Appendix B
Indoor air quality questionnaire and building inventory

As discussed in Section 2.11, products in buildings should be inventoried every time indoor air is sampled to provide an accurate assessment of the potential contribution of volatile chemicals. In addition, the type of structure, floor layout and physical conditions of the building being studied should be noted to identify (and minimize) conditions that may interfere with the proposed testing.

Toward this end, a blank copy of the NYSDOH Center for Environmental Health's Indoor Air Quality Questionnaire and Building Inventory is provided in this appendix. Also provided is an example that demonstrates how the form should be completed properly.
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NEW YORK STATE DEPARTMENT OF HEALTH  
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY  
CENTER FOR ENVIRONMENTAL HEALTH  

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

Preparer’s Name ___________________________ Date/Time Prepared ______________

Preparer’s Affiliation _________________________ Phone No. ______________

Purpose of Investigation _____________________________________________________

1. OCCUPANT:

Interviewed: Y / N

Last Name: ___________________________ First Name: ___________________________

Address: _______________________________________________________________

County: _________________

Home Phone: _________________ Office Phone: ____________________

Number of Occupants/persons at this location ______ Age of Occupants ________________

2. OWNER OR LANDLORD: (Check if same as occupant ___)

Interviewed: Y / N

Last Name: ___________________________ First Name: ___________________________

Address: _______________________________________________________________

County: _________________

Home Phone: _________________ Office Phone: ____________________

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential  School  Commercial/Multi-use  
Industrial  Church  Other: ________________
If the property is residential, type? (Circle appropriate response)

<table>
<thead>
<tr>
<th>Type</th>
<th>Ranch</th>
<th>2-Family</th>
<th>3-Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raised Ranch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cape Cod</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duplex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modular</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If multiple units, how many? ______

If the property is commercial, type?

Business Type(s) ____________________________________________

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors_____ Building age_____

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors
_________________________________________________________________________________________________
_________________________________________________________________________________________________
_________________________________________________________________________________________________

Airflow near source
_________________________________________________________________________________________________
_________________________________________________________________________________________________
_________________________________________________________________________________________________

Outdoor air infiltration
_________________________________________________________________________________________________
_________________________________________________________________________________________________
_________________________________________________________________________________________________

Infiltration into air ducts
_________________________________________________________________________________________________
_________________________________________________________________________________________________
_________________________________________________________________________________________________
5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction: 
   - wood frame
   - concrete
   - stone
   - brick

b. Basement type: 
   - full
   - crawlspace
   - slab
   - other ______

c. Basement floor: 
   - concrete
   - dirt
   - stone
   - other ______

d. Basement floor: 
   - uncovered
   - covered
   - covered with _____________

e. Concrete floor: 
   - unsealed
   - sealed
   - sealed with _____________

f. Foundation walls: 
   - poured
   - block
   - stone
   - other ______

g. Foundation walls: 
   - unsealed
   - sealed
   - sealed with _____________

h. The basement is: 
   - wet
   - damp
   - dry
   - moldy

i. The basement is: 
   - finished
   - unfinished
   - partially finished

j. Sump present? 
   - Y / N

k. Water in sump? 
   - Y / N / not applicable

Basement/Lowest level depth below grade: ______ (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)
________________________________________________________________________________________
________________________________________________________________________________________

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

<table>
<thead>
<tr>
<th>Hot air circulation</th>
<th>Heat pump</th>
<th>Hot water baseboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Heaters</td>
<td>Stream radiation</td>
<td>Radiant floor</td>
</tr>
<tr>
<td>Electric baseboard</td>
<td>Wood stove</td>
<td>Outdoor wood boiler</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other _____________</td>
</tr>
</tbody>
</table>

The primary type of fuel used is:

<table>
<thead>
<tr>
<th>Natural Gas</th>
<th>Fuel Oil</th>
<th>Kerosene</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric</td>
<td>Propane</td>
<td>Solar</td>
</tr>
<tr>
<td>Wood</td>
<td>Coal</td>
<td></td>
</tr>
</tbody>
</table>

Domestic hot water tank fueled by: ______________________________

Boiler/furnace located in: 
   - Basement
   - Outdoors
   - Main Floor
   - Other _____________

Air conditioning: 
   - Central Air
   - Window units
   - Open Windows
   - None
Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

_________________________________________________________________________________________________
_________________________________________________________________________________________________
_________________________________________________________________________________________________
_________________________________________________________________________________________________

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

<table>
<thead>
<tr>
<th>Level</th>
<th>General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement</td>
<td></td>
</tr>
<tr>
<td>1st Floor</td>
<td></td>
</tr>
<tr>
<td>2nd Floor</td>
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<tr>
<td>3rd Floor</td>
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<td>4th Floor</td>
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</tbody>
</table>

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y / N

b. Does the garage have a separate heating unit? Y / N / NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / NA
   Please specify________________________

d. Has the building ever had a fire? Y / N When?______________

e. Is a kerosene or unvented gas space heater present? Y / N Where?______________

f. Is there a workshop or hobby/craft area? Y / N Where & Type? ________________

g. Is there smoking in the building? Y / N How frequently? ________________

h. Have cleaning products been used recently? Y / N When & Type? ________________

i. Have cosmetic products been used recently? Y / N When & Type? ________________
j. Has painting/staining been done in the last 6 months?  
   Y / N  Where & When? _______________

k. Is there new carpet, drapes or other textiles?  
   Y / N  Where & When? _______________

l. Have air fresheners been used recently?  
   Y / N  When & Type? ________________

m. Is there a kitchen exhaust fan?  
   Y / N  If yes, where vented?__________

n. Is there a bathroom exhaust fan?  
   Y / N  If yes, where vented?__________

o. Is there a clothes dryer?  
   Y / N  If yes, is it vented outside? Y / N

p. Has there been a pesticide application?  
   Y / N  When & Type?_______________

Are there odors in the building?  
   Y / N  If yes, please describe: _______________________________

Do any of the building occupants use solvents at work?  
   Y / N  (e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)
   
   If yes, what types of solvents are used? _______________________________
   
   If yes, are their clothes washed at work?  
   Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

   Yes, use dry-cleaning regularly (weekly)  
   Yes, use dry-cleaning infrequently (monthly or less)  
   Yes, work at a dry-cleaning service  
   No  
   Unknown

Is there a radon mitigation system for the building/structure?  
   Y / N  Date of Installation: ____________

Is the system active or passive?  
   Active/Passive

9. WATER AND SEWAGE

Water Supply:  
   Public Water  Drilled Well  Driven Well  Dug Well  Other: _______

Sewage Disposal:  
   Public Sewer  Septic Tank  Leach Field  Dry Well  Other: _______

10. RELOCATION INFORMATION (for oil spill residential emergency)

   a. Provide reasons why relocation is recommended: ________________________

   b. Residents choose to: remain in home  relocate to friends/family  relocate to hotel/motel

   c. Responsibility for costs associated with reimbursement explained?  
      Y / N

   d. Relocation package provided and explained to residents?  
      Y / N
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

First Floor:
12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, 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 topographic map.
13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: ______________________________________

List specific products found in the residence that have the potential to affect indoor air quality.

<table>
<thead>
<tr>
<th>Location</th>
<th>Product Description</th>
<th>Size (units)</th>
<th>Condition*</th>
<th>Chemical Ingredients</th>
<th>Field Instrument Reading (units)</th>
<th>Photo ** Y / N</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)
** Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.
Example 1 Correct

NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH

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

Preparer’s Name: Mary Jones  Date/Time Prepared: 10/22/04 10:00am
Preparer’s Affiliation: XYZ Consulting  Phone No.: 518-555-1212
Purpose of Investigation: Thomasville Soil Vapor Intrusion Investigation (Site #32141)

1. OCCUPANT:

Interviewed: Y/N
Last Name: Smith  First Name: Carol
Address: 25 Main Street Thomasville, New York 12340
County: Albany
Home Phone: 518-556-2222  Office Phone: 518-556-2400
Number of Occupants/persons at this location: 2  Age of Occupants: 36, 10

2. OWNER OR LANDLORD: (Check if same as occupant _)

Interviewed: Y/N
Last Name: White  First Name: Frank
Address: 64 Mountain Road Bainbridge, New York 21390
County: Dutchess
Home Phone: 845-876-1301  Office Phone: 845-237-2430

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

- Residential
- Industrial
- School
- Church
- Commercial/Multi-Use
- Other: __________________________
If the property is residential, type? (Circle appropriate response)

- Ranch
- Raised Ranch
- Cape Cod
- Duplex
- Modular
- 2-Family
- Split Level
- Contemporary
- Apartment House
- Log Home
- 3-Family
- Colonial
- Mobile Home
- Townhouses/Condos
- Other: ______________

If multiple units, how many?  **NA**

If the property is commercial, type?

Business Type(s)  **NA**

Does it include residences (i.e. multi-use)?  **Y / N**  If yes, how many? ______

**Other characteristics:**

- Number of floors 1
- Building age 20 years
- Is the building insulated?  **Y / N**
- How air tight?  **Tight**
- Average / Not Tight

4. **AIRFLOW**

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

**Basement air flows up to 1st floor through plumbing waste line and domestic water line floor penetrations**

Airflow near source

**Yes, furnace/oil tank area open to rest of basement**

Outdoor air infiltration

**Outdoor air enters at loose bilco doorway openings, and at sill plate near furnace.**

Infiltration into air ducts

**Basement air flows into bottom of hot air unit and in loose cold air return joints.**
5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

a. Above grade construction: wood frame concrete stone brick
   b. Basement type: full crawlspace slab other _________
   c. Basement floor: concrete dirt stone other _________
   d. Basement floor: uncovered covered covered with ___________
   e. Concrete floor: unsealed sealed sealed with ____________
   f. Foundation walls: poured block stone other _________
   g. Foundation walls: unsealed sealed sealed with ____________
   h. The basement is: wet damp __ dry moldy
   i. The basement is: finished unfinished partially finished
   j. Sump present? Y N
   k. Water in sump? Y / N / not applicable

Basement/Lowest level depth below grade: _______ (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Floor drain in laundry area

________________________

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation: Heat pump Hot water baseboard
Space Heaters Stream radiation Radiant floor
Electric baseboard Wood stove Outdoor wood boiler Other ____________

The primary type of fuel used is:

Natural Gas Fuel Oil Kerosene
Electric Propane Solar
Wood Coal

Domestic hot water tank fueled by: gas

Boiler/furnace located in: Basement Outdoors Main Floor Other _________

Air Conditioning: Central Air Window units Open Windows None
Example Correct

Are there air distribution ducts present? ☑️

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Cold air return ductwork on ceiling in basement. Cold air return joints appear loose.

7. OCCUPANCY

Basement / Is lowest level occupied? Full time Occasionally ☑️ Seldom Almost

Never

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement Storage and laundry

1st Floor living area and bedrooms

2nd Floor

3rd Floor

4th Floor

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? ☑️

b. Does the garage have a separate heating unit? Y ☑️ NA

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car etc.) ☑️/ NA

Please specify lawnmower, car

d. Has the building ever had a fire? ☑️ When?____________________

e. Is a kerosene or unvented gas space heater present? ☑️ When?____________________

f. Is there a workshop or hobby/craft area? ☑️ Where & Type? ________________

g. Is there smoking in the building? ☑️ How frequently? ________________

h. Have cleaning products been used recently? ☑️ When & Type? w/In Week, Windex, Tilex

i. Have cosmetic products been used recently? ☑️ When & Type? Yesterday, Hairspray
Example Correct

j. Has painting/staining been done in the last 6 months? Y/N Where & When? 

k. Is there new carpet, drapes or other textiles? Y/N Where & When? carpet in dining room

l. Have air fresheners been used recently? Y/N When & Type? 

m. Is there a kitchen exhaust fan? Y/N If yes, where vented? outside

n. Is there a bathroom exhaust fan? Y/N If yes, where vented? 

o. Is there a clothes dryer? Y/N If yes, is it vented outside? Y/N

p. Has there been a pesticide application? Y/N When & Type? 

Are there odors in the building? Y/N If yes, please describe: 

Do any of the building occupants use solvents at work? Y/N (e.g., chemical manufacturing or laboratory, automechanic or autobody shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist etc.)

If yes, what types of solvents are used? hair salon dyes, alcohols, peroxides, acetone

If yes, are their clothes washed at work? Y/N

Do any of the building occupants regularly use or work at a dry-cleaning service? Y/N (Circle appropriate response)

- Yes, use dry-cleaning regularly (weekly)
- Yes, use dry-cleaning infrequently (monthly or less)
- No
- Unknown
- Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y/N Date of Installation: June 2000

Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: Public Water Drilled Well Driven Well Dug Well Other: 

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: 

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: not applicable

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y/N

d. Relocation package provided and explained to residents? Y/N
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:

First Floor:
12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, 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 topographic map.
13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: **RAE photoionization detector**

List specific products found in the residence that have the potential to affect indoor air quality.

<table>
<thead>
<tr>
<th>Location</th>
<th>Product Description</th>
<th>Size (oz.)</th>
<th>Condition</th>
<th>Chemical Ingredients</th>
<th>Field Instrument Reading</th>
<th>Photo Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen</td>
<td>WD-40</td>
<td>12 oz</td>
<td>U</td>
<td>See photo</td>
<td>10 ppb</td>
<td>Y</td>
</tr>
<tr>
<td>garage</td>
<td>Mineral spirits</td>
<td>24 oz</td>
<td>U</td>
<td>Benzene, toluene</td>
<td>15 ppb</td>
<td>N</td>
</tr>
<tr>
<td>garage</td>
<td>American Semi-Gloss</td>
<td>64 oz</td>
<td>U</td>
<td>Titanium dioxide, ethylene, glycol, aluminum hydroxide, 2,2,4-trimethyl 1,3-pentanediol, isobutyrate, vinyl acetate</td>
<td>2 ppb</td>
<td>N</td>
</tr>
<tr>
<td>garage</td>
<td>Krylon Semi-gloss</td>
<td>64 oz</td>
<td>D</td>
<td>Butane, propane, xylenes, ethylbenzene, acetone, MEK, butanol, MTBE</td>
<td>10 ppb</td>
<td>N</td>
</tr>
<tr>
<td>garage</td>
<td>Rustoleum</td>
<td>12 oz</td>
<td>U</td>
<td>Talc, calcium carbonate, titanium dioxide, ethylene, ethylbenzene, acetone, liquified petroleum gases, pentaerythritol</td>
<td>4 ppb</td>
<td>N</td>
</tr>
<tr>
<td>garage</td>
<td>Deep &amp; Double</td>
<td>8 oz</td>
<td>D</td>
<td>Propane, isobutane, N,N-Diethyl-meta-toluamide, Di-n-propyl isocinchomerate</td>
<td>0.5 ppb</td>
<td>N</td>
</tr>
<tr>
<td>basement</td>
<td>12 Cans Latex</td>
<td>128 oz</td>
<td>U</td>
<td>Kaolin clay, 2,2,4-trimethyl 1,3-pentanediol, isobutyrate, vinyl acetate</td>
<td>0</td>
<td>N</td>
</tr>
</tbody>
</table>

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

** Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.
WD-40 FRONT

WD-40 INGREDIENTS

HARMFUL OR FATAL IF SWALLOWED:
Contains petroleum distillates. If swallowed, DO NOT induce vomiting. Call physician immediately.
Use in a well-ventilated area.
DELIBERATE OR DIRECT INHALATION
OF VAPOR OR SPRAY MIST MAY BE
HARMFUL OR FATAL.