

May 2010



Environmental
Protection Agency

Air Quality Report for Clyde and Green Springs



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Ohio Environmental Protection Agency

Air Quality Report for Clyde and Green Springs

May 14, 2010

Background

The Ohio Environmental Protection Agency (Ohio EPA) has completed a year-long study of air quality in the Clyde-Green Springs area. This study was conducted in support of an ongoing investigation by the Sandusky County Health Department (SCHD) and the Ohio Department of Health of elevated childhood cancer incidences in the area.

In December 2007, SCHD asked Ohio EPA to attend a meeting with the families affected by childhood cancer in order to help ODH answer questions regarding potential environmental exposure risks in the community. Ohio EPA representatives attended the January 2008 meeting and met with the families again in March 2008. The families asked many questions about air quality in the Clyde area.

Study methods, surveillance and inspections

Initially, Ohio EPA reviewed the Toxic Release Inventory (TRI) data from Sandusky and Seneca counties to assess the types of industry and pollutants being emitted in the area of concern. The TRI contains information about the types and amounts of toxic chemicals that are released each year to the air, water and soil, as well as information about the quantities of toxic chemicals sent to other facilities for further waste management. For more information about the TRI reporting requirements, please visit <http://www.epa.ohio.gov/dapc/tri/tri.aspx>.

In March 2008, Ohio EPA began conducting environmental surveillance in the Clyde area. This surveillance included observations of air pollution emissions and/or odors. Visits to the area occurred at different times of the day, usually once or twice per week. These observations were recorded in field logs and continued through January 2010.

Ohio EPA also conducted research to look for potential sources of air pollution in the Clyde and Green Springs area. Using this information, eight inspections of local industries were performed between October 2008 and December 2008. No air emissions violations were noted during these inspections.

Air sampling/monitoring

Based on its research and knowledge of air pollution sources in the community, Ohio EPA developed an air sampling/monitoring plan and shared it with SCHD and ODH. This plan outlined how Ohio EPA would monitor air quality in the Clyde area.

Air monitoring began on January 13, 2009, and ended on January 8, 2010. The pollutants of concern analyzed for this study were volatile organic compounds (VOCs)

(i.e. benzene, xylene, acetone) and heavy metals (i.e. lead, mercury, chromium). After initially identifying ten potential locations for air monitoring, Ohio EPA chose five to collect air samples. The sites (listed below) were selected in accordance with U.S. EPA monitoring protocol. The attached map shows the monitoring locations (attachment A):

- one fixed site centrally located (#1) ;
- one rotating site on the northwest side of Clyde (#2);
- one rotating site on the northeast side of Clyde (#3) ;
- one rotating site on the southwest side of Clyde (#5) ; and
- one rotating site on the north central side of Clyde (#7)

The air samples for heavy metal analysis were taken from a fixed location in Clyde (site #1). Samples were collected every sixth day. Individual samples were combined to form monthly composite samples.

Every 12 days, Ohio EPA collected VOC samples at the fixed location in Clyde (site #1) and at two of the four rotating sites listed above. Therefore, samples from each of the four rotating sites were obtained every 24 days.

Conclusions

During the year-long air monitoring study, Ohio EPA detected no elevated levels of VOCs or heavy metals. Additionally, air quality in the Clyde and Green Springs area complies with the National Ambient Air Quality Standards as established by U.S. EPA for all criteria pollutants (particulate matter, nitrogen dioxide, ozone, carbon monoxide, lead and sulfur dioxide).

During surveillance of the area, Ohio EPA noted odors from the Whirlpool facility on many occasions. These odors ranged from barely detectable to very strong. Ohio EPA personnel investigated the odors further by going onto Whirlpool's roof to determine the type of odors coming from each stack. Ohio EPA concluded that the odors were coming from the e-coat line and cure oven.

Ohio EPA then reviewed Whirlpool's production records to determine whether there was a relationship between production changes and odor levels. No correlation was found. This would indicate that atmospheric conditions are the most likely cause of the varying odor-level intensity.

Ohio EPA obtained an air sample near the Whirlpool facility when strong odors were detected in order to determine whether the odors posed a health risk. The results indicated that the VOC levels in the sample were considered to be protective of human health.

In summary, Ohio EPA studied air quality for a full year in the Clyde and Green Springs area and detected no elevated levels of pollutants that would indicate a cause for public health risk concerns.

83°0'0"W

82°59'0"W

82°58'0"W

82°57'0"W

41°19'0"N

41°18'0"N

41°17'0"N

41°19'0"N

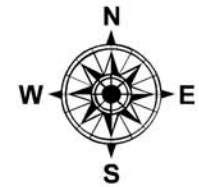
41°18'0"N

41°17'0"N



Legend

- 1 - Fixed
- 2 - Rotating
- 3 - Rotating
- 5 - Rotating
- 7 - Rotating



83°0'0"W

82°59'0"W

82°58'0"W

82°57'0"W



Ohio EPA Northwest District Office

Clyde Air Sampling Map

Date: May 12, 2010





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