



28 March 2005

Homer MGP Site

RECEIVED

MAR 31 2005

Remedial Bureau C
Division of Environmental Remediation

John Helmeset, PE
Division of Environmental Remedial
NYSDEC
625 Broadway
Albany, NY 12233-7017

Subject: Work Plan for Sub-slab Soil Vapor and Indoor Air Sampling at Property
Adjacent to the Homer MGP Site

Dear Mr. Helmeset:

Per a telephone conversation between Jim VanHoesen and Joe Simone on March 23, it has come to NYSEG's attention that the DOH is requiring that one (1) sub-slab soil vapor and one (1) indoor ambient air sample be collected from the motel property on the east side of Route 11, adjacent to the Homer MGP Site. This letter constitutes the work plan to collect those samples.

1.0 Indoor Air/Soil Vapor Sampling Program

The indoor air/soil vapor sampling program will consist of three primary steps. These steps include:

- Obtain permission for access
- Pre-sampling inspection and product inventory
- Collection of samples

The procedures that will be followed for each of these activities are described below.

1.1 Obtain Permission for Access

NYSEG will prepare an access agreement and explanatory cover letter which will be hand delivered to the property owner by a representative of NYSEG's property management group. The cover letter will briefly describe the sampling strategy and techniques. An example copy of this letter is included as **Attachment A**. The representative will explain the need for the sampling program, the terms and conditions of the access agreement, and whom the owner may contact with technical questions. The property owner refused to grant NYSEG access to his property in the past and DEC issued an access letter pursuant to ECL. Hence, if the owner again refuses access, or does not respond to NYSEG's access request within a timely manner, NYSEG will request DEC assistance in obtaining access.

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1.2 Pre-sampling Inspection and Product Inventory

The first step in this task will involve a walk-through survey of the motel in order to identify the most appropriate location from which to collect the samples. This must be done in conjunction with representatives of the DEC, DOH, NYSEG, and the sampling technician who will be performing the work on NYSEG's behalf.

The walk through will be conducted a minimum of 2 days prior to the sampling event. This survey is required because, according to the US EPA (October 2001) and as observed during sampling events at other sites, there are typically dozens of detectable chemicals in indoor air even in the absence of subsurface contributions. Furthermore, the property to be sampled is a "Mom & Pop" motel where many of the rooms are used as long-term residences. Since it is common in this type of construction for multiple rooms to share a common HVAC system, it is possible for products stored in parts of the motel not being sampled to migrate throughout the building and effect the results of the sampling.

During the walk through an inventory of the types of chemicals that are currently used or stored on the premises will be completed, and the specific types of activities that occur proximate to the area to be sampled that could effect the sample results will be documented. If available on the container's label, the volatile ingredients will be recorded for each product. A portable organic vapor-monitoring instrument (ex. ppbRae) will be used to help evaluate potential interferences from these products. Examples of contemporary chemicals that may contain volatile organics include cleaning fluids, solvents, paint and paint thinners, fuel oils for heating, petroleum products for small motors, certain cosmetics, hobby supplies, etc.

Contemporary chemicals identified that could liberate volatile compounds, or chemicals that could potentially impact the air testing, and any sources that indicate a response on the portable ppbRae at the container, should be removed and the area allowed to adequately ventilate prior to conducting the air sampling (assuming property owner concurrence). Because laboratory equipment is more sensitive than the portable organic vapor-monitoring device, removal of potential sources of interferences may be required even if the portable instrument does not detect organic vapors. Removing the source from the indoor environment prior to testing is the most effective means of reducing potential interference. The inability to eliminate potential interferences may be justification for not testing. If the property owner and/or any tenants will not cooperate, NYSEG will look to DOH for support and guidance on how to proceed. Furthermore, if the interior of the area to be sampled appears to be impacted by a source of volatile organics not related to the MGP site, the sampling will not be conducted.

Also during the walk through, the type and condition of the foundation slab will be observed and evaluated, as well as the general construction and condition of

the building. Based on information collected during the walk through inspection and survey, the DOH's *Indoor Air Quality and Building Inventory Form* will be completed. An example of this form is included as **Attachment B**.

At the conclusion of the pre-sampling inspection and product inventory, the sampling technician will review the findings with the property owner. The list of items that will be reviewed and discussed with the owner is presented on a checklist that is included as **Attachment C**.

1.3 Collection of Samples

SUMMA[®] canisters equipped with flow controllers will be used to collect the air samples over a 2-hour period. Three (3) samples will be collected generally concurrent with one-another. One (1) sample will be collected from soil vapor beneath the foundation floor slab, one (1) sample will be collected from indoor ambient air in the same room where the sub-slab sample is collected, and one (1) sample will be collected of outdoor ambient air in close proximity to the motel building. Exact sample collection locations will be selected during the walk through inspection and approved by DOH and DEC.

1.3.1 Sample Collection Methodology – Competent Foundation Floor Slab

If the foundation floor slab is constructed of poured concrete (this is the assumed situation) and is in “competent” condition (i.e. no large cracks/openings other than sewer cleanouts, sumps, or minor cracks), the sub-slab soil vapor sample will be collected in general accordance with sections 2.7.2 and 2.7.5 of the DOH's February 2005 draft *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*.

Because of the use of the building as a motel, the sub-slab vapor probe will be temporary and will be removed immediately upon completion of the sampling. If groundwater is encountered immediately below the floor slab, a soil vapor sample cannot be collected. In that event, the entire sampling program will be postponed until a soil vapor sample can be collected (i.e. indoor and outdoor ambient air samples will not be collected in the absence of a concurrently collected sub-slab soil vapor sample).

1.3.2 Sample Collection Methodology – Indoor Ambient Air

The indoor ambient air sample will be collected in general accordance with section 2.7.3 of the DOH's February 2005 draft

Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Note that because of the timing of DOH's request for this sampling and the time required to set it up and conduct it, NYSEG cannot guarantee that the motel heating system will be in operation prior to or during the sampling period. NYSEG expects that DOH will accept the sample results if the heating system is in fact not in operation, or will grant a time extension allowing this work to be deferred until the fall 2005 heating season.

1.3.3 Sample Collection Methodology – Outdoor Ambient Air

The outdoor ambient air sample will be collected in general accordance with section 2.7.4 of the DOH's February 2005 draft *Guidance for Evaluating Soil Vapor Intrusion in the State of New York.*

1.3.4 Laboratory Analysis

The air samples will be analyzed by laboratory Method TO-15 and in addition to the standard TO-15 analyte list will include the following n-alkanes and tentatively identified compounds (TICs):

<u>n-alkanes:</u>	<u>TICs</u>
n-Heptane	Butylcyclohexane
n-Hexane	Indane
n-Octane	Indene
Pentane	Isopentane
n-Decane	1,2,3-Trimethylbenzene
n-Dodecane	2,2,4-Trimethylpentane
n-Undecane	2,3-Dimethylheptane
Nonane	2,3-Dimethylpentane
n-Butane	

Within 5 days of the receipt of the completed data packages, the raw, unvalidated data will be sent to DEC and DOH for review.

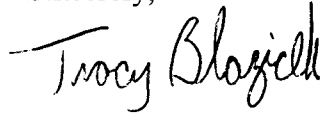
1.3.5 Data Validation

A person meeting the DEC requirements for performing organic data validation will validate all data received from the laboratory. A Data Usability Summary Report (DUSR) will be prepared that summarizes the results from the validation process. The DUSR

will be submitted to DEC and DOH within 30 days of receipt of the raw data.

Please feel free to contact me at 607-762-8839 or [tblazicek@nyseg.com](mailto:tlblazicek@nyseg.com) if you have any questions or comments about this work plan.

Sincerely,



Tracy L. Blazicek, CHMM
Lead Environmental Analyst
Site Remediation & Investigation
Environmental Compliance Team NY

Cc: Ron Koberlein – Ithaca
Bob Pass – Ithaca
Stephanie Selmer – DOH Troy
Joe Simone

ATTACHMENT A

EXAMPLE COVER LETTER

<DATE>

Owner name
Address
City, State Zip

Subject: Request for Permission to Collect Indoor Air and Soil Vapor Samples
From Your Property

Dear:

As you may know, your business, <INSERT NAME OF MOTEL>, is located adjacent to a former manufactured gas plant (MGP) site. NYSEG and its predecessor companies operated the MGP and NYSEG is currently preparing plans to remediate by-products that were left behind from the operation of the MGP. This work is being done pursuant to a Consent Order between NYSEG and the New York State Department of Environmental Conservation (DEC).

As part of the process of investigating the former MGP site, NYSEG previously collected samples of soil vapor from your property and also installed a groundwater monitoring well. The DEC and the New York State Department of Health (DOH) are requiring NYSEG to collect additional samples from your property. Specifically, they are requiring the collection of one (1) sample of ambient air from inside the motel building as well as one (1) sample of soil vapor from beneath the motel foundation slab and one (1) sample of ambient air outside the motel.

The sampling process will require two visits to your property to complete. During the first visit, the sampling technician will conduct an inventory of products used or stored in the motel that contain chemicals that may affect the results of the sampling. The technician will also review a list of procedures that you must follow immediately prior to the sampling. The samples will be collected during a second visit approximately two days after the first visit.

All three samples will be collected using devices known as a Summa canisters



(see photo)

The canisters are under negative pressure and when the valve at the top of the canisters are opened air is drawn into the canisters. Simply placing the canisters at appropriate locations and opening the valves will collect the samples of ambient air from inside and outside the motel building. The sample of soil vapor will be

collected by drilling an approximately one-inch diameter hole through the floor slab of the motel, inserting a plastic tube into the hole and connecting the tube to a canister.

The DOH will ultimately determine what locations the samples will be collected from, but NYSEG will make every effort to select a location for the soil vapor sample to minimize damage to the foundation slab and any floor coverings. Regardless, the hole in the floor slab will be repaired and any floor covering will be repaired or replaced as necessary to return the premises to the same conditions prior to the sampling.

All work, including repair of the hole in the foundation slab and repair or replacement of the floor coverings will be done at NYSEG's expense.

The work is expected to take approximately four hours to complete.

Attached with this letter please find an access agreement for your signature that grants NYSEG permission to conduct this work. Please sign it before a Notary and return it to NYSEG in the postage paid envelope provided. Alternatively, you can contact me at 347-2162 and I can notarize your signature.

If you have technical questions about the sampling, please contact NYSEG's project manager for this project, Tracy Blazicek, at 607-762-8839 or tlblazicek@nyseg.com. For questions about the access agreement, you may contact the undersigned at 347-2162 or rlkoberlein@nyseg.com. Alternatively, you can contact the DEC project manager, John Helmeset, at 518-402-9662 or jahelmes@gw.dec.state.ny.us, or the DOH representative, Stephanie Selmer at 518-402-7860 or slh09@health.state.ny.us.

Sincerely,

Ronald L. Koberlein
Supervisor – Property Management

ATTACHMENT B
INDOOR AIR QUALITY QUESTIONNAIRE
AND BUILDING INVENTORY

Attachment B

**NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH ASSESSMENT
BUREAU OF TOXIC SUBSTANCE ASSESSMENT**

INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY

This form must be completed for each residence involved in indoor air testing.

Preparer's Name _____ Date Prepared _____

Preparer's Affiliation _____ Phone No. _____

1. OCCUPANT

Name: _____

Address: _____

County: _____

Home Phone No. _____

Office Phone No _____

2. OWNER OR LANDLORD:

Name: _____

(if different than occupant)

Address: _____

Home Phone No. _____

A. Building Construction Characteristics

Type (circle appropriate responses): Single Family Multiple Dwelling Commercial

Ranch

Raised Ranch

Split Level

Colonial

Mobile Home

2-Family

Duplex

Apartment House _____ Units

Number of floors _____

Other specify _____

Residence Age _____ General Description of Building Construction Materials _____

Is the building insulated? Yes / No How air tight is the building _____

Indoor Air Quality Questionnaire and Building Inventory (continued)

B. Basement construction characteristics (circle all that apply):

1. Full basement, crawlspace, slab on grade, other _____
2. Basement floor: concrete, dirt, other _____
3. Concrete floor: unsealed, painted, covered; with _____
4. Foundation walls: poured concrete, block, laid up stone, other _____
5. The basement is: wet, damp, dry _____ Sump present? y / n _____ Water in sump? y / n _____
6. The basement is: finished, unfinished _____
7. Identify potential soil vapor entry points (e.g., cracks, utility ports etc.)

8. Describe how air tight the basement is _____

C. HVAC (circle all that apply):

1. The type of heating system(s) used in this residence is/are:
Hot Air Circulation Heat Pump
Hot Water Radiation Unvented Kerosene Heater
Steam Radiation Wood stove
Electric Baseboard Other (specify) _____
2. The type(s) of fuel(s) used is/are: Natural Gas, Fuel Oil, Electric, Wood Coal Solar
Other (specify) _____
3. Is the heating system's power plant located in the basement or another area: _____
4. Is there air-conditioning? Yes / No Central Air or Window Units? _____
Specify the location _____
5. Are there air distribution ducts present? Yes / No
6. Describe the supply and cold air return duct work in the basement including whether there is a cold air return, the tightness of duct joints

Indoor Air Quality Questionnaire and Building Inventory (continued)

D. Potential Indoor Sources of Pollution

1. Has the house ever had a fire? Yes / No
2. Is there an attached garage? Yes / No
3. Is a vehicle normally parked in the garage? Yes / No
4. Is there a kerosene heater present? Yes / No
5. Is there a workshop, hobby or craft area in the residence? Yes / No
6. An inventory of all products used or stored in the home should be performed. Any products that contain volatile organic compounds or chemicals similar to the target compounds should be listed. The attached product inventory form should be used for this purpose.
7. Is there a kitchen exhaust fan? Yes / No Where is it vented? _____
8. Has the house ever been fumigated? If yes describe date, type and location of treatment.

E. Water and Sewage (Circle the appropriate response)

Source of Water

Public Water Drilled Well Driven Well Dug Well Other (Specify) _____

Water Well Specifications:

Well Diameter _____ Grouted or Ungouted _____
Well Depth _____ Type of Storage Tank _____
Depth to Bedrock _____ Size of Storage Tank _____
Feet of Casing _____ Describe type(s) of Treatment _____

Water Quality:

Taste and/or odor problems? y / n If so, describe _____

How long has the taste and/or odor been present? _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Other (Specify) _____

Distance from well to septic system _____ Type of septic tank additive _____

Indoor Air Quality Questionnaire and Building Inventory (continued)

F. Plan View

Draw a plan view sketch for each floor of the residence and if applicable, indicate air sampling locations, possible indoor air pollution sources and PID meter readings.

Indoor Air Quality Questionnaire and Building Inventory (continued)

G. Potential Outdoor Sources of Pollution

Draw a sketch of the area surrounding the residence being sampled. If applicable, provide information on the spill location (if known), potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system if applicable, and a qualifying statement to help locate the site on a topographical map.

Indoor Air Quality Questionnaire and Building Inventory (continued)

Household Products Inventory

Occupant / residence _____

Address _____

Investigator: _____ Date: _____ Page ___ of ___

Room	Product Description (dispenser, size, manufacturer, etc)	VOC Ingredients	PID Reading

ATTACHMENT C

PRE-SAMPLING INTERVIEW CHECKLIST

ATTACHMENT C
PRE-SAMPLING INTERVIEW CHECKLIST

Date: _____

Time: _____

Inspector's Name: _____

Assistant's Name: _____

Address: _____

Resident/Occupant's Name (print): _____

I acknowledge that the inspector(s) have explained the following subjects during the Pre-Sampling Visit at my residence:

- Explained the general sampling procedures and the objectives of the air sampling program

- Reviewed the list of activities that could interfere with the sampling results and that the resident should refrain from doing prior to air sampling (see attached list)

- Confirmed the date and time that the team will return to collect the air sample

- Discussed the results from the chemical inventory and any chemicals that were found during the inventory that require removal

- Described the ventilation requirements, if necessary

Additional Comments:

Resident's Signature

Date

ATTACHMENT C (cont.)

PRE-SAMPLING INTERVIEW CHECKLIST

As described in the *Indoor Air Sampling & Analysis Guidance* prepared by the NYSDOH Division of Environmental Health Assessment; Bureau of Toxic Substance Assessment (dated August 8, 2001), the following is a description of any actions that should not be taken within a 24-hour period prior to the sampling of the home.

- open any windows, fireplace dampers, openings, or vents
- operate ventilation fans unless special arrangements are made
- smoke in the house
- paint
- use wood stove, fireplace, or other auxiliary heating equipment (e.g. kerosene heater)
- operate or store automobile in attached garage
- allow containers of gasoline or oil to remain within the house or garage area, except for fuel oil tanks
- clean, wax, or polish furniture or floors with petroleum or oil-based products
- use air fresheners or odor eliminators
- engage in any hobbies which use materials containing volatile organic chemicals
- use cosmetics, including hairspray, nail polish, nail polish removers, etc.
- apply pesticides