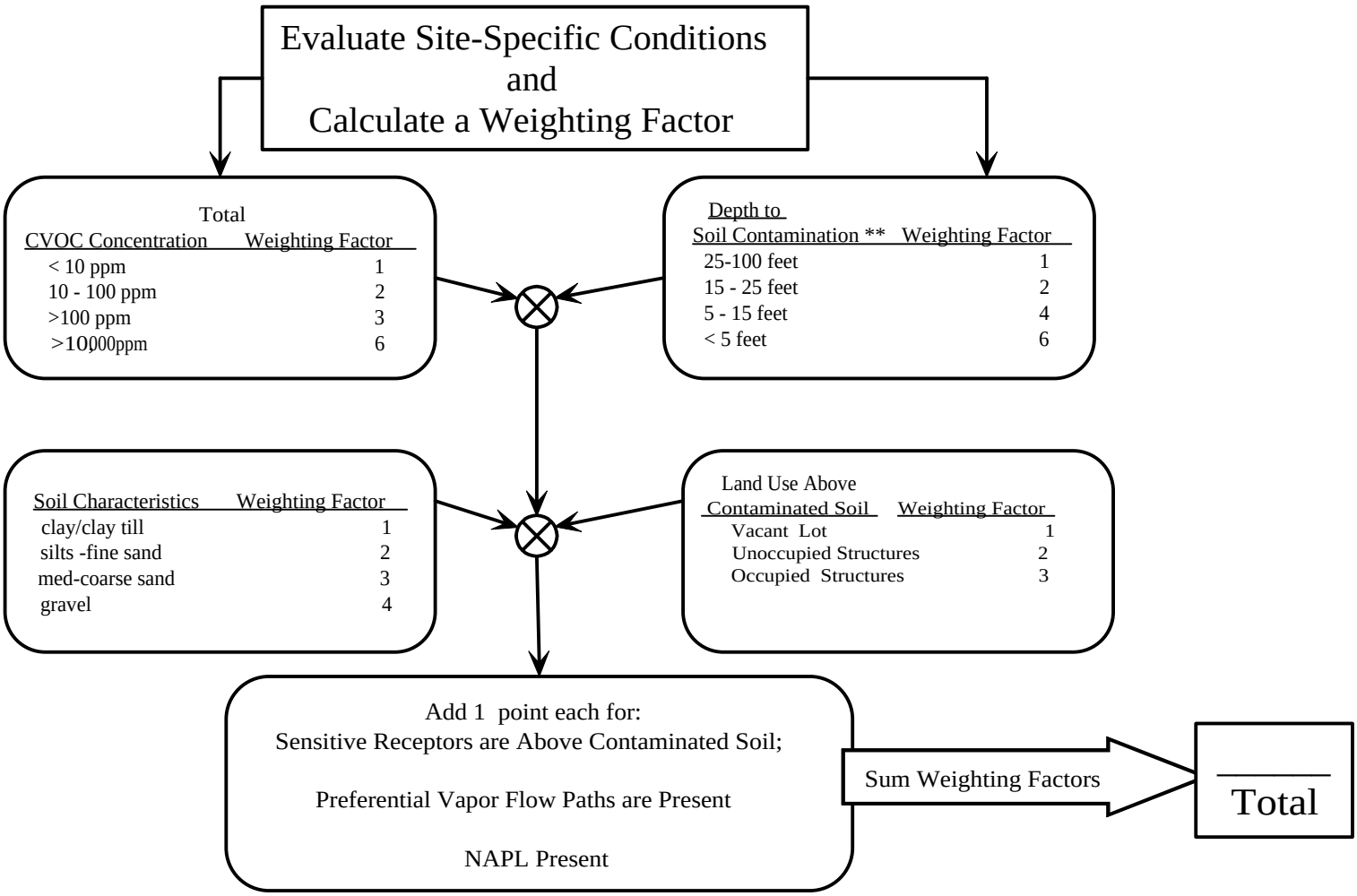
Who Will Conduct The Evaluations?



Attachment 2
Vapor Intrusion Screening Approach Used to Prioritize Soil Vapor Intrusion Evaluations of "DEC-Lead" Legacy Sites



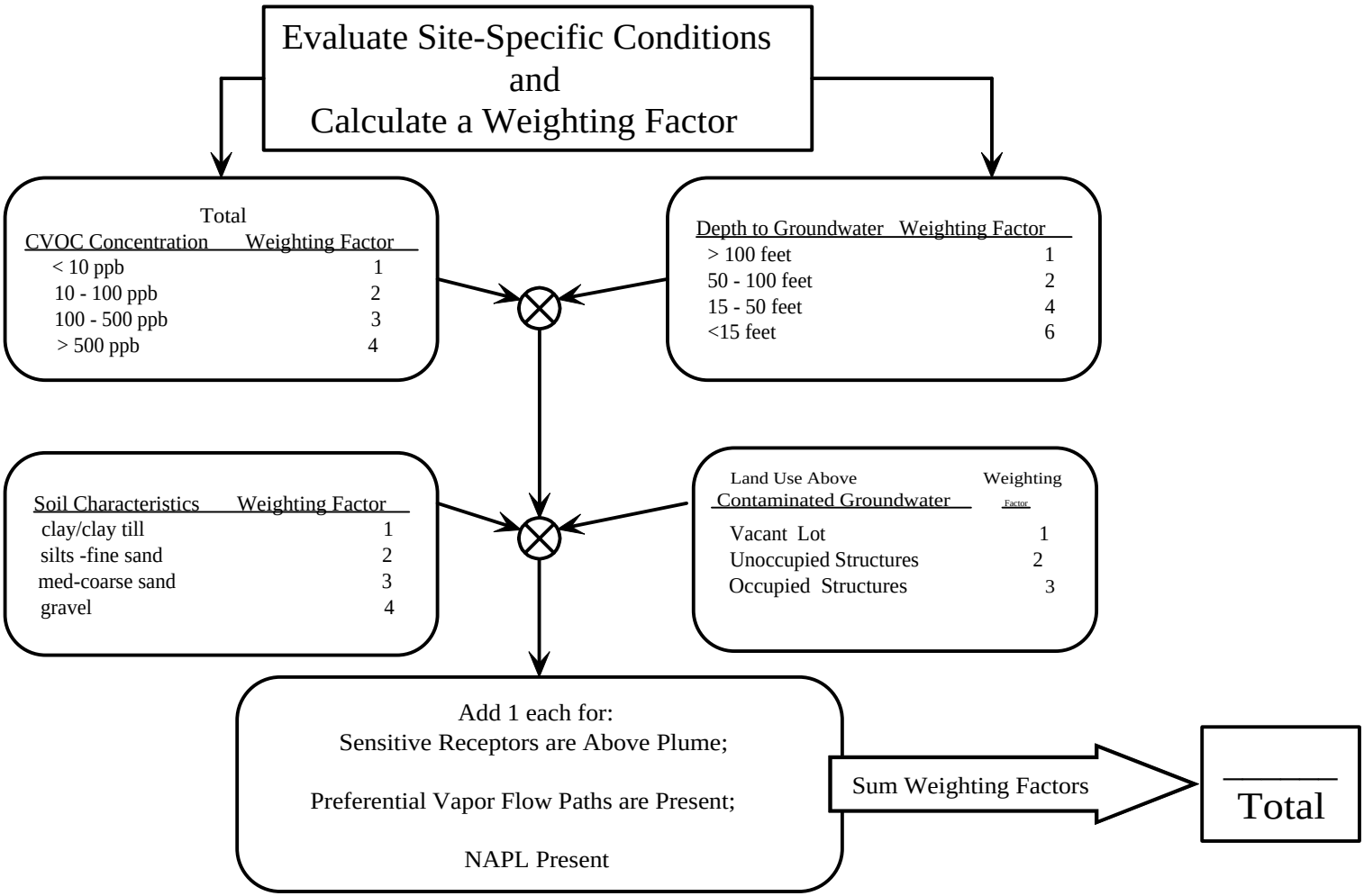
Attachment 3
Soil Weighting Factors
Used to Prioritize "DEC-Lead" Legacy Sites
For Soil Vapor Intrusion Evaluations



Note: Sensitive Receptors = (day care centers, elder care facilities, hospital, etc.)
Preferential Flow Paths = (pipes & pipe bedding, joints and fractures, sumps and other penetrations)

** The weighting factor for the depth to soil can be adjusted upward or downward to account for the stratigraphic distribution of the contamination and the building types that sit over it. (For example, shallow soil contamination in areas where there are no buildings should be given a low weighting; soil contamination at foundation depths should be given a higher weighting if buildings that sit over it have basements.)

Attachment 4
Groundwater Weighting Factors
Used to Prioritize "DEC-Lead" Legacy Sites
For Soil Vapor Intrusion Evaluations



Note: Sensitive Receptors = (day care centers, elder care facilities, hospital, etc.)
Preferential Flow Paths = (pipes & pipe bedding, joints and fractures, sumps and other penetrations)

SUMMARY OF REVIEW AND RESOLUTION OF MAJOR ISSUES AND COMMENTS

Program Policy DER-13: Strategy for Prioritizing Soil Vapor Intrusion Evaluations at Remedial Sites in New York

The draft Program Policy (DER 13) was published in the Environmental Notice Bulletin (ENB) on November 24, 2004. The original public comment period was extended for 30 days and ended on January 24, 2005, during which time over 130 comments were received (including five from the Office of the Attorney General marked confidential). In order to summarize the comments, they were organized by category.

Many of the technical comments are answered simply by referring the commentators to an appropriate section of the draft Department of Health (DOH) vapor guidance, which was released for public comment in February 2005. The following table summarizes the scope of the major comments and the Department's responses to each of the major issues.

Issue	Summary of Comment	Resolution
100 ft distance	Questioned the technical basis for screening out sites from further investigation that are more than 100 ft from an occupied structure.	The Department has decided to revise the draft policy and not apply a generic threshold criterion based on distance from a source of contamination to an occupied structure. At this point in time, there is not sufficient evidence to support setting such a criterion.
Access to database	Requests for public access to site-specific information compiled by the Department and used to rank and prioritize past sites.	Most of the information utilized in scoring and ranking the sites is already available to the public through the Department web site (http://www.dec.state.ny.us/cfmx/extapps/derfoil/index.cfm). Detailed data on specific sites can be reviewed at the local document repositories located in the impacted communities. These documents include Remedial Investigation Reports, Feasibility Study Reports, Records of Decision, and Site Fact Sheets. Information relative to the location of these repositories can be obtained by sending an email to the Division (derweb@gw.dec.state.ny.us).

Program Policy DER-13: Strategy for Prioritizing Soil Vapor Intrusion Evaluations at Remedial Sites in New York
Summary of Review and Resolution of Major Issues and Comments

Issue	Summary of Comment	Resolution
Applicability of OSHA	Concern expressed that the Agencies' indoor air quality guidelines will supersede existing OSHA requirements (i.e., will the State defer to OSHA for non-residential or occupational exposures?)	Whether or not OSHA regulations apply at a particular site is beyond the scope of this policy. Occupational exposures are discussed in the draft DOH guidance document (Section 2.12). The document: Guidance for Evaluating Soil Vapor Intrusion in the State of New York - Working Draft and the response to comments: Response to Comments Received on the Public Comment Draft of the New York State Department of Health's Guidance for Evaluating Soil Vapor Intrusion in the State of New York are available on the DOH web site at http://www.health.state.ny.us/environmental/indoors/vapor_intrusion/index.htm
Community participation	Need for additional public outreach after Department completes the proposed list for further investigation. When investigation is complete the public should be made aware of sampling results.	No further public input on the proposed list of legacy sites is being solicited. All sites on the list will be evaluated. The public will be made aware of the evaluations as they proceed and the results of the evaluation. Building specific results will be provided to occupants and owners of buildings sampled.
Consideration of background	Background (ambient outdoor and indoor) sources should be considered when evaluating soil vapor intrusion.	Consideration of background sources and how they impact the decisions made at a particular site is beyond the scope of this policy and is addressed in the DOH guidance document (Section 3.4.2).
Consistent with EPA vapor guidance	Concern that the procedures outlined in the strategy complement and not contradict the well-established EPA soil vapor intrusion guidance procedures.	Approaches to completing soil vapor intrusion evaluations are discussed in the companion DOH guidance document and are beyond the scope of this policy. However, neither the strategy for prioritizing legacy sites nor the proposed soil vapor intrusion guidance document contradicts the intent of the EPA guidance.

Program Policy DER-13: Strategy for Prioritizing Soil Vapor Intrusion Evaluations at Remedial Sites in New York
Summary of Review and Resolution of Major Issues and Comments

Issue	Summary of Comment	Resolution
Cost-benefit	Comments centering on the economic impacts of implementing this policy and concerns that resources will be spent unnecessarily with little benefit.	The Department believes that there may be sites that were previously remediated which still pose unacceptable soil vapor intrusion exposure. Since there may be sites with unacceptable exposures we believe that the benefit of reducing these unacceptable exposures will outweigh the cost of investigation past sites.
Exit strategy/no exposures	Concern that sites with little or no reasonable risk will be required to "prove a negative" and be retained on the vapor list indefinitely. The policy should clarify what criteria will be used to identify sites that do not pose a reasonable risk of soil vapor intrusion and should be removed from further consideration.	The strategy does not specify how the soil vapor intrusion evaluations will be conducted (or completed). Sites that were included on the list have the potential for exposures related to soil vapor intrusion. This potential may not have been evaluated during investigation of the nature and extent of contamination of the site. Data are required to resolve the question. Data may already exist (from site investigation, remedial action, or operation, maintenance and monitoring) to resolve it. Whenever, based on the review of existing (or new) data, a determination is made that a particular site does not present an unacceptable soil vapor intrusion exposure, the evaluation will be considered complete.
Future exposure	If development or occupation of an existing building could result in conditions that favor soil vapor intrusion in the future, will institutional controls be established?	The strategy does not specify how the soil vapor intrusion evaluations will be conducted. Data evaluation and recommended actions are discussed in Chapter 3 of the DOH guidance document.
General/applicability	General comments on the applicability of the policy and requests for minor edits and clarification of terms.	Incorporated as appropriate

Program Policy DER-13: Strategy for Prioritizing Soil Vapor Intrusion Evaluations at Remedial Sites in New York
Summary of Review and Resolution of Major Issues and Comments

Issue	Summary of Comment	Resolution
Investigation scope	Technical questions pertaining to the details of a site-specific investigation.	The intent of the policy is to state that the potential for soil vapor intrusion will be evaluated at all sites and to describe the process used by the Department to select and to prioritize past sites for soil vapor intrusion evaluations. The companion DOH guidance document (Section 2) provides recommendations on how these evaluations are to be conducted.
Legal authority	Questioned the State's authority to require sampling at sites that have been delisted or closed without demonstrating that a potential significant threat exists.	The Department has the authority and responsibility to require these evaluations. ECL 1-0101, 3-0301.1(I), 27-1305.2(a) and 27-1309. The Department is also authorized to recover the cost of such sampling and analysis from any responsible person. (see e.g. ECL 27-1309.5). The Commissioner, after investigation, providing notice and the respondent an opportunity to be heard, may also issue, modify and revoke orders as may be necessary or appropriate. ECL 71-2727.
Odor threshold	Questioned the technical basis for stating that the odor threshold of non-chlorinated hydrocarbons was lower than levels that would cause health impacts.	Non chlorinated hydrocarbons (petroleum) generally have odor thresholds that are very low . Our experience has been that the levels which could be detected by smell did not always present an unacceptable exposure. The vapor intrusion potential of these sites will be evaluated but only after the sites with chlorinated VOCs are evaluated first.
Preferential flow	Questioned the validity of increasing the weighting factor based on the presence of a preferential pathway for vapor migration.	Preferential pathways have the potential to facillitate vapor transport. If a preferential pathway is known, the weighting was increased. The actual impact of any preferential pathways cannot be predetermined and will be evaluated in more detail during the investigation phase.

Program Policy DER-13: Strategy for Prioritizing Soil Vapor Intrusion Evaluations at Remedial Sites in New York
Summary of Review and Resolution of Major Issues and Comments

Issue	Summary of Comment	Resolution
Ranking/scoring	The policy lacks necessary information explaining how and why the ranking system was developed, making it difficult to evaluate the appropriateness of such screening and ranking procedures and apply the criteria consistently.	The ranking system was developed to prioritize and to provide some separation between the different sites in order to manage the use of resources. Specific criteria were based on factors that are thought to have the most impact on the potential for soil vapor intrusion. The actual ranking of the sites was done based on data from the decision documents as well as other factors known specifically about the site. However, the ranking system has less relevance because all sites on the list will be evaluated for soil vapor intrusion potential. The evaluation will be conducted by either EPA, the Responsible Party (under the oversight of DEC) or in cases where a Responsible Party does not exist or is unwilling, by DEC. The ranking system will be used to prioritize the sites where DEC will lead the evaluation to ensure that sites with the highest potential for vapor intrusion are evaluated first.
Schedule	Questioned how many sites will be investigated and when will the investigations be completed.	The Agencies goal is to evaluate all of the past sites for soil vapor intrusion at all sites as quickly as possible. It is not possible to set a time frame for completion of the evaluation of all past sites.
Updates/revisions	Request for the opportunity to provide input on the ranking and prioritization of individual sites and to comment on future revisions.	The ranking process has been completed. As explained above, the ranking system is somewhat irrelevant now because all sites will be evaluated. Site owners will be informed of the Department's interest in evaluating their site for soil vapor intrusion and will be given the opportunity to provide updated information. Adjacent residents will have opportunities to participate in the investigative process via Citizen Participation activities.

Program Policy DER-13: Strategy for Prioritizing Soil Vapor Intrusion Evaluations at Remedial Sites in New York
Summary of Review and Resolution of Major Issues and Comments

Issue	Summary of Comment	Resolution
Who will conduct/pay?	Questioned who will be required to pay for the initial vapor investigation at sites where there is no clear threat. Request that the initial rounds of sampling be completed using State funds.	The USEPA has agreed to be the lead at all former and current sites on the National Priorities List (NPL) that are located in New York State. For the remaining sites, the Department will ask the party responsible for contaminating the site to pay for and perform the soil vapor intrusion evaluation, as well as any site investigations and remedial action required. If the responsible party declines to perform these activities, or if no viable entity exists, the State will proceed with the evaluation and seek to recover the costs incurred as part of that evaluation, and any necessary remediation.