ARAQMD

Protecting the Air

Akron Regional Air Quality Management District

Annual Report for 2015

Contents

Introduction

This report is designed to give an overall picture of the Akron Regional Air Quality Management District's (ARAQMD) activities in the calendar year 2015. It describes how our agency is structured, the work performed by each section of our agency, and our agency's plans for the future.

The administrative section will contain the fiscal status of this agency, the staffing changes undergone during the last year, an organizational chart and a description of the future plans for the agency. The ambient monitoring section has monitoring data summarized to explain where the region is with respect to attainment of the National Ambient Air Quality Standards (NAAQS) and some other monitoring projects the staff undertakes. Finally, the permitting section has a summary of the activities of the permitting staff and the facility inspections performed.

Administrative Section

Staff Changes:

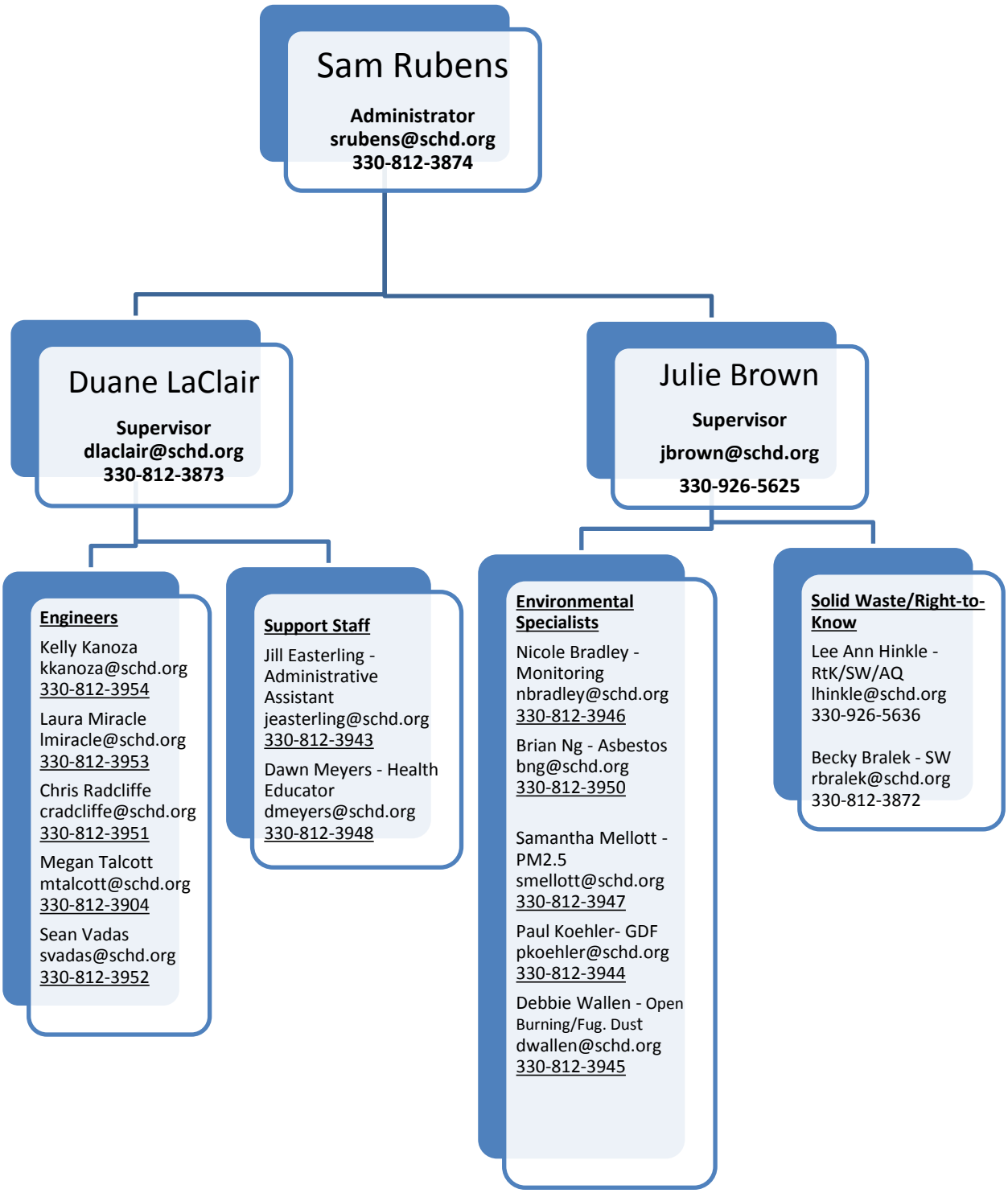
2015 did not see as much transformation in the organizational chart as in recent years. We did see some staff leave for better opportunities, which are always a positive thing, and we welcomed new colleagues to the agency.

In June, we saw Curtis Rinkes, Air Quality Engineer, off to his new position at PPG Industries and welcomed an engineer intern, Alexis Killinger.

In August, we welcomed a new Air Quality Engineer, Chris Radcliffe, to the team and wished our friend, Environmental Specialist Kamalpreet Kawatra, a fond farewell as her family moved out of the area.

In December, the internship ended and Alexis continued her coursework to complete her Master's degree.

Figure 1: Organizational Chart (as of 1/1/16)



Local Fees

ARAQMD local fees are invoiced in January each year and are based on the previous year's allowable emissions. Due to internal workloads, ARAQMD plans to begin issuing invoices in July each year beginning in 2016. The fees will be based on the prior year's allowable emissions and will only reflect emission units that had active permits in the prior calendar year, January through December. There will be no catch up for the six month delay, so facilities won't get a higher than expected invoice. The revenue generated from the local fees is shown in Table 1.

Table 1: Local Fee Revenue

	2012 (actual)	2013 (actual)	2014 (actual)	2015 (actual)
Facilities	1040	1040	1040	1040
Revenue	$209,922	$238,771	$270,750	$245,805

Table 2: 2015-16 ARAQMD Revenue Sources

USEPA Funds	OEPA Funds	Local Funds	Enforcement	Total
$373,241	$971,274	$245,805	$8,891	$1,599,210

Table 3: 2015-16ARAQMD Projected Expenses

Salaries	$896,971
Benefits	$350,347
Other Expenditures (Office, Equipment, etc)	$351,982
Total	$1,599,210

Strategic Plan Update

In 2013, ARAQMD created a strategic plan to allow for more effective and efficient use of the public funds. The 2014-2017 ARAQMD Strategic Plan was published in June 2014 on the ARAQMD website after gaining approval from the ARAQMD Advisory Board. We will be conducting projects to increase awareness of our agency name so that the work we do can be recognized and we can become models of best practices for other Local Air Agencies (LAAs) across Ohio and the nation. The staff has been involved in many stages of the strategic planning process and continues to participate in this project.

Through staff discussions, we created a mission statement, and identified public education, increasing the capacity of the division, becoming a leader in the field of air quality and increasing office efficiency as organizational goals. The aim of the ARAQMD strategic plan is to guide the agency towards a three year, strategically reasoned, future. The plan will be reviewed and revised annually with input from staff and management and the changes will be submitted to the ARAQMD Advisory Board for approval.

The mission statement which will direct ARAQMD into the future is:

> *The mission of the Akron Regional Air Quality Management District (ARAQMD) is to protect the public from the adverse health impacts of air pollution and to educate the public about air quality issues.*

Goal 1: Educate the public on Air Quality issues

In an effort to increase awareness of air quality issues, staff members are conducting trainings for local fire departments, zoning inspectors and construction companies to foster a better working relationship and to educate these organizations about air quality regulations.

To better accomplish our goal of reaching the public, it was decided to increase the membership of the ARAQMD Advisory Board to include representatives of each county's Fire Chiefs Association, the Zoning Commission, and each local health department.

As part of the public outreach and education that ARAQMD does, we publish a quarterly newsletter, *The Air You Breathe.* The newsletter is mailed to over 1200 addresses and over 100 are emailed to readers. We are currently attempting to change the hardcopy subscribers to the emailed version to save on the environmental cost of publishing the newsletter. The newsletter is archived on the ARAQMD website as well.

Another way that ARAQMD is reaching out to educate the public is by staffing tables at public events such as Summit County Public Health events, Goodyear Tire & Rubber's Engineering Day, University of Akron's Engineering School's Career Fair, KSU's College of Public Health Career Fairs and Earth Day events.

In 2015, the ARAQMD staff performed over 20 presentations for the regulated community, public and partner organizations on topics such as open burning, fugitive dust, indoor air problems, and mold exposure.

We celebrated Air Quality Awareness week in 2015 by giving ARAQMD grocery bags and AQI handouts to each of the local hospitals Respiratory Therapy clinics. These bags were to be given to the patients undergoing respiratory therapy so that they could be aware of the air quality on days they chose to do outdoor activities.

Goal 2: Increase the capacity of the division

In 2015, ARAQMD hired an intern to go through the permitted facilities to identify those marked as being on registration status, make contact with those facilities and update STARS2 with current information. Some of these facilities had submitted their permit applications many years ago and, while operating legally, had never been issued final permits or operating permitted sources which could be considered *de minimis* or qualify for an exemption or permit by rule. This process cleaned up over 139 facilities with over 500 emissions units.

Goal 3: Be a leader in the field of Air Quality

Starting in October 2015, the Akron Public School's Science, Technology, Engineering and Math (STEM) School and ARAQMD began the process of incorporating air quality topics into the seventh grade

curriculum with a focus on implementing the 2BTechnologies Global Ozone (GO3) program. The STEM school seventh graders are the first group in Ohio to use the GO3 program. The GO3 curriculum brings air quality examples and topics into the students' education. The GO3 equipment was installed and has been running since June 2015.

In the fall 2015 semester, an Air Pollution Control course in the Department of Public Health at Kent State University was taught by a member of ARAQMD's staff. The Air Pollution Control course is one of the required environmental health courses being taught in the program. The inaugural class had seven students and reviews show that they all felt they learned a lot about the field of air quality in their first exposure to it. It is hoped that this relationship will continue into the future for the exposure of the agency and the field to the students.

The goals of these projects are to spark interest in these students and that they will steer their education towards the field of air quality. Once the topic of air quality is introduced and interest is fostered and mentored, the pool of prospective applicants for air quality jobs will be improved and the entire field of air quality can benefit. These projects will allow staff from ARAQMD to interact with students and teachers to mentor those who have an affinity for this field.

Another way that the ARAQMD staff are becoming leaders in the air quality field is by taking leadership roles in local, state and national organizations such as the Ohio EPA workgroups, National Association of Clean Air Agencies (NACAA) and local community advisory panels. Of the 18 staff members, nine are active as leaders. Although the majority of the ARAQMD staff members have less than 5 years of experience in air quality, they are showing a willingness to help lead ARAQMD into the future.

Goal 4: Increase Office Efficiency

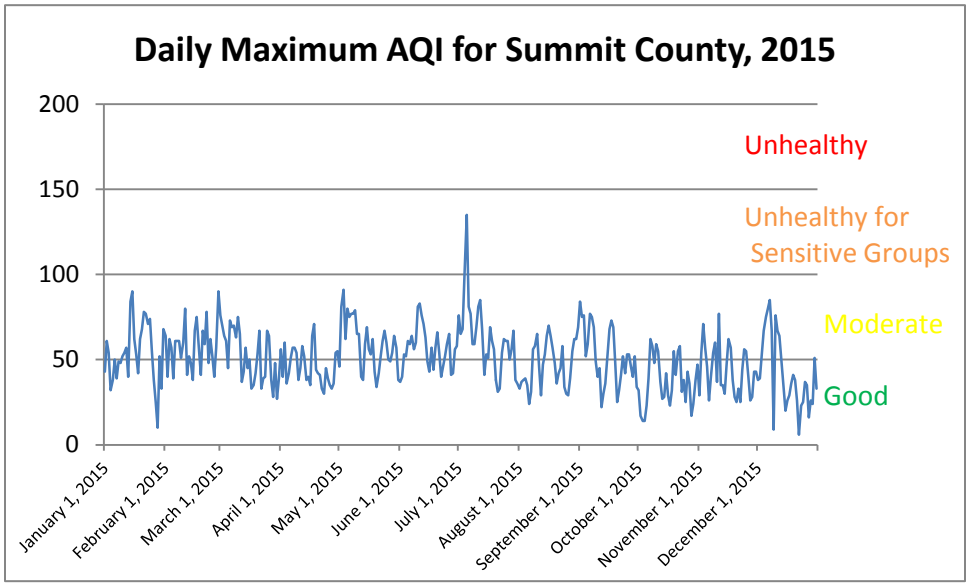
During the move into the new SCPH facility in 2014, we identified several processes that needed revisions and we worked on those documents as they came up. As part of the move, we packed over 400 boxes to the archive storage and brought over 200 boxes of active files to the new facility. We will be following the OEPA's e-docs project goals to ensure that facility files are maintained appropriately. Beginning in October 2014, all asbestos cases are scanned and no paperwork is kept. As of January 1, 2014, all permitted facility files are scanned into the OEPA's State Air Resource System (STARS2) online database and no paperwork is kept. We are continuing to work on scanning old files into STARS2 to reduce paperwork to be maintained.

Ambient Air Monitoring Section

Air Quality Index

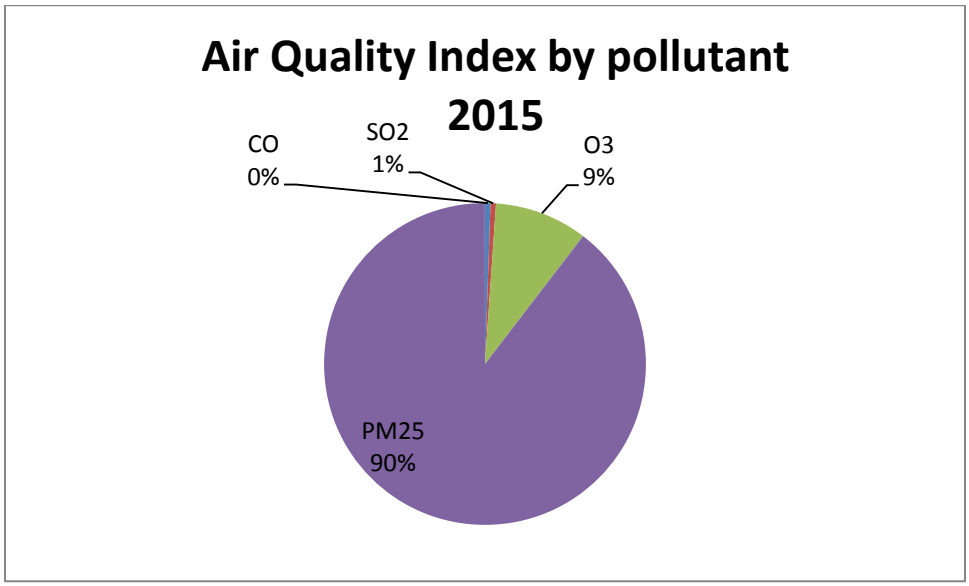
Twice every weekday, ARAQMD reports the Air Quality Index (AQI) to the public by means of the ARAQMD website at http://araqmd.org/AQI.html, the agency Facebook page and the Air Quality Information line at 330-375-2545. The AQI is intended to advise the public of the potential health effects of the ambient air pollution. The AQI has six categories which have AQI values assigned. The AQI categories and the values are; Good (0-50), Moderate (51-100), Unhealthy for Sensitive Groups (101-150), Unhealthy (151-200), Very Unhealthy (201-300), and Hazardous (301-500).

Figure 2: Daily Maximum AQI for Summit County, 2015



As can be seen in the above graph, there was a huge spike which occurred on July 4th. The ambient site is located in a high school parking lot and there are usually celebratory fireworks at this site. Historically, we have seen spikes around the 4th of July weekend in our $PM_{2.5}$ data.

Figure 3: AQI 2015 by Pollutant

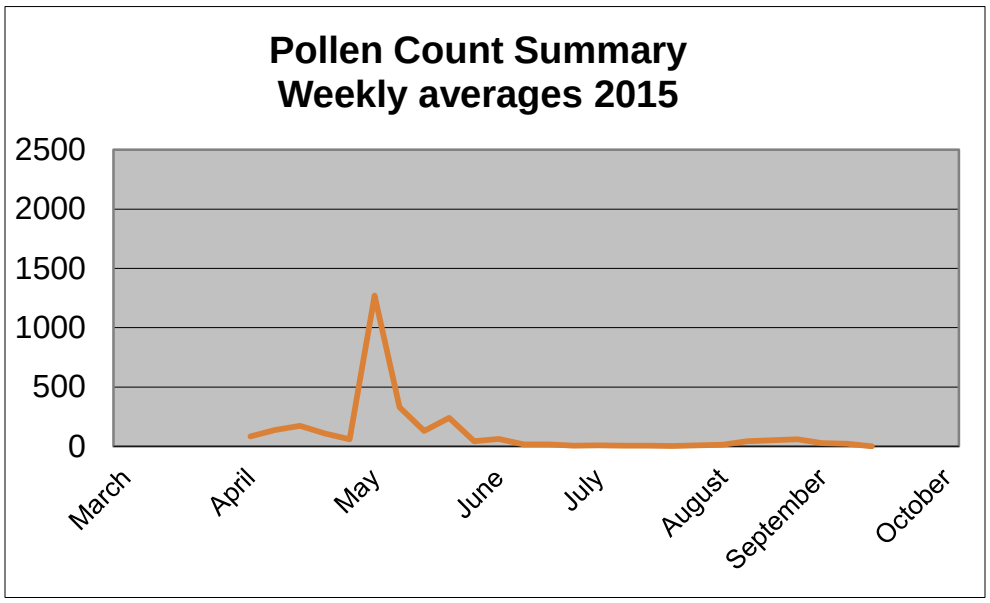


Pollen Sampling

The ARAQMD staff begins collecting and analyzing pollen on April 1 of each year and the season runs through the beginning of October or until the first killing frost. Figure 4 shows the weekly averages of the pollen count for the 2015 season. The 2015 data begins a new era in ARAQMD pollen monitoring. From 1988 through 2014, the pollen was sampled at the Morley Health Center in downtown Akron. Beginning with the 2015 pollen season, the samples were taken at the Fairway Building at 1867 W. Market Street in Akron. Fairway is located in a neighborhood with many more trees than downtown.

There are three seasons each year; tree pollen, which occurs in the beginning of the season, grass season, which follows the tree pollen and finally the ragweed season which starts in August and September. Definite spikes were seen for pine, oak and maple tree pollen. In Figures 4 and 5, the pollen and ragweed counts can be examined in more detail.

Figure 4: Pollen Counts by Week, 2015



Starting in 2008, all pollen and ragweed daily counts from 1988 to the current year's data are analyzed and the pollen count value at the 5th, 10th, and 25th percentile are calculated and published as the breakpoints for categorization of the next year's daily counts. These correspond to the categories of good, moderate and high. Since the new sampling site is located in a tree-filled neighborhood, the data from downtown Akron will not be useful for comparisons. Starting with the 2015 data, new ranges will be calculated each year. Table 4 lists the ranges for use in the 2016 pollen season.

Table 4: Pollen and Ragweed Ranges for 2016 season

	Tree and Grass Pollen	Ragweed Pollen
Good (50th %ile)	0-28	0-15
Moderate (25th %ile)	29-85	20-31
High (10th %ile)	85-220	32-64
Very High (5th %ile)	221+	65+

National Ambient Air Quality Standards

The National Ambient Air Quality Standards (NAAQS) were devised in the 1970 Clean Air Act, which was last amended in 1990. These NAAQS are reviewed periodically and may be revised by the EPA. The review of the NAAQS are started by a rigorous scientific study done by the Clean Air Scientific Advisory Committee (CASAC), an independent group that was created to advise the EPA in scientific matters, who then make recommendations to the EPA as to what the scientific research shows that the levels of certain pollutants should be to adequately protect human health. The mode of the NAAQS is generally given in a concentration per time period or volume of air.

In 2015, the ozone NAAQS was revised to 70 ppb for the 8 hour averaging time period. It was also proposed that the ARAQMD region be combined with the Canton/Massillon metropolitan statistical area (MSA) for $PM_{2.5}$ attainment purposes. As this action was granted by the US EPA, ARAQMD is now in attainment for $PM_{2.5}$ for the first time since monitoring started in 1997. This designation allows for more economic development in the region due to relaxed regulations on incoming industry.

Table 5: 2014 NAAQS

Pollutant	Level	Averaging Time
Carbon Monoxide (CO)	9 ppm	8 hour
	35 ppm	1 hour
Lead (Pb)	0.15 ug/m^3	Rolling three month average
	1.5 ug/m^3	Quarterly
Nitrogen Dioxide (NOx)	53 ppb	Annual Mean
	100 ppb	1 hour
Fine Particulate Matter ($PM_{2.5}$)	12.0 ug/m^3	Annual Mean
	35.4 ug/m^3	24 hour
Ozone (O_3)	75 ppb	8 hour
Sulfur Dioxide (SO_2)	30 ppb	Annual Mean
	140 ppb	24 hour
	75 ppb	1 hour

Pollutants

Particulate Matter with a Diameter of less than 2.5 microns ($PM_{2.5}$)

In 1987, the USEPA made a change from total suspended particulate (TSP) to coarse particulate matter. PM_{10} is made of particulates which can reach the thoracic region or upper lung area of humans. Upon review in 1997, the USEPA changed focus from PM_{10} (coarse particulate matter) to $PM_{2.5}$ (fine particulate matter) in the ambient air. The $PM_{2.5}$ can be inhaled into the lower lung region and is hard to exhale. Once in the moist and warm lower regions of the lungs, chemical reactions can occur and the chemicals in the particulate matter can become dissolved and be transported across the lung membrane into the blood stream.

There are two NAAQS for $PM_{2.5}$. The first is a 12.0 $\mu g/m^3$ annual arithmetic mean, averaged over three consecutive years. The second is a 35 $\mu g/m^3$ 4^{th} high 24 hour average. This standard is attained when the 4^{th} highest 24 hour average, averaged over 3 consecutive years, is less than 35 $\mu g/m^3$.

ARAQMD's monitoring network for $PM_{2.5}$ consists of two continuous monitors located in Medina and Summit Counties, intermittent Federal Reference Method (FRM) monitors located in Summit, Portage and Medina Counties and speciation monitors located in Summit County. The intermittent monitors are used to determine if the region is in attainment with the NAAQS. The continuous monitors are used to determine the Air Quality Index (AQI) and for research projects which can help determine where particulate matter comes from, forecasting the AQI, and health effects. The speciation monitors are used for research projects, which determine the composition of the particulate matter and allow for controls to be put into place to minimize those sources.

Below is a table showing the values used to determine if the ARAQMD region is meeting the NAAQS.

Table 6: NAAQS Comparison Values for $PM_{2.5}$

Fine Particulate Matter ($PM_{2.5}$)

National Ambient Air Quality Standards

Units: Micrograms per cubic meter ($\mu g/m^3$)

24 Hour Avg – 35 $\mu g/m^3$

Annual Mean – 12 $\mu g/m^3$

4^{th} Highest 24 Hour Average

Site Name	2011	2012	2013	2014	2015
East High	26.4	20.3	24.7	22.5	20.4
5 Points	23.0	19.7	23.9	21.1	21.3
Ravenna	22.5	18.1	18.7	18.8	18.4
Chippewa	23.6	18.1	19.4	19.2	19.9

Annual Mean

Site Name	2011	2012	2013	2014	2015
East High	11.8	10.9	10.3	10.7	10.3
5 Points	11.0	10.0	9.9	9.9	9.6
Ravenna	10.5	9.3	9.1	9.3	9.2
Chippewa	10.5	9.2	9.2	8.7	7.6

Sulfur Dioxide (SO_2)

SO_2 is formed when sulfur-containing compounds are combusted. Most SO_2 in the air is caused by burning coal and smelting processes. Low-sulfur gasoline and coal are the goals for minimizing SO_2 production. SO_2 can be converted to sulfuric acid when it reacts with moisture in the air, on plants or in the lungs. Sulfuric acid is one of the most corrosive acids found in nature. If SO_2 is converted to sulfate (SO_4), it can be a lung irritant as well.

The monitoring network for SO_2 is comprised of two monitors located in Akron. The Downtown Akron site is a in a downtown canyon, which means that the buildings form a channel for air pollution, and the East High site was started to monitor emissions from a major tire company.

ARAQMD is in attainment for sulfur dioxide. The ARAQMD region has seen a 76% decrease in the annual mean of SO_2 since 1977.

Table 7: NAAQS Comparison Values for SO_2

Sulfur Dioxide (SO_2)

National Ambient Air Quality Standards

Units: Parts Per Billion (ppb)

1 Hour Avg - 75 ppb

Site Name	2011	2012	2013	2014	2015
East High	38	35	54	42	46
Downtown Akron	45	61	81	54	39

Carbon Monoxide (CO)

CO is a colorless and odorless gas, and is an asphyxiant. It is formed by the incomplete combustion of carbon containing fossil fuels. 95 percent of the CO in the urban airspace comes from man-made sources. CO binds to the hemoglobin in blood which minimizes the amount of oxygen the blood can carry throughout the body.

ARAQMD's monitoring network for CO includes two monitors in Akron. The Downtown Akron site is located to monitor the vehicle traffic's contribution to the pollution in the Akron area and the Patterson Park site is a background neighborhood site.

ARAQMD is in attainment for carbon monoxide. The ARAQMD region has seen an 86% decrease in the 1 hour maximum concentrations of CO since 1977.

Table 8: NAAQS Comparison Values for CO

Carbon Monoxide (CO)

Units: Parts Per Million (ppm)

National Ambient Air Quality Standards

1 Hour Avg - 35 ppm

8 Hour Avg – 9 ppm

	Maximum 1 Hour Average				
Site Name	2011	2012	2013	2014	2015
Patterson Park	1.2	1.7	1.4	1.5	3.5
Downtown Akron	1.6	1.5	1.5	1.3	2.6

Ozone (O_3)

O_3 is the only criteria pollutant that is not directly emitted into the atmosphere. It is created by chemical reactions in the ambient air. When volatile organic compounds and oxides of nitrogen are in the presence of ultraviolet light, ozone is formed. The health effects of ozone have been demonstrated in various ways. Reduction in lung function in normal, healthy people during periods of moderate exercise have been shown, and irritation of the eyes, mucous membranes and respiratory system are also possible.

The NAAQS for ozone has changed radically in the past few years. Until 1997, the NAAQS was a fourth highest one hour maximum of 125 ppb each year. In 1997, the one hour standard was left in place and a new method of evaluating the pollution was put into place. The eight hour fourth highest average over three consecutive years must be less than 84 ppb to be in attainment. In 2006, the one hour standard was revoked. In 2009, a new standard was enacted and was upheld by the courts in 2012. The newest NAAQS, implemented in 2015, is a three year average of the fourth highest eight hour standard. This must be below 70 ppb for a three year period.

ARAQMD has three ozone sites, one each in Medina (Chippewa), Summit (Patterson Park) and Portage (Lake Rockwell) County.

ARAQMD is designated as being in non-attainment for the 2009 NAAQS of an 8 hour maximum of 75 ppb. Although we are measuring concentrations below the NAAQS, ARAQMD is part of the Cleveland-

Akron-Lorain MSA for ozone and as such, is designated as non-attainment for ozone. The ARAQMD area has seen a 44% decrease in the 1 hour maximum concentration of ozone since 1977.

Table 9: NAAQS Comparison Values for O_3

Ozone (O_3)

Units: Parts Per Billion (ppb)

National Ambient Air Quality Standards

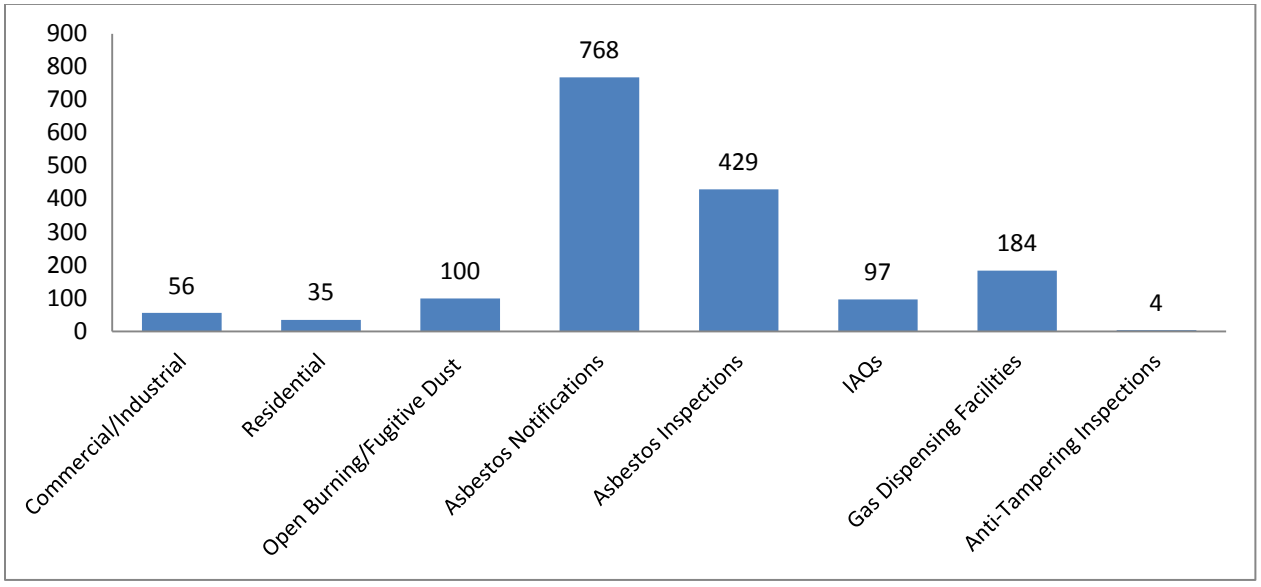
8 Hour Avg - 75 ppb

4^{th} Highest Maximum 8 Hour Average

Site Name	2011	2012	2013	2014	2015
Patterson Park	76	70	64	58	65
Lake Rockwell	69	74	58	61	64
Chippewa	70	74	65	64	63

Field Activities

Figure 6: Field Activities, 2015



Open Burning

ARAQMD staff members are responsible for inspecting incidents where open burning occurs. Open burning is defined by Ohio Administrative Code 3745-19 as "the burning of any materials wherein air contaminants resulting from combustion are emitted directly into the air without passing through a stack or chimney." There are regulations on the location where burning may occur, what may be burned and when the burning can happen and who may conduct the burning. Notification must be made to ARAQMD to obtain a permit at least 10 working days prior to the intended burning. As can be seen in Figure 6, ARAQMD inspectors investigated 58 complaints in 2015. 37 open burning permits were issued in 2015.

Fugitive Dust

Fugitive dust is regulated under OAC 3745-17-08. Fugitive dust can be generated from many sources such as spray painting booths, furnaces, traffic on roadways or parking lots, tilling farmland or digging, and construction activities. The regulations for fugitive dust require that there must be reasonably available control measures to minimize dust release when transporting, storing, or handling dust. Some control technologies are the use of water, asphalt or oil to suppress the dust, installation of hoods or fans to enclose, contain, capture, vent and control the fugitive dust. The ARAQMD staff members will inspect fugitive dust problems on a complaint-driven basis. In 2015, inspectors investigated 42 complaints about fugitive dust.

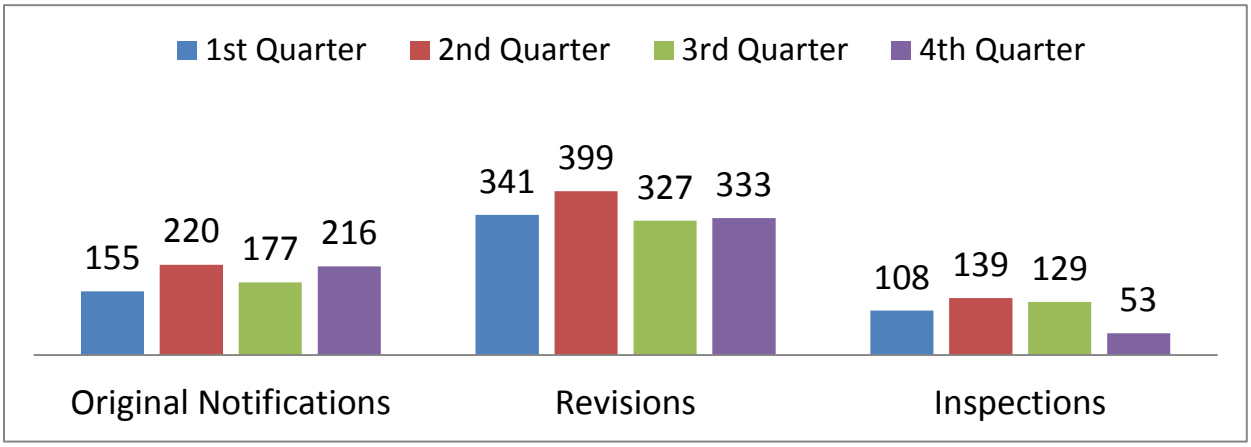
Asbestos

Asbestos is a naturally occurring mineral which was used as an insulating compound on pipes and houses until the 1950s. When properly encapsulated, asbestos is very useful. When asbestos is disturbed or is at the surface of the material it is in, the asbestos fibers can fracture and become airborne. This process is termed “friable.” Studies have shown that when friable asbestos is inhaled, it can have a lengthy residence time in the lungs and cancer risk is increased significantly.

The ARAQMD staff is responsible for receiving original and revised notifications from asbestos remediation companies for asbestos related demolition and renovation activities, processing the paperwork, and inspecting the work being done to ensure that the remediation work is done correctly to minimize exposure to workers and accidental release to the ambient air. In 2015, ARAQMD inspectors achieved an inspection rate of almost 56%, which is well above the 15% inspection rate on initial asbestos NESHAP notifications received as required in our contract with Ohio EPA.

In 2012, the Moving Ohio Forward program was put in place to grant money from the Attorney General’s office to counties and/or land banks for the demolition of blighted, abandoned or vacant structures. As such, ARAQMD saw a huge increase in asbestos notifications and revisions starting in the last quarter of 2012, which has continued through 2015.

Figure 7: Asbestos Notifications and Revisions Received and Inspections Completed, 2015



Indoor Air Quality

ARAQMD's Indoor Air Quality (IAQ) Program has been in place since 1993 and has assisted in over 4000 indoor air quality complaints in residential, commercial and school settings. In 2015, the program handled 97 inquiries. Some of the most common topics are mold, carbon monoxide, formaldehyde and soot buildup from candle burning. In 2015, there was a major situation about flooring containing formaldehyde that generated a lot of concerned callers. The indoor air staff members are educated to provide the latest information about air quality issues and health effects and how best to help the public protect their health. The IAQ program is designed to be a neutral, third-party source of information. As such, the program does not perform remediation or maintain a list of companies who do remediation work. The ARAQMD IAQ Program is available for those who work or reside in Summit, Medina or Portage Counties.

Gas Dispensing Facilities

Gasoline is a volatile organic compound (VOC), and very integrated into our culture. Due to the widespread availability of gasoline, gas dispensing facilities (GDFs) are subject to regulation by the Ohio EPA. Since the ARAQMD region is in non-attainment for ozone, all GDFs in the region must utilize a Stage II vapor recovery system. A Stage II vapor recovery system includes a special nozzle, boot and collection system for the vapors that are displaced when a tank is filled. This tank can either be the underground storage tank at the GDF or other vapor management control systems. The US EPA has directed that by the end of 2016 all Stage II Vapor Recovery Systems must be decommissioned, because newer vehicles have onboard refueling vapor recovery (ORVR) control systems that are negatively affected by the stage II systems. As such, in late 2013, ARAQMD started processing GDFs that were undergoing the decommissioning process and removing them from the inspection list. In 2014, 106 GDFs decommissioned their Stage II systems. In 2015, another 119 GDFs decommissioned. This leaves approximately 65 that will need to decommission in 2016.

All GDFs in the region are required to perform leak tests on the vapor recovery system annually, and every five years a more rigorous test must be done. These tests are witnessed by a member of the ARAQMD GDF enforcement team. The GDF operators are also required to keep records of maintenance,

repair or modifications done to the system, and the quantity of gasoline delivered each month to the facility.

The goal of ARAQMD's inspectors is to witness the annual leak test at every one of the GDFs that still operate a Stage II Vapor Recovery System in the region. The inspectors are responsible for scheduling the tests, maintaining the records for the tests, and submitting the reports to the Ohio EPA.

Permitting Section

As a contractual agent of the Ohio EPA, ARAQMD is responsible for administering the Division of Air Pollution Control (DAPC) permitting program requirements for sources of air contaminants in Medina, Summit, and Portage counties. This process typically begins by conducting timely administrative and technical reviews of all permit applications received in accordance with established Ohio EPA rules, policies, and guidelines. The application review also includes federal rule applicability determinations based on criteria cited in the New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), Maximum Achievable Control Technology (MACT), Prevention of Significant Deterioration (PSD), Nonattainment New Source Review (NSR), etc. There are a variety of permit options available depending on the type of source, existing air quality where the source is located, operational flexibility needed by the source, and whether additional voluntary restrictions are included in the permit. In addition, there are several types of permit exemptions that range from not being subject to regulation (*de minimis* operations emitting less than 10 pounds per day) to permit-by-rule (PBR) exemptions (restrictions and obligations that must be complied with, but no permit document is generated).

Types of Sources:

Title V/Major Sources are defined as facilities with potential emissions of 100 tons per year or more of any one regulated pollutant (PM_{10}, NO_X, SO_2, CO, VOC, and lead); 10 tons per year or more of any one hazardous air pollutant (HAP); or 25 tons per year or more of any two or more HAPs. These facilities usually have very complex permitting requirements (e.g., medium to large sized industrial operations, utilities, refineries, etc.).

Synthetic Minor Title V (SMTV) Sources are defined as facilities with potential emissions above at least one major source permitting requirement and/or Title V threshold, which have agreed to voluntarily restrict operations and the quantity of air contaminants emitted in order to avoid major source/Title V status.

Non-Title V (NTV)/Minor Sources are smaller emitting facilities, naturally below major source/Title V thresholds, with generally less complicated permitting requirements (e.g., small industrial operations, dry cleaners, gas stations, etc.).

Types of Permits:

Permit-to-Install (PTI) – A permit issued for any new or modified source that is located at a Title V facility. It is effective for the life of the source, or until the next modification.

Title V Permit-to-Operate (Title V PTO) - A comprehensive, facility-wide permit that identifies all regulated operations at a Title V facility. It has a five-year effective period.

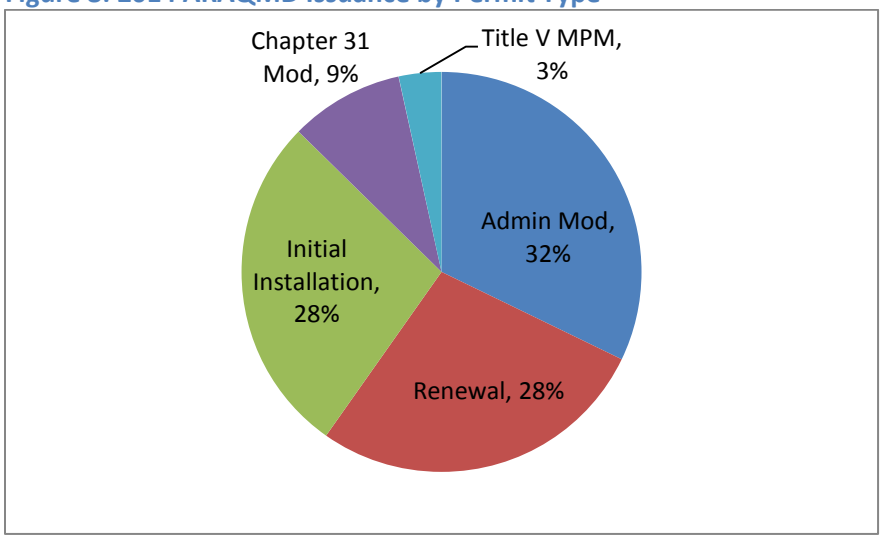
Permit-to-Install and Operate (PTIO) - This permit document is issued to NTV and SMTV facilities. It is a relatively recent permit document type. Effective June 30, 2008, Ohio EPA began issuing a single PTIO (rather than a PTI, followed by a separate PTO) in order to streamline the permitting process for air contaminant sources at non-major facilities. The PTIO has a ten-year effective period, when issued to a NTV facility.

Federally Enforceable Permit-to-Install and Operate (FEPTIO) - This is a specific type of PTIO issued with federally enforceable limitations that restrict the facility-wide potential to emit in order to avoid various regulations. It has a five-year effective period.

Permit by Rule (PBR) - A permit-by-rule (PBR) is a specific permit provision in the Ohio Administrative Code (OAC) that applies to certain types of low-emitting air pollution sources. A facility submits a PBR notification form for a specific source and operates the source in accordance with the terms and conditions specified in the applicable rule. A PBR is in effect for the lifetime of the source.

Once the preliminary and technical review of the application is complete, ARAQMD's engineering staff develops the facility-wide and emission-unit specific permit terms and conditions. The permit terms establish limits on the quantity of air contaminants emitted and requirements for the operation of regulated air contaminant sources. Permit terms can also specify emission testing, monitoring, record-keeping, and reporting requirements necessary to demonstrate compliance with the established emission limits. The working copy of the permit is then submitted to the Ohio EPA for final review and issuance. During 2015, ARAQMD's staff processed 193 PBR exemptions and 87 final permits.

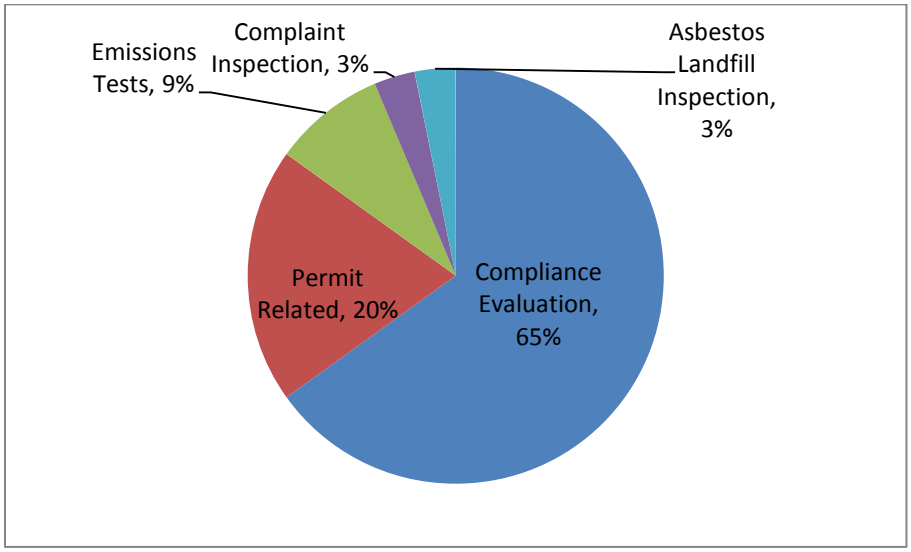
Figure 8: 2014 ARAQMD Issuance by Permit Type



Permitted Facility Inspections

After permit issuance, ARAQMD's staff continues to monitor the compliance status of air contaminant sources by periodically reviewing required monitoring data, records and reports. This includes witnessing a minimum of 50% of all performance tests conducted in ARAQMD's jurisdictional area, and reviewing test results to verify proper methodology and procedures were used to demonstrate compliance with permitted emission limitations. A total of 66 stack tests were performed at 17 facilities in 2015, and 82% of those were witnessed by ARAQMD staff. Scheduled and unannounced facility inspections are also conducted to ensure air contaminant sources are in compliance with applicable permit terms, and state and federal regulations. Under contract with Ohio EPA, ARAQMD is required to inspect at least 50% of all Title V sources and 20% of all SMTV facilities each year. There are a total of 22 Title V facilities, 62 SMTV facilities, and 395 NTV facilities located in ARAQMD's 3-county jurisdictional area. A total of 12 TV facilities and 16 SMTV facilities were inspected in 2015.

Figure 9: Reason for Site Visits



Conclusion

In 2015, ARAQMD has seen a lot of changes and continues to progress towards meeting the goals outlined in the Strategic Plan. ARAQMD will continue its journey to the future towards the goal of becoming a model of best practices. We expect that we will upgrade our monitoring network in 2016, work more towards assisting small facilities in attaining compliance with the regulations and working towards acknowledging facilities that have consistent compliance and sustainability projects. The staff of ARAQMD is looking forward to continuing the good work we have been doing and expanding the roles of the agency in protecting the public from the adverse effects from air pollution.