



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

NOV 29 2007

REPLY TO THE ATTENTION OF

(AE-17J)

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Daniel Sajkowski, Business Unit Leader
BP Products North America, Inc.
2815 Indianapolis Boulevard
Whiting, Indiana 46394

Dear Mr. Sajkowski:

This is to advise you that the U.S. Environmental Protection Agency (EPA) has determined that the BP Products North America, Inc. facility at 2815 Indianapolis Boulevard, Whiting, Indiana (BP Whiting) is in violation of the Clean Air Act (CAA) and associated state or local pollution control requirements. A discussion of the requirements violated is provided below. A Notice of Violation and Finding of Violation (NOV/FOV) for these violations is being issued and is enclosed for your review.

The CAA requires the development of Primary and Secondary National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. To attain and maintain these standards, each state is required to develop an implementation plan. Indiana's State Implementation Plan (Indiana SIP) includes the following requirements:

- 1) No person shall commence construction or modification of any air pollution source without first applying for and obtaining a construction permit from the commissioner of the Indiana Department of Environmental Management.
- 2) An owner or operator may not begin construction of a major modification at a major stationary source in an area that does not meet the NAAQS without first obtaining a permit to install (PTI) that contains an emission limit that represents the lowest achievable emission rate.
- 3) An owner or operator may not begin operation of a major modification at a major stationary source in an area that does not meet the NAAQS without first applying controls

that represent the lowest achievable emission rate for the pollutant for which the modification is major.

- 4) An owner or operator may not begin construction of a major modification at a major stationary source in an area that does not meet the NAAQS without first certifying that all major stationary sources owned or operated by the same entity in the State of Indiana are in compliance with the CAA.
- 5) An owner or operator may not begin construction of a major modification at a major stationary source in an area that does not meet the NAAQS without first obtaining offsetting emission reductions from other stationary sources in the same area.
- 6) An owner or operator may not begin construction of a major modification at a major stationary source in an area that meets the NAAQS without first obtaining a permit to install (PTI) that contains an emission limit that represents the best available control technology.
- 7) An owner or operator may not begin operation of a major modification at a major stationary source in an area that meets the NAAQS without installing the best available control technology for reducing the emissions of the pollutant for which the modification is major.

Section 111 of the CAA requires EPA to implement the New Source Performance Standards (NSPS) program. The NSPS are nationally uniform emission standards for new or modified stationary sources falling within industrial categories that significantly contribute to air pollution.

The NSPS "Standards of Performance for Petroleum Refineries" at 40 C.F.R. Part 60, Subpart J, includes the following requirements:

- 1) An owner or operator of a fuel gas combustion device constructed or modified after June 11, 1973, shall not burn any gas in the device that contains more than 230 milligrams hydrogen sulfide (H₂S) per dry standard cubic meter.
- 2) An owner or operator of a Claus sulfur recovery plant constructed or modified after June 11, 1973, using an

oxidation control system shall not discharge into the atmosphere from the sulfur recovery plant any gases containing in excess of 250 parts per million by volume (ppmV) of sulfur dioxide (SO₂).

- 3) An owner or operator of a Claus sulfur recovery plant constructed or modified after June 11, 1973, using a reduction control system (not followed by oxidation) shall not discharge into the atmosphere from the sulfur recovery plant any gases containing in excess of 300 ppmV of reduced sulfur compounds (TRS) and 10 ppmV of H₂S.
- 4) An owner or operator of a fuel gas combustion device constructed or modified after June 11, 1973, shall install a system to continuously monitor either the concentration of SO₂ exiting the fuel gas combustion device or the concentration of H₂S in the fuel being burned in the device.
- 5) An owner or operator of a sulfur recovery plant with an oxidation control system constructed or modified after June 11, 1973, shall install a system to continuously monitor the concentration of SO₂ discharged to the atmosphere.
- 6) An owner or operator of a sulfur recovery plant with a reduction control system (not followed by oxidation) constructed or modified after June 11, 1973, shall install a system to continuously monitor the concentration of TRS discharged to the atmosphere.

Section 112(b) of the CAA established a list of hazardous air pollutants (HAPs) and provided that EPA shall add to the list additional pollutants that may present a threat of adverse human health effects through inhalation or other routes of exposure. Section 112(d) provides that EPA shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of listed HAPs.

On April 11, 2002, EPA promulgated the National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units (Refinery MACT II), 40 C.F.R. Part 63 Subpart UUU. EPA amended Refinery MACT II on February 9, 2005. The purpose of these standards is to reduce, on a national scale, emission of chemicals that possess carcinogenic or toxic characteristics. Refinery MACT II includes the requirement to

test the hydrogen chloride emissions from the catalytic reforming units within 150 days of April 11, 2005.

EPA finds that BP Whiting has violated the above-listed Indiana SIP, NSPS, and Refinery MACT II requirements.

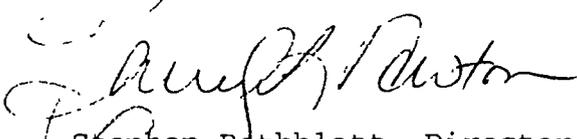
Since BP Whiting's facility is subject to applicable requirements under the Indiana SIP and NSPS that are not listed in its Title V permit, it has also violated Title V of the CAA and its associated regulations which require all CAA requirements applicable to a source to be incorporated into that source's Title V permit.

Section 113 of the CAA gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action.

Section 113 of the CAA provides you with the opportunity to request a conference with us about the violations alleged in the NOV/FOV. A conference should be requested within 10 days following receipt of this notice. A conference should be held within 30 days following receipt of this notice. This conference will provide you with an opportunity to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

The EPA contacts in this matter are Kathryn Siegel and Erik Hardin. You may call them at (312) 353-1377 and (312) 886-2402, respectively, if you wish to request a conference. EPA hopes that this NOV/FOV will encourage BP Whiting's compliance with the requirements of the Clean Air Act.

Sincerely yours,


Stephen Rothblatt, Director
Air and Radiation Division

Enclosure

cc: Craig Henry, Chief
Office of Enforcement, Air Section
Indiana Department of Environmental Management

**U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

IN THE MATTER OF:)
)
BP Products North America) **NOTICE OF VIOLATION and**
Whiting, Indiana) **FINDING OF VIOLATION**
)
) **EPA-5-08-IN-01**
Proceedings Pursuant to)
the Clean Air Act,)
42 U.S.C. §§ 7401 et seq.)

NOTICE AND FINDING OF VIOLATION

BP Products North America, Inc. (BP or you) owns and operates a petroleum refinery at 2815 Indianapolis Boulevard, Whiting, Indiana (BP Whiting). The refinery consists of a number of pieces of equipment that generate air pollution and are subject to provisions of the Clean Air Act (the Act). This includes a fluidized catalytic cracking unit, sulfur recovery plant, a catalytic reforming unit, a catalytic refining unit, a catalytic feed hydrotreating unit, and several flares.

The U.S. Environmental Protection Agency (EPA) is sending this Notice of Violation and Finding of Violation (NOV/FOV or Notice) to notify you of several items. We find that you constructed a major modification causing a significant increase in nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), particulate matter less than 10 microns (PM₁₀) emissions at a major stationary source in an area that was designated as non-attainment for ozone and SO₂¹ and attainment for CO, PM₁₀, and nitrogen dioxide (NO₂) at the time of the modification, without first obtaining a construction permit meeting the New Source Review (NSR) and Prevention of Significant Deterioration (PSD) requirements in the Indiana State Implementation Plan (SIP). We find that you modified or constructed emission units making them affected facilities subject to emission limits and monitoring requirements in the New Source Performance Standards (NSPS) that apply to petroleum refineries but that you have yet to fully comply with the applicable monitoring requirements and have

¹ 1 Lake County was non-attainment for the SO₂ until September 26, 2005. 70 Fed. Reg. 56129.

failed to demonstrate continuous compliance with the applicable emission limits in the NSPS. We find that you failed to conduct a timely performance test demonstrating compliance with an emission limit for hydrogen chloride (HCl) located in the National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units (Refinery MACT II), 40 C.F.R. Part 63 Subpart UUU. Finally, we find that you have failed to comply with Title V requirements by not incorporating all applicable regulations into your Title V operating permit. All of these violations constitute violations of the Clean Air Act (the Act or CAA).

Section 113 of the Act provides you with the opportunity to request a conference with us to discuss the violations alleged in the NOV/FOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for the facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

Regulatory Background

1. The following provisions of the Indiana SIP are relevant to this NOV/FOV:

Construction Permit

- a. Indiana SIP Rule 326 Indiana Administrative Code (IAC) 2-1-03(a) prohibits any person from commencing construction or modification of any air pollution source without first applying for and obtaining a construction permit from the commissioner of the Indiana Department of Environmental Management (IDEM).
- b. Indiana SIP Rule 326 IAC 2-1-03(c) requires any person proposing the construction or modification of a major stationary PSD source or major PSD modification, which is or which will be located in an attainment area or unclassified area, to comply with the requirements of Indiana SIP Rule 326 IAC 2-2.
- c. Indiana SIP Rule 326 IAC 2-1-03(d) requires any person proposing the construction or modification of a major source or facility, which will be located in a

nonattainment area, to comply with the requirements of Indiana SIP Rule 326 IAC 2-3.

Attainment PSD

- d. Indiana SIP Rule 326 IAC 2-2-2 states that new or modified major stationary sources or major modifications, constructed in an area designated in as attainment for a pollutant for which the stationary source or modification is major, are subject to 326 IAC 2-2, which contains the PSD provisions of the Indiana SIP.
- e. Indiana SIP Rule 326 IAC 2-2-1(gg) defines "major stationary source" in an attainment area as a petroleum refinery that emits, or has the potential to emit 100 tons per year or more of any regulated NSR pollutant.
- f. Indiana SIP Rule 326 IAC 2-2-1(ee) defines "major modification" as any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase.
- g. Indiana SIP Rule 326 IAC 2-2-1(jj) defines "net emissions increase" as the amount by which the sum of the increase in emissions from a physical change or change in the method of operation and any other contemporaneous increases or decreases in emissions exceeds zero.
- h. In reference to CO, Indiana SIP Rule 326 IAC 2-2-1(xx) defines "significant" with regard to a net emissions increase as rate of emissions that would equal or exceed 100 tons per year.
- i. In reference to PM₁₀, Indiana SIP Rule 326 IAC 2-2-1(xx) defines "significant" with regard to a net emissions increase as rate of emissions that would equal or exceed 15 tons per year.
- j. In reference to NO_x, Indiana SIP Rule 326 IAC 2-2-1(xx) defines "significant" with regard to a net emissions increase as rate of emissions that would equal or exceed 40 tons per year.

- k. Indiana SIP Rule 326 IAC 2-2-3(2) requires that owners or operators making a major modification apply best available control technology (BACT) for each regulated pollutant for which the modification would result in a significant net emissions increase.
- l. Indiana SIP Rule 326 IAC 2-2-1(i) defines "BACT" as an emissions limitation based on the maximum degree of reduction for each regulated NSR pollutant that would be emitted from any proposed major modification.
- m. Indiana SIP Rule 326 IAC 2-2-5 requires that owners or operators of a proposed major modification demonstrate that allowable emissions increases in conjunction with all other applicable emission increases or reductions will not cause or contribute to air pollution in violation of any ambient air quality standard or applicable maximum allowable increase over the baseline concentration in any area.

Non-attainment NSR

- n. Indiana SIP Rule 326 IAC 2-3-2(a) states that new or modified major stationary sources or major modifications, constructed in an area designated in as non-attainment for a pollutant for which the stationary source or modification is major, are subject to 326 IAC 2-3, which contains the non-attainment NSR provisions of the Indiana SIP.
- o. Indiana SIP Rule 326 IAC 2-3-1(aa)(1) defines a "major stationary source" as any stationary source of air pollutants which emits, or has the potential to emit, one hundred (100) tons per year or more of any air pollutant subject to regulation under the Clean Air Act.
- p. Indiana SIP Rule 326 IAC 2-3-1(z) defines "major modification" as any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase.
- q. Indiana SIP Rule 326 IAC 2-3-1(dd) defines "net emissions increase" as the amount by which the sum of the increase in emissions from a physical change or change in the method of operation and any other

contemporaneous increases or decreases in emissions exceeds zero.

- r. In reference to NO_x, Indiana SIP Rule 326 IAC 2-3-1(qq) defines "significant" with regard to a net emissions increase as rate of emissions that would equal or exceed 40 tons per year.
 - s. In reference to SO₂, Indiana SIP Rule 326 IAC 2-3-1(qq) defines "significant" with regard to a net emissions increase as rate of emissions that would equal or exceed 40 tons per year.
 - t. Indiana SIP Rule 326 IAC 2-3-3(a)(2) requires that, prior to the issuance of a construction permit, the applicant must apply emission limitation devices or techniques to the proposed construction or modification such that it achieves the Lowest Achievable Emission Rate (LAER) for the applicable pollutant.
 - u. Indiana SIP Rule 326 IAC 2-3-1(y) defines "LAER" as the more stringent rate of emissions based on the most stringent emissions limitation for that particular source contained in the implementation plan of any state or achieved in practice.
 - v. Indiana SIP Rule 326 IAC 2-3-3(a)(5) requires that emissions resulting from the proposed construction or modification be offset by a reduction in actual emissions of the same pollutant from an existing source or combination of existing sources.
 - w. Indiana SIP Rule 326 IAC 2-3-3(a)(7) states that the applicant must obtain the necessary preconstruction approvals and must meet all the permit requirements specified in Indiana SIP rule 326 IAC 2-1.
2. The following NSPS provisions are relevant to this NOV/FOV:

General Provisions

- a. The NSPS General Provisions at 40 C.F.R. § 60.2 define "modification" as any physical change in, or change in the method of operation of, an existing facility which

increases the emission rate of any air pollutant to which a standard applies to the atmosphere.

- b. The NSPS General Provisions at 40 C.F.R. § 60.8(a) require owners or operators of facilities subject to NSPS standards to conduct a performance test to demonstrate compliance with the applicable standard no later than 180 days after the initial startup of the affected facility.

Fuel Gas Combustion Devices

- c. The NSPS for Petroleum Refineries at 40 C.F.R. § 60.100(b) state that any fuel gas combustion device which commences construction or modification after June 11, 1973, is subject to the NSPS for Petroleum Refineries.
- d. The NSPS for Petroleum Refineries at 40 C.F.R. § 60.104(a)(1) prohibit owners or operators from burning in any fuel gas combustion device subject to these provisions any fuel gas that contains hydrogen sulfide (H₂S) in excess of 230 milligrams per dry standard cubic meter (mg/dscm).
- e. The NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(3) require owners or operators of fuel gas combustion devices subject to 40 C.F.R. § 104(a)(1) to install, calibrate, operate, and maintain an instrument for continuously monitoring and recording the concentration by volume of SO₂ emissions into the atmosphere.
- f. The NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(4) allow owners or operators to install, calibrate, operate, and maintain an instrument for continuously monitoring and recording the concentration of H₂S in fuel gases before being burned in a subject fuel gas combustion device.

Sulfur Recovery Plants

- g. The NSPS for Petroleum Refineries at 40 C.F.R. § 60.104(a)(2)(i) prohibit owners or operators from discharging any gases into the atmosphere from any subject Claus sulfur recovery plant containing in

excess of 250 parts per million by volume (ppmV) of SO₂ at zero percent excess air when the Claus sulfur recovery plant is controlled by an oxidation system or a reduction system followed by an oxidation system.

- h. The NSPS for Petroleum Refineries at 40 C.F.R. § 60.104(a)(2)(ii) prohibit owners or operators from discharging any gases into the atmosphere from any subject Claus sulfur recovery plant containing in excess of 300 ppmV of reduced sulfur compounds and 10 ppmV of H₂S at zero percent excess air when the Claus sulfur recovery plant is controlled by a reduction system not followed by incineration.
 - i. The NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(5) require owners or operators of Claus sulfur recovery plants subject to 40 C.F.R. § 104(a)(2)(i) to install, calibrate, operate, and maintain instruments for continuously monitoring and recording the concentration by volume of SO₂ and oxygen (O₂) emissions into the atmosphere.
 - j. The NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(6) require owners or operators of Claus sulfur recovery plants subject to 40 C.F.R. § 104(a)(2)(ii) to install, calibrate, operate, and maintain instruments for continuously monitoring and recording the concentration by volume of reduced sulfur compound and O₂ emissions into the atmosphere.
3. The following Refinery MACT II provisions are relevant to this NOV/FOV:
- a. Refinery MACT II at 40 C.F.R. § 63.1567(a)(1) requires owners or operators of catalytic reforming units to comply with each applicable limit for inorganic HAP emissions located in Table 22 of Refinery MACT II.
 - b. Refinery MACT II at Table 22 requires owners or operators of cyclic catalytic reforming units to either meet a 97 percent HCl removal efficiency or a 10 ppmV outlet concentration, corrected to 3 percent oxygen.
 - c. Refinery MACT II at 40 C.F.R. §§ 63.1563 and 63.1571 requires owners or operators subject to Refinery MACT

II to conduct performance tests and report the results by no later than 150 days after April 11, 2005.

- d. Refinery MACT II at Table 25 1(e)(1) requires that for semi-regenerative and cyclic regeneration units, the test required by 40 C.F.R. § 63.1571 be conducted during the coke burn-off and catalyst rejuvenation cycle.
4. The following Title V provisions and underlying requirements located at 40 C.F.R. Part 70 are relevant to this NOV/FOV:
- a. Title V of the CAA establishes an operating permit program for major sources. The purpose of Title V is to ensure that all "applicable requirements" for compliance with the CAA, including SIP and NSPS requirements, are collected in one place.
 - b. Title V requires that each permit issued under this program include enforceable emission limitations and such other conditions as are necessary to assure compliance with "applicable requirements" of the CAA, including the requirements of the applicable SIP.
 - c. Under Title V, any owner or operator of a source subject to the Title V program is required to submit a timely and complete permit application that contains information sufficient to determine the applicability of any CAA requirements, certifies compliance with all applicable requirements, and contains a compliance plan for all applicable requirements for which the source is not in compliance.
 - d. Under Title V, any applicant who fails to submit any relevant fact or who has submitted incorrect information in a permit application is required to promptly submit such supplementary facts or corrected information upon becoming aware of such failure or incorrect submittal.
 - e. Title V program requirements are codified at Section 503 of the CAA, 42 U.S.C. § 7661b with implementing regulations at 40 C.F.R. Part 70.

Explanation of Violations

FCU 500

1. BP Whiting has the potential to emit several regulated NSR pollutants in excess of 100 tons per year, making it a major stationary source.
2. In February 2005, BP Whiting constructed a project on its fluidized catalytic cracking unit designated as FCU 500. This project included combustion air improvements, a reactor stripper revamp, a slurry system reliability upgrade, and a feed nozzle replacement.
3. The February 2005 project constructed on FCU 500 constitutes a modification to an air pollution source.
4. BP Whiting failed to obtain any permits, conduct any modeling, or undergo any other sort of pre-construction review for this modification.
5. BP Whiting failed to obtain a construction permit for this modification, in violation of Indiana SIP Rule 326 IAC 2-1-03(a).
6. The February 2005 project allows BP to increase the feed rate to FCU 500 in a manner that would increase emissions of NO_x, SO₂, CO, and PM₁₀ by significant amounts, thus making the project a major modification.
7. BP Whiting is located in Lake County, Indiana. In February 2005, Lake County, Indiana was listed as attainment or unclassifiable for CO, PM₁₀, and NO₂ and as non-attainment for SO₂ and ozone.
8. Because a NO_x waiver did not apply to the ozone standard for which Lake County was non-attainment and NO_x is a pre-cursor for ozone, the non-attainment provisions of the Indiana SIP apply to major modifications with significant NO_x emission increases.
9. Because NO_x also contributes to ambient levels of NO₂ and Lake County, Indiana is attainment for NO₂, the PSD provisions of the Indiana SIP also apply to major modifications with significant NO_x emissions increases.

10. With regard to CO, PM₁₀, and NO₂ BP Whiting's failure to obtain a permit for this major modification meeting the PSD requirements in Indiana SIP Rule 326 IAC 2-2 is a violation of Indiana SIP Rule 326 IAC 2-1-03(c).
11. BP Whiting's failure to apply BACT to control emissions of CO, PM₁₀, and NO_x is a continuing violation of Indiana SIP Rule 326 ICA 2-2-3(2).
12. BP Whiting's failure to demonstrate that allowable emissions increases from this major modification will not cause or contribute to air pollution in violation of any ambient air quality standard or applicable maximum allowable increase over the baseline concentration in any area is a violation of Indiana SIP Rule 326 IAC 2-2-5.
13. With regard to SO₂ and NO_x, BP Whiting's failure to obtain a permit for this major modification meeting the nonattainment NSR requirements in Indiana SIP Rule 326 IAC 2-3 is a violation of Indiana SIP Rule 326 IAC 2-1-03(d).
14. BP Whiting's failure to apply controls achieving LAER for emissions of SO₂ and NO_x is a continuing violation of Indiana SIP Rule 326 ICA 2-3-3(a)(2).
15. BP Whiting's failure to offset emissions resulting from this major modification by reducing actual emissions of NO_x and SO₂ from an existing source or combination of existing sources is a violation of Indiana SIP Rule 326 IAC 2-3-3(a)(5).

Fuel Gas Combustion Devices

16. On October 5, 1988, BP Whiting increased the size of the knockout drum for its UIU Flare, thus increasing the capacity of the flare.
17. On October 15, 1989, BP Whiting increased the size of the knockout drum for its Alky Flare, thus increasing the capacity of the flare.
18. These projects to increase the capacity of the UIU and Alky Flares constitute modifications under the NSPS for Petroleum Refineries, making both of these fuel gas combustion devices subject to requirements in this rule.

19. BP Whiting has not installed instruments to continuously monitor the emissions of SO₂ into the atmosphere from these flares or instruments to monitor the H₂S concentration of the fuel gas combusted in these flares, in violation of the NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(3) or 40 C.F.R. § 60.105(a)(4).
20. BP Whiting has not conducted performance tests on the fuel gas combusted in the UIU or Alky Flares to demonstrate compliance with the H₂S concentration limit in 40 C.F.R. § 60.104(a)(1), in violation of the NSPS General Provisions at 40 C.F.R. § 60.8(a).
21. BP Whiting installed the DDU Flare in 1993, making it subject to the NSPS for Petroleum Refineries.
22. BP Whiting did not install an instrument to continuously monitor the H₂S concentration of the fuel gas combusted in the DDU Flare until January 15, 2005, in violation of the NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(4).
23. BP Whiting did not conduct a performance test on the fuel gas combusted in the DDU Flare to demonstrate compliance with the H₂S concentration limit at 40 C.F.R. § 60.104(a)(1) until January 15, 2005, in violation of the NSPS General Provisions at 40 C.F.R. § 60.8(a).
24. BP Whiting installed the LPG Flare in 1986, making it subject to the NSPS for Petroleum Refineries.
25. On January 25, 2005, BP Whiting received approval for an alternative monitoring plan that allowed BP Whiting to avoid installing an instrument to continuously monitor H₂S in the fuel gas combusted in the LPG flare or SO₂ emissions from the LPG flare. Until this alternative monitoring plan was approved, BP Whiting was in violation of the NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(3) or 40 C.F.R. § 60.105(a)(4).
26. BP Whiting has not conducted a performance test on the fuel gas combusted in the LPG Flare to demonstrate compliance with the H₂S concentration limit at 40 C.F.R. § 60.104(a)(1), in violation of the NSPS General Provisions at 40 C.F.R. § 60.8(a).
27. BP Whiting owns and operates a catalytic feed hydrotreating

unit, a catalytic refining unit, a sulfur recover plant mix drum, and catalytic reforming unit (Ultraformer 4) that combust fuel gas and are also subject to the H₂S in fuel gas concentration limit in the NSPS for Petroleum Refineries at 40 C.F.R. § 60.104(a)(1).

28. BP Whiting is required to continuously monitor and record the concentration of H₂S in the fuel gas combusted in the DDU Flare, the catalytic feed hydrotreating unit, the catalytic refining unit, the sulfur recovery plant mix drum, and Ultraformer 4.
29. On numerous occasions in the past five or more years, BP Whiting has recorded exceedances of the 230 mg/dscm H₂S concentration limit in the fuel gas combusted in the DDU Flare, the catalytic feed hydrotreating unit, the catalytic refining unit, the sulfur recover plant mix drum, and Ultraformer 4 in violation of the NSPS for Petroleum Refineries at 40 C.F.R. § 60.104(a)(1).
30. On numerous occasions in the past five or more years, BP Whiting has failed to monitor the H₂S concentration in fuel gas combusted in the DDU Flare, the catalytic feed hydrotreating unit, that catalytic refining unit, the sulfur recover plant mix drum, and Ultraformer 4, in violation of the NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(4).

Sulfur Recovery Plant

31. BP Whiting owns and operates a sulfur recovery plant that at times is controlled with an oxidation system or a reduction system followed by oxidation. During those times, the emissions from the sulfur recovery plant are subject to the SO₂ emission standard in the NSPS for Petroleum Refineries at 40 C.F.R. § 60.104(a)(2)(i).
32. BP Whiting owns and operates a sulfur recovery plant that at times is controlled with a reduction system not followed by oxidation. During those times, the emissions from the sulfur recovery plant are subject to the reduced sulfur emission standard in the NSPS for Petroleum Refineries at 40 C.F.R. § 60.104(a)(2)(ii).
33. BP Whiting is required to continuously monitor and record the emissions of SO₂ from its sulfur recovery plant when it

is controlled by an oxidation system or a reduction system followed by oxidation and reduced sulfur compound emissions when it is controlled by a reduction system not followed by oxidation..

34. On numerous occasions in the past five or more years, BP Whiting has recorded exceedances of the 250 ppmV SO₂ emission limit when the sulfur recovery plant was controlled with an oxidation system or reduction system followed by oxidation, in violation of the NSPS for Petroleum Refineries at 40 C.F.R. § 60.104(a)(2)(i).
35. On numerous occasions in the past five or more years, BP Whiting has failed to monitor and record SO₂ emissions when the sulfur recovery plant was controlled with an oxidation system or reduction system followed by oxidation, in violation of the NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(5).
36. On numerous occasions in the past five or more years, BP Whiting has recorded exceedances of the 300 ppmV reduced sulfur compound emission limit when the sulfur recovery plant was controlled with a reduction system not followed by oxidation, in violation of the NSPS for Petroleum Refineries at 40 C.F.R. § 60.104(a)(2)(ii).
37. On numerous occasions in the past five or more years, BP Whiting has failed to monitor and record reduced sulfur compound emissions when the sulfur recovery plant was controlled with a reduction system not followed by oxidation, in violation of the NSPS for Petroleum Refineries at 40 C.F.R. § 60.105(a)(6).

Ultraformers

38. After the compliance date of Refinery MACT II, BP Whiting has operated Ultraformers 3 and 4, which are catalytic reforming units subject to an inorganic HAP emission limit in Table 22 of Refinery MACT II.
39. BP Whiting chose to comply with the 10 ppmV HCl concentration limit located in Table 22 of Refinery MACT II.
40. BP Whiting failed to conduct performance testing and submit the results of the HCl emissions from Ultraformers 3 and 4

during both coke burn-off and catalyst rejuvenation cycle within 150 days of April 11, 2005, in violation of Refinery MACT II at 40 C.F.R. § 63.1571.

Title V

41. BP Whiting continuously violates Title V permitting requirements at Section 503 of the CAA and 40 C.F.R. Part 70, because it has yet to submit a complete application for a Title V operating permit for the Facility that identifies all applicable requirements, that accurately certifies compliance with such requirements, and that contains a compliance plan for all applicable requirements for which it is not in compliance.

Environmental Impact of Violations

1. Excess emissions of NO_x increase ground level concentrations of ozone and nitrogen dioxide, both of which can cause respiratory inflammation, increased difficulty breathing, and lung damage. NO_x emissions also contribute to acid rain, global warming, the formation of fine particles in the atmosphere, water quality deterioration, and visibility impairment.
2. Excess emissions of SO₂ increase the amount of acid rain and public exposure to unhealthy levels of SO₂. SO₂ reacts with other chemicals in the air to form tiny sulfate particles. Long term exposure to high levels of SO₂ gas and particles can cause respiratory illness, aggravate existing heart disease, and lead to premature death.
3. Excess emissions of CO increase public exposure to CO, which can enter the bloodstream reducing oxygen delivery and can aggravate cardiovascular disease.
4. Excess emissions of PM₁₀ increase public exposure to unhealthy fine particulate matter. Fine particulate matter contributes to respiratory problems, lung damage, and premature deaths.

5. Violations of HAP standards may cause serious health effects including birth defects and cancer. HAPs may also cause harmful environmental and ecological effects.

11/29/07
Date

Stephen Rothblatt
Stephen Rothblatt, Director
Air and Radiation Division

CERTIFICATE OF MAILING

I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-08-IN-01 , by Certified Mail, Return Receipt Requested, to:

Daniel Sajkowski, Business Unit Leader
BP Products North America, Inc.
2815 Indianapolis Boulevard
Whiting, Indiana 46394

I also certify that I sent copies of the Finding of Violation and Notice of Violation by first class mail to:

Craig Henry, Chief
Office of Enforcement Air Section
Indiana Department of Environmental Management
100 North Senate Avenue, Room 1001
Indianapolis, Indiana 46206-6015

on the 29th day of November, 2007.

Betty Williams
Betty Williams, Secretary
AECAS, (IL/IN)

CERTIFIED MAIL RECEIPT NUMBER: Hand Delivered