



# AKRON REGIONAL AIR QUALITY MANAGEMENT DISTRICT

Agent of the Ohio Environmental Protection Agency • Division of Summit County Public Health  
Serving Medina, Portage and Summit Counties

TELEPHONE: (330) 375-2480  
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Sam Rubens, MPA, R.S.  
Administrator

September 24, 2013

CERTIFIED MAIL  
High Priority Violator  
General Criterion 2 and 7

Mr. Kevin Cherney  
Emerald Performance Materials, LLC  
240 West Emerling Avenue  
Akron, OH 44301

Re: NOTICE OF VIOLATION -  
Facility ID: 1677010029  
Emerald Performance Materials, LLC  
Location: 240 West Emerling Avenue,  
Akron, OH 44301-1600  
Summit County

Dear Mr. Kevin Cherney:

On August 26 through 29 and September 11, 2013, I conducted a facility inspection of Emerald Performance Materials, LLC ("Emerald"). The purpose of the inspection was to evaluate compliance with the terms and conditions of the applicable Title V permit, Permits to Install (PTIs) and state and federal rules and regulations. I would like to thank you for your cooperation during my site visits.

Listed below are "Findings" based upon my observations and conversations with facility personnel, my review of the available records at the facility and my review of the submitted reports. The findings are followed by "Violation(s)" (if applicable) and "Requested Action(s)" necessary to address stated findings and violations.

1. Finding:

During the review of the records maintained at the facility, I observed that the visible particulate observation was not performed and recorded on April 3, 2013 for emissions unit B001.

Violation:

Failure to perform the required monitoring and to maintain the required recordkeeping for emissions unit B001 is a violation Emissions Unit Term and Condition C.1.d)(1) of Title V Permit P0102593 which states:

*"The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log...."*



Requested Action:

Akron Regional Air Quality Management District (ARAQMD) requests that Emerald immediately comply with all the monitoring and recordkeeping requirements in accordance with the terms and conditions of the Title V Permit

2. Finding:

During the review of records maintained at the facility, I observed that the heat content of the coal is being determined using American Society for Testing and Materials (ASTM) method D1989 instead of ASTM method D5865 for emissions unit B008.

Violation:

Failure to employ the correct analytical test method constitutes a violation of Emissions Unit Term and Condition C.3.d)(1) of Title V permit P0102593 which states:

*"Each monthly composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods to be used to determine the ash content, sulfur content, and heat content shall be the most recent version of: ASTM method D3174, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal; ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865 Standard Test Method for Gross Calorific Value of Coal and Coke, respectively."*

Requested Action:

ARAQMD requests that Emerald immediately start employing the correct analytical test method for determining the heat content of the coal samples for emissions unit B008.

3. Finding:

From the review of the reports submitted in Air Services, I determined that the visible particulate emissions observed on April 3, 2013 from the stack of emissions unit B008 and the visible emissions of fugitive dust observed on May 19, May 20 and May 24, 2013 from emissions unit F004 were not reported in the semiannual report due July 31, 2013.

The January 18, 2013 semiannual deviation report for emissions unit B008 stated that there were three time periods that visible particulate emissions occurred. The exact days that the visible particulate emission incidents occurred were not reported.

Violation:

Failure to report the days during which any visible particulate emissions were observed constitutes a violation of Title V permit P0102593 which states:

For emissions unit B008:

*"The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods."*

For emissions unit F004:

*"The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month periods."*

Requested Action:

ARAQMD requests Emerald resubmit the January 31 and July 31, 2013 semiannual report to include day that visible particulate emissions were observed from the stack of emissions unit B008 and the day that visible emissions of fugitive dust were observed from emissions unit F004 and describe any corrective actions taken.

4. Finding:

During the review of records maintained at the facility, it was determined that the dust collector for emissions unit P003 is not adequately capturing the emissions of fugitive dust.

Violation:

Failure to adequately capture the emissions of fugitive dust is a violation of OAC rule 3745-17-08(B)(3) and Title V permit P0102593 which state:

*"The permittee shall use hoods, fans, and other equipment to adequately enclose, contain, capture, vent, and control the fugitive dust. Such equipment shall meet the following requirements:*

- i. the collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design; and*
- ii. there shall be no visible particulate emissions from the exhaust stack(s) of the control equipment."*

Requested Action:

ARAQMD requests Emerald submit a compliance plan and schedule to bring emissions unit P003 into compliance with OAC rule 3745-17-08(B)(3) and Title V permit P0102593.

5. Finding:

During the review of records maintained at the facility, I observed that only one sample was being taken and analyzed for the cooling water for the heat exchangers for emissions units P003, P007 and P020.

Violation:

Failure to take three sets of samples is a violation of 40 CFR Part 63, Subpart U for emissions units P007 and P020, 40 CFR Part 63, Subpart FFFF for emissions unit P003, Title V permit P0102593 and §63.104(b)(5) of 40 CFR Part 63, Subpart F which states:

*"A minimum of three sets of samples shall be taken at each entrance and exit as defined in paragraph (b)(4) of §63.104. The average entrance and exit concentrations shall then be calculated. The concentration shall be corrected for the addition of any makeup water or for any evaporative losses, as applicable."*

Requested Action:

ARAQMD requests Emerald immediately begin taking the minimum number of cooling water samples as required by §63.104(b)(5) of 40 CFR Part 63, Subpart F.

6. Finding:

During the review of records maintained at the facility, I observed that the Emerald is using SW-846/8260 to determine the concentration of the monitored substances in the cooling water for the heat exchangers for emissions unit P003, P007 and P020. SW846/8260 is not an EPA-approved method listed in 40 CFR Part 136.

Violation:

Failure to use an EPA-approved method listed in 40 CFR Part 136 is a violation of 40 CFR Part 63, Subpart U for emissions units P007 and P020, 40 CFR Part 63, Subpart FFFF for emissions unit P003, Title V permit P0102593 and §63.104(b)(3) of 40 CFR Part 63, Subpart F which states:

*"The concentration of the monitored substance(s) in the cooling water shall be determined using any EPA-approved method listed in part 136 of this chapter as long as the method is sensitive to concentrations as low as 10 parts per million and the same method is used for both entrance and exit samples. Alternative methods may be used upon approval by the Administrator."*

Requested Action:

ARAQMD requests Emerald immediately begin using an EPA-approved method listed in 40 CFR Part 136. Additionally, Emerald may submit a request to the Administrator to use an alternative method. Please be aware that an alternative method can only be used upon approval by the Administrator.

7. Finding:

During the review of records maintained at the facility and from the conversations with Emerald employees, it was determined that the cooling water sampling for the heat exchangers for emissions units P007 and P020 are only being collected at the entrance.

Violation:

Failure to collect samples at the exit of the heat exchange systems is a violation of 40 CFR Part 63, Subpart U, Title V permit P0102593 and §63.104(b)(4) of 40 CFR Part 63, Subpart F which states:

*"The samples shall be collected either at the entrance and exit of each heat exchange system or at locations where the cooling water enters and exits each heat exchanger or any combination of heat exchangers."*

Requested Action:

ARAQMD requests Emerald begin collecting samples at the exits of the heat exchange systems for emissions units P007 and P020 during the next quarterly sampling event.

8. Finding:

During the review of records maintained at the facility, I observed that from October 4, 2011 to October 17, 2011 the visible emission observations and pressure drop monitoring were not performed and recorded for emissions unit P006.

Violation:

Failure to perform and record the visible emission observations and pressure drop readings is a violation of Emissions Unit Term and Condition C.7.d)(1) and (2) of Title V permit P0102593.

Requested Action:

ARAQMD requests Emerald immediately ensure that the monitoring and recording is being performed as required by the Title V permit.

9. Finding:

During the review of records maintained at the facility, I observed that there were no records of the close vent system inspection for emissions unit P006.

Violation:

Failure to perform and record the inspection of the close vent system is a violation of 40 CFR Part 63, Subpart FFFF, Title V permit P0102593 and §63.983(b)(1) and §63.998(d)(1)(iv) of 40 CFR Part 63, Subpart SS which state:

*"If the closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in paragraphs (b)(1)(i)(A) and (B) of §63.983.*

*(A) Conduct an initial inspection according to the procedures in paragraph (c) of §63.983; and*

*(B) Conduct annual inspections for visible, audible, or olfactory indications of leaks."*

*"For each instrumental or visual inspection conducted in accordance with § 63.983(b)(1) for closed vent systems collecting regulated material from a regulated source during which no leaks are detected, the owner or operator shall record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected."*

Requested Action:

ARAQMD requests Emerald immediately ensure that the close vent system is being performed and record as specified by §63.983(b)(1) and §63.998(d)(1)(iv) of 40 CFR Part 63, Subpart SS.

10. Finding:

During the review of records maintained at the facility, I observed that starting April 1, 2013 Emerald is no longer calculating and recording the daily average temperature in the firebox of the boiler for emissions unit P007 and of the thermal incinerator for emissions unit P020.

Violation:

Failure to collect and record the daily average firebox temperature of the boiler for emissions unit P007 and of the thermal incinerator for P020 is a violation of Emissions Unit Terms and Conditions C.8.d)(1)a. for emissions unit P007 and C.11.d)(1)a. for emissions unit P020 of Title V permit P0102593.

Requested Action:

ARAQMD requests Emerald immediately start collecting and recording the daily average temperature in the firebox for emissions units P007 and P020 as required by the Title V permit.

11. Finding:

During the review of the records maintained at the facility, I observed that on days that the permittee did not calculate the daily average firebox temperature and all the firebox temperatures were above the minimum temperature the permittee did not record a statement that all temperatures were above the minimum temperature for emissions units P007 and P020.

Violation:

Failure to record a statement that all temperatures were above the minimum temperature is a violation of Title V permit P0102593 and §63.506(d)(6) of 40 CFR Part 63, Subpart U which states:

*“Records required when all recorded values are within the established limits. If all recorded values for a monitored parameter during an operating day are above the minimum level or below the maximum level established in the Notification of Compliance Status or operating permit, the owner or operator may record that all values were above the minimum level or below the maximum level rather than calculating and recording a daily average (or batch cycle daily average) for that operating day.”*

Requested Action:

ARAQMD requests Emerald immediately either each day when all temperature values are above the minimum temperature record that all temperatures are above the minimum temperature or calculate and record the daily firebox temperature for emissions units P007 and P020.

12. Finding:

During the review of the records maintained at the facility, I observed that all temperatures recorded were not above the minimum temperature and the daily firebox temperature was not calculated for emissions unit P007 on the following dates in 2013: April 2, April 23, May 17, May 18, May 19, May 20, May 21, May 26, May 31, June 1, June 2, June 3, June 18, June 19, June 25, June 26, July 12, July 13, July 14, July 15 and July 16

Violation:

Failure to calculate the daily firebox temperature when all temperatures recorded are not above the minimum temperature is a violation of Title V permit P0102593 and §63.506(d)(3) of 40 CFR Part 63, Subpart U which states:

*“Daily average (or batch cycle daily average) values of each continuously monitored parameter shall be calculated for each operating day as specified in paragraphs (d)(3)(i) through (d)(3)(ii) of §63.506, except as specified in paragraphs (d)(6) and (d)(7) of §63.506.”*

Requested Action:

ARAQMD requests Emerald calculate the daily firebox temperature for the above-mentioned dates in 2013 for emissions unit P007 as required by 40 CFR Part 63, Subpart U and submit these calculated daily average firebox temperature in the response to this Notice of Violation (NOV).

13. Finding:

During the review of the records maintained at the facility, I observed that on July 29, 2012, August 11, 2012, August 15, 2012 and August 16, 2012 the firebox temperature for emissions unit P007 was below the minimum temperature. The records indicate that potentially the control equipment and emissions unit P007 did not operated the entire day.

Violation:

Failure to calculate the daily firebox temperature excluding periods of non-operation of the affected source is a violation of Title V permit P0102593 and §63.506(d) of 40 CFR Part 63, Subpart U which states in §63.506(d)(3)(i):

*“The daily average value or batch cycle daily average shall be calculated as the average of all parameter values recorded during the operating day, except as specified in paragraph (d)(7) of §63.506.”*

and which states in §63.506(d)(7):

*“Monitoring data recorded during periods identified in paragraphs (d)(7)(i) and (ii) of this section shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device or recovery device operation when monitors are not operating.*

*(i) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments; or*

*(ii) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.”*

Requested Action:

ARAQMD requests Emerald determine the daily firebox temperature based on the time that emissions unit P007 was operating and venting to the coal fired boiler and submit the daily average firebox temperatures for each day in the response to this NOV.

14. Finding:

During the review of the records maintained at the facility and the reports submitted via Air Services, I observed that the permittee did not report the January 27, 2012 and August 12, 2012 daily firebox temperature deviations for emissions unit P007.

Violation:

Failure to report the daily firebox temperature deviations is a violation of Emissions Unit Term and Condition C.8.e)(1) of Title V permit P0102593.

Requested Action:

ARAQMD requests Emerald resubmit the quarterly Title V deviation reports that were due April 30, 2012 and October 31, 2012 and report the daily firebox temperature deviations as required by the Title V permit. Additionally, ARAQMD request that the permittee determine if any other firebox temperature deviations occurred during the time period of May 16 2012 through November 15, 2012. If there was more than one excursion, the compliance report for 40 CFR Part 63, Subpart U will need resubmitted for that time period. Please provide information on whether or not more than one temperature excursion occurred during the above-mentioned time period in your respond to this NOV.

15. Finding:

During the review of the records maintained at the facility, I observed that the December 2012 monthly leak monitoring for the agitators and pumps was missing for emissions unit P007.

Violation:

Failure to monitor the agitators and pumps is a violation of 40 CFR Part 63, Subpart U, Title V permit P0102593 and §63.173(a)(1) and §63.163(b)(1) of 40 CFR Part 63, Subpart H.

Requested Action:

ARAQMD requests Emerald ensures that all future monthly monitoring of the pumps and agitators for emissions unit P007 are performed.

16. Finding:

During the review of the records maintained at the facility, I observed that the weekly visual leak monitoring for the agitators and pumps were missing for the last two weeks of December 2012 and the first and last weeks of July 2012 for emissions unit P007.

Violation:

Failure to perform the weekly visual monitoring of the agitators and the pumps is a violation of 40 CFR Part 63, Subpart U, Title V permit P0102593 and §63.173(b)(1) and §63.163(b)(3) of 40 CFR Part 63, Subpart H.

Requested Action:

ARAQMD requests Emerald ensures that all future weekly visual monitoring of the pumps and agitators for emissions unit P007 are performed.

17. Finding:

During the review of the records maintained at the facility, I observed that the permittee has not calculated the organic hazardous air pollutant (HAP) emission limitation and has not determined compliance with the organic HAP emission limitation for the back-end process operations for emissions unit P020.

Violation:

Failure to calculate and determine compliance with the organic HAP emission limitation is a violation of §63.494(a)(4) and §63.495(g) of 40 CFR Part 63, Subpart U.

Requested Action:

ARAQMD requests Emerald immediately calculate and start determining compliance with the organic HAP emission limitation as required by §63.494(a)(4) and §63.495(g) of 40 CFR Part 63, Subpart U.

18. Finding:

During the review of the records maintained at the facility, I observed that the permittee is not maintaining the records for the back-end process operations for emissions unit P020.

Violation:

Failure to maintain records for the back-end process is a violation of §63.498(a) and (e) of 40 CFR Part 63, Subpart U which state

*“(a) Each owner or operator shall maintain the records specified in paragraphs (a)(1) through (4), and paragraphs (b) through (e) of this section, as appropriate.*

*(1) The type of elastomer product processed in the backend operation.*

*(2) The type of process (solution process, emulsion process, etc.)*

*(3) If the back-end process operation is subject to a residual organic HAP limitation in § 63.494(a)(1) through (3), whether compliance will be achieved by stripping technology, or by control or recovery devices.*

*(4) If the back-end process operation is subject to an emission limitation in § 63.494(a)(4), the organic HAP emission limitation calculated in accordance with § 63.494(a)(4)(i) through (iv), as applicable.”*

*and*

*“(e) If the back-end process operation is subject to an organic HAP emission limitation in § 63.494(a)(4), the records specified in paragraphs (e)(1) through (4) of this section.*

*(1) The applicable organic HAP emission limitation determined in accordance with § 63.494(a)(4)(i) through (iv).*

*(2) The organic HAP emissions from all back-end process operations for each month, along with documentation of all calculations and other information used in the engineering assessment to estimate these emissions.*

*(3) The mass of elastomer product produced each month.*

*(4) The total mass of organic HAP emitted for each 12-month period divided by the total mass of elastomer produced during the 12-month period, determined in accordance with § 63.495(g)(5)."*

Requested Action:

ARAQMD requests Emerald immediately start collecting and maintaining the recordkeeping as required by §63.498(a) and (e) of 40 CFR Part 63, Subpart U for emissions unit P020.

19. Finding:

During the review of the reports submitted in Air Services, I observed that the reports required by the back-end process provisions for emissions unit P020 have not been submitted.

Violation:

Failure to submit the required reports is a violation of §63.499(f) and §63.506(e)(6)(iii) of 40 CFR Part 63, Subpart U which state:

*"If the back-end process operation is subject to an organic HAP emission limitation in § 63.494(a)(4), the owner and operator must submit the information specified in paragraphs (f)(1) and (2) of this section.*

*(1) The applicable organic HAP emission limitation determined in accordance with § 63.494(a)(4)(i) through (iv), shall be submitted no later than 180 days from the date of publication of the final rule amendments in the FEDERAL REGISTER .*

*(2) Beginning with the first periodic report required to be submitted by § 63.506(e)(6) that is at least 13 months after the compliance date, the total mass of organic HAP emitted for each of the rolling 12-month periods in the reporting period divided by the total mass of elastomer produced during the corresponding 12-month period, determined in accordance with § 63.495(g)(5)."*

*and*

*"...For an owner or operator of an affected source complying with the provisions of §§ 63.484 through 63.501 for any emission point, Periodic Reports shall include:*

*(A) All information specified in § 63.122(a)(4) for storage vessels, §§ 63.117(a)(3) and 63.118(f) and 63.485(s)(5) for continuous front-end process vents, § 63.492 for batch front-end process vents and aggregate batch vent streams, § 63.499 for back-end process operations, § 63.104(f)(2) for heat exchange systems, and §§ 63.146(c) through 63.146(g) for process wastewater..."*

Requested Action:

ARAQMD requests Emerald submit the reports as required by §63.499(f) and §63.506(e)(6)(iii) of 40 CFR Part 63, Subpart U.

20. Finding:

During the review of the records maintained at the facility, I observed that the daily average firebox temperature was below the minimum allowable temperature on the following days for emissions unit P020: January 6, 2012, April 5, 2012, May 25, 2012, May 30, 2012, August 6, 2012, September 8, 2012, November 13, 2012, March 13, 2013 and March 28, 2013.

Violation:

Failure to maintain the daily average firebox temperature above the minimum allowable temperature is a violation of Title V permit P0102593 and §63.505(a)(1) of 40 CFR Part 63, Subpart U which states:

*"The owner or operator shall operate control and recovery devices such that the daily average of monitored parameters remains above the minimum established level or below the maximum established level, except as otherwise stated in this subpart."*

Requested Action:

ARAQMD requests Emerald immediately ensure that the daily average firebox temperature is above the minimum established level for emissions unit P020.

21. Finding:

During the review of the reports submitted in Air Services, I observed that the firebox temperature deviations in Finding #20 were not reported in the Title V quarterly deviation reports and the periodic reports required by 40 CFR Part 63, Subpart U.

Violation:

Failure to report deviations of the average daily firebox temperature for emissions unit P020 is a violation of Title V permit P0102593 and §63.506(e)(6) of 40 CFR Part 63, Subpart U.

Requested Action:

ARAQMD requests Emerald resubmit the corresponding Title V deviation reports and periodic reports required by 40 CFR Part 63, Subpart U to report the daily average firebox temperature deviations for emissions unit P020.

22. Finding:

The above-mentioned monitoring, recordkeeping and reporting deviations in the Findings were not reported in the Title V semiannual deviation reports and the Title V Annual Compliance Certifications.

Violation:

Failure to report deviations of the monitoring, recordkeeping and reporting in the Title V semiannual deviation reports and the Title V Annual Compliance Certifications is considered a violation of Standard Terms and Conditions A.2.c)(3) and A.13.d) of Title V Permit P0102593, respectively.

Requested Action:

ARAQMD requests Emerald resubmit the corresponding Title V Annual Compliance Certifications and semiannual Title V deviation reports during which the monitoring, recordkeeping and reporting deviations occurred.

23. Issue:

The facility profile in Air Services has the elevated flare type as non-assisted but the engineering proposal has the flare as air-assisted.

Requested Action:

ARAQMD requests Emerald determine what type of flare was installed and if necessary update the facility profile in Air Services to reflect the correct type of flare and request an administrative modification of the relevant PTIs.

24. Issue:

From the facility inspection, it was determined that a research and development reactor was installed in the building containing emissions unit P007 and in the building containing emissions unit P020.

Requested Action:

ARAQMD requests Emerald determine whether or not a PTI would be required for these installations or if they are exempt from permitting. If the reactors are exempt, please provide the exemption and a description and documentation that the reactors meet the exemption including detailed calculations if necessary. If the reactors are not exempt, please submit a complete PTI application via Air Service within 30 days of the receipt of this letter.

Mr. Kevin Cherney  
Emerald Performance Materials, LLC  
September 24, 2013  
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25. Issue:

Emerald is recording the monthly records/emissions in pounds instead of tons as required by Emissions Unit Term and Condition C.7.d)(6) of Title V permit P0102593 and Part III – Special Term and Condition A.III.3 of the PTI #16-01525 for emissions unit P006 and Emissions Unit Term and Condition C.11.d)(2) of Title V permit P0102593 for emissions unit P020.

Requested Action:

ARAQMD requests Emerald to either immediately begin recording the records in tons or modify the terms and conditions in the Title V renewal and request an administrative modification of PTI #16-01525.

The violations listed above would constitute a violation of ORC 3704.05(C) which states:

*“No person who is the holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms or conditions.”*

Please submit to this office, within 30 days of receipt of this letter, a plan and schedule for achieving compliance. Submit this plan to the attention of Laura Miracle.

This letter or information pursuant to this letter does not constitute a waiver of the Ohio Environmental Protection Agency's (EPA) authority to seek civil penalties as provided in Section 3704.06 of the Ohio Revised Code. Ohio EPA will determine later whether to pursue such penalties in this case.

If you have any questions, please contact me at (330)812-3953 or e-mail me at [lmiracle@schd.org](mailto:lmiracle@schd.org).

Sincerely,



Laura Miracle  
Akron Regional Air Quality Management District

cc: Bruce Weinberg, Central Office, Ohio EPA  
John Paulian, Central Office, Ohio EPA  
Brian Dickens, Region 5 U.S. EPA  
Sam Rubens, ARAQMD