



Countywide Recycling & Disposal Facility
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FACSIMILE TRANSMITTAL COVER SHEET

TO: Mr. Ed Gortner
OHEPA

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DATE: 4/10/07 NO OF PAGES: 8

SUBJECT: _____

COMMENTS: _____

**Countywide Recycling & Disposal Facility**

Division of Republic Waste Services of Ohio
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April 10, 2007

Ohio Environmental Protection Agency, Central Office
Division of Solid and Infectious Waste Management
Attn: Mr. Ed Gortner
PO Box 1049
Columbus, Ohio 43216-1049

RE: SUBMITTAL OF AMBIENT AIR SAMPLING PROGRAM, ORDER 5.A
DIRECTOR'S FINAL FINDINGS AND ORDERS OF MARCH 28, 2007
COUNTYWIDE RECYCLING AND DISPOSAL FACILITY

Dear Mr. Gortner:

Countywide Recycling and Disposal Facility (Countywide) is herewith transmitting the Ambient Air Sampling Program, prepared by our consultant Lawhon and Associates, Inc. The plan incorporates the expectations as outlined by Bryan Zima (OEPA) in his March 28, 2007 letter to Jason Perdion (Baker Hostetler LLP).

Per the requirements of Order 5.A, we are prepared to implement the Plan within 14 days of your written approval of the Plan. However, any advance verbal notification of pending written approval would be helpful, as there are physical structures which must be constructed as part of the Plan, and they will require time to construct.

Please call me if you have any questions.

Tim Vandersall, P.E.
General Manager

cc: Bill Skowronski, OEPA-NEDO
Kirk Norris, SCHD
Dan Aleman, CHD
Todd Hamilton, CWRDF
Jason Perdion, B&H
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Countywide Recycling & Disposal Facility

Ambient Air Sampling Program April 11, 2007

To Fulfill the Requirements Set Forth in Order 5.A of the Ohio EPA Director's Findings and Orders Dated March 28, 2007

Lawhon & Associates, Inc. (L&A) has developed this Ambient Air Sampling Program to assist Countywide Recycling & Disposal Facility (Countywide) to comply with Order 5.A. of Ohio EPA Director Christopher Korleski's Findings and Orders originally issued on March 28, 2007. The Order states as follows.

"Order 5.A. Ambient Air Quality Sampling. Respondent shall sample ambient air once every sixth day to determine if air emissions generated by Facility pose any risk to the health or safety of the public or to the environment. Based upon constituents, sampling locations (not less than three), sampling durations, and sampling test methods identified by Ohio EPA, Respondent shall propose a detailed sampling program to Ohio EPA not later than 14 days following Ohio EPA's identification of the above parameters. Respondent shall implement the sampling program within 14 days following Ohio EPA's written approval of the program. Respondent may sample monthly if the results of four consecutive weekly sampling events demonstrate that there is not risk to the health or safety of the public or to the environment and if Ohio EPA concurs in writing with the demonstration. If monthly sampling is performed by the Respondent and the results of the monthly sampling indicate any risk to the health or safety of the public or to the environment, the Respondent shall revert to once every sixth day sampling until the Ohio EPA concurs that monthly sampling is acceptable. Respondent shall submit a report of the sampling results within 30 days after each sampling event."

Detailed expectations for the air monitoring were conveyed in Bryan Zima's March 28, 2007 letter to Jason Perdion. This Ambient Air Sampling Program is intended to comply with the Agency's requirements.

1.0 Analytical Parameters

The analytical parameters for the ambient air monitoring have been specified by Ohio EPA in the Bryan Zima's letter of March 28, 2007. The majority of analytical parameters are potentially relevant to public health and potentially related to conditions at Countywide. The Agency has specified the following analyses:

- Volatile Organic Compounds (VOCs) using EPA Method TO-15
- Aldehyde and ketone compounds using EPA Method TO-11A
- Carbonyl compounds using EPA Method TO-11A
- Sulfur compounds using ASTM Method D5504
- Hydrogen fluoride and hydrogen chloride using NIOSH Method 7903

In order to simplify sample collection, it is proposed to monitor for sulfur compounds using EPA Method TO-15 modified rather than ASTM Method D5504 which uses a sorbent tube. This will provide the same information as the ASTM Method and will optimize use of the summa canister sample, and will eliminate the necessity for a separate sampling apparatus. It is understood that the summa canister must be specially prepared to accommodate the analysis of sulfur compounds.

Aldehyde and ketone compounds contain carbonyl bonds, as do organic acids. It is our understanding that EPA Method TO-11A is fairly specific to aldehydes. However, EPA Method TO-15 is also capable of identifying some ketone and low molecular weight organic acids. Both EPA Method TO-11A and NIOSH Method 7903 use low flow pumps to draw the air into sorbent tubes.

2.0 Proposed Monitoring Locations

The Director's F&O's specify that monitoring is to occur initially at a minimum of three locations, and after modeling a minimum of four locations. In order to maximize the usefulness of the data collected in late 2006, it is proposed that three "fixed" monitoring locations be designated to coincide with the locations where monitoring was previously conducted.

Bryan Zima's March 28, 2007 letter further clarifies the Agency's expectations that air modeling shall be conducted, using USEPA-approved models to determine the areas that are most frequently downwind of Countywide. It is also understood that the proposed modeling protocol will be submitted for Ohio EPA approval prior to undertaking this effort, and that the modeling be completed by April 30, 2007.

Based on the results of that modeling, a secondary downwind location(s) will be selected. Specific street addresses, if applicable will be identified based on the

modeling, and the property owners will be approached if necessary to determine their willingness to allow personnel to collect air samples.

It is proposed that "fixed" monitoring stations be constructed at the following locations:

- Cell tower on Countywide Facility
- Bolivar Elementary School
- Primary downwind off-site location, adjacent to the office at the KOA campground on Downing Street. This location is frequently downwind of Countywide and also is at a lower elevation than Countywide.
- Secondary downwind location(s) determined by meteorological/emissions modeling. Following Agency approval, modeling will be conducted during the month of April 2007.

The primary focus of this monitoring is to determine if air emissions attributable to conditions on the Countywide facility pose a risk to the health or safety of the public. Since Countywide is a potential source, but not the only source of airborne chemicals in that area, it is critical to identify the types and concentrations of chemicals that are prevalent in local "background" unaffected by emissions from Countywide. There are sufficient data to establish "background" levels of VOCs. However, there are fewer data statewide and nationally to bound the range of "background" concentrations of sulfur compounds, aldehydes and hydrogen fluoride and hydrogen chloride.

During any given monitoring period, it is anticipated that at least one of the fixed monitoring stations will be upwind of emissions from Countywide and will represent local background conditions. L&A proposes to install weather stations at each monitoring location to log temperature, humidity, wind speed and direction. As air quality data are compiled, it should be possible to correlate monitoring results with ambient weather conditions. This will allow us to separate effects potentially related to Countywide from background conditions and also to extrapolate likely exposures at each location over time.

Data from the existing weather station on the Countywide facility will represent conditions on the site. It is proposed to equip the other fixed monitoring locations with basic weather stations to account for the variations in wind speed and direction related to the complex topography around the site. For example, the weather station located on the Countywide facility is at a higher elevation than the low-lying area at the intersection of Downing Street and Deuber where numerous odor complaints have originated. Thus the facility weather station may not adequately represent the microclimate conditions associated with the topography.

From correspondence and discussions with Ohio EPA Division of Air Pollution scientists, it is understood that the Agency intends for the air monitoring to be

conducted from "permanent, fixed" installations that are secure. Given the intense public interest in the Countywide situation, there are concerns that individuals may attempt to tamper with or otherwise sabotage the monitoring effort. Security is of particular concern for those stations that are located off-site. L&A proposes to construct monitoring stations to minimize the possibility of tampering. Security could be accomplished either through making the stations as inconspicuous as possible (i.e. appearance of an ordinary garden tool shed) or by constructing fortified installations. It is suggested that the design of the monitoring station located on the roof of the Bolivar Elementary School be as inconspicuous as possible while maintaining as much security as possible.

- Inconspicuous secure enclosure for the sampling equipment and weather station (with automatic data-logger)
 - Small "utility shed" with pad-locked door
 - Anchored in place to a concrete foundation
 - Inconspicuous appearance
 - Power source for sampling pumps, either 110V electrical service or marine batteries (summa canisters will not require a power source)
 - Discreet warning sign

- Fortified enclosure for the sampling equipment and weather station
 - Equipment enclosure with roof
 - Situated on elevated platform (i.e. 8-10 feet) that is secured to a concrete slab (would require a ladder to access the equipment)
 - Surrounded by 8-foot chain link fence topped with razor wire with pad-locked gate
 - Security camera activated by a motion sensor
 - Power source for sampling pumps, weather station and camera
 - Discreet warning sign

4.0 Sampling Schedule and Frequency

As specified by the Director's F&O, air monitoring for the analytical parameters proposed above will be conducted every six days for the first month. The Agency has requested that samples be collected for a period of 24 hours, consistent with USEPA's national air toxics monitoring initiative. We propose to use evacuated summa canisters with regulators that will run for 24 hours for the VOC and sulfur compounds. The protocol for NIOSH Method 7903 requires a low flow pump and a maximum sample volume of 100 L. In order to be consistent with this method, individual samples will be collected for a period of 6 hours, with a total of four samples being collected during each 24 hour event.

Assuming standard turnaround time, it is anticipated that results will be received from the analytical laboratory within two weeks of the time the samples are submitted. Consequently, it is anticipated that at least two weeks of sampling will

have occurred in the second month before all results from the first month are received and evaluated. If the first month of monitoring shows no unacceptable risk to public health attributable to specific airborne chemicals associated with operations at Countywide, a written request will be made to OEPA to decrease monitoring frequency to one time per month for those analytes. However, it is understood that monitoring every six days will continue until such time as the Agency approves a decreased schedule and that weekly monitoring will continue for any parameters that are found to be present above acceptable risk-based levels. It is also understood that should monthly monitoring reveal the presence of compounds at concentrations exceeding acceptable risk-based levels, the sampling frequency for those analytes will revert to once every six days.

5.0 Evaluation of Potential Risk to Public Health

Analytical results will be compared to the conservative Preliminary Remedial Goal (PRG) risk-based concentrations for chemicals in ambient air published by USEPA Region 9. The Region 9 PRGs have been adopted as "screening levels" by several other EPA Regions and by a number of individual states. The Region 9 PRGs have been derived to be protective of members of the general population who are presumed to be exposed to constant levels of a chemical in ambient air (also soil and tap water) continuously for at least 30 years. Community exposures to airborne chemicals that may originate from Countywide have not and will not occur continuously for the duration upon which the Region 9 PRGs are calculated. Consequently, if the average level of a chemical found in ambient air is less than the corresponding Region 9 PRG, most regulators and public health scientists are comfortable that members of the public are not exposed to any unacceptable risks from that chemical. On the other hand, if a chemical is found to be present in community air at concentrations exceeding the corresponding Region 9 PRG, this may, but does not necessarily mean that people are experiencing an unacceptable level of risk. In the event that chemicals plausibly attributable to Countywide are found at concentrations above Region 9 PRGs, the potential risks to public health will be evaluated in a way that considers the unique situation in the community surrounding Countywide.

6.0 Data Reporting

Order 5.A. specifies that "Respondent shall submit a report of the sampling results to Ohio EPA within 30 days after each sampling event". Reporting requirements are further clarified in Bryan Zima's letter "...Countywide need only report on a quarterly basis, by the 15th of the month following third month of sampling, the acute and chronic risk to human health for all constituents above the detection limit of each analytical test method." A sampling schedule of every six days translates into five (5) sampling events per month (average 30 days). It is proposed that each report will represent one month of results (i.e. five sampling events if sampling every six days). In compliance with these

requirements it is proposed that reporting will occur on the following schedule. Per Order 5.A. if warranted by the analytical results, sampling frequency for some or all parameters may be decreased to monthly following the first month (5 sampling events), but may subsequently increase again to every six days. Consequently, sampling may not occur during some of the time intervals shown on the table and/or may occur for different combinations of the required analytical parameters.

Sampling Event	Time	Report & Action
1	0	
2	6 days	
3	12 days	
4	18 days	
5	24 days	
6	30 days	Report 1 Results from sampling events 1, 2, 3, 4 & 5 Evaluation of sampling frequency, request adjustments per Order 5.A.
7	36 days	
8	42 days	
9	48 days	
10	54 days	
11	60 days	Report 2 Results from sampling events 6, 7, 8, 9 & 10 Evaluation of sampling frequency, request adjustments per Order 5.A.
12	66 days	
13	72 days	
14	80 days	
15	86 days	
16	92 days	Report 3 Results from sampling events 11, 12, 13, 14 & 15 Evaluation of sampling frequency, request adjustments per Order 5.A.
16-30	182 days	Report 4 Quarterly results from previous three months
31-45	272 days	Report 5 Quarterly results from previous three months
46-60	362 days	Report 6 Quarterly results from previous three months
		Report 7 Proposed within 45 days of final sampling for the previous year