

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

ENVIRONMENT TEXAS CITIZEN LOBBY, INC.,
and SIERRA CLUB,

Plaintiffs,

Civil Action No. 4:10-cv-4969

v.

EXXONMOBIL CORPORATION,
EXXONMOBIL CHEMICAL COMPANY, and
EXXONMOBIL REFINING AND SUPPLY COMPANY,

Defendants.

COMPLAINT

INTRODUCTION

1. Defendants own and operate an industrial complex in Baytown, Texas (the “Baytown Complex” or “Complex”) consisting of an oil refinery, chemical plant, and olefins plant. It is the largest petroleum and petrochemical complex in the United States. The refinery in the Baytown Complex is the largest refinery in the United States. The Baytown Complex covers approximately 3,400 acres along the Houston Ship Channel, about 25 miles east of Houston. According to the most recent publicly available inventories of air pollution from stationary sources, the Baytown Complex emits more pollutants into the air than any other industrial complex in Harris County.

2. Defendants are violating the federal Clean Air Act (the “CAA” or “Act”). Over the last five years they have emitted more than eight million pounds of pollutants into the atmosphere from the Baytown Complex in excess of legal limits imposed by federal and state

regulations and by Clean Air Act permits issued by the State of Texas. The types of pollutants the Baytown Complex emits are known to cause a variety of problems: for example, some are carcinogenic, some cause and aggravate respiratory and other illnesses, and some contribute to the formation of ground-level ozone, a major constituent of smog. Over the past five years, pollutants that the Baytown Complex has illegally emitted include: sulfur dioxide, carbon monoxide, nitrogen oxides, benzene, 1,3-butadiene, hexane, toluene, hydrogen sulfide, hydrogen chloride, propane, ethylene, butane, and butene.

3. According to the United States Environmental Protection Agency (“EPA”), thousands of people live within a mile of the Baytown Complex; tens of thousands of people live within three miles of the Baytown Complex; and hundreds of thousands of people live within ten miles of the Baytown Complex.

4. Plaintiffs are citizen-based environmental organizations with individual members who live and work close to the Baytown Complex. Plaintiffs’ members breathe, and are exposed in other ways, to more harmful pollutants than they otherwise would be, as a direct result of the Baytown Complex’s excess air emissions that violate the Act. These excess emissions of pollutants have adverse impacts on these individuals’ health, and on their recreational, aesthetic, and other interests. Excess emissions from the Baytown Complex cause and contribute to chest congestion, coughing, fatigue, headaches, itching eyes, and other conditions among Plaintiffs’ members. Plaintiffs’ members worry that the Complex’s excess emissions heighten the risk of cancer.

5. Excess emissions from the Baytown Complex create and contribute to undesirable and noxious odors. Plaintiffs’ members frequently see smoke coming from the Complex, and the Complex’s flares routinely light up the night sky. When the flares rumble during their operation,

Plaintiffs' members can hear them and some can even feel the vibrations they cause. Plaintiffs' members who live near the Baytown Complex worry that operational problems at the Complex will cause explosions.

6. Defendants' violations of the Act harm public health and the environment. However, EPA and the State of Texas have failed to take enforcement actions sufficient to stop Defendants' ongoing violations of the Act. Section 304(a) of the Clean Air Act, 42 U.S.C. § 7604, authorizes citizens to bring suit in federal court to enforce the Act. This CAA "citizen suit provision" authorizes citizens to obtain an injunction and civil penalties (up to \$32,500 per day for each violation of the Act, increasing to \$37,500 as of January 12, 2009) against violators. Under the law, such penalties are not paid to plaintiffs, but rather to the United States Treasury or to beneficial mitigation projects that enhance public health or the environment.

7. Defendants' violations of the Act are set forth in Counts I through VII, below. The violations alleged have a variety of underlying causes. These include, but are not limited to, equipment failures and malfunctions, operational problems, electrical problems, inadequate maintenance, poor record keeping, and other longstanding systemic problems. Plaintiffs are unaware of any actions by the Defendants that have solved, or will solve, these persistent problems, or that will otherwise eliminate similar violations of the Act, in the future. Absent an appropriate order from this Court, Defendants will continue to violate the Act as described in Counts I through VII.

PARTIES

Plaintiffs

8. Plaintiffs bring this suit on behalf of their individual members who are adversely affected by the Baytown Complex's excess emissions of sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, benzene, 1,3-butadiene, and other air pollutants in violation of the Act. These violations have deleterious impacts on public health and the environment in the areas where Plaintiffs' members live, work, and recreate. Plaintiffs are "persons" within the meaning of section 302(e) of the Act, 42 U.S.C. § 7602(e).

9. Plaintiff Environment Texas Citizen Lobby, Inc. ("Environment Texas") is a Texas corporation. It is a statewide, non-profit, environmental organization that advocates for clean air, clean water, and preservation of Texas' natural areas, among other issues, on behalf of approximately 5,000 citizen members from across the state of Texas. Among other activities, Environment Texas researches and distributes analytical reports on environmental issues, advocates before legislative and administrative bodies, conducts public education, and pursues public interest litigation on behalf of its members.

10. Plaintiff Sierra Club, a California non-profit corporation with an office in Austin, is the nation's oldest and largest conservation organization, with approximately 1.3 million members nationwide. The Lone Star Chapter has approximately 24,000 Texas members, including nearly 5,000 members in Harris County, who are dedicated to exploring, enjoying, and protecting Texas' natural resources and wild places. Sierra Club promotes the responsible use of the earth's ecosystem and resources, and works to restore the quality of the natural and human environment. In addition to organizing nature outings and public education campaigns, Sierra

Club and its Texas members pursue advocacy and litigation on issues including clean air and clean water, solid waste reduction, and sustainable energy and land use policies.

Defendants

11. Defendant ExxonMobil Corporation (“ExxonMobil”) is a multinational oil and gas corporation. ExxonMobil owns and operates the Baytown Complex. Federal Clean Air Act operating permits for the chemical plant (“Baytown Chemical Plant”) and the olefins plant (“Baytown Olefins Plant”) in the Complex are in the name of ExxonMobil.

12. Defendant ExxonMobil Chemical Company (“Exxon Mobil Chemical”) is a wholly owned subsidiary of ExxonMobil. It is one of the largest petrochemical companies in the world. It owns and operates the Baytown Chemical and Olefins Plants. The Baytown Chemical Plant produces more than 7.2 billion pounds of petrochemical products each year. The Baytown Olefins Plant produces 6 billion pounds of ethylene, propylene, and butadiene; it is one of the largest ethylene plants in the world.

13. Defendant ExxonMobil Refining and Supply Company (“ExxonMobil Refining and Supply”) is a wholly owned subsidiary of ExxonMobil. It is the largest global refiner. ExxonMobil Refining and Supply owns and operates the refinery at the Complex (“Baytown Refinery”). The federal Clean Air Act operating permit for the refinery is in the name of ExxonMobil Refining and Supply.

14. The Baytown Refinery, Baytown Chemical Plant and Baytown Olefins Plant are highly integrated in their design and operation.

15. Defendants are “persons” within the meaning of section 302(e) of the Act, 42 U.S.C. § 7602(e).

JURISDICTION, VENUE AND NOTICE

16. This Court has jurisdiction over the subject matter of this action pursuant to section 304(a) of the Act, 33 U.S.C. § 7604(a), and pursuant to 28 U.S.C. § 1331.

17. Venue lies in this District pursuant to section 304(c)(1) of the CAA, 42 U.S.C. § 7604(c)(1), because the Baytown Complex is a stationary source, or a collection of stationary sources, located within this District.

18. Plaintiffs gave notice of the violations alleged in this Complaint more than 60 days prior to commencement of this lawsuit to (a) Defendants, (b) EPA, (c) the Texas Commission on Environmental Quality (“TCEQ”), and (d) the Governor of Texas. Notice was provided by letters dated November 30, 2009 (“First Notice Letter,” attached here as Exhibit 1 and incorporated herein), and July 2, 2010 (“Second Notice letter,” attached here as Exhibit 2 and incorporated herein). The notice letters were addressed to Rex Tillerson, President and Chief Executive Officer of ExxonMobil Corporation. The notice letters were also sent to the President of ExxonMobil Chemical Company, the President of ExxonMobil Refining and Supply Company, the Baytown Refinery manager, the Baytown Chemical Plant manager, and the Baytown Olefins Plant manager. Copies of the First and Second Notice letters were sent contemporaneously to the Administrator of EPA, the Regional Administrator for EPA Region VI, the Executive Director of TCEQ, the Governor of Texas, and the registered agents for the Defendants. The notice letters satisfy the pre-suit notice requirement of Section 304(b) of the CAA, 42 U.S.C. § 7604(b). The types of violations identified in the notice letters have continued after the notice letters were mailed.

19. As set forth in more detail in paragraphs 86-88 below, neither the federal government nor the State of Texas has commenced or is diligently prosecuting a civil action in a court of the United States or the State of Texas with respect to the violations alleged in this action.

REGULATORY OVERVIEW

20. There are three primary regulatory mechanisms at issue in this case, and they overlap.

21. First, the Baytown Complex is subject to technology-based standards promulgated by EPA under the Clean Air Act. Generally speaking, these technology-based standards are set based on an evaluation of the level of pollution reduction that can be attained through the use of particular technologies. The Baytown Complex must comply with technology-based standards established by EPA in its New Source Performance Standards program (“NSPS”), 42 U.S.C. § 7411, and National Emission Standards for Hazardous Air Pollutants program (“NESHAP”), 42 U.S.C. § 7412.

22. Second, the Baytown Complex is subject to regulations promulgated by the State of Texas known as the Texas State Implementation Plan (“SIP”). Under the federal Clean Air Act, a SIP is a plan developed at the state level that sets forth how the state will achieve and maintain compliance with National Ambient Air Quality Standards (“NAAQS”) set by EPA to protect human health and the environment. SIPs must be approved by EPA. The Texas SIP incorporates NSPS and NESHAP standards, and sets a variety of other standards as well. As part of Texas’ obligations under the SIP, TCEQ issues to stationary sources of air pollution, such as refineries and chemical plants, permits that are intended to implement the Prevention of Significant Deterioration (“PSD”) program, Part C of Subchapter I of the Act, 42 U.S.C. §§

7474-7492, and the New Source Review (“NSR”) program, Part D of Subchapter I of the Act, 42 U.S.C. §§ 7501-7515

23. Third, the Baytown Complex is subject to conditions set forth in source-specific operating permits. Most large stationary sources of air pollution are required to obtain federal operating permits under Title V of the Clean Air Act, 42 U.S.C. §§ 7661-7661f; these operating permits are also known as “Title V permits.” Title V permits are intended to contain all air pollution control requirements that are applicable to a stationary source. In Texas, TCEQ has been authorized to issue Title V permits, subject to review by EPA. The Baytown Complex has been issued a number of Title V permits. The Baytown Complex’s Title V permits incorporate by reference, among other things: TCEQ-issued PSD and NSR permits, which contain both operating requirements and numerical emission limits (expressed in pounds per hour and tons per year); NSPS and NESHAP standards promulgated by EPA; and various provisions of the Texas SIP. The Baytown Complex operates pursuant to the following Title V permits:

a. Title V permits covering the Baytown refinery:

Permit No. O1229, which is in the name of ExxonMobil Refining and Supply Company. O1229 covers the Baytown Refinery. It incorporates by reference TCEQ Permits 18287 and PSD-TX-730M4, among other permits.

b. Title V permits covering the Baytown Chemical Plant:

Permit No. O1278, which is in the name of ExxonMobil. O1278 covers parts of the Baytown Chemical Plant. It incorporates by reference TCEQ Permits 20211, 3636, 36476, 4600, 5259, and PSD-TX-996, among other permits.

Permit No. O2269, which is in the name of ExxonMobil. O2269 covers parts of the Baytown Chemical Plant. It incorporates by reference TCEQ Permits 20211 and 4600, among other permits.

Permit No. O2270, which is in the name of ExxonMobil. O2270 covers parts of the Baytown Chemical Plant. It incorporates by reference TCEQ Permit 8586, among other permits.

c. Title V permits covering the Baytown Olefins Plant.

Permit No. O1553, which is in the name of ExxonMobil. O1533 covers the Baytown Olefins Plant. It incorporates by reference TCEQ Permits 3452, 9910, PSD-TX-302M2, and PSD-TX-730M3, among other permits.

24. Defendants report violations of NSPS and NESHAP standards, SIP requirements, and Title V permit conditions to TCEQ. There are two primary methods of reporting violations, both required by law: (a) certain unauthorized emissions from upset events and from maintenance, startup, and shutdown activity (collectively called “Emissions Events”) are reported to TCEQ using the State of Texas Environmental Electronic Reporting System (“STEERS”), and (b) any failures to comply with, or “deviations” from, conditions contained in Title V permits are reported on Texas Operating Permit Deviation Report Forms (sometimes called Texas Commission on Environmental Quality Federal Operating Permit Deviation Forms, hereinafter referred to as “Deviation Reports”). All such reports are publicly available. Defendants will continue to file STEERS Reports and Deviation Reports that identify violations of the CAA after the filing of this Complaint.

25. Violations of NSPS and NESHAP standards, SIP requirements, and Title V permit conditions are directly enforceable by citizens under the citizen suit provision of the Clean Air Act, 42 U.S.C. § 7604. The citizen suit provision of the Act grants jurisdiction to the United States District Courts to issue an injunction remedying violations of the Act and to impose appropriate civil penalties, and authorizes an award of costs of litigation (including reasonable attorneys’ and expert witness fees). The statute of limitations period for a citizen suit is five years plus 60 days before the Complaint is filed.

COUNT I: UNLAWFUL UPSETS

26. Paragraphs 1 through 25 are realleged and incorporated by reference herein.

27. An “upset” is defined by TCEQ regulation as:

An unplanned and unavoidable breakdown or excursion of a process or operation that results in unauthorized emissions. A maintenance, startup, or shutdown activity that was reported under § 101.211 of this title (relating to Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements), but had emissions that exceeded the reported amount by more than a reportable quantity due to an unplanned and unavoidable breakdown or excursion of a process or operation is an upset event.

30 Tex. Admin. Code § 101.1(109). Title V Permit O1229 governing the Baytown Refinery provides that upset emissions, emissions from maintenance activities that occur as a result of upsets, or any unscheduled/unplanned emissions associated with an upset, are not authorized in any amount (this provision is incorporated by reference from the Baytown Refinery’s PSD and NSR permits). Repeatedly during the applicable statute of limitations period, the Baytown Refinery has violated the ban on upset emissions. Upset emissions are reported by the Baytown Refinery on its STEERS reports. Table 1 to the First Notice Letter identifies upset emissions reported by Defendants at the Baytown Refinery. Exhibit 3 to this Complaint identifies upset emissions reported by Defendants at the Baytown Refinery after the date of the First Notice letter.

COUNT II: EXCEEDANCES OF HOURLY EMISSION LIMITS

28. Paragraphs 1 through 27 are realleged and included by reference herein.

29. The Title V permits for the Baytown Refinery, Baytown Chemical Plant, and Baytown Olefins Plant impose emission limits expressed in pounds per hour on specifically named pollutants (incorporated by reference from the Baytown Complex’s PSD and NSR permits). Repeatedly during the applicable statute of limitations period, the Baytown Complex has violated these pounds per hour limits. Tables 1, 2, and 3 to the First Notice Letter, and the

Deviation Reports, identify violations of the pounds per hour limits reported by Defendants at the Baytown Complex.

30. Exhibit 3 to this Complaint identifies exceedances of hourly emission limits at the Baytown Refinery after the date of the First Notice Letter. Exhibit 4 to this Complaint identifies exceedances of hourly emission limits at the Baytown Olefins Plant after the date of the First Notice Letter. Exhibit 5 to this Notice Letter identifies exceedances of hourly emission limits at the Baytown Chemical Plant after the date of the First Notice Letter.

**COUNT III: EXCEEDANCES OF LIMITS ON
HIGHLY REACTIVE VOLATILE ORGANIC COMPOUNDS**

31. Paragraphs 1 through 30 are realleged and incorporated by reference herein.

32. Volatile organic compounds (“VOCs”) react with nitrogen oxides in the atmosphere in the presence of sunlight to form ground-level ozone. Highly reactive VOCs (“HRVOCs”) are chemicals that have a very high propensity to form ozone. TCEQ promulgated Subchapter H of 30 Tex. Admin. Code Chapter 115 to target emissions of HRVOCs (the “HRVOC Rule”). Among other things, the HRVOC Rule limits facility-wide emissions of HRVOCs to 1,200 pounds per hour for facilities in Harris County (beginning April 1, 2006), Tex. Admin. Code, § 115.722, and imposes certain monitoring requirements. The HRVOC Rule is part of the Texas SIP, and is incorporated into the Baytown Complex’s Title V permits.

33. Repeatedly since April 1, 2006 (the compliance deadline for Harris County facilities), the Baytown Complex has exceeded the 1,200 pounds per hour limit in the HRVOC rule. Table 5 to the First Notice Letter, and the Deviation Reports, identify HRVOC Rule violations reported by the Baytown Complex. Violations of the HRVOC Rule violate the Texas SIP and the Baytown Complex’s Title V permits.

COUNT IV: SMOKING FLARES

34. Paragraphs 1 through 33 are realleged and incorporated herein.

35. Defendants use flares to burn waste gases. Smoke generated by a flare is an indicator of incomplete combustion of waste gases. EPA's NSPS regulations provide:

Flares shall be designed for and operated with no visible emissions...except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

40 C.F.R. § 60.18(c)(1). EPA's NESHAP regulations contain the same limit. 40 C.F.R. § 63.11(b)(4). The NSPS and NESHAP limitations on smoking flares are incorporated into the Texas SIP and the Baytown Complex's Title V permits.

36. Flares at the Baytown Complex have repeatedly had visible emissions exceeding a total of 5 minutes during any 2 consecutive hours. The First Notice Letter, and the Deviation Reports, identify instances in which such exceedances were reported by Defendants to TCEQ.

COUNT V: FLARE PILOT FLAME OUTAGES

37. Paragraphs 1 through 36 are realleged and incorporated by reference herein.

38. If a flare pilot flame is out, then pollutants being routed to the flare cannot be combusted and will be emitted directly into the air. EPA's NSPS regulations provide that flares shall be operated with a flame present at all times. 40 C.F.R. § 60.18(c)(2). NESHAP regulations contain the same requirement. 40 C.F.R. § 63.11(b)(5). The NSPS and NESHAP requirements on flare pilot flames are incorporated into the Texas SIP and the Baytown Complex's Title V permits.

39. Flares at the Baytown Complex have repeatedly had pilot flame outages. The First Notice Letter, and the Deviation Reports, identify instances in which flare pilot flame outages were reported by Defendants to TCEQ.

COUNT VI: FUGITIVE EMISSIONS

40. Paragraphs 1 through 39 are realleged and incorporated by reference herein.

41. “Fugitive emission” is defined by TCEQ regulation as: “Any gaseous or particulate contaminant entering the atmosphere that could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening designed to direct or control its flow.” 30 Tex. Admin. Code §101.1(39). The Title V permits for the Baytown Refinery, Chemical Plant and Olefins Plant do not authorize fugitive emissions. Repeatedly during the applicable statute of limitations period for this case, the Baytown Refinery, Chemical Plant, and Olefins Plant have released fugitive emissions without authorization. Defendants report fugitive emissions on their STEERS reports. Tables 1, 2, and 3 to the First Notice Letter (updated by the tables attached as Exhibits 3, 4 and 5 to this Complaint) identify fugitive emissions at the Baytown Complex reported by Defendants.

COUNT VII: VIOLATIONS IDENTIFIED IN DEVIATION REPORTS

42. Paragraphs 1 through 41 are realleged and incorporated by reference herein.

43. The Texas Administrative Code defines “deviation” as “any indication of noncompliance with a term or condition of the permit found using compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information.” 30 Texas Admin. Code § 122.10. For each of its Title V permits, the Baytown Complex is required to report its deviations on Deviation Reports that are submitted twice each year to TCEQ.

44. The Deviation Reports attached to the Second Notice Letter identify Defendants’ violations of their Title V permits. Additional Deviation Reports identifying Defendants’ violations of their Title V permits are attached as Exhibit 6. A table summarizing the deviations

reported in these Deviation Reports is attached hereto as Exhibit 7. Subsequent Deviation Reports will identify additional violations by Defendants.

AIR POLLUTION FROM THE BAYTOWN COMPLEX
HARMS PLAINTIFFS' MEMBERS

45. Paragraphs 1 through 44 are realleged and incorporated by reference herein.

Paragraphs 45 through 85 apply to all counts.

46. As a direct result of the Defendants' violations of the Clean Air Act, as set forth in Counts I through VII, above, Plaintiffs' members who live in the vicinity of and downwind of the Baytown Complex are exposed to higher levels of a variety of pollutants - including hazardous air pollutants, known carcinogens, volatile organic compounds, sulfur dioxide, nitrogen oxides, hydrogen sulfide, carbon monoxide, and the ozone that is formed as a result of the emissions of these pollutants - than they otherwise would be. As a result, Plaintiffs' members are more likely to suffer the adverse health, environmental, recreational, and aesthetic impacts described in paragraphs 47, 55-56, and 58-85, below.

47. Plaintiffs' members want to breathe as little air pollution from the Baytown Complex as possible, and certainly do not want to breathe illegally emitted pollutants.

In describing the health effects of air pollutants, EPA has stated:

Exposure to air pollution is associated with numerous effects on human health, including respiratory, pulmonary, cardiac, vascular, and neurological impairments. High risk groups such as the elderly, infants, pregnant women, and sufferers of from chronic heart and lung diseases are more susceptible to air pollution. Children are at greater risk because they are generally more active outdoors and their lungs are still developing. Exposure to air pollution can cause both acute (short-term) and chronic (long-term) health effects. Acute effects are usually immediate and often reversible when exposure to the pollutant ends. Some acute health effects include eye irritation, headaches, and nausea. Chronic effects are usually not immediate and tend not to be reversible when exposure to the pollutant ends. Chronic health effects include decreased lung capacity and lung cancer resulting from long-term exposure to toxic air pollutants.

* * *

Continuous breathing of polluted air can slow the normal cleansing action of the lungs and result in more particles reaching the lower portions of the lung. The lungs are the organs responsible for absorbing oxygen from the air and removing carbon dioxide from the blood-stream. Damage to the lungs from air pollution can inhibit this process and contribute to the occurrence of respiratory diseases such as bronchitis, emphysema, and cancer. This can also put an additional burden on the heart and circulatory system.

<http://www.epa.gov/apti/course422/ap7a.html>.

48. Residents of Baytown, Houston, and surrounding areas are at increased risk of health damage from exposure to air pollutants. Based on estimates in the American Lung Association's 2010 State of the Air report, the Houston-Baytown-Huntsville area has a population of 5,829,620. Of that population, the following groups are considered by the American Lung Association to be at increased risk from exposure to air pollutants: 1,636,150 children, of whom 154,019 suffer from asthma; 485,730 adults over the age of 65; 305,885 adults with asthma; 177,361 people with chronic bronchitis; and 59,438 people with emphysema.

Pollutants Emitted From The Baytown Complex

49. The Baytown Refinery has released the following chemicals during incidents of unauthorized emissions during the applicable statute of limitations period:

- (a) sulfur dioxide
- (b) carbon monoxide
- (c) nitrogen oxides
- (d) benzene
- (e) 1,3-butadiene
- (f) hexane
- (g) toluene
- (h) hydrogen sulfide
- (i) propane
- (j) ethylene
- (k) butane
- (l) butene
- (m) isobutylene
- (n) isobutene
- (o) pentanes
- (p) isopentane

- (q) propylene
- (r) ammonia
- (s) particulate matter
- (t) hydrogen cyanide
- (u) ethylbenzene
- (v) xylene
- (w) total sulfur
- (x) cis-2-butene
- (y) trans-2-butene
- (z) carbon disulfide
- (aa) carbonyl sulfide
- (bb) cumene
- (cc) decane
- (dd) ethyl-cyclohexane
- (ee) octane
- (ff) heptane
- (gg) methylpentene
- (hh) methylpentane
- (ii) dimethylpentene
- (jj) cispentene
- (kk) cyclohexene
- (ll) cyclopentadiene
- (mm) cyclopentane
- (nn) cyclopentene
- (oo) isopentane
- (pp) isoprene
- (qq) petroleum distillate
- (rr) methyl ethyl ketone
- (ss) methyl isobutyl ketone
- (tt) naphthalene
- (uu) phenol
- (vv) orthoxylene
- (ww) paraxylene
- (xx) bromotrifluoromethane
- (yy) monoethanolamine

50. The Baytown Olefins Plant has released the following chemicals during incidents of unauthorized emissions that occurred during the applicable statute of limitations period:

- (a) carbon monoxide
- (b) nitrogen oxides
- (c) 1,3-butadiene
- (d) acetylene
- (e) benzene
- (f) butane

- (g) C5 hydrocarbons
- (h) cis-2-butene
- (i) ethylene
- (j) isobutene
- (k) isobutylene
- (l) propane
- (m) propylene
- (n) cyclohexane
- (o) cyclopentane
- (p) heptane
- (q) nonane
- (r) octane
- (s) toluene
- (t) heptene
- (u) cumene
- (v) ethylbenzene
- (x) decane
- (y) ethyl cyclohexane
- (z) bromotrifluoromethane
- (aa) xylene
- (bb) methyl cyclopentane
- (cc) methylhexane
- (dd) methylpentane
- (ee) C6 hydrocarbons
- (ff) C7/8 hydrocarbons
- (gg) methylcyclopentadiene
- (hh) vinylacetylene
- (ii) dicyclopentadiene
- (jj) methylcyclopentadiene
- (kk) naphtha
- (ll) styrene
- (mm) dimethylbutane
- (nn) isoprene
- (oo) indene
- (pp) naphthalene
- (rr) hydrogen sulfide
- (ss) methylacetylene

51. The Baytown Chemical Plant has released the following chemicals during incidents of unauthorized emissions that occurred during the applicable statute of limitations period:

- (a) carbon monoxide
- (b) nitrogen oxide
- (c) sulfur dioxide
- (d) isobutylene

- (d) butane
- (e) butene
- (f) cis-2-butene
- (g) ethylene
- (h) isobutene
- (i) propane
- (j) propylene
- (k) trans-2-butene
- (l) isobutene
- (m) carbonyl sulfide
- (n) hydrogen sulfide
- (o) hydrogen cyanide
- (p) methanol
- (q) isobutene
- (r) isobutane
- (s) xylene
- (t) hexane
- (u) hydrochloric acid
- (v) methyl chloride
- (w) isobutylene
- (x) ammonia
- (y) particulate matter (PM10)
- (z) aldehydes
- (aa) nitrogen dioxide
- (bb) paradiethylbenzene
- (cc) MTBE
- (dd) pentenes
- (ee) toluene
- (ff) bromotrifluoromethane
- (gg) isobutyl alcohol

52. Defendants reported the emissions of the pollutants listed in Paragraphs 49-51 to TCEQ in STEERS reports and Deviation Reports.

53. Defendants reported to TCEQ that, during the five years and sixty days previous to the filing of this Complaint (the statute of limitations period), the Baytown Complex released over 4,000,000 pounds of carbon monoxide; over 2,000,000 pounds of sulfur dioxide; over 1,500,000 pounds of volatile organic compounds; over 190,000 pounds of nitrogen oxides; over 40,000 pounds of 1,3-butadiene; and over 25,000 pounds of benzene, during Emission Events. Defendants have reported large amounts of unauthorized emissions recently: for instance, the

Baytown Olefins Plant reported more than 15,000 pounds of unauthorized emissions on October 16, 2010, including 5,519.12 lbs. of toluene, 5,128.5 lbs. of VOCs, 2,366.46 lbs. of ethyl benzene, 1,019.04 lbs. of cumene, and 738.66 lbs. of xylene. The Baytown Refinery reported unauthorized emissions on October 16-17, 2010 of 101,506 pounds of VOCs and 81 pounds of benzene.

54. To arrive at the amount of pollutants emitted during Emission Events for TCEQ reporting, Defendants assume that their flares destroy waste gas at a high rate of efficiency. A lower rate of flare destruction efficiency would mean that much larger amounts of pollutants were in fact released to the atmosphere.

Pollutants That Cause Cancer, Reproductive Effects, And Birth Defects

55. Some of the pollutants emitted by the Baytown Complex are classified as “hazardous air pollutants” under Section 112 of the CAA. EPA describes hazardous (or toxic) air pollutants as follows:

Toxic air pollutants, also known as hazardous air pollutants, are those pollutants that are known or are suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.

* * *

People exposed to toxic air pollutants at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory and other health problems.

<http://www.epa.gov/oar/toxicair/newtoxics.html>. The Baytown Complex has emitted the following hazardous air pollutants during incidents of unauthorized emissions: benzene (carcinogen), 1,3-butadiene (carcinogen), toluene, carbon disulfide, hydrochloric acid or hydrogen chloride, hexane, xylene, cumene, naphthalene, phenol, methyl isobutyl ketone, and methyl ethyl ketone.

56. A study by researchers at the University of Texas School of Public Health found elevated rates of leukemia among children living within two miles of the Houston Ship Channel and among children living in areas with elevated ambient levels of 1,3-butadiene. <http://www.houstontx.gov/health/UT.html>. Children are particularly vulnerable to toxic substances because their bodies are immature and rapidly growing.

57. According to an analysis by the City of Houston, in 2005 the Baytown Refinery emitted a much larger amount of Occupational Safety and Health Administration-identified carcinogens per 1,000 barrels of oil refined than ExxonMobil's refineries in other states: over 270% more than its Torrance, California, refinery; over 70% more than its East Baton Rouge, Louisiana, refinery; over 60% more than its Billings, Montana, refinery. City of Houston, Toxic Emissions: Texas v. Other States, <http://www.greenhoustontx.gov/reports.html>.

Ground-Level Ozone

58. Ground-level ozone is created by chemical reactions between oxides of nitrogen (NO_x), carbon monoxide (CO), and volatile organic compounds (VOCs) in the presence of sunlight. Industrial sources emit these chemical precursors of ozone. The Baytown Complex emits NO_x, CO, and VOCs, and has emitted each of these pollutants without authorization during Emissions Events. Because ozone precursors can be carried many miles by wind, high levels of ground-level ozone are often created many miles away from the industrial sources of ozone precursors.

59. Studies of industrial emissions and atmospheric conditions in the Houston area have shown that large, short-term emissions of volatile organic compounds, such as those released from refineries and chemical plants during Emissions Events, are significant contributors to

ozone formation and to exceedances of the NAAQS for ozone. TCEQ has recognized these findings as the basis for the HRVOC Rule.

60. Ground-level ozone is a major problem in Baytown, Houston, and surrounding areas.

EPA describes the adverse effects of ground-level ozone as follows:

Breathing ozone, a primary component of smog, can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level ozone also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue.

Ground-level ozone also damages vegetation and ecosystems. In the United States alone, ozone is responsible for an estimated \$500 million in reduced crop production each year.

<http://www.epa.gov/air/ozonepollution/basic.html>.

61. Children are among the subpopulations most vulnerable to ground-level ozone (and other air pollutants) because: they breathe more rapidly than do adults; they spend more time outdoors, particularly in the summer when the ozone levels are generally highest; they are more active while outdoors than are adults and engage in activities that raise breathing rates; their airways are narrower, thus enhancing the inflammatory effects of air pollution; their lungs are still developing and growing, making them more physiologically sensitive to air pollution; and, generally, they are less aware than adults of high ozone warnings.

62. According to the American Lung Association, the Houston-Baytown-Huntsville, Texas area is ranked seventh worst in the nation for ozone pollution, and is the worst area nationally outside of California. <http://www.stateoftheair.org/2010/city-rankings/most-polluted-cities.html>. In 2010 (approximately six months prior to the filing of this Complaint), TCEQ has issued numerous ozone pollution warnings for various locations around Harris County and surrounding areas. These warnings included “level purple” warnings indicating “very unhealthy” ozone pollution, for which TCEQ recommends that “[E]veryone, especially children,

should limit outdoor exertion. People living with respiratory disease, such as asthma, should avoid all outdoor exertion and limit exposure by staying inside (air conditioned spaces are best).”

63. The Clean Air Act requires EPA to set National Ambient Air Quality Standards for certain pollutants considered harmful to public health and the environment, including ground-level ozone. Harris County has been in violation, or “non-attainment,” of the NAAQS standard for ground-level ozone for the entire relevant period of this lawsuit. In 2008, Harris County’s classification for nonattainment of the ground-level ozone NAAQS standard was downgraded to “severe,” from “moderate,” 73 Fed. Reg. 56,981 (October 1, 2008), and that severe classification remains in effect. In 2010, the Houston area was in violation of the national standards for ozone on 45 days, 15 more than in 2009.

Sulfur Dioxide

64. Sulfur dioxide (“SO₂”) is an extremely harmful pollutant. According to EPA:

Current scientific evidence links health effects with short-term exposure to SO₂ ranging from 5 minutes to 24 hours. Adverse respiratory effects include narrowing of the airways which can cause difficulty breathing (bronchoconstriction) and increased asthma symptoms. These effects are particularly important for asthmatics during periods of faster or deeper breathing (e.g., while exercising or playing).

Studies also show an association between short-term SO₂ exposure and increased visits to emergency departments and hospital admissions for respiratory illnesses -- particularly in at-risk populations including children, the elderly and asthmatics.

* * *

Emissions that lead to high concentrations of SO₂ generally also lead to the formation of other SO_x [sulfur oxides]. Control measures that reduce SO₂ can generally be expected to reduce people’s exposure to all gaseous SO_x. Reducing SO₂ emissions is expected to have the important co-benefit of reducing the formation of fine sulfate particles that pose significant health threats.

SO_x can react with other compounds in the atmosphere to form small particles. These particles penetrate deeply into sensitive parts of the lungs and can cause or worsen respiratory disease, such as emphysema and bronchitis, and can aggravate existing heart disease, leading to increased hospital admissions and premature death...

<http://www.epa.gov/air/sulfurdioxide/pdfs/20100602fs.pdf>

65. According to the federal Agency for Toxic Substances & Disease Registry (“ATSDR”),

Sulfur dioxide is severely irritating to the eyes, mucous membranes, skin, and respiratory tract. Bronchospasm, pulmonary edema, pneumonitis, and acute airway obstruction can occur.

Inhalation exposure to very low concentrations of sulfur dioxide can aggravate chronic pulmonary diseases, such as asthma and emphysema.

* * *

[With respect to acute exposure], [s]ulfur dioxide respiratory irritation induces symptoms such as sneezing, sore throat, wheezing, shortness of breath, chest tightness, and a feeling of suffocation. Reflex laryngeal spasm and edema can cause acute airway obstruction...

[Chronic exposure to sulfur dioxide can result in] increased susceptibility to respiratory infections, symptoms of chronic bronchitis, and accelerated decline in pulmonary function.

ATSDR, “Medical Management Guidelines for Sulfur Dioxide.”

66. SO₂ contributes to the formation of acid rain. Acid rain damages forests and crops, changes the makeup of soil, and makes lakes and streams acidic and unsuitable for fish. Continued exposure to acid rain over a long time changes the natural variety of plants and animals in an ecosystem. Acid rain also accelerates the decay of building materials and paint.

67. SO₂ has a strong, pungent odor.

Carbon Monoxide

68. TCEQ describes the harmful effects of carbon monoxide (“CO”) as follows:

CO can cause harmful health effects by reducing oxygen delivery to the body’s organs and tissues. Exposure to lower levels of CO is most serious for those who suffer from heart disease, and can cause chest pain, reduce the ability to exercise, or with repeated exposures, may contribute to other cardiovascular effects.

Even healthy people can be affected by high levels of CO. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At very high levels, CO is poisonous and can cause death.

<http://www.tceq.state.tx.us/implementation/air/sip/texas-sip/criteria-pollutants/sip-co>.

69. CO also contributes to the formation of ground-level ozone. EPA, Health and Environmental Impacts of CO, <http://www.epa.gov/air/urbanairco/hlth/html>. In addition, CO contributes to climate change by reducing the abundance of hydroxyl radicals, which help to reduce the lifetimes of strong greenhouse gases.

Nitrogen Oxides

70. Nitrogen oxides are a key component in the formation of ground-level ozone.

71. In addition, EPA, in “NO_x, How nitrogen oxides affect the way we live and breathe,” EPA-456/98-005, describes some of the harmful effects of NO_x as follows:

NO_x react with ammonia, moisture, and other compounds to form nitric acid and related particles. Human health concerns from these particles include adverse effects on breathing and the respiratory system, damage to lung tissue, and premature death. Small particles penetrate deeply into sensitive parts of the lung tissue and can cause or worsen respiratory disease such as emphysema and bronchitis, and aggravate existing heart disease.

EPA also states in that document, “In the air, NO_x reacts readily with common organic chemicals and even ozone, to form a wide variety of toxic products, some of which may cause biological mutations.”

72. According to ATSDR, nitrogen oxides are

irritating to the upper respiratory tract and lungs even at low concentrations ... Low concentrations initially may cause mild shortness of breath and cough ... Chronic exposure to nitrogen oxides is associated with increased risk of respiratory infections in children. Permanent restrictive and obstructive lung disease from bronchiolar damage may occur.

ATSDR, “Medical Management Guidelines for Nitrogen Oxides.”

73. In addition, NO_x contributes to the formation of acid rain.

74. Nitrogen dioxide, which is one type of nitrogen oxide, has an acrid smell.

Plaintiffs Have Members Who Live And Work Near The Baytown Complex

75. Plaintiffs have members who live and work in the neighborhoods near the Baytown Complex. Some of Plaintiffs' members live just blocks away; some can see the Baytown Complex from their yards. Some of Plaintiffs' members grew up in Baytown near the Baytown Complex. Plaintiffs' have members who breathe illegal emissions from the Baytown Complex.

76. Plaintiffs have members who can see air pollution coming from the Baytown Complex, such as plumes of smoke from flares at the Baytown Complex and thick haze that sometimes hangs above the Complex and nearby neighborhoods. Smoke from flares and other sources blows from the Baytown Complex to their neighborhoods.

77. Plaintiffs have members who can smell air pollution from the Baytown Complex. The smells can be severe. The types of odors emanating from the Baytown Complex that Plaintiffs' members smell include: a rotten egg odor, an odor like burning rubber, and chemical odors. The odors become stronger closer to the Baytown Complex. Some of Plaintiffs' members have moved from the vicinity of the Baytown Complex, but when they return to visit they smell the odors again.

78. A sticky, sooty substance is deposited in neighborhoods near the Baytown Complex. Plaintiffs have members who believe this substance originates in the Baytown Complex.

79. Plaintiffs have members who live and work near the Baytown Complex and who, along with their families, suffer from: chest congestion, bronchitis, asthma, headaches, sneezing, coughing, itchy and watering eyes, and fatigue, among other conditions. These conditions typically lessen or disappear when Plaintiffs' members who live and work near the Baytown

Complex go on vacation or visit friends and relatives out of the area. Plaintiffs' members who moved to neighborhoods near the Baytown Complex from other parts of the state or country began experiencing these symptoms only once they moved to Baytown.

80. Plaintiffs have members who suffer from symptoms that are consistent with many of the symptoms caused by air pollutants described in paragraphs 47, 55-56, and 58-74, above.

81. Plaintiffs' members and their families have had to restrict their outdoor activities as a result of air pollution from the Baytown Complex. Air pollution has bothered Plaintiffs' members inside their houses, as well.

82. Plaintiffs have members who worry that they or their families suffer an increased risk of cancer or reproductive harms as a result of the Baytown Complex's illegal air pollution.

83. Plaintiffs' members who live near the Baytown Complex and throughout Harris County and other nearby counties are bothered by ground-level ozone and want there to be as little of it as possible. Ground-level ozone and public ozone alerts cause Plaintiffs' members to restrict their activities.

84. Plaintiffs have members who live near the Baytown Complex who are aware that plants similar to the Baytown Complex, such as BP Texas City, have had serious explosions. They are worried that equipment breakdowns, operator errors, failure to maintain equipment as required by law, and fires at the Baytown Complex increase the likelihood of explosions at the Baytown Complex.

85. Plaintiffs have members who are aware that the Baytown Complex illegally emits pollutants. Plaintiffs have members who are worried that in the future they will breathe illegal emissions from the Baytown Complex, and that future illegal emissions will result in the

formation of dangerous ozone, create serious health problems, and interfere with their ability to carry on ordinary activities,

**GOVERNMENT ENFORCEMENT ACTIONS HAVE NOT STOPPED
THE BAYTOWN COMPLEX'S VIOLATIONS**

86. Paragraphs 87-88 apply to all counts.

87. TCEQ has issued agreed administrative orders pertaining to some of the Clean Air Act violations alleged in this action. None of these administrative actions was brought in a court. Any actions taken under or administrative penalties assessed in those agreed orders have failed to put a stop to the ongoing violations alleged in this action. The deputy director of TCEQ's enforcement division, John Sadler, stated publicly that TCEQ's fines, capped at \$10,000 per violations, are incapable of changing the behavior of large corporations. In addition, in very few agreed orders did TCEQ require Defendants to actually pay the full penalty assessed, and frequently forgave as much as half of the assessed penalty.

88. On October 11, 2005, EPA and three states (not including Texas) sued ExxonMobil Corporation for violations of various federal and state environmental laws, including certain provisions of the Clean Air Act, at six oil refineries located in five different states, including the Baytown Refinery (the Baytown Chemical and Olefins Plants were not involved in the case). A consent decree resolving that case was entered on December 13, 2005. U.S. v. Exxon Mobil Corp., 1:05-cv-05809 (N.D. Ill.). The Clean Air Act violations at issue in that action and the subset of those for which ExxonMobil paid civil penalties, occurred more than five years ago; no penalties have been paid pursuant to the consent decree concerning the violations alleged in the instant action, nor have other subsequent enforcement actions been taken pursuant to the consent decree with respect to the violations alleged in the instant action. With few exceptions, EPA sued to enforce different CAA standards and limitations from those at issue in the instant action.

For example, EPA sued to require “New Source Review” at Baytown Refinery units that had undergone major modifications, claims that are not made in this Complaint. EPA did not sue for violations relating to upsets, Emission Events, the HRVOC Rule, or fugitive emissions (Counts I, II, III, and VI), or for many of the types of violations that are addressed in Count VII of this Complaint. With few exceptions, the injunctive provisions of the consent decree have expired. The consent decree itself contains express limits on any res judicata or other potentially preclusive effects of the consent decree on future enforcement actions. The consent decree also states: “Except as specifically provided by this Consent Decree, nothing in this Consent Decree shall relieve ExxonMobil of its obligation to comply with all applicable federal, state and local laws and regulations, permits, and administrative orders, including but not limited to, more stringent standards.” The Consent Decree further states: “The United States and Applicable Co-Plaintiffs [the three States] do not, by their consent to the entry of this Consent Decree, warrant or aver in any manner that ExxonMobil’s compliance with this Consent Decree will result in future compliance with the provisions of the Clean Air Act and/or corresponding state or local laws.” The consent decree has not abated the Clean Air Act violations alleged in this Complaint.

PRAYER FOR RELIEF

WHEREFORE, based upon all the allegations contained in paragraphs 1 through 88, above, Plaintiffs request that this Court:

1. Declare Defendants to have violated and to be in continuing violation of the CAA;
2. Permanently enjoin Defendants from operating all stationary sources of air pollutants at the Baytown Complex except in accordance with the CAA and any applicable permits and regulatory requirements;

3. Order Defendants to take appropriate actions to remedy, mitigate, or offset the harm to public health and the environment caused by the violations of the Act alleged above;

4. Assess a civil penalty against Defendants of up to \$32,500 per day for each violation of the Act and applicable permits and regulations occurring during the applicable statute of limitations period (five years plus 60 days) prior to January 12, 2009, and up to \$37,500 per day for each violation of the Act and applicable permits and regulations occurring on and after January 12, 2009, as provided by 42 U.S.C. §§ 7413(e) and 7604(a) and (g);

5. Order Defendants to pay reasonable attorneys' fees and costs (including expert witness fees), as provided by 42 U.S.C. § 7604(d);

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

Dated: December 13, 2010

Respectfully submitted,

/s/ Philip J. Hilder

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