



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

SEP 04 2008

REPLY TO THE ATTENTION OF:
AE-17J

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Kerry Christofanelli
Chief Financial Officer
Radiac Abrasives, Inc.
1015 S. College
Salem, Illinois 62881

Re: In the Matter of Radiac Abrasives, Inc., Salem, Illinois

Dear Mr. Christofanelli:

Enclosed is a fully executed original of an Administrative Consent Order.

If you have any technical questions about this Administrative Consent Order, please contact Mr. Kushal Som, of my staff, at (312) 353-5792. Any legal questions should be directed to Mr. Eaton Weiler at (312) 886-6041.

Sincerely,

A handwritten signature in black ink, appearing to read "Brent Marable".

Brent Marable
Chief
Air Enforcement and Compliance Assurance section (IL/IN)

Enclosure

Standard bcc's: official file copy w/attachment(s)
originating organization reading file w/attachment(s)

Other bcc's: E. Weiler - C-14J

Creation Date:	September 3, 2008
Filename:	C:\ Administrative Consent Order 113(a)
Legend:	ARD:AECAB:AECAS (IL/IN): SOM

5. The EPA promulgated final approval of the Illinois Title V operating permit program on December 4, 2001 (66 *Fed. Reg.* 62946), and the program became effective on that date.

6. The Illinois Environmental Protection Agency (IEPA) issued a Title V operating permit (Permit No. 95090063) to Radiac, effective on February 28, 2001.

7. On February 21, 1980, EPA approved Illinois Administrative Code (IAC) Sections 215.301 (entitled "Use of Organic Material") and 215.302 (entitled "Alternative Standard") (both previously codified as Rule 205(f)) as part of the federally enforceable Illinois State Implementation Plan (SIP). 45 *Fed. Reg.* 11472.

8. On September 9, 1994, EPA approved IAC Section 211.4690 (definition of "Photochemically Reactive Material") as part of the federally enforceable Illinois SIP. 59 *Fed. Reg.* 46567. IAC 211.4690 defines "Photochemically Reactive Material," in relevant part, as an organic material consisting of eight percent or more of any combination of aromatic compounds with eight or more carbon atoms to the molecule.

9. IAC Section 215.301 provides that "[n]o person shall cause or allow the discharge of more than 8 pounds per hour of organic material into the atmosphere from any emission source," except as provided, as relevant, in IAC Sections 215.301 and 215.302.

10. IAC Section 215.301 provides that "[i]f no odor nuisance exists the limitation of [IAC Section 215.301] shall apply only to photochemically reactive material." IAC Section 215.302 provides that emissions of organic material in excess of 8 pounds per hour are allowed if controlled to the levels and by the means specified in IAC Section 215.302, including any other air pollution control equipment capable of reducing by 85 percent or more the uncontrolled

organic material that would be otherwise emitted to the atmosphere.

11. Section 7.3.3(e) of Radiac's Title V permit provides that Kilns 1 and 2 are subject to IAC Section 215.301.

12. Section 7.4.3(e) of Radiac's Title V permit provides that Kilns 3 through 18 are subject to IAC Section 215.301.

13. Section 7.5.3(e) of Radiac's Title V permit provides that Kiln 19 is subject to IAC Section 215.301.

Findings

14. Radiac owns and operates a facility located at 1015 South College Avenue, Salem, Illinois. The facility manufactures vitreous bonded abrasive products, such as grinding wheels and segments, for commercial and noncommercial applications.

15. As part of the manufacturing process, measured amounts of prepared abrasive grains are moistened and mixed with porosity media and bond material. Porosity media are used for creating voids in the finished grinding products, and consist of filler materials, such as volatile organic materials, that are vaporized during firing in a kiln.

16. Radiac's Title V permit authorizes it to fire loads of grinding products in any of the 19 vitrified product kilns it is authorized to operate at the facility. Kilns 1 through 18 are periodic kilns with no emissions controls to reduce emissions of organic materials, and Kiln 19 is a continuous kiln with a thermal oxidizer to control emissions of organic materials. Each kiln has its own stack.

17. Loads of grinding products are fired in a kiln for a cycle lasting up to 168 hours, at a maximum temperature of less than 2,400 degrees Fahrenheit. During the cycle, organic material

is volatilized and vented to the kiln stack.

18. During a portion of the firing cycle, on average four hours per cycle, organic material emissions vented from each of the operated periodic kilns exceeded eight pounds per hour for loads of grinding wheels and segments that exceeded 100 pounds (actual or "equivalent") of volatile organic material per load. The "equivalent" number of pounds of volatile organic material contained in segments is equal to 1.32 multiplied by the actual number of pounds of volatile organic material contained in the segments.

19. The organic material emissions constitute "photochemically reactive materials" as defined by IAC Section 211.4690, because they consist of eight percent or more of aromatic compounds with eight or more carbon atoms to the molecule.

20. From June 2003 until December 2007, Radiac placed 1069 loads of grinding wheels or segments that contained greater than 100 pounds of volatile organic material (actual or "equivalent") in a periodic kiln at the facility.

21. For each of these 1069 loads, Radiac violated conditions 7.3.3(e) or 7.4.3(e) of its Title V operating permit, and IAC Section 215.301, by emitting greater than eight pounds per hour of photochemically reactive material from a kiln at the facility during a portion of time of the kiln cycle.

22. Since December 2007, Radiac has placed all loads of grinding wheels or segments that contained greater than 100 pounds of volatile organic material (actual or "equivalent") in the continuous kiln (Kiln 19) at the facility, from which the volatile organic material emissions are controlled by a thermal oxidizer at all times, and reduced by 85 percent or reduced to eight pounds per hour or less.

23. Except for loads containing 25 pounds or less of volatile organic material (actual or "equivalent"), since December 2007, for all loads of grinding wheels or segments that contained 100 pounds or less of volatile organic material (actual or "equivalent") and placed in a periodic kiln, Radiac has added a "low-temperature cycle," prior to raising the temperature of the kiln to a maximum temperature of less than 2,400 degrees Fahrenheit. During the "low-temperature cycle," the loads are placed in a kiln for 18 hours at a maximum temperature of 300 degrees Fahrenheit.

Compliance Program

24. By the effective date of this Order, Radiac must comply with Paragraphs 25 through 28 of this Order, for its facility located 1015 South College Avenue, Salem, Illinois.

25. For all kilns that Radiac's Title V permit authorizes it to operate at the facility (Kilns 1 through 19), Radiac shall comply with conditions 7.3.3(e), 7.4.3(e), and 7.5.3(e) of its Title V operating permit, and IAC Section 215.301, either: (1) by reducing emissions of organic material from each kiln by 85 percent with a thermal oxidizer, or (2) by emitting eight pounds per hour or less of organic material from each kiln.

26. Radiac shall comply with condition 7.5.3(e) of its Title V operating permit, and IAC Section 215.301 by placing all loads of grinding wheels or segments that contain greater than 100 pounds of volatile organic material (actual or "equivalent") in the continuous kiln (Kiln 19) at the facility, from which the volatile organic material emissions shall be controlled by a thermal oxidizer at all times, and reduced by 85 percent or reduced to eight pounds per hour or less.

27. The "equivalent" number of pounds of volatile organic material contained in segments shall equal to 1.32 multiplied by the actual number pounds of volatile organic material

contained in the segments.

28. Radiac shall comply with conditions 7.3.3(e) and 7.4.3(e) of its Title V operating permit, and IAC Section 215.301 by, for loads other than those containing 25 pounds or less of volatile organic material (actual or "equivalent"): (1) placing in each periodic kiln (Kilns 1 through 18), only loads of grinding wheels or segments that contain 100 pounds or less of volatile organic material (actual or "equivalent"); (2) adding a "low-temperature cycle," prior to raising the temperature of the each periodic kiln to a maximum temperature of less than 2,400 degrees Fahrenheit. During the "low-temperature cycle," loads shall be placed in a periodic kiln for 18 hours at a maximum temperature of 300 degrees Fahrenheit.

29. Within 30 days of the effective date of this Order, Radiac shall apply to Illinois Environmental Protection Agency for a permit pursuant to IAC 201.142 requesting, as permit conditions, the requirements of the above Paragraphs 24 through 27. Radiac shall send a copy of the permit application to the following:

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

General Provisions

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

31. This Order does not restrict EPA's authority to enforce the Illinois SIP, Radiac's Title V permit, or any other section of the Act.

32. Nothing in this Order limits the EPA's authority to seek appropriate relief, including

penalties, under Section 113 of the Act, 42 U.S.C. § 7413, for violations of the Illinois SIP, Radiac's Title V operating permit, or any other Section of the Act.

33. Failure to comply with this Order may subject Radiac to penalties of up to \$32,500 per day for each violation under Section 113 of the Act, 42 U.S.C. § 7413, and 40 C.F.R. Part 19.

34. The terms of this Order are binding on Radiac, its assignees and successors. Radiac 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.

35. Radiac 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 Radiac 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.

36. 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.

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

38. Other than the factual findings, which Radiac neither admits nor denies, Radiac agrees to the terms of this Order.

39. This Order is effective on the date of signature by the Director of the Air and Radiation Division. This Order will terminate two years from the effective date, provided that Radiac has complied with all terms of the Order throughout its duration.

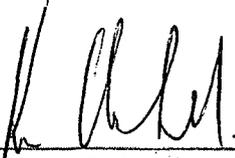
ADMINISTRATIVE CONSENT ORDER

In the Matter of:

Radiac Abrasives, Inc.

Docket No.

Aug 26, 2003
Date



Kerry Christofannelli
Chief Financial Officer
Radiac Abrasives, Inc.

9/4/08
Date



Cheryl L. Newton
Acting Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Betty Williams, do hereby certify that I sent a copy of the Administrative Consent Order,
EPA Order number 05-08-113(a)-04-IL by Certified Mail, Return Receipt Requested

to:

Kerry Christofanelli
Chief Financial Officer
Radiac Abrasives, Inc.
1015 S. College
Salem, Illinois 62881

Leo P. Dombrowski
Wildman, Harrold, Allen & Dixon LLP
225 West Wacker Drive
Chicago, Illinois 60606-1229

I also certify that a copy of the Administrative Consent Order, EPA Order number
05-08-113(a)-04-IL was sent by First-class mail to:

Ray Pilapil, Manager
Bureau of Air
Compliance and Enforcement Section
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, Illinois 62702

on the 15th day of September 2008.



Betty Williams
Administrative Program Assistant
AECAS (IL/IN)

CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 000601860958 - Kerry Christofanelli
CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 000601860903 - Leo P. Dombrowski