

# NYSDEC Community Air Screen Program “Citizen Screening” for Air Toxics

Bureau of Air Quality Surveillance  
Bureau of Air Quality Analysis & Research

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Randi Walker, Dirk Felton, Jackie  
Perry, Larry Sitzman



# Program Overview

- Funding received from EPA Region 2 to implement a “Community Air Toxics Screening Program”
- The program is designed to assess air quality at the community level with help and direction of local groups or concerned individuals
- Application process will be used to select participants
- NYSDEC will supply reliable, contaminant free sampling equipment (60 canisters for 2012)
- NYSDEC will work with community to determine suitable specific locations for VOC air sample collection
- Canisters will be returned to NYSDEC laboratory for TO-15 analysis



# Participant Recruitment

- Program opportunity notices: 277 emailed, 43 faxed and 75 mailed to local and regional:
  - Environmental advocacy organizations
  - Environmental justice groups
  - Organizations recommended by Regional staff who respond to public concerns
  - Individuals who have contacted NYSDEC about air quality concerns
  - Civic Associations



# Application and Selection Process

- Participation by on-line application process
- Applications will be scored using the following considerations
  - Description of community concern
  - Information on community air quality
  - Sampling in EJ neighborhood or near sensitive receptors
  - Other factors: proximity to known sources and existing monitors



# Outreach and Timeline

- Monitoring and Air Toxics staff developed outreach material with Public Affairs and Press Office
- Created a Sampling Brochure and website <http://www.dec.ny.gov/81629.html>
- Website includes extensive easy to understand Q&A section
- Press announcement coordinated with Earth Day!
- 4 page application is a writeable PDF that encourages applicants to copy/paste internet maps (URL / images)
- Staff are developing a 4 minute video SOP
- Plan to include a scanable QR code with canister



# Sampling Equipment

- 6 L stainless steel Silica lined SUMMA canisters & cane
- Canisters will be delivered to and retrieved from community participants
- Canisters have passive regulators set for 1-Hr sample collection
- Canisters will be delivered to community groups fully assembled
- A tripod will be provided with the canisters to provide a 2 m sampling height from the ground



# Sampling Brochure: Pg 1

## DRAFT

### The Canister

The canister comes fully assembled. Instructions, data recording sheets and other tips are attached in a plastic sleeve. Please collect your air sample as soon as possible after receiving your canister so that the sample is returned to the laboratory by the expiration date shown on the canister.

If you accidentally open the canister, do not try to use it. Call the regional DEC office and a replacement canister will be provided.

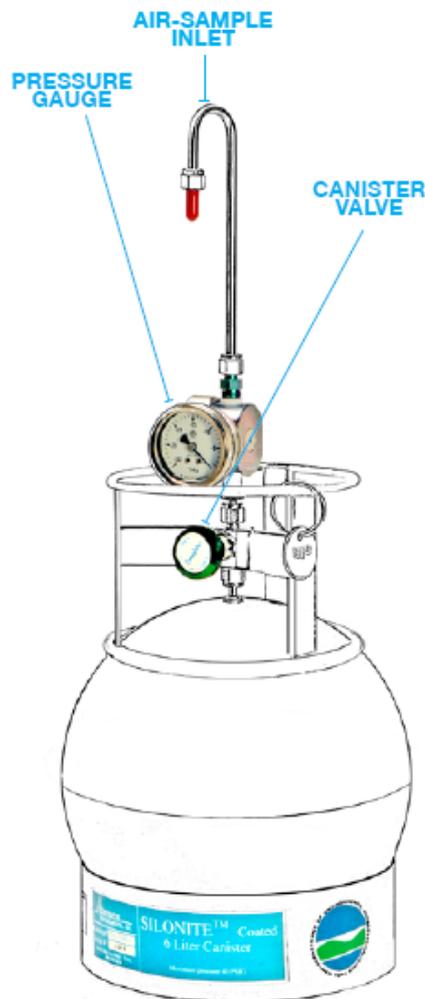
Please do not remove the bar code or serial number labels from the canisters or mark or affix anything on the canister.

Once you get the canister and are waiting to sample:

- Store the canister away from lawn mowers, containers of pesticides or any open fire.
- Avoid getting any material such as lotion, perfume, oil, grease, herbicides or pesticides on the outside of the canister.

Please handle the canister with care. For example,

- The canister weighs about 5-6 pounds, is glass lined and can break if dropped or knocked against a heavy object.
- Protect the top thin hook (sampling cane) from being bumped and keep track of the small cover at the end of the stem that you remove during the sampling.
- Consider taking a buddy with you to help with the canister, as well as with note taking, especially if you are taking two canisters on the same outing.



## Community Air Screen



### Instructions for Sampling

Please read the instructions completely before beginning to collect the air sample. Carefully follow the easy outdoor air sample steps outlined below to ensure accurate results and give us a better understanding of the types of air toxics that may be in your community.

You may be asked to collect a second sampling canister alongside the primary sample. This is part of our quality assurance and control. Your role here is important and we appreciate it!

Please do not be intimidated by the canister or how to gather the sample. Read this entire pamphlet. If you have any questions please call Randi Walker (518)402-8402 or email us at: [CAS@gw.dec.state.ny.us](mailto:CAS@gw.dec.state.ny.us).

### ARE YOU READY TO SAMPLE? ✓

- Have you read the instructions completely?
- Do you have the sampling canister with instruction sheet?
- Do you have a stool, step ladder, metal garbage can or other object on which to set canister three to five feet off the ground and hold it securely for 1 hour?
- Do you have the form: 'Tracking and Field Information for the Air Sample'?
- Do you have a pen and clipboard?
- Do you have a watch to keep track of time and record time of events?
- Did you check the weather forecast? Wind direction & speed? Is rain predicted?



NEW YORK STATE  
Department of Environmental Conservation  
DIVISION OF AIR RESOURCES

# Sampling Brochure: Pg 2

## DRAFT

### Paperwork and Reporting

You might have as many as five samples to collect at different times of a day and at different spots around the neighborhood. Each sample has its own paperwork so it helps to plan and be prepared.

- Please mark the exact location where the sample was collected on the map included with your sampling canister. If you decide to collect a sample in a location not represented on the map, please record that location, including street name and number, cross streets, etc.
- Consider including photos of the sampling site. These help us assess the situation.
- While the sample is being collected, please record observations related to your concern, such as amount of traffic in the area and characteristics of the industrial facility.
- Use the 'Tracking and Field Information for the Air Sample' form to record sample chain of custody and field observations. This form can be found online under the Community Air Screen link at [www.dec.ny.gov/25.html](http://www.dec.ny.gov/25.html)

### Locating a Place to Sample

If odors are a problem, take the sample when odors are present, if possible. Use your judgment. The odors don't have to be the "worst ever" to get a good sample. Remember, we want to get a good understanding of the types of air toxics found in your community.

- Choose a location where the air flows freely on all sides. Do not place the canister against a building. That won't provide a good sample.
- If possible, place the sample inlet at "breathing height," approximately three to five feet above ground level.

Stay away from competing sources of air toxic pollutants like nearby idling cars, construction, painting, or lawn mowing.

### Taking the Sample

Remember to carefully follow these steps to ensure accurate sampling results. Your job is important as you record the pressure gauge on the canister just before and just after sampling, collect the sample and record what's going on around you during the sampling.

The canisters come prepared to take the desired outdoor air sample. The canisters work by having less pressure inside than the pressure of the outside air so they should be opened ONLY to collect the sample. Once the cap is removed from the stem and the valve is opened, outside air enters the canister. This outside air is the sample.

**It takes one hour to collect a good sample. You must stay with the canister and record the data.**

- Take your sample soon after you have received the canister. The canister must be returned to the lab by the date on canister.
- Remember to place the sample inlet at "breathing height," approximately three to five feet above ground level.
- Complete one form for each sample you take.

### Equipment Delivery

Call to make arrangements to return all sample canisters to your DEC regional office as soon as sampling is done. All samples must be analyzed by the DEC laboratory within 30 days of the sampling date.

For questions, please contact  
**Randi Walker (518) 402-8402 or**  
**Email: [CAS@gw.dec.state.ny.us](mailto:CAS@gw.dec.state.ny.us)**

### The Steps

**Follow these steps to obtain an air sample with the canister.**

1. Make sure that the canister valve is fully closed. The green knob should be turned completely clockwise. If it's not – then call the office for a replacement canister.
2. Remove the red plastic tip at the end of the sampling cane.
3. RECORD THE START TIME.
4. Open the canister valve completely by turning the green knob counterclockwise. This takes approximately 1¼ turns. Be careful—do not turn the green knob so much that it falls off.
5. Record the pressure from the gauge.
6. After a 1-hour sampling period, record the pressure from the gauge, and close the canister valve by turning the green knob clockwise. Do not over-tighten.
7. RECORD THE STOP TIME.
8. Replace the red plastic tip at the end of the sampling cane.
9. Complete the 'Tracking and Field Information for the Air Sample' form.
10. Place the 'Tracking and Field Information for the Air Sample' form and the canister back into the original boxes in which they were delivered to you.
11. Call the DEC regional office to arrange for pickup or delivery of the sampling canister.

# Results 1: Notification and Level

- VOC Data will be compared to NYSDEC's Guideline Concentrations (GC) and existing ambient concentrations measured at other locations in NYS
- Level of concern
  - Ten times the Annual GC for carcinogens
  - Above AGC or Short-term GC for non-carcinogens
- Results with risk communication information sent to community groups within 45 days of sampling.
- Final Project Report will be sent to EPA Region 2



## Results 2: Addressing Air Quality Concerns

- Additional monitoring will be conducted in communities with results above level of concern
  - Program cost estimate includes up to 10% re-sampling
  - NYSDEC staff will take 24-hr follow-up canister samples
- If follow-up sampling confirms results of screening assessment then:
  - NYSDEC will try to identify sources in the community contributing to the levels of concern.
  - Recommendation will be made for further evaluation through EPA's Community-Based Air Toxics program.



# Conclusions

- We'll report back at the next meeting.
- Similar programs in other areas have alleviated public concern
  - Hamilton County Ohio has operated a similar program for 10 yrs
  - NJDEP is starting a program





Hamilton County Department  
of Environment Services

Air Quality Management Division



**SUMMA CANISTER  
SAMPLING PROGRAM**

serving Butler, Clermont, Hamilton and Warren Counties

Permits & Enforcement  
Hamilton County Department of  
Environmental Services  
250 William Howard Taft Rd  
Cincinnati, OH 45219

# Hamilton County Ohio

- Program started 10 years ago
- Issue about 15 canisters a year
- Not used as an enforcement tool
- Emphasize that this is one piece of data
- “Canister effect” – some people don’t use it
- Other air agencies are starting a program