UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

AUG - 2 2012

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

William Ramus
Site Manager
Emerald Performance Materials, LLC
240 West Emerling Avenue
Akron, Ohio 44301

Re: Emerald Performance Materials, LLC
Administrative Consent Order EPA-5-12-113(a)-OH-04

Dear Mr. Ramus:

I have enclosed an Administrative Consent Order (ACO) relating to Emerald Performance Materials, LLC's compliance with Section 112 of the Clean Air Act, 42 U.S.C. § 7412.

If you have any questions, please contact Molly DeSalle of my staff at (312) 353-8773. Any legal questions should be directed to Padmavati Bending, Associate Regional Counsel, at (312) 353-8917.

Sincerely,

Sara Breneman

Sara Breneman
Chief
Air Enforcement and Compliance Assurance Section (MI/WI)

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

In the Matter of:	)	**EPA-5-12-113(a)-OH-04**
	)	
Emerald Performance Materials, LLC	)	**Proceeding Under Sections 113(a)(3) and**
Akron, Ohio	)	**114(a)(1) of the Clean Air Act**
	)	**42 U.S.C. §§ 7413(a)(3) and 7414(a)(1)**
	)	
	)	
	)	
	)	

Administrative Consent Order

1. The Director of the Air and Radiation Division, U.S. Environmental Protection Agency (EPA), Region 5, is issuing this Order to Emerald Performance Materials, LLC (Emerald) under Sections 113(a)(3) and 114(a)(1) of the Clean Air Act (CAA or Act), 42 U.S.C. §§ 7413(a)(3) and 7414(a)(1).

Statutory and Regulatory Background

2. The CAA establishes a regulatory scheme designed to protect and enhance the quality of the nation's air so as to promote the public health and welfare and the productive capacity of its population. 42 U.S.C. § 7401(b)(1).
3. Section 112 of the CAA sets forth a national program for the control of Hazardous Air Pollutants (HAPs). 42 U.S.C. § 7412.
4. Congress directed EPA to publish a list of all categories and subcategories of, *inter alia*, major sources of HAPs. 42 U.S.C. § 7412(c).
5. "Major source" was and is defined as any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to

emit considering controls, in the aggregate, 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs. 42 U.S.C. § 7412(a)(1) and 40 C.F.R. § 63.2.

6. Congress directed EPA to promulgate regulations establishing emission standards for each category or subcategory of, *inter alia*, major sources of HAPs listed. 42 U.S.C. § 7412(d)(1). These emission standards must require the maximum degree of reduction in emissions of HAPs that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for the new or existing sources in the category or subcategory to which the emission standard applies. 42 U.S.C. § 7412(d)(2).

7. To the extent that it is not feasible to prescribe or enforce an emission standard for control of a HAP, Congress authorized EPA to promulgate "design, equipment, work practice, or operational" standards, which are to be treated as emission standards. 42 U.S.C. §§ 7412(d)(2) and (h)(1).

8. The emission standards promulgated under Section 112 of the 1990 Amendments to the CAA, 42 U.S.C. § 7412, are known as the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories or maximum achievable control technology (MACT) standards. These emission standards are found in Part 63 of Title 40 of the Code of Federal Regulations.

9. After the effective date of any emission standard, limitation, or regulation promulgated pursuant to Section 112 of the CAA, no person may operate a source in violation of such standard, limitation, or regulation. 42 U.S.C. § 7412(i)(3).

10. Under Section 112(d) of the CAA, 42 U.S.C. § 7412(d), on September 5, 1996, EPA promulgated regulations governing the National Emission Standards for Hazardous Air

Pollutants for Group I Polymer and Resins in 40 C.F.R. Part 63, Subpart U. *See* 62 Fed. Reg. 46925 (September 5, 1996). This is commonly referred to as "Subpart U."

11. Subpart U applies to a group of one or more elastomer product process units (EPPU) and associated equipment, as listed in paragraph § 63.480(a)(4), that is not part of a new affected source, as defined in paragraph § 63.480(a)(3), that is manufacturing the same primary product and that is located at a plant site that is a major source. 40 C.F.R. § 63.480(a)(2).

12. 40 C.F.R. § 63.502 lists the equipment leak and heat exchange system provisions for Subpart U, by stating, "the owner or operator of each affected source, shall comply with the requirements of Subpart H."

13. Under Section 112(d) of the CAA, 42 U.S.C. § 7412(d), on April 22, 1994, EPA promulgated regulations governing the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks in 40 C.F.R. Part 63, Subpart H. See 59 Fed. Reg.19568 (April 22, 1994). This is commonly referred to as "Subpart H."

14. 40 C.F.R. § 63.160, Subpart H, sets forth the applicability and designation of sources and states that the Subpart applies to pumps, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, connectors, surge control vessels, bottoms receivers, instrumentation systems, and control devices or closed vent systems required by Subpart H that are intended to operate in organic hazardous air pollutant service 300 hours or more during the calendar year within a source subject to the provisions of a specific subpart in 40 C.F.R. Part 63 that references the Subpart.

15. 40 C.F.R. § 63.174, Subpart H, lists the standards for connectors in gas/vapor service and in light liquid service, by stating that the owner or operator of a process unit subject to the Subpart shall monitor all connectors in gas/vapor and light liquid service.

16. 40 C.F.R. § 63.161 defines connectors to mean flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are not inaccessible, glass, or glass-lined as described in 40 C.F.R. § 63.174(h) of this subpart.

17. "In organic HAP service" means that a piece of equipment either contains or contacts a fluid (liquid or gas) that is at least 5% by weight of total organic HAPs. 40 C.F.R. §§ 63.161 and 63.1423(b).

18. Under Section 113(a)(3) of the CAA, 42 U.S.C. § 7413(a)(3), the Administrator of EPA may issue an order requiring compliance to any person who has violated or is violating the NESHAP regulations. The Administrator has delegated this authority to the Director of the Air and Radiation Division.

19. The Administrator of EPA may require any person who owns or operates an emission source to make reports; install, use and maintain monitoring equipment; sample emissions; and provide information required by the Administrator under Section 114(a)(1) of the Act, 42 U.S.C. § 7414(a)(1). The Administrator has delegated this authority to the Director of the Air and Radiation Division.

Findings

20. Emerald owns and operates the facility located at 240 West Emerling Avenue, Akron, Ohio 44301 (Facility).

21. Emerald manufactures organic chemicals, specifically reactive liquid polymers, latex, and polymer resins.

22. Emerald uses styrene, butadiene, and acrylonitrile, which are all HAPs listed under Section 112(b) of the Act, 42 U.S.C. §7412(b).

23. Emerald is a "major source" for HAP.

24. Emerald owns and operates EPPU's and associated equipment that is considered an affected source under Subpart U.

25. Emerald currently operates its facility under Title V Clean Air Act Permit Program Permit No. P0102593 issued by the Ohio Environmental Protection Agency on December 19, 2008, as required by Title V of the Federal Clean Air Act of 1990.

26. According to Section B, Number 4, of Emerald's Title V Permit, Emerald is subject to 40 C.F.R. Part 63, Subpart U, which became effective on September 5, 1996.

27. On July 12, 2011, Emerald submitted a Subpart U semi-annual periodic report confirming the facility is applying the Leak, Detection, and Repair (LDAR) program defined in 40 C.F.R. 63, Subpart H.

28. On January 4, 2008, Emerald submitted a semi-annual report. The report detailed the initial survey of connectors at the facility and indicated a less than 0.5% leak rate. Under 40 C.F.R. § 63.174(b)(3)(ii), the facility elected to monitor connectors only once every 2 years. The facility monitored in 2001 and 2003 and results indicated less than 0.5% leaking connectors.

Based on the results, and under 40 C.F.R. § 63.174(b)(3)(ii), connectors were next monitored in 2007.

29. On January 4, 2008, Emerald submitted a semi-annual report for the time period of May 16, 2007 through November 15, 2007, showing zero detected leaking connectors out of 433 inspected connectors in the Latex area. The report also showed 0 detected leaking connectors out of 68 connectors inspected in the Reactive Liquid Polymer area. All connectors in both areas were inspected resulting in a less than 0.5% leak rate. The leak rate was reported as 0%.

30. All subsequent semi-annual reports from Emerald show no connectors monitored in 2008, 2009, 2010, or 2011.

31. EPA issued a Notice and Finding of Violation (NOV/FOV) to Emerald on December 30, 2011.

32. The NOV/FOV alleged, among other things, that Emerald violated the following NESHAP requirements:

    a. Emerald failed to maintain the periodic reports required by 40 C.F.R. § 63.182(a);

    b. Emerald failed to identify connectors with an instrument meter reading greater than 500 parts per million as a detected leak, as required by 40 C.F.R. § 63.174(a)(2);

    c. Emerald failed to clearly identify leaking equipment with a tag, as required by 40 C.F.R. § 63.181(b)(10); and

    d. Emerald failed to maintain the records of repairs and follow-up repairs, required by 40 C.F.R. § 63.174(d), for 2 years, pursuant to 40 C.F.R. § 63.181(d).

33. In response to the NOV/FOV, EPA and Emerald had a conference call on February 15, 2012. Both before and following this call, Emerald provided EPA with information and documentation of actions taken by Emerald to correct the issues identified in the NOV/FOV. The information and documentation provided by Emerald included a draft Leak Detection and Repair Compliance Manual that had been prepared for the facility, copies of new repair

tags to be used on equipment subject to Subpart H, and documentation of revised leak repair procedures for equipment subject to Subpart H.

Compliance Program

34. By no later than three months after the Effective Date of this Order, Emerald shall develop a document that describes, for its facility: (i) the LDAR program as it applies to equipment at the process units that are subject to LDAR requirements referenced in Subpart U and Subpart H (Process Units) (*e.g.*, applicability of regulations to process units and/or specific equipment; leak definitions; monitoring frequencies); (ii) a tracking program (*e.g.*, Management of Change) that ensures that new pieces of equipment added to the Process Units for any reason are, as applicable, integrated into the LDAR program and that pieces of equipment that are taken out of service are, as applicable, removed from the LDAR program; (iii) the roles and responsibilities of all employee and contractor personnel assigned to LDAR functions at the Process Units; and (iv) how the number of personnel dedicated to LDAR functions is sufficient to satisfy the requirements of the LDAR program.

35. By no later than 180 days of the Effective Date of this Order, Emerald must conduct a third-party LDAR audit at the Process Units. The audit shall include: (i) reviewing compliance with all applicable LDAR regulations, including all applicable LDAR requirements related to valves, connectors, pumps, agitators, and open-ended lines; (ii) reviewing and/or verifying the same items that are required to be reviewed and/or verified in Paragraph 34; (iii) reviewing whether any pieces of equipment that are required to be in the LDAR program are not included; and (iv) "comparative monitoring" as described in Paragraph 36.

36. Comparative Monitoring. Comparative monitoring conducted during the LDAR audit required by Paragraph 35 must be undertaken as follows:

a. Calculating a Comparative Monitoring Audit Leak Percentage. Equipment shall be monitored in order to calculate a leak percentage for the Process Units, broken down by equipment type (*i.e.*, valves, pumps, agitators, and connectors). For descriptive purposes under this section, the monitoring that takes place during the audit shall be called "Comparative Monitoring" and the leak percentages derived from the Comparative Monitoring shall be called the "Comparative Monitoring Audit Leak Percentages." In undertaking Comparative Monitoring, Emerald shall not be required to monitor every component in the Process Unit—monitoring approximately 30% of the each equipment type (*i.e.*, valves, pumps, agitators, and connectors) in the Process Unit shall be sufficient to satisfy the requirements of this paragraph.

b. Calculating the Historic, Average Leak Percentage from Prior Periodic Monitoring Events. The historic, average leak percentage from prior periodic monitoring events, broken down by equipment type (*i.e.*, valves (excluding pressure relief valves), pumps, agitators, and connectors) shall be calculated. The following number of complete monitoring periods immediately preceding the Comparative Monitoring shall be used for this purpose: valves - 4 periods; pumps and agitators - 12 periods; and connectors – 2 periods.

c. Calculating the Comparative Monitoring Leak Ratio. For each type of equipment, the ratio of the Comparative Monitoring Audit Leak Percentage from Subparagraph 36.a to the historic, average leak percentage from Subparagraph 36.b shall be calculated. This ratio shall be called the "Comparative Monitoring Leak Ratio." If the denominator in this calculation is "zero," it shall be assumed (for purposes of this calculation but not for any other purpose under this Order or under any applicable laws and regulations) that one leaking piece of equipment was found in the Unit through routine monitoring during the applicable period referenced in Subparagraph 36.b.

37. Corrective Action Plan ("CAP")

a. Requirements of a CAP. By no later than the date that is one month after the receipt of the third-party LDAR audit report, Emerald shall develop a preliminary CAP if: (i) the results of the LDAR audit identify any deficiencies; or (ii) a Comparative Monitoring Leak Ratio calculated pursuant to Subparagraph 36.c is 3.0 or higher *and* the Comparative Monitoring Audit Leak Percentage calculated pursuant to Subparagraph 36.a is greater than or equal to 0.5 percent. The preliminary CAP shall describe the actions that Emerald has taken or shall take to address: (i) the deficiencies and/or (ii) the causes of a Comparative Monitoring Leak Ratio that is 3.0 or higher (but only if the Comparative Monitoring Audit Leak Percentage is at or above 0.5 percent). Emerald shall include a

schedule by which actions that have not yet been completed will be completed. Emerald shall promptly complete each corrective action item with the goal of completing each action within the date that is three months after receipt of the third-party LDAR audit report. If any action is not completed or not expected to be completed within three months after receipt of the third-party LDAR audit report, Emerald shall explain the reasons and propose a schedule for prompt completion in the final CAP to be submitted under Subparagraph 37.b.

b. Submission of the Final CAP to EPA. By no later than the date that is four months after receipt of the third-party LDAR audit report, Emerald shall submit the final CAP to EPA, together with a certification of the completion of each item of corrective action. If any action is not completed within three months after receipt of the third-party LDAR audit report, Emerald shall explain the reasons, together with a proposed schedule for prompt completion. Emerald shall submit a supplemental certification of completion by no later than one month after completing all actions.

38. Emerald must send all reports required by this Order to:

Attention: Compliance Tracker (AE-17J)
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency, Region 5
77 W. Jackson Boulevard
Chicago, Illinois 60604

39. Commencing by no later than the first full calendar quarter after the Effective Date of this Order, at times that are not announced to the LDAR monitoring technician(s), an LDAR-trained employee or contractor of Emerald, who does not serve on a routine basis as an LDAR monitoring technician at the Facility, shall undertake the following no less than once per calendar quarter for the period of one year in the Process Units:

a. Verify that equipment was monitored at the appropriate frequency under applicable LDAR regulations;

b. Verify that proper documentation and sign-offs have been recorded for all equipment placed on the delay of repair list;

c. Ensure that repairs have been performed in the required periods under applicable LDAR regulations;

d. Review monitoring data and equipment counts (*e.g.*, number of pieces of equipment monitored per day) for feasibility and unusual trends;

e. Verify that proper calibration records and monitoring instrument maintenance information are maintained;

f. Verify that other LDAR program records are maintained as required; and

g. Observe in the field each LDAR monitoring technician who is conducting leak detection monitoring to ensure that monitoring during the quarterly period is being conducted as required.

Emerald shall promptly correct any deficiencies detected or observed. Emerald shall maintain a log that: (i) records the date and time that the reviews, verifications, and observations required by this Paragraph are undertaken; and (ii) describes the nature and timing of any corrective actions taken.

General Provisions

40. Emerald neither admits nor denies the factual allegations and findings in this Order or the FOV, but Emerald agrees to the terms of this Order and waives any right to contest or appeal the issuance of this Order.

41. This Order does not affect Emerald's responsibility to comply with other federal, state and local laws.

42. This Order does not restrict EPA's authority to enforce Section 112 of the CAA or any other section of the CAA.

43. Nothing in this Order limits the EPA's authority to seek appropriate relief, including penalties, under Section 113 of the CAA, 42 U.S.C. § 7413, for Emerald's violation of Section 112 of the CAA and the NESHAPs at 40 C.F.R. Part 63, Subparts H and U.

44. Failure to comply with this Order may subject Emerald to penalties of up to $37,500 per day for each violation under Section 113 of the CAA, 42 U.S.C. § 7413, and 40 C.F.R. Part 19.

45. The terms of this Order are binding on Emerald, its assignees and successors. Emerald must give notice of this Order to any successors in interest prior to transferring ownership and must simultaneously verify to EPA, at the above address, that it has given the notice.

46. Emerald may assert a claim of business confidentiality under 40 C.F.R. Part 2, Subpart B, for any portion of the information it submits to EPA. Information subject to a business confidentiality claim is available to the public only to the extent allowed by 40 C.F.R. Part 2, Subpart B. If Emerald fails to assert a business confidentiality claim, EPA may make all submitted information available, without further notice, to any member of the public who requests it. Emission data provided under Section 114 of the Act, 42 U.S.C. § 7414, is not entitled to confidential treatment under 40 C.F.R. Part 2, Subpart B. "Emission data" is defined at 40 C.F.R. § 2.301.

47. This Order is not subject to the Paperwork Reduction Act, 44 U.S.C. § 3501 *et seq.*, because it seeks collection of information by an agency from specific individuals or entities as part of an administrative action or investigation.

48. EPA may use any information submitted under this Order in an administrative, civil judicial or criminal action.

49. This Order is effective on the date of signature by the Director of the Air and Radiation Division ("Effective Date"). This Order will terminate two years from the Effective Date, provided that Emerald has complied with all terms of the Order throughout its duration.

Administrative Consent Order
In the Matter of Emerald Performance Materials, LLC, Akron, Ohio
EPA-5-12-113(a)-OH-04

7-9-2012
Date

Timothy J. Wessel
President
Emerald Polymer Additives

8/2/12
Date

George T. Czerniak
Acting Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent the Administrative Consent Order, No. EPA-5-12-113(a)-OH-04, by Certified Mail, Return Receipt Requested, to:

William Ramus
Site Manager
Emerald Performance Materials, LLC
240 West Emerling Avenue
Akron, Ohio 44301

on this 8 day of August 2012.

Loretta Shaffer
Loretta Shaffer
Administrative Program Assistant
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7667 5314