UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA Plaintiff, and SIERRA CLUB Intervenor-Plaintiff, v. DTE ENERGY COMPANY, and DETROIT EDISON COMPANY, Defendants.	Case No. 2:10-cv-13101-BAF-RSW Honorable Bernard A. Friedman Magistrate Judge R. Steven Whalen **SIERRA CLUB'S FIRST AMENDED COMPLAINT**

INTRODUCTION

1. Intervenor-Plaintiff Sierra Club brings this civil action against DTE Energy Co. and Detroit Edison Co. (collectively "Defendants" or "DTE"), for violations of the Clean Air Act, 42 U.S.C. §§ 7401 *et seq.*, at the Belle River Power Plant in East China, Michigan; the Monroe Power Plant in Monroe, Michigan; and the Trenton Channel Power Plant in Trenton, Michigan. Pursuant to Section 304(b)(1)(B) of the Clean Air Act ("CAA" or "the Act"), 42 USC § 7604(b)(1)(B), the Sierra Club seeks injunctive relief and the assessment of civil penalties for violations of: (a) the Prevention of Significant Deterioration ("PSD")

provisions of the Act, 42 U.S.C. §§ 7470-7492; (b) the nonattainment New Source Review ("NNSR") provisions of the Act, 42 U.S.C. §§ 7501-7515; (c) applicable federal PSD and Nonattainment NSR regulations; and (d) the State Implementation Plan ("SIP") adopted by the State of Michigan and approved by the United States Environmental Protection Agency ("EPA") pursuant to Section 110 of the Act, 42 U.S.C. § 7410.

2. DTE has performed major modifications at Belle River Units 1-2, Monroe Unit 2, and Trenton Channel Unit 9 (collectively "Modified Units") without obtaining appropriate permit(s) authorizing the multi-million dollar modifications and without installing and employing the best available control technology ("BACT") or achieving the lowest achievable emissions rate ("LAER") to control emissions of sulfur dioxide ("SO_2") and nitrogen oxides ("NO_x"), as required by the Act.

3. As a result of DTE's operation of the Modified Units following the unlawful modifications, thousands of tons of SO_2, NO_x, and related pollution have been and continue to be released into the atmosphere. SO_2 and NO_x can combine with other elements in the air to form particulate matter known as $PM_{2.5}$. These pollutants cause harm to human health and the environment once emitted into the air, including premature death, heart attacks, and respiratory problems.

JURISDICTION AND VENUE

4. This Court has jurisdiction over this action pursuant to 42 U.S.C. §§ 7413(b) and 7477, and 28 U.S.C. §§ 1331, 1345, and 1355.

5. This Court has jurisdiction over the Sierra Club's claims pursuant to 42 U.S.C. §§ 7604(a)(3) and (b)(1)(B).

6. Venue is proper in this district pursuant to Section 113(b) of the Act, 42 U.S.C.§ 7413(b), and 28 U.S.C. §§ 1391(b) and (c) and 1395(a), because the violations occurred and are occurring in this district, the facilities at issue are operated by defendants in this district, and defendants reside in the district.

NOTICES

7. EPA issued DTE notices of violation on July 24, 2009, June 4, 2010, and March 12, 2013. EPA provided a copies of these notices to the State of Michigan, as required by Section 113(a)(1) and (b)(1) of the Act, 42 U.S.C. §7413(a)(1).

8. The 30-day period established in 42 U.S.C. § 7413 between issuance of the notices of violation and commencement of this action has elapsed.

AUTHORITY

9. On August 5, 2010, EPA brought a civil action against DTE alleging violations of the CAA. Doc. 1. EPA moved to amend its complaint on September 3, 2013. Doc. 184.

10. Sierra Club brings this amended complaint pursuant to 42 U.S.C. § 7604(b)(1)(B), which provides citizen plaintiffs a right of intervention when the EPA or a state has commenced a CAA enforcement action for claims that could otherwise be brought under 42 U.S.C. § 7604(a)(1), and/or under 42 U.S.C. § 7604(a)(3), which authorizes citizen plaintiffs to commence a civil action against any person who constructs a modified major emitting facility without the requisite permit.

PARTIES

11. Defendant DTE Energy Co. is a Michigan Corporation with its principal place of business at One Energy Plaza, Detroit, Michigan. Defendant Detroit Edison Co., on information and belief now known as DTE Electric Co., is a Michigan corporation with the same place of business as DTE Energy Co. Detroit Edison Co. is a wholly owned subsidiary of DTE Energy Co.

12. Detroit Edison Co. owns and operates the Belle River Power Plant, Monroe Power Plant, and Trenton Channel Power Plant (collectively "Complaint

Plants"). Upon information and belief, DTE Energy Co. is an operator of the Complaint Plants, because, among other things, DTE Energy Co. employees make decisions involving construction and environmental matters at the plants. In addition, as Detroit Edison's parent company, DTE Energy Co. must approve major capital expenditures at the plants, such as the installation of pollution controls or the modification work at issue here.

13. Each defendant is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

14. The Government Plaintiff in this action is the United States of America, by authority of the Attorney General of the United States, acting at the request of the EPA Administrator.

15. Intervenor-Plaintiff is the Sierra Club, the nation's oldest and largest grassroots environmental organization. Sierra Club is an incorporated, not-for-profit organization. Its headquarters is located at 85 Second Street, 2nd Floor, San Francisco, CA, 94105, and its Michigan Chapter office is located at 109 E. Grand River Avenue, Lansing, MI 48906. Sierra Club's mission is to preserve, protect, and enhance the natural environment. Sierra Club has approximately 598,000 members, with approximately 16,500 members in Michigan where the DTE plants

are located. Since 1892, the Sierra Club has been working to protect communities, wild places, and the planet itself.

16. Sierra Club has members and supporters who live, work, and recreate near the Complaint Plants, and consequently breathe, use, and enjoy the ambient air in those areas. Its members' use and enjoyment of the air is impaired by pollution in excess of legal limitations and the impact of that air pollution on public health and visibility. The Complaint Plants emit SO_2, NOx, PM, and other pollutants that exacerbate air pollution in the areas around and downwind of those plants. This pollution from the Complaint Plants harms the health, recreational, and aesthetic interests of Sierra Club's members.

STATUTORY FRAMEWORK

17. Congress enacted the CAA "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. § 7401(b)(1).

18. Pursuant to Section 109 of the Act, the EPA Administrator has established primary and secondary National Ambient Air Quality Standards ("NAAQS") for seven "criteria pollutants." *See* 42 U.S.C. § 7409(a) (requiring the Administrator to promulgate NAAQS); 40 C.F.R. Part 50 (listing NAAQS). The primary NAAQS must protect the public health with an adequate margin of safety,

and the secondary NAAQS must protect the public welfare from any known or anticipated adverse effects associated with the air pollutant. 42 U.S.C. § 7609(b).

19. Particulate matter with a diameter less than or equal to 10 microns ("PM_{10}"), particulate matter with a diameter less than or equal to 2.5 microns ("$PM_{2.5}$"), nitrogen oxides ("NO_x"), and sulfur dioxide ("SO_2") are among the seven criteria pollutants for which NAAQS have been promulgated. *See* 42 U.S.C. § 7409(a); 40 C.F.R. Part 50 (listing NAAQS).

20. Under Section 107(d) of the Act, 42 U.S.C. § 7407(d), each state must designate areas within it based on their compliance with the NAAQS. An area that meets NAAQS for a particular pollutant is an "attainment" area. An area that does not meet the NAAQS is a "nonattainment" area. An area that cannot be classified due to insufficient data is "unclassifiable." These designations are subject to EPA approval.

21. DTE's Belle River Power Plant is located in St. Clair County, Michigan. At all times relevant to this amended complaint, St. Clair County has been classified as in attainment or unclassifiable for SO_2 and NO_X, among other pollutants. From April 5, 2005 to the present, St. Clair County has been classified as nonattainment for $PM_{2.5}$. From June 15, 2004 to June 29, 2009, St. Clair County was classified as nonattainment for ozone.

22. DTE's Monroe Power Plant is located in Monroe County, Michigan. At all times relevant to this amended complaint, Monroe County has been classified as in attainment or unclassifiable for SO_2 and NO_X, among other pollutants. From April 5, 2005 to the present, Monroe County has been classified as nonattainment for $PM_{2.5}$. From June 15, 2004 to June 29, 2009, Monroe County was classified as nonattainment for ozone.

23. DTE's Trenton Channel Power Plant is located in Wayne County, Michigan. At all times relevant to this amended complaint, Wayne County has been classified as in attainment or unclassifiable for SO_2 and NO_X, among other pollutants. From April 5, 2005 to the present, Wayne County has been classified as nonattainment for $PM_{2.5}$. From April 15, 1991 to September 4, 1996, the portion of Wayne County in which Trenton Channel is located was classified as nonattainment for PM_{10}. From 1978 until April 6, 1995 and from June 15, 2004 to June 29, 2009, Wayne County was classified as nonattainment for ozone.

24. In order to ensure compliance with the NAAQS, the CAA requires each state to prepare a State Implementation Plan ("SIP") for EPA approval. 42 U.S.C. § 7410(a). Under Section 110(a)(2) of the CAA, 42 USC § 7410(a)(2), each SIP must include a permit program to regulate the modification and construction of any stationary source of air pollution as necessary to assure that

NAAQS are achieved. Upon EPA approval, the provisions of a SIP are federally enforceable. 42 U.S.C. §§ 7413(a), (b); 40 C.F.R. § 52.23.

Prevention of Significant Deterioration Requirements

25. Part C of Title I of the Act, 42 U.S.C. §§ 7470-7492, sets forth the requirements for the prevention of significant deterioration of air quality in those areas designated as either in attainment or unclassifiable for the purpose of maintaining the NAAQS. These requirements are designed to protect the public's health and welfare, assure that economic growth will occur in a manner consistent with the preservation of existing clean air resources, and provide that any consequences of such a decision occur after public participation in the decision-making process. These provisions are referred to herein as the "PSD program."

26. Pursuant to CAA Section 110, 42 U.S.C. §7410, each state must adopt and submit to the EPA for approval a SIP that includes, among other things, regulations to prevent the significant deterioration of air quality under CAA Sections 161-165, 42 U.S.C. §§ 7471-7475.

27. A state may comply with Section 161 of the Act by submitting its own PSD regulations to EPA for approval as part of its SIP. Those regulations must be at least as stringent as those set forth at 40 C.F. R. § 51.166.

28. If a state does not have a PSD program that has been approved by EPA and incorporated into the SIP, then the federal PSD regulations set forth at 40 C.F.R. § 52.21 shall be incorporated by reference into the SIP. 40 C.F.R. § 52.21(a).

29. On August 7, 1980, EPA incorporated 40 C.F.R. § 52.21(b)-(w) by reference into the Michigan SIP. 45 Fed. Reg. 52,741. From that time until September 16, 2008, the federal PSD regulations at 40 C.F.R. § 52.21 governed PSD in Michigan. On September 16, 2008, EPA conditionally approved Michigan's PSD SIP provisions. 73 Fed. Reg. 53,366. On March 25, 2010, EPA fully approved Michigan's PSD SIP provisions. 75 Fed. Reg. 14,352. The Michigan PSD SIP provisions are codified at Mich. Admin. Code R. 336.2801 *et seq.* The Michigan SIP adopts by reference several sets of EPA regulations, including 40 C.F.R. § 52.21. Mich. Admin. Code R. 336.2801(a).

30. Section 165(a) of the Act, 42 U.S.C. § 7475(a), among other things, prohibits the construction and operation of a "major emitting facility" in an area designated as attainment unless a permit has been issued that comports with the requirements of Section 165 and the facility employs BACT for each pollutant subject to regulation under the Act that is emitted from the facility. Section 169(1) of the Act, 42 U.S.C. § 7479(1), designates fossil fuel fired steam electric power

plants of more than two hundred and fifty million British thermal units ("BTUs") per hour heat input and that emit or have the potential to emit one hundred tons per year or more of any pollutant to be "major emitting facilities." Under the PSD program, a "major stationary source" is defined to include fossil fueled steam electric generating plants of more than 250 million BTUs per hour heat input that emit, or have the potential to emit, one hundred tons per year or more of any regulated air pollutant. 40 C.F.R. § 51.166(b)(1)(i)(a)

31. Section 169(2)(c) of the Act, 42 U.S.C. § 7479(2)(c), defines "construction" as including "modification" (as defined in Section 111(a) of the Act). "Modification" is defined in Section 111(a) of the Act, 42 U.S.C. § 7411(a), to be "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted."

32. "Major modification" is defined at 40 C.F.R. § 52.21(b)(2)(i) as "any physical change in or change in method of operation of a major stationary source that would result in" a significant emissions increase and a significant net emissions increase of a regulated pollutant.

33. A "significant emissions increase" occurs when the difference between "baseline actual emissions" before the physical change, as defined by 40

C.F.R. § 52.21(b)(48)(i), and "projected actual emissions" for the period after the physical change, as defined by 40 C.F.R. § 52.21(b)(41), exceeds the significance threshold for the pollutant at issue. 40 C.F.R. § 52.21(a)(2)(iv)(c). A "net emissions increase" is the difference between the emissions increase calculated as required by 40 C.F.R. § 51.21(a)(2)(iv)(c) and any other increases or decreases allowed in the netting process under 40 C.F.R. § 52.21(b)(3). Such an increase is "significant" if it exceeds the significance threshold for the pollutant at issue. The relevant significance thresholds in this case are: 40 tons per year of SO_2; 40 tons per year of NO_x; or 25 tons per year of PM. 40 C.F.R. § 52.21(b)(23)(i). Effective July 15, 2008, SO_2 is regulated as a precursor to $PM_{2.5}$. 73 Fed. Reg. 28,321, 28,327-28 (May 16, 2008).

34. A "major modification" also occurs where actual emissions data after the completion of the physical change shows a net emissions increase and a significant net emissions increase. 40 C.F.R. § 52.21(a)(2)(iv)(b); 57 Fed. Reg. 32,314, 32,325.

35. As set forth at 42 U.S.C. § 7475(a)(4) and 40 C.F.R. § 52.21(j), a source with a major modification in an attainment or unclassifiable area must install and operate BACT, as defined in 42 U.S.C. § 7475(a)(4); Mich. Admin. Code R. 336.2802(3), 336.2810. The relevant law defines BACT, in pertinent part,

as "an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility. . ." Section 169(3) of the Act, 42 U.S.C. § 7479(3); Mich. Admin. Code R. 336.2801(f).

36. The PSD program also requires any person who elects to modify a major source in an attainment area to demonstrate, before construction begins, that the construction will not cause or contribute to air pollution that is in violation of any national ambient air quality standard or the maximum allowable increase in emissions of that pollutant. 40 C.F.R. § 52.21(k).

37. In addition, the owner or operator of a proposed source or modification must submit all additional information about the source, the modification and the air quality impact of the modification as requested by EPA under 40 C.F.R. § 52.21(n). Though PSD is a preconstruction permitting program, the Clean Air Act, federal implementing regulations, and the Michigan SIP establish requirements for the lawful operation of the source following a modification.

Nonattainment New Source Review Requirements

38. Part D of Title I of the Act, 42 U.S.C. §§ 7501-7515, sets forth provisions for New Source Review requirements for areas designated as being in nonattainment with the NAAQS standards. These provisions are referred to collectively as the "Nonattainment NSR program." The Nonattainment NSR program is intended to reduce emissions of air pollutants in areas that have not attained the NAAQS, so that the areas make progress toward meeting the NAAQS.

39. Under Section 172(c)(5) of the Nonattainment NSR provisions of the Act, 42 U.S.C. § 7502(c)(5), each state is required to adopt Nonattainment NSR SIP rules that include provisions requiring permits to conform to the requirements of Section 173 of the Act, 42 U.S.C. § 7503, for the construction and operation of modified major stationary sources within nonattainment areas. Section 173 of the Act, in turn, sets forth a series of minimum requirements for the issuance of permits for major modifications to major stationary sources within nonattainment areas. 42 U.S.C. § 7503.

40. By rule, EPA regulates SO_2 as a precursor to $PM_{2.5}$. 73 Fed. Reg. 28,321 (May 16, 2008). Until EPA approves Michigan SIP provisions related to $PM_{2.5}$, 40 C.F.R. § 51 Appendix S applies to areas of $PM_{2.5}$ nonattainment. 73 Fed. Reg. 28,321, 28,343 (May 16, 2008). Michigan has submitted for EPA's review

and approval revised Nonattainment NSR provisions that include regulation of $PM_{2.5}$ precursors. If those provisions are approved, they will become federally enforceable at that time. 42 U.S.C. §§ 7413(a), (b); 40 C.F.R. § 52.23.

41. From April 5, 2005 through the present, the Belle River, Monroe, and Trenton Channel power plants have been located in areas designated as non-attainment for $PM_{2.5}$. 70 Fed. Reg. 944.

42. Section 173(a) of the Act, 42 U.S.C. 7503(a), 40 C.F.R. § 51 Appendix S, and Mich. Admin. Code R. 336.2908 provide that construction and operating permits may be issued, if, among other things: "(a) sufficient offsetting emission reductions have been obtained to reduce existing emissions to the point where reasonable further progress towards meeting the national ambient air quality standards is maintained; and (b) the pollution controls to be employed will reduce emissions to the 'lowest achievable emission rate.'"

43. "Major modification" is defined in 40 C.F.R. § 51 Appendix S and Mich. Admin. Code R. 336.2901(s) as any physical change or change in the method of operation that results in both a significant increase and a significant net increase of a regulated NSR pollutant for a major stationary source.

44. "Net emissions increase" means the amount by which the sum of the following exceeds zero: (a) any increase in actual emissions from a particular

physical change or change in the method of operation at a stationary source; and (b) any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable as calculated under the applicable rules. 40 C.F.R. § 51 Appendix S; Mich. Admin. Code R. 336.2901(v). A "significant" net emissions increase means an increase in the rate of emissions that would equal or exceed any of the following rates for the following pollutants: 40 tons per year of SO_2; 40 tons per year of NO_x; and 25 tons per year of PM. 40 C.F.R. § 51 Appendix S; Mich. Admin. Code R. 336.2901(gg).

45. A "major modification" also occurs where actual emissions data after the completion of the physical change shows a net emissions increase and a significant net emissions increase. 40 C.F.R. § 51 Appendix S(IV)(I)(1); 57 Fed. Reg. 32,314, 32,325.

46. The relevant law defines LAER as "the most stringent emissions limitation which is contained in [any SIP] for such class or category of sources, unless....the proposed source demonstrates that such limitations are not achievable, or...which is achieved in practice by such class or category of course, whichever is more stringent." 42 U.S.C. § 7501(3); Mich. Admin. Code R. 336.2901(r).

47. Though Nonattainment NSR is a preconstruction permitting program, the Clean Air Act, the implementing regulations, and the Michigan Nonattainment

NSR rules establish requirements for the lawful operation of the source following a modification.

New Source Review Reporting Requirements

48. The federal regulations and Michigan SIP require sources to assess NSR applicability before undergoing a physical or operational change, and maintain and report certain information where there is a "reasonable possibility" that a change may quality as a major modification. 40 C.F.R. § 52.21(r)(6); Mich. Admin. Code R. 336.2818(3). Under the rules, a reasonable possibility exists where the projected emissions increase – though below the significance level for immediately triggering NSR – is at least 50% of the significance level (without accounting for the ability to exclude certain aspects of the emissions increase). 40 C.F.R. § 52.21(r)(6)(vi); Mich. Admin. Code R. 336.2818(3)(f). For an electric utility, where there is such a reasonable possibility that the project will trigger NSR, the source is required to maintain information related to its preconstruction analysis, including the basis for any emissions excluded from the calculated emissions increase. 40 C.F.R. § 52.21(r)(6)(i); Mich. Admin. Code R. 336.2818(3)(a), 336.2902(6)(a). After any project for which there is a "reasonable possibility" of qualifying as a major modification, sources must monitor their pollution and sources like those at issue here must report those emissions to the

relevant permitting authority. 40 C.F.R. § 52.21(r)(6)(iii)-(iv); Mich. Admin. Code R. 336.2818(3)(a), 226.2902(6)(a). If such actual post-change emissions data shows a net emissions increase and a significant net emissions increase, NSR is triggered notwithstanding the original projection. 40 C.F.R. § 52.21(a)(2)(iv)(b); 57 Fed. Reg. 32,214, 32,325.

ENFORCEMENT PROVISIONS

49. Sections 113(a)(1) and (3) of the Act, 42 U.S.C. §§ 7413(a)(1) and (3), provide that the Administrator may bring a civil action in accordance with Section 113(b) of the Act whenever, on the basis of any information available, the Administrator finds that any person has violated or is in violation of any other requirement or prohibition of, among other things: (1) the PSD requirements of Section 165(a) of the Act, 42 U.S.C. § 7475(a); (2) the Nonattainment NSR requirements of Section 173 of the Act, 42 U.S.C. § 7503; (3) or the Michigan SIP.

50. Section 113(b) of the Act, 42 U.S.C. § 7413(b), authorizes the Administrator to initiate a judicial enforcement action for a permanent or temporary injunction and/or for a civil penalty of up to $25,000 per day for each violation occurring on or before January 31, 1997; up to $27,000 per day for each such violation occurring on or after January 31, 1997; up to and including March 15, 2004; up to $32,500 per day for each such violation occurring on or after

March 16, 2004 and up to and including January 12, 2009; and up to $37,500 per day for each violation occurring after January 13, 2009 pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701, and 40 C.F.R. § 19.4, against any person whenever such person has violated, or is in violation of, the requirements or prohibitions described in the preceding paragraph.

51. 40 C.F.R. § 52.23 provides, *inter alia*, that any failure by a person to comply with any provision of 40 C.F.R. Part 52, or with any approved regulatory provision of a SIP, shall render such person in violation of the applicable SIP, and subject to enforcement action pursuant to Section 113 of the Act, 42 U.S.C. § 7413.

DTE'S POWER PLANTS

Belle River Power Plant

52. The Belle River Power Plant consists of two units of approximately 670 MW (gross) each that began operating in 1984 and 1985. The plant is located in East China, Michigan, on the shore of the Belle River and approximately 50 miles northeast of Detroit.

53. Both Belle River Units 1 and 2 are electric steam generating units as that term is used in the Act and the Michigan SIP.

Monroe Power Plant

54. The Monroe Power Plant consists of four units of about 820 MW (gross) each that began operating in the early 1970s. The plant is located in Monroe, Michigan, on the western shore of Lake Erie and approximately 40 miles southwest of Detroit.

55. Each of Monroe Units 1-4 is an electric steam generating unit as that term is used in the Act and the Michigan SIP.

Trenton Channel Power Plant

56. The Trenton Channel Power Plant has five boiler units: four small units of about 60 MW each and one larger unit of about 540 MW (gross). The smaller units are known as units 16-19 and began operation in 1949 and 1950. The larger unit is known as Trenton Channel 9 and began operation in 1968. The plant is located in Trenton, Michigan, next to Slocum's Island in the Detroit River and about 20 miles southwest of Detroit.

57. Each of the Trenton Channel Units 9 and 16 through 19 is an electronic steam generating unit as that term is used in the Act and the Michigan SIP.

Pollution

58. Based on data reported by DTE to EPA, each of the Modified Units is one of the largest sources of air pollution in the state of Michigan.

59. The Modified Units reported the following SO_2 emissions in 2011 and 2012:

Complaint Unit	**2011 SO_2 emissions**	**2012 SO_2 emissions**	**Rank in 2012 Top 10 of Michigan SO_2 Sources**
Belle River 1	10,845	13,127	4
Belle River 2	14,988	11,741	6
Monroe 2	23,719	22,859	2
Trenton Channel 9	16,421	16,999	3

60. The Modified Units reported the following NO_X emissions in 2011 and 2012:

Complaint Unit	**2011 NO_X emissions**	**2012 NO_X emissions**	**Rank in 2012 Top 10 of Michigan NO_X Sources**
Belle River 1	3,594	4,731	3
Belle River 2	5,093	3,694	4
Monroe 2	6,494	5,393	1
Trenton Channel 9	2,453	2,442	6

GENERAL ALLEGATIONS

61. At all times relevant to this amended complaint, DTE was the owner or operator of the Complaint Plants and continues to be the owner and/or operator of the Complaint Plants.

62. At all times relevant to this amended complaint, each of the Complaint Plants has had the potential to emit more than 100 tons per year of pollutants subject to regulation under the Act, including, but not limited to, NO_X and SO_2.

63. At all times relevant to this amended complaint, each of the Complaint Plants was and is a fossil-fuel-fired steam electric plant of more than 250 million British thermal units (BTU) per hour heat input.

64. At all times relevant to this civil action, each of the Complaint Plants and each of the Modified Units individually was a "major emitting facility" and a "major stationary source," within the meaning of the Act and the Michigan SIP for NO_X, SO_2, and PM.

65. Each of the Modified Units is a coal-fired electric generating unit. Coal-fired units include boilers that burn coal to generate heat that converts water into steam. Hot gases from burning coal flow through duct work and pass across a series of major components in the unit, which heat water into steam and ultimately

pass the high-temperature, high-pressure seam through steel tubes in the components to turbines that spin a generator to produce electricity. The tubes in the boiler are grouped into boiler tube components, which consist of massive arrays of large steel tubes. Combustion gas exiting the boiler is used to preheat the air entering the boiler through the use of an air preheater, a series of enormous baskets with corrugated metal heat exchanging surface. The air preheater and boiler tube components can weigh many tons and cost millions of dollars to replace. Major components of a coal-fired boiler include the superheater, economizer, reheater, waterwalls, coal burners, and air heaters, among others.

66. When a major component in a coal-fired electric unit breaks down, such as one of the components replaced by DTE, it causes the unit to be taken out of service for repairs – an event known as a "forced outage." A deteriorated major component can cause increasing numbers of forced outages, as well as maintenance and scheduled outages needed to maintain the worn-out equipment, preventing the unit from generating electricity when it is needed.

67. By replacing the worn-out component that is causing the outages, a utility improves the unit's availability to operate more hours in a year. At the Modified Units, the newly available hours of operation enabled by the project would be expected to be used to generate electricity. These additional hours of

operation translate into increased amounts of coal burned in the unit and more annual pollution emitted from the unit's smokestack into the atmosphere.

68. In addition to improving the availability of a coal-fired generating unit, replacing deteriorated components with new, improved components, can also increase the capacity of the new boiler and the amount of coal burned and resultant pollution emitted during each hour of the unit's operation. Even if a project does not increase the amount of coal burned per hour, an improved component can result in a unit being operated during more hours, which in turn can lead to increases in coal burned at the unit and NO_X, SO_2, and other pollutants emitted from the unit's smokestack on an annual basis.

FIRST CLAIM FOR RELIEF
(PSD Violations at Monroe Unit 2)

69. Paragraphs 1 through 68 are realleged and incorporated herein by reference.

70. From approximately March through June 2010, DTE began actual construction and operation of a "major modification," as defined in the CAA, federal regulations, and Michigan SIP, on Monroe Unit 2. This major modification included one or more physical changes and/or changes in the method of operation at Monroe Unit 2, including, but not limited to: replacement of the high temperature reheater, replacement of the economizer, replacement of the exciter,

and replacement of waterwalls. These activities involved physical changes and or changes in the method of operation that constitute a single, multi-million dollar modification as described in the notices of violation dated July 24, 2009 and March 13, 2013 and in DTE's outage notification letter to the Michigan Department of Environmental Quality dated March 12, 2010. These physical changes and/or changes in the method of operation should have been expected to and/or actually did result in a significant net emissions increase of NO_X and/or SO_2, as defined in the federal regulations and/or the Michigan SIP, by enabling and causing Monroe Unit 2 to burn more coal and release greater amounts of NO_X and/or SO_2 in the atmosphere on an annual basis.

71. DTE did not comply with the PSD requirements in the CAA and the Michigan SIP with respect to this major modification and subsequent operations at Monroe Unit 2. Among other things, DTE: (a) undertook such major modification without first obtaining a PSD permit for the construction and operation of the modified unit; (b) undertook such major modification without undergoing a BACT determination in connection with the major modification; (c) undertook such major modification without installing BACT for the control of NO_X and/or SO_2 emissions; (d) failed to operate BACT for control of NO_X and/or SO_2 emissions pursuant to a BACT determination; (e) failed to operate in compliance with BACT

emission limitations, including limitations that are no less stringent than applicable standard under CAA Section 111; (f) operated the unit after undergoing an unpermitted major modification; (g) violated the applicable NSR regulations for projecting and/or monitoring emissions by using an improper baseline period in their analysis and/or submitting projections contradicted by DTE's internal analysis; and (h) violated the applicable NSR regulations for projecting and/or monitoring emissions by improperly relying on the demand growth exclusion without documenting or maintaining any explanation for why such emissions should be excluded from its applicability analysis.

72. DTE has violated and continues to violate Section 165(a) of the Act, 42 U.S.C. § 7475(a), the federal PSD regulations, and/or the Michigan SIP. Unless restrained by an order of this Court, these violations will continue.

73. As provided in Section 113(b) of the Act, 42 U.S.C. § 7413(b), the violations set forth above subject DTE to injunctive relief and/or a civil penalty of up to $37,500 per day for each such violation occurring on or after January 13, 2009 pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701.

SECOND CLAIM FOR RELIEF
(Nonattainment NSR Violations at Monroe Unit 2)

74. Paragraphs 1 through 73 are realleged and incorporated herein by reference.

75. From approximately March through June 2010, DTE commenced construction of a major modification, as defined by the Act, federal regulations, and the Michigan SIP, that included the overhaul work described above. This major modification included one or more physical changes or changes in the method of operation at Monroe Unit 2. This major modification resulted in a significant net emissions increase, as defined by the relevant Nonattainment NSR regulations, of the pollutant SO_2. Under the applicable Nonattainment NSR rules, DTE is required to comply with Nonattainment NSR for SO_2 because it is a precursor to $PM_{2.5}$, and Monroe County is in nonattainment for $PM_{2.5}$.

76. DTE did not comply with the applicable Nonattainment NSR requirements under the Act and the implementing regulations with respect to the major modification and subsequent operations at Monroe Unit 2. Among other things, DTE: (a) undertook such major modification without first obtaining a Nonattainment NSR permit for the construction and operation of the modified unit; (b) undertook such major modification without undergoing a LAER determination in connection with the major modifications; (c) undertook such

major modification without installing LAER for control of SO_2 emissions; (d) failed to operate LAER for control of SO_2 emissions pursuant to a LAER determination; (e) failed to operate in compliance with LAER emission limitation; (f) failed to obtain the required pollution offsets; (g) operated the unit after undergoing an unpermitted major modification; (h) violated the applicable NSR regulations for projecting and/or monitoring emissions by using improper baseline periods in their analysis and/or submitting projections contradicted by DTE's internal analyses; and (i) violated the applicable NSR regulations for projecting and/or monitoring emissions by improperly relying on the demand growth exclusion without documenting or maintaining any explanation for why such emissions should be excluded from its applicability analysis.

77. DTE has violated and continues to violate the Nonattainment NSR provisions of Part D of Title I of the Act, 42 U.S.C. §§ 7501-7515, and the implementing regulations. Unless retrained by an order of this Court, these and similar violations of the Act will continue.

78. As provided in Section 113(b) of the Act, 42 U.S.C. § 7413(b), the violations set forth above subject DTE to injunctive relief and civil penalties of up to $37,500, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701.

THIRD CLAIM FOR RELIEF
(PSD Violations at Belle River Unit 1)

79. Paragraphs 1 through 78 are realleged and incorporated herein by reference.

80. From approximately September through December 2008, DTE began actual construction and operation of a "major modification," as defined in the CAA, federal regulations, and Michigan SIP, on Belle River Unit 1. This major modification included one or more physical changes and/or changes in the method of operation at Belle River Unit 1, including, but not limited to: replacement of the distributed control system, replacement of waterwalls, replacement of burners, and replacement of static exciter. These activities involved physical changes and/or changes in the method of operation that constitute a single, multi-million dollar modification as described in the notice of violation dated March 13, 2013 and in DTE's outage notification letter to the Michigan Department of Environmental Quality dated September 11, 2008. These physical changes and/or changes in the method of operation should have been expected to and/or actually did result in a significant net emissions increase of NO_X and/or SO_2, as defined in the federal regulations and/or the Michigan SIP by enabling and causing Belle River Unit 1 to burn more coal and release greater amounts of NO_X and/or SO_2 into the atmosphere on an annual basis.

81. DTE did not comply with the PSD requirements in the CAA and the Michigan SIP with respect to the major modification and subsequent operations at Belle River Unit 1. Among other things, DTE: (a) undertook such major modification without first obtaining a PSD permit for the construction and operation of the modified unit; (b) undertook such major modification without undergoing a BACT determination in connection with the major modification; (c) undertook such major modification without installing BACT for the control of NO_X and/or SO_2 emissions; (d) failed to operate BACT for control of NO_X and/or SO_2 emissions pursuant to a BACT determination; (e) failed to operate in compliance with BACT emission limitations, including limitations that are no less stringent than applicable standard under CAA Section 111; (f) operated the unit after undergoing an unpermitted major modification; (g) violated the applicable NSR regulations for projecting and/or monitoring emissions by using improper baseline period in their analysis and/or submitting projections contradicted by DTE's internal analysis; and (h) violated the applicable NSR regulations for projecting and/or monitoring emissions by improperly relying on the demand growth exclusion without documenting or maintaining any explanation for why such emissions should be excluded from its applicability analysis.

82. DTE has violated and continues to violate Section 165(a) of the Act, 42 U.S.C. § 7475(a), the federal PSD regulations, and/or the Michigan SIP. Unless restrained by an order of this Court, these violations will continue.

83. As provided in Section 113(b) of the Act, 42 U.S.C. § 7413(b), and Section 167 of the Act, 42 U.S.C. § 7477, the violations set forth above subject DTE to injunctive relief and/or a civil penalty of up to $32,500 per day for each such violation occurring on or after March 16, 2004 and up to and including January 12, 2009, and up to $37,500 per day for each such violation occurring on or after January 13, 2009 pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3101, and 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Nonattainment NSR Violations at Belle River Unit 1)

84. Paragraphs 1 through 83 are realleged and incorporated herein by reference.

85. From approximately September through December 2009, Defendants commenced construction of a major modification, as defined by the Act, federal regulations, and the Michigan SIP, that included the overhaul work described above. This major modification included one or more physical changes or changes in the method of operation at Belle River Unit 1. This major modification resulted

in a significant net emissions increase, as defined by the relevant Nonattainment NSR regulations, of the pollutant SO_2. Under the applicable Nonattainment NSR rules, DTE is required to comply with Nonattainment NSR for SO_2 because it is a precursor to $PM_{2.5}$, and St. Clair County is in nonattainment for $PM_{2.5}$.

86. DTE did not comply with the applicable Nonattainment NSR requirements under the Act and the implementing regulations with respect to the major modification and subsequent operations at Belle River Unit 1. Among other things, DTE: (a) undertook such major modification without first obtaining a Nonattainment NSR permit for the construction and operation of the modified unit; (b) undertook such major modification without undergoing a LAER determination in connection with the major modification; (c) undertook such major modification without installing LAER for control of SO_2 emissions; (d) failed to operate LAER for control of SO_2 emissions pursuant to a LAER determination; (e) failed to operate in compliance with LAER emission limitation; (f) failed to obtain the required pollution offsets; (g) operated the unit after undergoing an unpermitted major modification; (h) violated the applicable NSR regulations for projecting and/or monitoring emissions by using improper baseline periods in their analysis and/or submitting projections contradicted by DTE's internal analyses; and (i) violated the applicable NSR regulations for projecting and/or monitoring emissions

by improperly relying on the demand growth exclusion without documenting or maintaining any explanation for why such emissions should be excluded from its applicability analysis.

87. DTE has violated and continues to violate the Nonattainment NSR provisions of Part D of Title I of the Act, 42 U.S.C. §§ 7501-7515, and the implementing regulations. Unless retrained by an order of this Court, these and similar violations of the Act will continue.

88. As provided in Section 113(b) of the Act, 42 U.S.C. § 7413(b), the violations set forth above subject DTE to injunctive relief and civil penalties of up to $32,000 per day for each such violation occurring on or after March 16, 2004 and up to and including January 21, 2009; and up to $37,500 per day for each such violation occurring on or after January 13, 2009 pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701, and 40 C.F.R. § 19.4.

FIFTH CLAIM FOR RELIEF
(PSD Violations at Belle River Unit 2)

89. Paragraphs 1 through 88 are realleged and incorporated herein by reference.

90. From approximately October through December 2007, DTE began actual construction and operation of a "major modification," as defined in the

CAA, federal regulations, and Michigan SIP, on Belle River Unit 2. This major modification included one or more physical changes and/or changes in the method of operation at Belle River Unit 2, including, but not limited to: replacement of the secondary superheater, replacement of waterwalls, and replacement of burners. These activities involved physical changes and/or changes in the method of operation that constitute a single, multi-million dollar modification as described in the notices of violation dated July 24, 2009 and March 13, 2013 and in DTE's outage notification letter to the Michigan Department of Environmental Quality dated September 19, 2007. These physical changes and/or changes in the method of operation should have been expected to and/or actually did result in a significant net emissions increase of NO_X and/or SO_2, as defined in the federal regulations and/or the Michigan SIP by enabling and causing Belle River Unit 2 to burn more coal and release greater amounts of NO_X and/or SO_2 into the atmosphere on an annual basis.

91. DTE did not comply with the PSD requirements in the CAA and the Michigan SIP with respect to major modifications and subsequent operations at Belle River Unit 2. Among other things, DTE: (a) undertook such major modification without first obtaining a PSD permit for the construction and operation of the modified unit; (b) undertook such major modification without

undergoing a BACT determination in connection with the major modification; (c) undertook such major modification without installing BACT for the control of NO_X and/or SO_2 emissions; (d) failed to operate BACT for control of NO_X and/or SO_2 emissions pursuant to a BACT determination; (e) failed to operate in compliance with BACT emission limitations, including limitations that are no less stringent than applicable standard under CAA Section 111; (f) operated the unit after undergoing an unpermitted major modification; (g) violated the applicable NSR regulations for projecting and/or monitoring emissions by using improper baseline period in their analysis and/or submitting projections contradicted by DTE's internal analysis; and (h) violated the applicable NSR regulations for projecting and/or monitoring emissions by improperly relying on the demand growth exclusion without documenting or maintaining any explanation for why such emissions should be excluded from its applicability analysis.

92. DTE has violated and continues to violate Section 165(a) of the Act, 42 U.S.C. § 7475(a), the federal PSD regulations, and/or the Michigan SIP. Unless restrained by an order of this Court, these violations will continue.

93. As provided in Section 113(b) of the Act, 42 U.S.C. § 7413(b), and Section 167 of the Act, 42 U.S.C. § 7477, the violations set forth above subject DTE to injunctive relief and/or a civil penalty of up to $32,500 per day for each

such violation occurring on or after March 16, 2004 and up to and including January 12, 2009, and up to $37,500 per day for each such violation occurring on or after January 13, 2009 pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3101, and 40 C.F.R. § 19.4.

SIXTH CLAIM FOR RELIEF
(PSD Violations at Trenton Channel Unit 9)

94. Paragraphs 1 through 93 are realleged and incorporated herein by reference.

95. From approximately March through May 2007, DTE began actual construction and operation of a "major modification," as defined in the CAA, federal regulations, and Michigan SIP, on Trenton Channel Unit 9. This major modification included one or more physical changes and/or changes in the method of operation at Trenton Channel Unit 9, including, but not limited to: replacement of the economizer and replacement of waterwalls. These activities involved physical changes and/or changes in the method of operation that constitute a single, multi-million dollar modification as described in the notices of violation dated March 13, 2013 and in DTE's outage notification letter to the Michigan Department of Environmental Quality dated March 6, 2007. These physical changes and/or changes in the method of operation should have been expected to

and/or actually did result in a significant net emissions increase of NO_X and/or SO_2, as defined in the federal regulations and/or the Michigan SIP by enabling and causing Trenton Channel Unit 9 to burn more coal and release greater amounts of NO_X and/or SO_2 into the atmosphere on an annual basis.

96. DTE did not comply with the PSD requirements in the CAA and the Michigan SIP with respect to the major modification and subsequent operations at Trenton Channel Unit 9. Among other things, DTE: (a) undertook such major modification without first obtaining a PSD permit for the construction and operation of the modified unit; (b) undertook such major modification without undergoing a BACT determination in connection with the major modification; (c) undertook such major modification without installing BACT for the control of NO_X and/or SO_2 emissions; (d) failed to operate BACT for control of NO_X and/or SO_2 emissions pursuant to a BACT determination; (e) failed to operate in compliance with BACT emission limitations, including limitations that are no less stringent than applicable standard under CAA Section 111; (f) operated the unit after undergoing an unpermitted major modification; (g) violated the applicable NSR regulations for projecting and/or monitoring emissions by using improper baseline period in their analysis and/or submitting projections contradicted by DTE's internal analysis; and (h) violated the applicable NSR regulations for

projecting and/or monitoring emissions by improperly relying on the demand growth exclusion without documenting or maintaining any explanation for why such emissions should be excluded from its applicability analysis.

97. DTE has violated and continues to violate Section 165(a) of the Act, 42 U.S.C. § 7475(a), the federal PSD regulations, and/or the Michigan SIP. Unless restrained by an order of this Court, these violations will continue.

98. As provided in Section 113(b) of the Act, 42 U.S.C. § 7413(b), and Section 167 of the Act, 42 U.S.C. § 7477, the violations set forth above subject DTE to injunctive relief and/or a civil penalty of up to $32,500 per day for each such violation occurring on or after March 16, 2004 and up to and including January 12, 2009, and up to $37,500 per day for each such violation occurring on or after January 13, 2009 pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3101, and 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, based upon all the allegations set forth above, the United States requests that this Court:

1. Permanently enjoin DTE from operating Belle River Power Plant Units 1 and 2, Monroe Power Plant Unit 2, and Trenton Channel Power Plant Unit

9, including the construction of future modifications, except in accordance with the Clean Air Act and any applicable regulatory requirements;

2. Order DTE to apply for New Source Review permit(s) under Parts C and/or D of Title I of the Clean Air Act, as appropriate, that conform with the permitting requirements in effect at the time of the permitting action, for each pollutant in violation of the New Source Review requirements of the Clean Air Act;

3. Order DTE to remedy its past violations by, among other things, requiring DTE to install and operate the best available control technology or lowest achievable emission rate, as appropriate, at the Modified Units, for each pollutant in violation of the New Source Review requirements of the Clean Air Act;

4. Order DTE to take other appropriate actions to remedy, mitigate, and offset the harm to public health and the environment caused by the violations of the Clean Air Act alleged above;

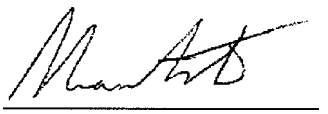
5. Assess a civil penalty against DTE of up to $37,500 per day violation;

6. Award Sierra Club its costs of this action; and,

7. Grant such other relief as the Court deems just and proper.

Dated: May 22, 2014

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that the foregoing pleading, Sierra Club's First Amended Complaint, was served via ECF on counsel of record.

s/ Shannon Fisk
Counsel for Plaintiff-Intervenor Sierra Club