



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

OCT 23 2012

REPLY TO THE ATTENTION OF:

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

G. L. Bevilacqua, General Manager
Caterpillar, Inc. - Mapleton Foundry
8826 West Route 24
Mapleton, Illinois 61547-9784

Re: Caterpillar, Inc. - Mapleton, Illinois
Administrative Order EPA-5-13-113(a)-IL-01

Dear Mr. Bevilacqua:

Enclosed is an executed original of the Administrative Order regarding the above captioned case. If you have any questions about the Order, please contact me at 312-886-6812.

Sincerely,

A handwritten signature in black ink, appearing to read "Nathan A. Frank".

Nathan A. Frank, P.E.
Chief
Air Enforcement and Compliance Assurance Section (IL/IN)

Enclosure:

cc: Ray Pilapil, Manager
Bureau of Air – Compliance and Enforcement Section
Illinois Environmental Protection Agency

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

In the Matter of:)	Docket No. EPA-5-13-113(a)-IL-01
)	
Caterpillar, Inc. – Mapleton Foundry)	Proceeding Under Section 113(a)(3)
Mapleton, Illinois)	of the Clean Air Act 42 U.S.C. § 7413 (a)(3)
)	
_____)	

Administrative Consent Order

1. The Director of the Air and Radiation Division, U.S. Environmental Protection Agency (EPA), Region 5, is issuing this Administrative Consent Order (Order) to Caterpillar, Inc. (Caterpillar) under Section 113(a)(3) of the Clean Air Act (CAA), 42 U.S.C. § 7413(a)(3).

Statutory and Regulatory Background

2. Section 112 of the CAA requires EPA to list categories and subcategories of major sources and area sources of hazardous air pollutants (HAPs) and to establish National Emission Standards for Hazardous Air Pollutants (NESHAPs) for the listed categories and subcategories.

3. The Iron and Steel Foundries category of major sources was listed on July 16, 1992 (57 Fed. Reg. 31576).

4. 40 C.F.R. Part 63, Subpart EEEEE, National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries (MACT Subpart EEEEE). 40 C.F.R. §§ 63.7680 – 63.7765, was proposed December 22, 2002 (67 FR 78274).

5. The effective date for MACT Subpart EEEEE is April 22, 2004.

6. The NESHAP, at 40 C.F.R. § 63.7690(b)(5)(i and ii), requires the owner and

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operator of a foundry that utilizes a wet acid scrubber for controlling triethylamine (TEA) emissions from a cold box mold or core making line subject to an emissions limit for TEA to maintain the three hour average scrubbing liquid flow rate at or above the minimum level established during performance testing and maintain the three hour average pH of the scrubber blowdown at or below 4.5.

7. The NESHAP, at 40 C.F.R. § 63.7700(c), requires the owner and operator of a foundry to prepare and operate at all times according to a written plan for the selection and inspection of iron and steel scrap.

8. The NESHAP, at 40 C.F.R. § 63.7736(a)(1)(ii) and (b)(2), requires the owner and operator of a foundry to inspect, operate, and maintain each capture system and control device subject to an operating limit according to the procedures in the operation and maintenance plan.

9. The NESHAP, at 40 C.F.R. § 63.7741(f)(3), requires the owner and operator of a foundry to operate each continuous parameter monitoring system to determine and record the hourly average of all recorded readings and the three hour average of all recorded readings.

10. Section 502(a) of the Act, 42 U.S.C. § 7661a(a), and 40 C.F.R. § 70.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the Act, no source subject to Title V may operate except in compliance with a Title V permit.

11. Title V of the CAA, 42 U.S.C. § 7661, established an operating permit program for major sources of air pollution. Section 502(d) of the Act, 42 U.S.C. § 7661a(d), provides that each state must submit to the Administrator a permit program meeting the requirements of Title V.

12. Pursuant to Section 502(b) of the Act, 42 U.S.C. § 7661a(b), the Administrator promulgated regulations, subsequently codified at 40 C.F.R. Part 70, providing for the

establishment of Title V permitting programs.

13. Sections 502(a) of the CAA, 42 U.S.C. § 7661a(a) and 40 C.F.R. § 70.7(b) provide that, after the effective date of any permit program approved or promulgated under Title V of the CAA, no source subject to Title V may operate except in compliance with a Title V permit.

14. U.S. EPA granted interim approval to the Illinois Title V operating permit program on March 7, 1995, and the program became effective on that date. U.S. EPA granted final approval of the Illinois Title V program effective November 30, 2001.

Findings

15. Caterpillar owns and operates a grey iron foundry (Facility) located at 8826 West Route 24 in Mapleton, Illinois.

16. The Caterpillar Mapleton Foundry manufactures engine blocks, cylinders, camshafts and some other parts for manufacturing Caterpillar equipment.

17. Caterpillar operates one TEA scrubber at its Facility. The scrubber is identified as the West Scrubber and is associated with emission units 46 and 181.

18. The Illinois Environmental Protection Agency (IEPA) issued Caterpillar a Title V Operating Permit, Number 96020004, on November 25, 2003 (Title V Permit). Section 7.5.9 of Caterpillar's Title V Operating Permit requires that Caterpillar maintain records of several parameters for affected emission units to demonstrate compliance with the conditions of the Title V Operating Permit.

19. The EPA issued Respondent a Finding of Violation on August 12, 2011, giving notice of the violations alleged below, and offering the Respondent an opportunity to confer with the EPA.

20. In Caterpillar's Annual Compliance Certifications and Deviation Summary Reports for 2008, 2009, and 2010, Caterpillar has reported events where the foundry failed to maintain its acid scrubbers three hour average scrubbing liquid flow rate at or above the minimum level established during performance testing. Also in Caterpillar's Annual Compliance Certifications and Deviation Reports for 2007, 2008, 2009 and 2010, Caterpillar has reported events where the foundry failed to maintain the three hour average pH of the scrubber blowdown at or below 4.5. These are violations of 40 C.F.R. § 63.7690(b)(5)(i) and (ii).

21. In Caterpillar's Annual Compliance Certifications and Deviation Summary Reports for 2007, 2008, and 2011, Caterpillar has reported events where the foundry did not inspect, operate, and maintain each capture system and control device subject to an operating limit according to the procedures in the operation and maintenance plan. These are violations of 40 C.F.R. § 63.7736(a)(1)(ii) and (b)(2).

22. In Caterpillar's Annual Compliance Certifications and Deviation Summary Reports since 2007, Caterpillar has reported events where the foundry's continuous parameter monitoring system failed to determine and record the hourly average of all recorded readings and the three hour average of all recorded readings. These are violations of 40 C.F.R. § 63.7741(f)(3).

23. In Caterpillar's Annual Compliance Certifications and Deviation Summary Reports since 2007, Caterpillar has reported that it failed to maintain records of several parameters for affected emission units. These are violations of Section 7.5.9 of Caterpillar's Title V Operating Permit.

24. Caterpillar's operation in violation of its Title V permit constitutes a violation of

Section 502 of the CAA and of 40 C.F.R. § 70.7(b).

Compliance

25. Caterpillar has budgeted for and will install a new TEA scrubber at its Mapleton facility. It will be designed to capture and control emissions from the urethane core machines in the Core Room and the Block Core Complex.

26. Respondent will install and will continuously operate the new TEA scrubber no later than 12 months after the effective date of this Order.

27. Respondent will permanently cease operation of the West Scrubber, once the new TEA scrubber is installed and operational.

28. Respondent will notify EPA when the installation of the new TEA scrubber is complete.

29. The new TEA scrubber will operate whenever the urethane core machines, identified as emission units 46 and 181 in Respondent's Title V Permit, are operating.

30. Respondent will apply to the Illinois Environmental Protection Agency for revisions to its Title V Permit that incorporate the use of the new TEA scrubber. The revised Title V Permit will establish, as federally enforceable, permit terms and conditions for the installation and operation of the new TEA scrubber to assure the new scrubber is operated in a manner in compliance with MACT subpart EEEEE and with good operating practices as defined in NESHAP, subpart A, General Provisions at 40 C.F.R. §63.6 (e). The operating limits in its Title V Permit will be no less stringent than the limits in its Title V Permit for Respondent's current TEA scrubber, the West Scrubber, which is currently associated with emission units 46 and 181.

31. In the interim, until the Respondent installs and operates the new TEA scrubber,

the following parameters will be established for the West Scrubber:

- a. Respondent will program and maintain the scrubber logic to monitor the automated flow control valve's percent open and will provide for an alarm if the valve requires a larger percent open than normal to provide the set flow-rate.
- b. Respondent will maintain the scrubber operating pH range to between 2.5 and 3.0 and will only allow the pH to increase to 4.0 to 4.5 immediately before a regeneration cycle. If the pH exceeds 4.0, other than immediately before a regeneration cycle, an alarm will sound.

32. Respondent will provide and maintain an auto-shutdown mode in the TEA scrubber logic for the scrubber controlling emission units 46 and 181 that will shutdown the TEA scrubber and production machinery (the urethane core machines) if the TEA scrubber flow rate is less than 100 GPM or pH is greater than 4.5 for 20 minutes. Respondent will provide and maintain an immediate auto-shutdown if the flow-rate drops below 90 GPM or the pH rises above 5.0.

33. The alarms referenced in paragraph 31 will be sent to Security and by text message to the maintenance manager and the department head overseeing maintenance. Alarm clear messages for the referenced alarms will be sent to the same personnel. The environmental manager will receive e-mails regarding the alarms and alarm clear signals. Security will contact the on-shift maintenance supervisor regarding the alarms immediately when they receive a signal. If Security does not receive an alarm clear signal in 20 minutes, they will contact the maintenance supervisor to determine the status of the problem. If Security does not receive an alarm clear in 30 minutes, they will contact the environmental manager or the EHS manager to

notify them of the alarm status.

34. Respondent's environmental department will maintain the scrap inspection log sheets for five (5) years consistent with applicable requirements in the NESHAP to prevent loss of documentation.

35. Respondent will provide training to relevant new employees and management with responsibilities related to scrap inspection to ensure scrap loads are inspected consistent with the requirements of the MACT Subpart EEEEE.

36. Nothing in this consent agreement shall limit Respondent's ability to modify the scrap inspection plan consistent with the requirements of the MACT Subpart EEEEE.

37. Caterpillar 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

General Provisions

38. The parties have entered into a Consent Agreement and Final Order (CAFO) (Docket No. CAA-05-201.-....) to resolve Caterpillar's liability for federal civil penalties for the violations alleged in this Order.

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

40. This Order does not restrict EPA's authority to enforce the NESHAP or any section of the CAA.

41. 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 violations of the MACT Subpart EEEEE not otherwise addressed in this Order.

42. Failure to comply with this Order may subject Caterpillar 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.

43. The terms of this Order are binding on Caterpillar, its assignees and successors. Caterpillar 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.

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

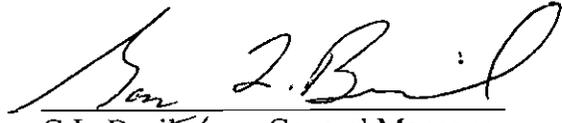
45. Caterpillar agrees to the terms of this Order.

46. Caterpillar neither admits nor denies the factual allegations in this order.

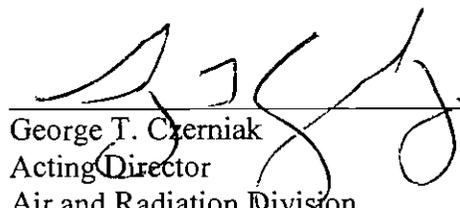
47. This Order is effective on the date of signature by the Director of the Air and Radiation Division. This Order will terminate one year from the effective date, provided that Caterpillar has complied with all terms of the Order throughout its duration.

**Administrative Consent Order
In the Matter of:
Caterpillar, Inc.**

9/28/12
Date


G.L. Bevilacqua, General Manager
Caterpillar, Inc., - Mapleton Foundry

10/16/12
Date


George T. Czerniak
Acting Director
Air and Radiation Division
U.S. Environmental Protection Agency, Region 5

CERTIFICATE OF MAILING

I, _____, certify that I sent the executed Administrative Order, EPA Order

No. EPA-5-13-113(a)-IL-01, by Certified Mail, Return Receipt Requested, to:

G. L. Bevilacqua, General Manager
Caterpillar, Inc. - Mapleton Foundry
8826 West Route 24
Mapleton, Illinois 61547-9784

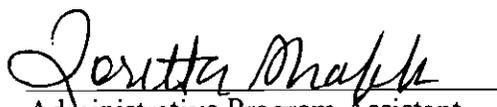
I also certify that I sent a copy of the executed Administrative Order, EPA Order No.

EPA-5-13-113(a)-IL-01, by First Class Mail to:

Ray Pilapil, Manager
Bureau of Air-Compliance and Enforcement Section
Illinois Environmental Protection Agency
Springfield, Illinois 62794-9276

Jaron J. Bromm
Caterpillar, Inc.
100 N.E. Adams Street
Peoria, Illinois 61629-6485

on the 23 day of Oct 2012.


Administrative Program Assistant
Planning and Administration Section

CERTIFIED MAIL RECEIPT NUMBER: 70091680000076674836

Standard bcc's: Official file copy w/attachment(s)

Other bcc's: M. Berman, C-14J