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I. Introduction

Biodiesel is an alternative fuel made from sources other than petroleum that can be used in diesel engines.[1] It is usually made from soybean or canola oil, but can also be produced from other materials, such as animal fats.[2] It can be blended with petroleum diesel to produce a fuel composed of both diesel and biodiesel.[3] The most common blend is B20, which is a mixture of 20 percent biodiesel and 80 percent petroleum diesel

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1. CAL. ENERGY COMM'N, Biodiesel as a Transportation Fuel, Publication No. CEC-600-2005-028-FS, June 2006, *available at* http://www.energy.ca.gov/2005 publications/CEC-600-2005-028/CEC-600-2005-028-FS.PDF; NAT'L BIODIESEL BD., *Biodiesel* FAQs (2012) [hereinafter *Biodiesel* FAQS], *available at* http://www.biodiesel.org/ resources/faqs/.

2. Energy Business Daily, *What Are Biofuels and How Much Do We Use?*, ENERGY BUSINESS DAILY (Sept. 24, 2009), http://energybusinessdaily.com/oil/alternative-fuels/what-are-biofuels-and-how-much-do-we-use/.

3. *Biodiesel* FAQs, *supra* note 1.

fuel.[4,5] Production of biodiesel in the United States has been steadily increasing over the past decade, with 500,000 gallons produced in 1999 and 700 million gallons produced in 2008.[6] The production of biodiesel has been incentivized through national programs such as the Energy Independence and Security Act of 2007 ("EISA").[7] This act required 500 million gallons in annual sales of biodiesel in 2009, and requires 1 billion gallons of annual sales in 2012.[8] Further, former California Governor Arnold Schwarzenegger issued an executive order in 2006 that set increased biofuel production targets of 20 percent by 2010, 40 percent by 2020, and 75 percent by 2050.[9] It seems clear that biodiesel is a rapidly growing part of the fuels consumed in both California and the United States, and that consumption of biodiesel will continue to increase over time. This increased consumption warrants a greater focus on this fuel and the consequences of its use. Scientific evidence has established that biodiesel is not the clean, "green" fuel that some have purported it to be. Studies have found that the combustion of biodiesel fuel causes increased nitrogen oxide ("NOx") emission levels.[10] This is significant because increased NOx emissions cause higher levels of ozone and particulate matter, both of which are problems in California. Because California regulations do not sufficiently address biodiesel NOx emissions, regulatory measures should be taken to prevent this fuel from degrading California's air quality and aggravating the state's nonattainment situation. The state of Texas had NOx emissions problems but was able to reduce these emissions after receiving permission from the Environmental Protection Agency ("EPA") to regulate biodiesel fuel

4. University of Cal., Davis, & University of Cal., Berkeley, for the Cal. Envtl. Prot. Agency Multimedia Working Grp., *California Biodiesel Multimedia Evaluation Tier I Report*, 13 (Dec. 2008) [hereinafter *Tier I Report*], *available at* http://www.arb.ca.gov/fuels/multimedia/011609mmebiodrpt.pdf.

5. B100, or pure biodiesel, can be used without blending it with petroleum diesel, but this may require engine modifications to avoid maintenance and performance problems. BEYOND FOSSIL FUEL.COM, *Learn About BioDiesel Alternative Fuel*, http://www.beyondfossilfuel.com/biodiesel/ (last visited Feb. 12, 2012).

6. *Biodiesel* FAQs, *supra* note 1.

7. Energy Policy Act of 2005, H.R. 6, 109th Cong. (2005); TEX. STATE ENERGY CONSERV. OFFICE, *Energy Policy Act of* 2005 (H.R. 6), http://www.seco.cpa.state.tx.us/energy-sources/biomass/epact2005.php (last visited Feb. 12, 2012); NAT'L BIODIESEL BD., RFS2 – *Energy Independence and Security Act of* 2007 (Feb. 3, 2010) [hereinafter RFS2], http://www.biodiesel.org/news/RFS/default.shtm.

8. *Id.*

9. Cal. Exec. Order No. S-06- (April 25, 2006), *available at* www.dot.ca.gov/hq/energy/Exec%20Order%20S-06-06.pdf.

10. OFFICE OF TRANSP. & AIR QUALITY, EPA, EPA420-P-02-001, *A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions: Draft Technical Report*, 37, 100 (Oct. 2002) [hereinafter *Exhaust Draft Report*], *available at* http://www.epa.gov/otaq/models/analysis/biodsl/ p02001.pdf.

more stringently than the federal standards. Since California has statutory authority in the Clean Air Act ("CAA"), exempting it from federal preemption to regulate motor vehicle fuels for emissions control, the state should be able to regulate biodiesel more stringently for NOx emissions without needing a State Implementation Plan ("SIP") waiver from EPA. Even if California does not have such exemption authority, case law has not established that California would be preempted from regulating biodiesel more stringently. If California is federally preempted from regulating biodiesel more stringently, the state can seek a SIP waiver. However, in that case, political considerations must be taken into account, and it would be prudent for the state to seek such a waiver relatively soon, while political conditions are supportive of an EPA grant for such a waiver.

II. The Problem With Biodiesel

Biodiesel has been described as a clean fuel without harmful effects on the environment or human health.[11] Scientific studies, however, indicate that although biodiesel is less dirty than conventional diesel in some respects, it is by no means a clean fuel, and its emissions are a threat to the environment and human health. Specifically, scientific research has determined that the combustion of biodiesel could increase emissions of NOx and some toxic air pollutants.[12] In 2002, EPA analyzed the effect of biodiesel on exhaust emissions from diesel-powered vehicles.[13] The findings of this report indicated that NOx emissions increase with increasing biodiesel concentration.[14] Subsequent scientific studies have made similar findings.[15] Since NOx emissions have a large impact on ambient ozone, this is a matter of concern.[16] Multiple scientific studies have linked ground-level ozone with a variety of ill effects in humans, including airway irritation, aggravation of asthma, increased susceptibility to respiratory illnesses like pneumonia and bronchitis, and permanent lung damage with repeated

11. *Biodiesel* FAQs, *supra* note 1.

12. *Tier* I *Report*, *supra* note 4.

13. *Exhaust Draft Report*, *supra* note 10.

14. *Id*. at 37, 41, 100.

15. R.E. MORRIS & Y. JIA, ENVIRON INTERNATIONAL CORPORATION, IMPACT OF BIODIESEL FUELS ON AIR QUALITY AND HUMAN HEALTH: TASK 4 REPORT, NREL/SR-540-33797 (May 2003), *available at* http://www.nrel.gov/docs/fy03osti/33797.pdf; ROBERT L. MCCORMICK ET AL., NAT'L RENEWABLE ENERGY LAB., U.S. DEPT. OF ENERGY, NREL/CP-540-37508, REGULATED EMISSIONS FROM BIODIESEL TESTED IN HEAVY-DUTY ENGINES MEETING 2004 EMISSION STANDARDS, (May 2005), *available at* http://www.nrel.gov/vehicles andfuels/npbf/pdfs/37508.pdf.

16. *Tier* I *Report*, *supra* note 4. This report indicates that because there are few methods of reducing NOx from a broad range of combustion sources, any small increase in NOx from biodiesel could affect the California State Implementation Plan.

exposure.[17] Even when inhaled at low levels, ozone can cause acute respiratory problems, temporarily decrease lung capacity in 15 percent to 20 percent of healthy adults, cause lung tissue inflammation, lead to hospital admissions and emergency room visits, and impair the body's immune system defenses.[18] Additionally, an association has been identified between incidents of high concentrations of ozone and appendicitis.[19] A recent study performed by the University of Calgary and published in the *Canadian Medical Association Journal* found that high levels of ozone increased the risk of appendicitis by approximately 30 percent, and high levels of nitrogen oxide increased the risk of this condition by about 75 percent.[20] This study also found that summer days, when the concentration of ozone and nitrogen oxide was highest, were "significantly associated" with appendicitis.[21, 22] Children are at the highest risk from ozone exposure, and they are also more likely to have asthma, which may be aggravated by ground-level ozone.[23] Finally, ground-level ozone has environmental effects, including interference with the ability of sensitive plants to produce and store food, damage to tree and plant leaves, and reduction in forest growth and crop yields.[24]

NOx emissions also contribute to particulate matter through chemical reactions in the atmosphere.[25, 26] "Particulate matter" refers to particles in

17. EPA, EPA-452/F-99-003, *Ozone and Your Health* (Sept. 1999) [hereinafter *Ozone and Health*], *available at* http://www.epa.gov/groundlevelozone/pdfs/health.pdf.

18. Approval and Promulgation of State Implementation Plans; California—South Coast, 64 Fed. Reg.1770-02 at 1772 (Jan. 12, 1999).

19. Amanda Gardner, *Air Pollution May Cause Appendicitis: Study*, ABC News (Oct. 06, 2009), http://abcnews.go.com/Health/Healthday/air-pollution-appendicitis-study/story?id=8758120&page=1.

20. Joanna Smith, *Ottawa to Study Whether Smog Inflames Appendices*, Toronto Star (May 07, 2010), *available at* http://www.thestar.com/news/canada/article/806218-ottawa-to-study-whether-smog-inflames-appendices.

21. *Id.*

22. Studies have shown that air pollution may promote disease through inflammation, and this may be the mechanism by which air pollution increases the risk of appendicitis. American College of Gastroenterology, *Air Pollution May Increase Risk Of Appendicitis*, *ScienceDaily* (Oct. 6, 2008), http://www.sciencedaily.com/releases/2008/10/081006102537.htm.

23. *Ozone and Health*, *supra* note 17.

24. EPA, *Ground-Level Ozone: Health* (last updated July 06, 2011), http://www.epa.gov/groundlevelozone/health.html.

25. EPA, *Mobile Source Emissions - Past, Present, and Future, Nitrogen Oxides* (last updated Jan. 17, 2012), http://www.epa.gov/oms/invntory/overview/pollutants/nox.htm.

26. Although studies show that biodiesel blends reduce particulate matter emissions at the point of combustion, reports also suggest that increased NOx emissions resulting from the use of biodiesel may cause an overall increase in particulate matter.

the air that can contain a variety of chemical components.[27] While large particles are visible as smoke or dust, the smallest particles can be suspended in the air for long periods and are the most harmful to human health because they can penetrate deep into the lungs.[28] Human health effects associated with particulate matter include irritation of the airways, difficulty breathing, decreased lung function, asthma, chronic bronchitis, irregular heartbeat, heart attacks, and premature death in people with heart or lung disease.[29] Studies attribute 60,000 deaths each year in the United States to particulate matter.[30] Approximately 9,000 people in California die prematurely each year because of fine particle pollution.[31]

NOx also causes acid rain and a reduction in the amount of oxygen dissolved in coastal waters.[32] "Acid rain" is a broad term referring to deposited material from the atmosphere containing higher than normal amounts of nitric and sulfuric acids.[33] It occurs when gases react in the atmosphere with water, oxygen, and other chemicals to form acidic compounds.[34] The result is a mixture of sulfuric and nitric acid.[35] Acid rain increases acidification of lakes and streams, damages trees, and accelerates the decay of buildings, statues, and sculptures.[36] Oxygen depletion in coastal waters is associated with habitat loss, fish kills, and an increase in the number of harmful algal blooms.[37]

The 2002 EPA analysis referenced above also investigated the impact

27. EPA, *Mobile Source Emissions - Past, Present, and Future: Glossary, Particulate Matter* (last updated Jan. 3, 2012), http://www.epa.gov/oms/invntory/overview/definitions.htm#pm.

28. *Id.*

29. EPA, *Particulate Matter: Health Effects*, http://www.epa.gov/pm/health.html (last visited Feb. 12, 2012).

30. Philip J. Hilts, *Studies Say Soot Kills Up to 60,000 in the U.S. Each Year*, N.Y. TIMES (Jul. 19, 1993), *available at* http://www.nytimes.com/1993/07/19/us/studies-say-soot-kills-up-to-60000-in-us-each-year.html?pagewanted=all&src=pm.

31. CAL. AIR RESOURCES BD., CAL. ENVTL. PROT. AGENCY, RELEASE #10-48, FINE PARTICLE AIR POLLUTION RESPONSIBLE FOR 9,000 PREMATURE DEATHS IN CALIFORNIA EACH YEAR (Aug. 31, 2010), *available at* http://www.arb.ca.gov/newsrel/newsrelease.php?id=149.

32. EPA, *Glossary, Nitrogen Oxides* (NO*x*) (last updated Aug. 14, 2008), http://www.epa.gov/acidrain/glossary.html.

33. EPA, *What Is Acid Rain?* (last updated June 8, 2007), http://www.epa.gov/acidrain/what/.

34. *Id.*

35. *Id.*

36. EPA, *Effects of Acid Rain* (last updated June 8, 2007), http://www.epa.gov/acidrain/effects/index.html.

37. NANCY N. RABALAIS, STATE OF THE COASTAL ENVIRONMENT, OXYGEN DEPLETION IN COASTAL WATERS, NAT'L OCEANIC & ATMOSPHERIC ADMIN. 1, 20 (1998), http://oceanservice.noaa.gov/websites/retiredsites/sotc_pdf/HYP.pdf.

of biodiesel on emissions of unregulated hazardous air pollutants, or toxics, suspected to cause cancer or other serious health effects.[38] The analysis found that although overall toxins are reduced when biodiesel is added to conventional diesel fuel, such a conclusion could not be made for individual toxic compounds, and that emissions of the toxic compounds Benzene and Toluene may increase when biodiesel is added to petroleum diesel.[39] Scientific evidence also indicates that the use of biodiesel blends may increase formaldehyde emissions.[40] Since biodiesel is typically blended with petroleum diesel, the emissions problems associated with diesel fuel are still present in biodiesel blends. Diesel fuel is associated with 21,000 premature deaths, 27,000 nonfatal heart attacks, 410,000 asthma attacks, and 2.4 million lost workdays in the United States every year.[41] Including the toll of premature deaths, the health damages from diesel fine particles emissions totaled $139 billion in 2010.[42] Those most vulnerable to diesel fuel emissions are children, because their lungs are still developing, and the elderly, who may have other serious health problems.[43] Diesel fuel emissions contribute to approximately 2,000 premature deaths each year in California.[44] Although biodiesel has been characterized by some as a clean-burning, nontoxic fuel, the above scientific evidence demonstrates that this is not the case, whether used on its own or in petroleum diesel blends.

Under the CAA, the EPA promulgates national ambient air quality standards ("NAAQS"), which create limits on emissions for criteria pollutants that endanger the public health or welfare.[45] There are six criteria pollutants: particle pollution, or particulate matter; ground-level ozone; carbon monoxide; sulfur oxides; nitrogen oxides; and lead.[46] Each state has the primary responsibility for assuring the air quality of that state, and submits a State Implementation Plan ("SIP") to the EPA specifying how NAAQS will be achieved and maintained for that state.[47] The governor of

38. *Exhaust Draft Report*, *supra* note 10.

39. *Id.* at 93.

40. *Tier I Report*, *supra* note 4. This report indicates that the combustion of biodiesel blends may result in a statistically significant increase of formaldehyde emissions.

41. Clean Air Task Force, *Diesel and Health in America: The Lingering Threat* (Feb. 2005), http://www.catf.us/resources/publications/view/83.

42. *Id.*

43. CAL. AIR RESOURCES BD., CAL. ENVTL. PROT. AGENCY, HEALTH EFFECTS OF DIESEL EXHAUST, http://www.arb.ca.gov/research/diesel/diesel-health.htm (last reviewed June 21, 2011).

44. *Id.*

45. 42 U.S.C. § 7408 (1998); 40 C.F.R. § 50 (2007).

46. EPA, *What Are the Six Common Air Pollutants* (last updated July 1, 2010), http://www.epa.gov/oaqps001/urbanair/.

47. 42 U.S.C. § 7407(a)(1) (2004); 42 U.S.C.A. § 7410(a)(1) (West 2012).

each state is responsible for reporting to the EPA any area of that state that has not met NAAQS for any specified pollutant.[48] When an area of a state fails to achieve NAAQS for such a pollutant, that part of that state is in nonattainment for that pollutant.[49, 50] Since particulate matter is more prevalent in the northeastern part of the United States, efforts in that part of the country center on complying with NAAQS for that criteria pollutant.[51] In Texas, compliance with NAAQS focuses on ground-level ozone, as that criterion pollutant is more common in that area.[52] California has nonattainment areas for both particulate matter and ground-level ozone.[53] These differences have resulted in different states taking different approaches to the regulation of biodiesel.[54]

III. Regulation of Biodiesel in Texas

Texas is the largest producer of biodiesel transportation fuel in the United States, with a current production capacity of over 100 million gallons per year; including more than twenty commercial biodiesel plants, plus additional plants under construction; and over fifty retail biodiesel fueling sites.[55] Austin, Texas, has more biodiesel fueling stations than any other city in the nation.[56] Texas historically has had and presently has ozone nonattainment problems.[57] For years, the Houston-Galveston-Brazoira area was considered comparable to the Los Angeles area in terms of the magnitude of its ozone pollution problem.[58] Houston has periodically had

48. 42 U.S.C. § 7407(d)(1)(A)(i) (2004).

49. *Id.*

50. Failure to achieve NAAQS can result in sanctions on the state including loss of federal highway funds, federal regulatory controls, and freezing of road construction. Kathleen Hartnett White, ARMSTRONG CENTER FOR ENERGY AND ENVIRONMENT, TEXAS PUBLIC POLICY FOUNDATION, TEXAS' OZONE SUCCESS: CHANGING STANDARDS MASK TEXAS' AIR QUALITY ACHIEVEMENTS (May 2010) [hereinafter Hartnett White], *available at* http://www.texaspolicy.com/pdf/2010-05-RR04-Ozone-khw.pdf.

51. Rudolf M. Smaling, Ph.D., *Environmental Barriers to Widespread Implementation of Biofuels*, 2 ENVT'L & ENERGY L. & POL'Y L. 287, 302 (2008).

52. *Id.*

53. *Id.*

54. *Id.*

55. TEX. STATE ENERGY CONSERV. OFFICE, *Biodiesel Fuel*, http://www.seco.cpa.state.tx.us/re_biodiesel.htm (last visited Feb. 12, 2012).

56. *Id.*

57. EPA, *Green Book: Nonattainment Status for Each County by Year for Texas Including Previous 1-Hour Ozone Counties* (as of Aug. 30, 2011) [hereinafter *Green Book*], http://www.epa.gov/oaqps001/greenbk/anayo_tx.html.

58. Hartnett White, *supra* note 50.

the worst ozone levels in the country.[59]

The Texas Clean Air Act requires the Texas Commission on Environmental Quality ("TCEQ") to prepare and develop a general, comprehensive plan for the proper control of the state's air.[60] In order to address ozone nonattainment in Texas, TCEQ created the Texas Low Emissions Diesel Program ("TxLED").[61] The goal of this program is to lower emissions of NOx and other pollutants from diesel-powered motor vehicles and off-road equipment.[62] TxLED prohibits the sale or supply of diesel fuel that may ultimately be used to power a diesel-fueled compression-ignition engine in affected counties if the fuel does not comply with TxLED requirements.[63] One method of TxLED compliance involves diesel fuel not exceeding specified maximum aromatic hydrocarbon content limits or failing to achieve minimum cetane numbers.[64, 65] The limits on aromatic hydrocarbons and cetane numbers reduce the amount of NOx produced during diesel combustion.[66,67] TCEQ considers biodiesel an additive when blended with petroleum diesel, and as such it is subject to the TxLED regulations.[68]

59. Eric Berger, H*igh ozone levels tied to early death*: H*ouston is one of the cities where a 'landmark' study discovered a link*, THE HOUSTON CHRONICLE (Nov. 17, 2004).

60. TEX. HEALTH & SAFETY CODE ANN. § 382.012 (West).

61. TEX. COMM'N. ON ENVTL. QUALITY, T*exas Low Emission Diesel* (TxLED) P*rogram* (last modified Jan. 25, 2012), *available at* http://www.tceq.state.tx.us/implementation/air/sip/cleandiesel.html.

62. I*d*.

63. 30 TEX. ADMIN. CODE § 114.312.

64. 30 TEX. ADMIN. CODE §§ 114.312(b), (c).

65. Aromatic hydrocarbons are byproducts of petroleum combustion. Many of these compounds are highly carcinogenic at relatively low levels. U.S. GEOLOGICAL SURVEY, U.S. DEPT. OF THE INTERIOR, T*oxic Substances Hydrology Program* (last modified Aug. 10, 2010), *available at* http://toxics.usgs.gov/definitions/pah.html.

66. Approval and Promulgation of Air Quality State Implementation Plans (SIP); Texas: Low Emission Diesel Fuel, 66 FR 36542-01 (2001).

67. Higher cetane and lower aromatic hydrocarbon numbers improve diesel fuel quality. The cetane number indicates the readiness of diesel fuel to spontaneously ignite. The higher the cetane number, the shorter the delay between fuel injection and ignition, and the lower the rate of rise in pressure. This more efficient burning of fuel results in lower NOx and particulate matter emissions. Aromatic hydrocarbons are high-density hydrocarbons that burn relatively hot due to high product mass and specific heat. These higher peak combustion temperatures result in greater NOx emissions. CAL. AIR RESOURCES BD., D*raft, Staff Review of the Emissions Benefits of California's Diesel Fuel Program* 2, 3, 11 (March 2003).

68. TEX. COMM'N. ENVTL. QUALITY, TCEQ Regulatory Guidance, Air Quality Division, RG000-Draft, Q*uestions and Answers regarding the Texas Low Emission Diesel Fuel* (TxLED) R*egulations* 7 (July 2010), *available at* http://www.tceq.state.tx.us/assets/public/implementation/air/sip/texled/txled_q&a.pdf.

There are federal rules regarding the sale or supply of diesel fuel quality.[69] Specifically, 40 C.F.R. Section 80.29(a) states:

> Prohibited activities. Beginning October 1, 1993 . . . no person, including but not limited to, refiners, importers, distributors, resellers, carriers, retailers or wholesale purchaser-consumers, shall manufacture, introduce into commerce, sell, offer for sale, supply, store, dispense, offer for supply or transport any diesel fuel for use in motor vehicles, unless the diesel fuel . . . (2)(i) Has a cetane index of at least 40; or (ii) Has a maximum aromatic content of 35 volume percent.[70, 71]

Since the TxLED specifies a required minimum cetane number for diesel fuel of 48 and a maximum aromatic hydrocarbon content of diesel fuel of 10 percent by volume per gallon, the state's standards are more stringent than the federal regulations.[72]

42 U.S.C. Section 7545(c)(4)(A) generally prohibits a state from

69. Controls and Prohibitions on Diesel Fuel Quality, 40 C.F.R. § 80.29(a) (2007).

70. *Id.*

71. 40 C.F.R. section 80.29(a) was promulgated pursuant to sections of the U.S.C. Specifically, 42 U.S.C. section 7545(g)(2) states, "Beginning October 1, 1993, no person shall introduce or cause or allow the introduction into any motor vehicle of diesel fuel which such person knows or should know contains a concentration of sulfur in excess of 0.05 percent (by weight) or which fails to meet a cetane index minimum of 40 or such equivalent alternative aromatic level as prescribed by the Administrator under subsection (i)(2) of this section." 42 U.S.C. section 7545(i)(1) states, "Effective October 1, 1993, no person shall manufacture, sell, supply, offer for sale or supply, dispense, transport, or introduce into commerce motor vehicle diesel fuel which contains a concentration of sulfur in excess of 0.05 percent (by weight) or which fails to meet a cetane index minimum of 40." 42 U.S.C. section 7545(i)(2) states, "Not later than 12 months after November 15, 1990, the Administrator shall promulgate regulations to implement and enforce the requirements of paragraph (1). The Administrator may require manufacturers and importers of diesel fuel not intended for use in motor vehicles to dye such fuel in a particular manner in order to segregate it from motor vehicle diesel fuel. The Administrator may establish an equivalent alternative aromatic level to the cetane index specification in paragraph (1)."

72. 30 Tex. Admin. Code section 114.312(a) states, "No person shall sell, offer for sale, supply, or offer for supply, dispense, transfer, allow the transfer, place, store, or hold any diesel fuel in any stationary tank, reservoir, or other container in the counties listed in § 114.319 of this title (relating to Affected Counties and Compliance Dates), that may ultimately be used to power a diesel fueled compression-ignition engine in the affected counties, that does not meet either the low emission diesel fuel (LED) standards of subsections (b) and (c) of this section…." 30 Tex. Admin. Code section 114.312(b) states, "The maximum aromatic hydrocarbon content of LED is 10% by volume per gallon…." 30 Tex. Admin. Code section 114.312(c) states, "The minimum cetane number for LED is 48."

prescribing motor vehicle fuel characteristics that EPA has regulated, unless the state control is identical to the federal control.[73] This section of the Code states:

> Except as otherwise provided in subparagraph (B) or (C), no State (or political subdivision thereof) may prescribe or attempt to enforce, for purposes of motor vehicle emission control, any control or prohibition respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine . . . (ii) if the Administrator has prescribed . . . a control or prohibition applicable to such characteristic or component of a fuel or fuel additive, unless State prohibition or control is identical to the prohibition or control prescribed by the Administrator.[74, 75]

Because the TxLED regulates diesel engine fuel for the purpose of emissions control more stringently than the federal regulations, there is a potential federal preemption issue of the TxLED regulations. The CAA, however, provides that a state can impose an emissions standard that is more stringent than the federal standard by applying to the EPA for a SIP waiver.[76] 42 U.S.C. Section 7545(c)(4)(C) states:

> A State may prescribe and enforce, for purposes of motor vehicle emission control, a control or prohibition respecting the use of a fuel or fuel additive in a motor vehicle or motor vehicle engine if an applicable implementation plan for such State . . . so provides. The Administrator may approve such provision in an implementation plan….[77]

TCEQ petitioned EPA for a SIP waiver to allow it to more stringently regulate cetane and aromatic hydrocarbons, arguing that these requirements were necessary in order for it to reduce NOx and thereby achieve the ozone NAAQS.[78] On November 14, 2001, EPA granted the waiver, indicating that Texas had adequately demonstrated the necessity for these fuel requirements in order to achieve the NAAQS in ozone

73. Approval and Promulgation of Air Quality State Implementation Plans (SIP); Texas: Low Emission Diesel Fuel, 66 Fed. Reg. 57196-01at 57204 (Nov. 14, 2001).

74. 42 U.S.C.A. § 7545(c)(4)(A) (2009).

75. Although not defined within the Code or the Clean Air Act, the term "Administrator" refers to the administrator of the EPA.

76. 42 U.S.C. Section 7545(c)(4)(C) (2009).

77. *Id*.

78. Approval and Promulgation of Air Quality State Implementation Plans (SIP); Texas: Low Emission Diesel Fuel, 66 FR 20415-01.

nonattainment areas.[79]

From 1999 to 2009, ozone levels improved across the state of Texas.[80] From 1998 to 2008, the economic growth rate in Texas was 38.8 percent, which was significantly better than the overall U.S. rate of 28 percent.[81, 82] During this time period, ozone levels in the Houston region decreased from 120 parts per billion (ppb) in 1999 to 84 ppb in 2009, and in 2009, Houston met the federal eight-hour ozone standards for the first time.[83, 84] In addition to Houston area improvements, ozone levels have steadily declined in several other Texas regions that previously exceeded federal standards.[85] Texas attributes its success in reducing ozone in part to its NOx regulations, which it describes as some of the most stringent regulations in the United States.[86]

IV. California Should Regulate Biodiesel More Stringently

California produces a relatively small amount of biodiesel and imports approximately 95 percent of the biodiesel it consumes.[87] Presently, there are three biodiesel plants in California and plans to open a total of four more in the near future, producing 25 million gallons annually.[88] There are currently

79. TCEQ, Dallas/Fort Worth Attainment Demonstration Table of Contents, *available at* http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2000-04-DFW/99055dfwsip_ado.pdf; 66 FR 57196-01.

80. Hartnett White, *supra* note 50.

81. *Id*.

82. From 2000 to 2009, ozone levels in Texas decreased by 27 percent statewide, more than in any other state. The rest of the nation averaged a 12 percent decrease in ozone levels over this time period. TEX. COMM'N. ON ENVTL. QUALITY, *Texas Air Quality Successes* (last modified Nov. 29, 2011), http://www.tceq.texas.gov/implementation/air/airsuccess/.

83. Hartnett White, *supra* note 50.

84. This is the amount of ozone measured over an eight-hour period. U.S. DEPT. OF TRANSP., FED. HIGHWAY ADMIN., *Air Quality Transportation Conformity*: 2008 *8-hour Ozone Standards*, *available at* http://www.fhwa.dot.gov/environment/air_quality/conformity/laws_and_regs/2008standards.cfm (last visited Feb. 12, 2012).

85. Hartnett White, *supra* note 50.

86. TEX. COMM'N. ON ENVTL. QUALITY, *Texas Has Some of the Most Stringent Emission Regulations in the* U.S. (last modified July 22, 2012) [hereinafter *Texas Stringent Regulations*], http://www.tceq.texas.gov/implementation/air/airsuccess/regulations.

87. UNIV. OF CAL. SANTA BARBARA, DONALD BREN SCH. OF ENVTL. SCIENCE & MGMT., Biogeography Lab, *Biofuels and Biodiversity in California*, http://www.biogeog.ucsb.edu/projects/biofuels/CEC_biofuels.htm (last visited Feb. 12, 2012)..

88. EPA, REGION 9, *Biodiesel Activity in California*, "First Biodiesel Plant Opens Along California's Central Coast," *available at* http://www.epa.gov/region9/waste/biodiesel/california.html (last visited Feb. 12, 2012).

thirty-four stations in California that sell biodiesel, and two more planned.[89] California colleges, cities, and transit systems use biodiesel in their fleets. In San Diego, the University of San Diego runs thirty shuttle buses that all use B20 biodiesel.[90] The cities of Berkeley and Santa Monica run their diesel vehicles on a biodiesel/petroleum blend,[91] and multiple San Francisco agencies use biodiesel, including the Department of Public Works, MUNI buses, the San Francisco Airport, San Francisco Zoo, and the San Francisco Fire Department.[92] San Francisco has over 800 alternative fuel vehicles in its fleet and plans to expand the use of biodiesel in its vehicles in the future.[93] It will be the largest city in the United States to implement such a widespread biodiesel initiative.[94]

California, like Texas, has a significant number of areas that are in ozone nonattainment.[95] As an example, in 1994, the Los Angeles-Long Beach area recorded ozone levels at or above 120 ppb on 107 days, and the Riverside-San Bernardino area recorded these same levels on 123 days that year.[96] During this same time, other major metropolitan areas had values at or above 120 ppb on far fewer days.[97] Specifically, Houston had values at or above 120 ppb on thirty-two days, New York nine days, Detroit six days, Philadelphia five days, Atlanta four days, and Chicago two days.[98]

California also has many areas that are in nonattainment for particulate matter.[99] California's particulate matter problem results in the

89. U.S. DEPART. OF ENERGY, ENERGY EFFICIENCY AND RENEWABLE ENERGY, *Alternative Fuels and Advanced Fuels Data Center, Biodiesel Fueling Stations in California* (last updated Jan. 14, 2010), http://www.afdc.energy.gov/afdc/progs/ind_state.php/CA/BD.

90. Rex Graham, UNIV. OF CAL. SAN DIEGO, *UC San Diego Vehicle Fleet One of America's Greenest*, UC SAN DIEGO NEWS CTR. (Nov. 16, 2010), *available at* http://ucsdnews.ucsd.edu/newsrel/awards/11-16VehicleFleet.asp.

91. T.T. Nhu, *Berkeley City Vehicles Go Better With Biodiesel, San Jose Mercury News* (July 14, 2003), http://www.ci.berkeley.ca.us/news/print.asp?id=4628; CITY OF SANTA MONICA, OFFICE OF SUSTAINABILITY AND THE ENV'T, *Sustainable City Progress Report, Transportation: Alternative Fuel Vehicles* (last updated May 17, 2010), http://www.smgov.net/Departments/OSE/Categories/Sustainability/Sustainable_City_Progress_Report/Transportation/Alternative_Fuel_Vehicles_-_City_Fleet.aspx.

92. EPA, REGION 9, *Biodiesel Activity in California*, "San Francisco Sets Goals for Diesel-Fueled Vehicles," *available at* http://www.epa.gov/region9/waste/biodiesel/california.html (last updated Feb. 12, 2012).

93. *Id.*

94. San Francisco Municipal Transportation Authority, *Hybrid Buses*, *available at* http://www.sfmta.com/cms/mfleet/hybrids.htm (last visited Feb. 12, 2012).

95. *Green Book*, *supra* note 57.

96. Approval and Promulgation of State Implementation Plans; California—South Coast, Fed. Reg. 64,1770-02 at 1773 (Jan. 12, 1999).

97. *Id.*

98. *Id.*

99. *Green Book*, *supra* note 57.

premature death of 14,000 to 24,000 Californians every year.[100] The majority of the impact from particulate matter in California occurs in the southern California, San Francisco Bay, and San Joaquin Valley areas.[101] NOx is the primary precursor of particulate matter in the South Coast Air Basin.[102, 103]

In California, biodiesel blends of less than 50 percent ("B50") are defined as meeting the definition of diesel.[104, 105] Biodiesel blends from 50 to 100 percent are exempt from the diesel fuel regulations.[106] California regulates diesel fuel by requiring it contain no more than fifteen parts per million ("ppm") sulfur and ten percent aromatics ("aromatic hydrocarbons").[107, 108] Biodiesel blends of less than 50 percent must therefore meet the sulfur and aromatic specifications for diesel fuel.[109] Since the most common blend of biodiesel is B20, most biodiesel used in California must comply with the California diesel fuel rules, which are more stringent than the federal rules.[110]

100. CAL. ENVTL. PROTECTION AGENCY, AIR RESOURCES BD., *Revised Estimates of Premature Death Associated with* PM 2.5 *Exposure in California* (May 22, 2008), *available at* http://www.arb.ca.gov/board/books/2008/052208/08-5-5pres.pdf.

101. *Id*.

102. Approval and Promulgation of Air Quality State Implementation Plans (SIP); Texas: Low Emission Diesel Fuel, 66 Fed. Reg. 57196-01at 57204 (Nov. 14, 2001).

103. The South Coast Air Basin includes all of Orange County, the southwestern two-thirds of Los Angeles County, southwestern San Bernardino County, and western Riverside County, 74 FR 10176-01. These are the more populated portions of Los Angeles, San Bernardino, and Riverside counties, 75 FR 39366-01.

104. CAL. ENVTL. PROTECTION AGENCY, AIR RESOURCES BD., *Draft Advisory on Biodiesel Use* (revised Nov. 14, 2006), *available at* http://www.arb.ca.gov/fuels/diesel/altdiesel/111606biodsl_advisory.pdf.

105. "'Diesel fuel' means any fuel that is commonly or commercially known, sold or represented as diesel fuel, including any mixture of primarily liquid hydrocarbons that is sold or represented as suitable for use in an internal combustion, compression-ignition engine." 13 CA ADC Section 2282(b)(3).

106. CAL. ENVTL. PROTECTION AGENCY, AIR RESOURCES BD., *Draft Advisory on Biodiesel Use* (revised Nov. 14, 2006), *available at* http://www.arb.ca.gov/fuels/diesel/altdiesel/111606biodsl_advisory.pdf.

107. 13 Cal. Code Regs. § 2282 (1993).

108. There are alternate methods of complying with the California diesel fuel regulations that involve testing programs requiring minimum cetane numbers. 13 Cal. Code Regs. § 2282(g), (h).

109. CAL. ENVTL. PROTECTION AGENCY, AIR RESOURCES BD., *Draft Advisory on Biodiesel Use* (revised Nov. 14, 2006), *available at* http://www.arb.ca.gov/fuels/diesel/altdiesel/111606biodsl_advisory.pdf.

110. The federal rules only require a 35 volume percent maximum for aromatic hydrocarbons. Controls and Prohibitions on Diesel Fuel Quality, 40 C.F.R. § 80.29(a) (2007).

The California Air Resources Board ("CARB") has stated that there is growing pressure to increase the use of biodiesel in the state in part due to the executive order issued by former Governor Arnold Schwarzenegger in 2006 setting increased biofuel production targets.[111] CARB has further recognized that increases in biodiesel use may lead to greater emissions of NOx, resulting in greater difficulty for local air districts to meet ozone standards.[112, 113] A study performed by the University of California, Davis, and the University of California, Berkeley, indicated that there are few ways of reducing NOx from combustion sources in California, and that even small increases in this pollutant resulting from the use of biodiesel could affect California's State Implementation Plan.[114]

It seems clear that there is a need for California to regulate biodiesel more stringently than current federal or California regulations require. One method is to follow the method used in Texas, which requires lower maximum limits on aromatic hydrocarbons and higher minimum limits on cetanes.[115] Since these limits appear to have resulted in the desired outcome in Texas, it is reasonable to believe that such requirements would produce a similarly desired effect in California.[116]

V. California is Exempt From Explicit Federal Preemption to Regulate Biodiesel More Stringently

Although it would seem that California would need to seek a SIP waiver in order to more stringently regulate cetane and aromatic hydrocarbon diesel fuel limits, as was the case in Texas, there is a provision in the CAA that allows California to regulate fuels or fuel additives in motor vehicles for emission control more stringently than federal regulations require.[117] Under 42 U.S.C. Section 7545(c)(4)(B),

> Any state for which application of section 7543(a) of this title has at any time been waived under 7543(b) of this title may at any time prescribe and enforce, for the purpose of motor vehicle emission control, a control or prohibition respecting any fuel or

111. California Environmental Insider, Air Quality: D*raft* B*iodiesel* A*dvisory* R*eleased*, 20 No. 12 Cal. Envtl. Insider 6 (Nov. 30, 2006).

112. I*d*.

113. CARB is considering regulating biodiesel for NOx emissions, but has not yet done so. Lex, Mitchell, Biodiesel and Renewable Diesel Meetings, B*iodiesel and* R*enewable* D*iesel* R*ulemaking* W*orkshop*, CAL. AIR RESOURCES BD, (Jan. 20, 2010), *available at* http://www.arb.ca.gov/fuels/diesel/altdiesel/100519BiodieselWorkshopPresB&W.pdf.

114. T*ier* I R*eport*, *supra* note 4.

115. 30 Tex. Admin. Code § 114.312(b), (c).

116. T*exas* S*tringent* R*egulations*, *supra* note 86.

117. 42 U.S.C. § 7545(c)(4)(B) (2009).

fuel additive.[118]

California is the only state that qualifies for this preemption exemption.[119] This provision exempts California from being preempted from regulating diesel fuel more stringently than the federal standards, and allows the state to regulate this fuel for cetane and aromatic hydrocarbons without EPA approval. Accordingly, California does not need an EPA SIP waiver to prescribe and enforce cetane and aromatic hydrocarbon diesel fuel limits that are more stringent than the federal standards for controlling motor vehicle NOx emissions. Although some federal court decisions have found that this exemption is limited, these cases can be distinguished from a regulation for biodiesel fuel specifying more stringent limits for aromatic hydrocarbons and cetane.[120]

In *Oxygenated Fuels v. Davis*, the Oxygenated Fuels Association ("OFA") challenged the decision of former California Governor Gray Davis to phase out the use of Methyl Tertiary Butyl Ether ("MTBE") from gasoline.[121, 122] MTBE is an oxygenate used in gasoline to fulfill Congressional oxygenate requirements set by Congress in the 1990 Clean Air Act Amendments.[123, 124, 125, 126] MTBE had been detected in groundwater and drinking-

118. 42 U.S.C. section 7543(b) waives application of 42 U.S.C. section 7543(a), having to do with prohibiting enforcement of any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines, for any state that has adopted standards for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966. California is the only state that adopted such standards prior to March 30, 1966. *Rocky Mountain Farmers Union v. Goldstene*, 719 F.Supp.2d 1170, 1176 (E.D. Cal. 2010); *Davis v.* E.P.A., 348 F.3d 772, 777 (9th Cir. 2003).

119. *Rocky Mountain Farmers*, 719 F.Supp.2d at 1176; *Davis v.* E.P.A., 348 F.3d at 777.

120. *Oxygenated Fuels v. Davis*, 331 F.3d 665 (9th Cir. 2003); *Davis v.* E.P.A., 348 F.3d 772.

121. *Oxygenated Fuels v. Davis*, 331 F.3d at 667.

122. MTBE has been used in gasoline in the United States since 1979 to replace lead as an octane enhancer because it helps prevent automobile engine knocking. EPA, *Methyl Tertiary Butyl Ether* (MTBE) *Overview* [hereinafter MTBE *Overview*], http://www.epa.gov/mtbe/faq.htm (last visited Feb. 12, 2012).

123. Oxygen helps gasoline burn more completely, resulting in "cleaner" tailpipe emissions. *Id.*

124. Oxygenated gasoline is used in a wintertime program to reduce emissions of carbon monoxide (CO) from motor vehicles. EPA, OFFICE OF TRANSP. & AIR QUALITY, *Fuel and Fuel Additives: State Winter Oxygenated Fuel Programs* (last updated Nov. 21, 2011), http://www.epa.gov/otaq/fuels/gasolinefuels/winterprograms/index.htm.

125. Presently, approximately 30 percent of gasoline in the U.S. is reformulated, of which about 87 percent contains MTBE. Refiners primarily use MTBE as the main oxygenate in reformulated gasoline in cities outside of the Midwest due to economic reasons and its blending characteristics. EPA, *Methyl*

water sources.[127, 128] and on December 9, 1999, California banned the use of MTBE as a fuel additive because of its effect on groundwater.[129] In O*xygenated* F*uels*, the Court of Appeals for the Ninth Circuit held that because the purpose of the MTBE regulation was to protect groundwater, it was "not enacted for the purpose of emission control and therefore is not expressly exempted from preemption under . . . the Clean Air Act."[130] Since regulating biodiesel for NOx emissions would be for the purpose of emission control and not to protect groundwater or for some other purpose, the holding of the Ninth Circuit in O*xygenated* F*uels* regarding the preemption exemption should not affect such a California regulation.

Another case that addressed California's fuel exemption in the Clean Air Act is D*avis v*. E.P.A. In that case, former Governor Gray Davis petitioned for judicial review of EPA's decision to deny California a waiver of the oxygenation requirement of the federal reformulated gasoline program that Governor Davis had requested under 42 U.S.C. Section 7545(k)(2)(B).[131.132.133] As part of its argument, California claimed that it was exempt from federal preemption to regulate its own fuel requirements under 42 U.S.C. Section 7545(c)(4)(B), and therefore it did not require EPA approval of the state's

T*ertiary* B*utyl* E*ther* (MTBE), G*asoline*, MTBE *in* F*uels* (last updated July 10, 2008), http://www.epa.gov/mtbe/gas.htm.

126. MTBE has not been sold in California since 2003. EPA, REGION 9, W*aste* P*rograms*, "EPA Takes Action to Protect San Francisco Bay: First Phase of Cleanup Removes 4,100 Pounds of MTBE," http://www.epa.gov/region9/waste/features/tesoro/index.html (last visited Feb. 12, 2012).

127. MTBE O*verview*, *supra* note 122.

128. Leaking gasoline storage tanks released MTBE and other chemicals into groundwater. MTBE travels farther and faster and is more resistant to breakdown than other gasoline ingredients. CONN. DEPT. OF PUB. HEALTH, ENVTL. HEALTH SECTION, Envtl. & Occupational Health Assessment Program, F*act* S*heet*, MTBE *in* D*rinking* W*ater* (July 2000), http://www.ct.gov/dph/lib/dph/environmental_health/eoha/pdf/mtbe.pdf.

129. O*xygenated* F*uels v*. D*avis*, 331 F.3d 665, 667 (9th Cir. 2003).

130. I*d*. at 670.

131. D*avis v*. EPA, 348 F.3d 772, 772, 777 (9th Cir. 2003).

132. The oxygen in reformulated gasoline is a result of adding an oxygenate. Two common oxygenates are MTBE and ethanol. EPA, MTBE F*act* S*heet #3*, U*se and* D*istribution of* MTBE *and* E*thanol*, http://www.epa.gov/oust/mtbe/Mtbefs3.pdf (last visited Feb. 12, 2012).

133. Formerly 42 U.S.C. section 7545(k)(2)(B), which was subsequently stricken by Pub.L. 109-58, section 1504(a)(1)(A)(ii), (iii), read, "The oxygen content of the gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by the Administrator) except as otherwise required by this chapter. The Administrator may waive, in whole or in part, the application of this subparagraph for any ozone nonattainment area upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national primary ambient air quality standard."

own reformulated gasoline program in place of the federal program.[134] The Ninth Circuit held that the structure of this section of the code "makes it clear that the sole purpose of 42 U.S.C. Section 7545(c)(4)(B) is to waive for California the express preemption provision found in 42 U.S.C. Section 7545(c)(4)(A)."[135] The Ninth Circuit also stated that a court has a duty to harmonize two statutory provisions that are part of the same act; that 42 U.S.C. Section 7545(c)(4)(B) must be read in conjunction with 42 U.S.C. Section 7545(k)(2)(B), requiring fuels in certain areas to contain 2 percent oxygen; and that these provisions allow California to impose "its own controls in addition to, rather than in lieu of, the federal oxygen mandate."[136] The Ninth Circuit rejected California's exemption from preemption argument and found that the state must comply with the requirements of 42 U.S.C. Section 7545(k)(2)(B).[137]

Under this proposal California would be regulating biodiesel fuel more stringently than the federal regulations require and a court applying the holding in D*avis* may find that California is not exempt from preemption under 42 U.S.C. Section 7545(c)(4)(B) because 40 C.F.R. 80.29 already specifies aromatic hydrocarbon and cetane limits, and California's regulations would be more stringent than those limits.[138.139] However, 40 C.F.R. 80.29 requires a diesel fuel cetane index of *at least* 40, or *a maximum* aromatic content of 35 volume percent.[140] A court comparing this regulation and a more stringent California regulation for cetane and aromatic hydrocarbons may interpret that the limits in the federal regulation mean *minimum* limits, allowing for more stringent state limits.[141] Thus, such a California regulation would supplement the federal regulation, not supplant it. Further, in D*avis*, California was petitioning for judicial review of EPA's decision to deny California a waiver of the requirements of the federal reformulated gasoline oxygenation program, allowing the state to use its

134. D*avis*, 348 F.3d at 786.

135. I*d*.

136. I*d*.

137. I*d*. at 787.

138. "Federal regulations have no less pre-emptive effect than federal statutes." F*id*. F*ed*. S*av*. & L*oan* A*ss'n v*. *de la* C*uesta*, 458 U.S. 141, 153 (1982).

139. 42 U.S.C. section 7545(g)(2), (i)(1), and (i)(2) would also specify or refer to regulations requiring higher aromatic hydrocarbon and lower cetane limits than such a California regulation.

140. I*d*.

141. It may be problematic that this regulation specifies a diesel fuel cetane index of at least 40, *or* a maximum aromatic content of 35 volume percent. A California regulation requiring more stringent limits for both cetane *and* aromatic hydrocarbons may defeat the argument that California is only requiring more stringent minimum limits for either cetane *or* aromatic hydrocarbons.

own non-oxygenated gasoline in its place.[142] This is significantly different from California regulating biodiesel fuel more stringently through the use of stricter cetane and aromatic hydrocarbon limits than federal regulations currently require.

The California agency that would promulgate aromatic hydrocarbon and cetane limits to reduce biodiesel NOx is the California Air Resources Board ("CARB"). CARB is a division of the California Environmental Protection Agency, an organization that reports directly to the California Governor's Office.[143] The following sections of the California Health and Safety Code relate to regulation of fuel for emissions based on the state's police powers. California Health & Safety Code section 39667 mandates that CARB adopt regulations specifying the content of motor vehicle fuel to achieve the maximum possible reduction in public exposure to toxic air contaminants and that regulations developed pursuant to that section may include the modification, removal, or substitution of vehicle fuel, vehicle fuel components, or fuel additives.[144] California Health & Safety Code section 43013(a) states that CARB shall adopt and implement motor vehicle fuel specifications for the control of air contaminants and sources of air pollution unless preempted by federal law.[145] Further, california Health & Safety Code section 43013(h) indicates that it is the intent of the California Legislature that CARB act as expeditiously as possible to reduce NOx emissions from diesel vehicles, which significantly contribute to air pollution problems.[146] Finally, section 43018(a) states that CARB must as soon as practicable attempt to achieve the maximum degree of emission reduction possible from vehicular sources in order to attain the state standards.[147] These regulations clearly provide CARB with the authority to promulgate biodiesel fuel regulations for NOx emissions.

VI. California is Not Impliedly Federally Preempted From Regulating Biodiesel More Stringently

Some federal court decisions have looked at the issue of implied federal preemption, or conflict preemption, in the context of motor vehicle fuels. These cases do not establish that a California regulation for biodiesel NOx emissions would be preempted by federal law.

142. Davis, 348 F.3d at 776.

143. CAL. AIR RESOURCES BD., ARB M*ission and Goals* (last visited Dec. 8, 2009), *available at* http://www.arb.ca.gov/html/mission.htm.

144. Although not defined in the California Health and Safety Code, the term "state board" in the regulation means CARB. CAL. HEALTH & SAFETY CODE § 39667.

145. CAL. HEALTH & SAFETY CODE § 43013(a).

146. CAL. HEALTH & SAFETY CODE § 43013(h).

147. CAL. HEALTH & SAFETY CODE § 43018(a).

In *Oxygenated Fuels*, the OFA, in addition to the argument detailed above, challenged California's decision to phase out the use of MTBE on the basis that such a ban impliedly conflicts with the objective of the Clean Air Act.[148] OFA claimed that California's MTBE ban interfered with the marketplace, that it limited the options for gasoline producers, and that Congress intended such options to be left to the marketplace and fuel producers.[149] The Ninth Circuit Court of Appeals examined the legislative history and found no clear evidence that the Clean Air Act intended to give gasoline producers their choice of oxygenates.[150] Similarly, there is no legislative history in the Clean Air Act or regulatory history in the Federal Register indicating that Congress intended to prevent California from regulating diesel fuel for aromatic hydrocarbon or cetane limits, or that options in this area should be left to the marketplace and diesel fuel producers.[151] Accordingly, an analogous argument alleging that a California regulation to regulate biodiesel for NOx emissions would result in limiting options for diesel fuel producers would likely fail.

OFA further claimed in *Oxygenated Fuels* that an MTBE ban was preempted because such a ban would disrupt the gasoline market, that the result of such a ban would be an increase in prices and a drop in supply of gasoline, and that goals of the Clean Air Act include inexpensive gasoline and a smoothly functioning gasoline market.[152] There, the Ninth Circuit stated that while it did not believe Congress wanted to harm the nation's economy, there was no evidence that the Clean Air Act included such goals.[153] The Ninth Circuit indicated that it was "required to presume that Congress did not intend to preempt areas of law that fall within the traditional exercise of the police powers of the states,"[154] that "environmental regulation is an area of traditional state control,"[155] and that "only where there is 'clear evidence' that Congress meant to assert federal control should we find that state action is preempted."[156] Such a market disruption argument applied to a California regulation to regulate biodiesel for NOx emissions would therefore likely fail. Although a more stringent California biodiesel regulation may result in an increased cost for this fuel, this would not provide a basis for a successful preemption argument.

Another case that addressed an implied federal preemption of a

148. *Oxygenated Fuels v. Davis*, 331 F.3d 665, 670 (9th Cir. 2003).
149. *Id.*
150. *Id.* at 672.
151. *Id.*
152. *Id.* at 673.
153. *Id.*
154. *Id.* (citing *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947)).
155. *Id.* (citing *Exxon Mobil Corp. v.* EPA, 217 F.3d 1246, 1255 (9th Cir. 2000)).
156. *Id.* (citing *Geier v. American Honda Motor Co.*, 529 U.S. 861, 885 (2000)).

California fuel regulation was *Rocky Mountain Farmers Union v. Goldstene*.[157] In that case, multiple parties in the corn ethanol, gasoline production, trucking, and petrochemical manufacturing industries brought suit against CARB to enjoin implementation of low carbon fuel standards ("LCFS") regulations in California.[158] These regulations were approved by CARB to control fuel sources used in the state, and were promulgated to implement provisions of California's Global Warming Solutions Act of 2006 (AB32).[159] The plaintiffs claimed, in part, that the LCFS conflicted with the Energy Independence and Security Act of 2007 ("EISA"), and was therefore impliedly preempted by federal law.[160] When addressing this argument, the Federal District Court for the Eastern District of California stated that a "state law is invalid to the extent it 'actually conflicts with a . . . federal statute,'"[161] that "such a conflict can result in preemption where it is impossible for a private party to comply with both the state and federal requirements"[162]; and that "conflict preemption can also be found where 'the state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."'"[163] When discussing the plaintiffs' conflict preemption claim, the District Court held that implementation of California's LCFS would "frustrate . . . the full effectiveness of federal law."[164] Such a conflict preemption argument applied to a California regulation to regulate biodiesel for NOx may appear to have merit. 42 U.S.C. section 7545(o)(2)(A)(i), a codified EISA mandate, states:

> transportation fuel sold or introduced into commerce in the United States . . . on an annual average basis, contains at least the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel, determined in accordance with subparagraph (B) . . . .[165, 166, 167]

157. *Rocky Mountain Farmers Union v. Goldstene*, 719 F.Supp.2d 1170 (E.D. Cal. 2010).

158. *Id.* at 1173.

159. *Id.* at 1175.

160. *Id.* at 1173-74.

161. *Id.* at 1193 (quoting *Int'l Paper v. Ouellette*, 479 U.S. 481, 491-92 (1987)).

162. *Id.* (citing *English v. Gen. Elec. Co.*, 496 U.S. 72, 79 (1990)).

163. *Id.* (citing *Int'l Paper*, 479 U.S. at 491-92 (quoting *Hines v. Davidowitz*, 312 U.S. 52, 67 (1941))).

164. *Id.* at 1195 (citing *Perez v. Campbell*, 402 U.S. 637, 652 (1971)).

165. *Id.* at 1175.

166. Subparagraph (B) of 42 U.S.C. 7545(o)(2) is a table of the applicable volumes for renewable fuel after calendar year 2005.

167. Biomass-based diesel is defined by 42 U.S.C. section 13220 (f)(1)(A) as "a diesel fuel substitute produced from nonpetroleum renewable resources that meets the registration requirements for fuels and fuel additives. . ."

A plaintiff could argue that such a California regulation would conflict with the above federal statue, that it would be impossible for a private party to comply with both California and federal requirements, and that such a California regulation would be an obstacle to the accomplishment and execution of the above federal statute. This is because a California biodiesel regulation could hamper a diesel fuel producer's ability to comply with the biomass-based diesel requirements of 42 U.S.C. Section 7545(o)(2)(A)(i). However, a plaintiff would need to prove such an allegation at trial, and the holding in *Rocky Mountain* was based on a defendant's motion to dismiss.[168, 169] Further, since this is a federal District Court decision, its findings are only persuasive and not precedential.

VII. If California is Federally Preempted From Regulating Biodiesel More Stringently, It Will Need to Seek a SIP Waiver From EPA

If California is unable to avoid preemption of a regulation for biodiesel, it can submit to EPA a revision to its existing SIP incorporating such a regulation and obtain a waiver under 42 U.S.C. Section 7545(c)(4)(C)(i), which states:

> A State may prescribe and enforce, for purposes of motor vehicle emission control, a control or prohibition respecting the use of a fuel or fuel additive in a motor vehicle or motor vehicle engine if an applicable implementation plan for such State under section 7410 of this title so provides. The Administrator may approve such provision in an implementation plan, or promulgate an implementation plan containing such a provision, only if he finds that the State control or prohibition is necessary to achieve the national primary or secondary ambient air quality standard which the plan implements. The Administrator may find that a State control or prohibition is necessary to achieve that standard if no

168. The court in this case was ruling on a motion brought by the defendant to dismiss the plaintiffs' complaint. The court stated that "in considering a motion to dismiss for failure to state a claim, the court generally accepts as true the allegations of the complaint, construes the pleading in the light most favorable to the party opposing the motion, and resolves all doubts in the pleader's favor." *Rocky Mountain Farmers Union v. Goldstene*, 719 F.Supp.2d 1170, 1183 (E.D. Cal. 2010) (citing *Lazy Y. Ranch Ltd. v. Behrens*, 546 F.3d 580, 588 (9th Cir. 2008)).

169. Subsequent to the ruling in *Rocky Mountain* on the defendant's motion to dismiss, the Federal District Court for the Eastern District of California issued an order denying without prejudice the plaintiffs' summary judgment motion associated with its preemption claim because the plaintiff failed to state an applicable standard of review. *Rocky Mountain Farmers Union v. Goldstene*, CV-F-09-2234 LJO DLB, 2011 WL 6934797 (E.D. Cal. Dec. 29, 2011).

> other measures that would bring about timely attainment exist, or if other measures exist and are technically possible to implement, but are unreasonable or impracticable. The Administrator may make a finding of necessity under this subparagraph even if the plan for the area does not contain an approved demonstration of timely attainment.[170]

As long as California can show that regulating biodiesel more stringently is necessary to achieve NAAQS, such a regulation should be approvable. However, by pursuing such a course, California could potentially place itself in a position in which EPA may reject such a waiver and deny the state permission to regulate biodiesel more stringently, as the above statute and case law provides EPA with significant discretion.[171] Since EPA already granted Texas a waiver to regulate diesel fuel more stringently than the federal standards, and because the grant of that waiver was based on NOx emission problems in that state, it is reasonable to believe EPA would have difficulty justifying denying California a similar waiver.[172] However, since California currently regulates biodiesel by imposing a maximum limit for aromatic hydrocarbons that is the same maximum limit that Texas presently requires, California would need EPA to approve a SIP waiver containing more stringent limits for this compound than they approved for Texas.[173] This could conceivably provide EPA with a defense for distinguishing between the Texas waiver approval and a potential California waiver denial.

Recent history has demonstrated that political realities may have a significant impact on whether EPA would grant California a SIP waiver to regulate biodiesel more stringently. For example, California Assembly Bill

170. 42 U.S.C. section 7410 includes the procedures for adoption, submission, and revision of a SIP.

171. In *Chevron v.* NRDC (467 U.S. 837, 842-43 (1984)), the Court held, "When a court reviews an agency's construction of the statute which it administers, it is confronted with two questions. First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. If, however, the court determines Congress has not directly addressed the precise question at issue, the court does not simply impose its own construction on the statute, as would be necessary in the absence of an administrative interpretation. Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." This case clearly established the doctrine of administrative deference.

172. Approval and Promulgation of Air Quality State Implementation Plans (SIP); Texas: Low Emission Diesel Fuel, 66 Fed. Reg. 57196-01 (Nov. 14, 2001).

173. Both Texas and California currently have a 10 percent maximum aromatic hydrocarbon limit for diesel fuel. 30 Tex. Admin. Code section 114.312(b); 13 CCR Section 2282(a).

1493 (Pavley, Chapter 200, Statutes of 2002) was signed by former Governor Gray Davis on July 22, 2002. It required CARB to adopt regulations that achieve a reduction of climate change emissions from passenger vehicles, light-duty trucks, and other vehicles used for noncommercial personal transportation in California.[174] On March 6, 2008, EPA denied California's waiver request "based on the Administrator's finding that California does not need its greenhouse gas standards for new motor vehicles to meet compelling and extraordinary conditions."[175] It was reported that the head of EPA ignored his staff's written findings in denying California's waiver request even through California met every criterion for the waiver on the merits.[176] CARB Chairwoman Mary Nichols said former EPA Administrator Stephen Johnson's decision showed "that this administration ignores the science and ignores the law to reach the politically convenient conclusion."[177] After the change in presidential administrations in 2009, California asked EPA to reconsider its waiver denial.[178] On July 8, 2009, EPA granted California's waiver, allowing it to adopt a greenhouse gas emission reduction plan for automobiles and reversing the Bush administration's decision.[179] EPA Administrator Lisa Jackson, appointed by President Obama, stated that reversing the waiver denial "puts the law and science first."[180] Another example of political influences affecting an EPA decision on a California waiver request occurred when EPA denied California a waiver from the oxygenation requirements of the federal reformulated gasoline program. This denial resulted in California bringing suit against EPA.[181] When

174. CAL. AIR RESOURCES BD., *Climate Change "Alternative Compliance Strategies" Discussion Paper* (Sept. 15, 2003), *available at* http://www.arb.ca.gov/cc/ccms/meetings/101403/101403discussion.pdf.

175. California State Motor Vehicle Pollution Control Standards; Notice of Decision Denying a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles, 73 Fed. Reg. 12156-01 (March 6, 2008).

176. California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles, 74 Fed. Reg. 32744-01 (July 8, 2009).

177. *Id*.

178. Letter from Mary D. Nichols, Chairman, Cal. Air Resources Bd., to Lisa P. Jackson, Administrator-Designate, EPA (Jan. 21, 2009) http://www.arb.ca.gov/newsrel/arbwaiverrequest.pdf.

179. California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles, 74 Fed. Reg. 32744-01 (July 8, 2009).

180. Bruce Geiselman, EPA OKs Calif. Plan to Cut Car Pollution, WASTE & RECYCLING NEWS, July 6, 2009.

181. *Davis v*. EPA, 348 F.3d 772, 772 (9th Cir. 2003).

speaking about the suit, former governor Gray Davis stated that "EPA's decision was not based on sound science, it was based on politics, pure and simple."[182] Frank O'Donnell, executive director of the nonprofit environmental group Clean Air Trust, stated that the decision to deny the waiver was "yet another example of the Bush administration distorting science to achieve a political objective."[183] It seems apparent that presidential politics play a role in California waiver requests, and that this reality requires pragmatic considerations.

If California decides to apply for a SIP waiver to regulate biodiesel more stringently, it may be prudent for the state to apply for such a waiver relatively soon. Given the current partisan political environment and EPA's apparent vulnerability to political pressure, California could find itself in a potentially hostile political climate after the 2012 presidential election, with a reduced probability of having a waiver request granted. EPA's recent reversal of its prior denial allowing California to adopt a greenhouse gas emission reduction plan for automobiles evidences that the current climate favors a waiver grant for biodiesel regulation. It follows, therefore, that if California does decide to seek such a waiver, it should do so before the next presidential election.

VIII. Conclusion

Scientific studies do not support the claim that biodiesel is a clean, environmentally friendly fuel. The fact that biodiesel fuel causes increased NOx emission levels, resulting in higher levels of ozone and particulate matter, requires that regulatory measures be taken so that California's air quality does not deteriorate further and the state's nonattainment situation does not worsen. The state of Texas has demonstrated success through biodiesel regulation and can serve as a model for California in this area. California should be able to implement a Texas-type regulatory model without the need for an EPA SIP waiver because it has statutory authority that Texas does not have, exempting it from federal preemption to more stringently regulate motor vehicle fuels for emissions control. If California is federally preempted from regulating biodiesel more stringently, the state can seek a SIP waiver from EPA, but given the history associated with such waivers, it would be in the state's interest to seek such a waiver relatively soon, before political conditions no longer support a waiver grant.

182. Dorothy Korber, *Davis: State Had No Choice but to Sue* EPA, THE SACRAMENTO BEE, August 13, 2001.

183. EPA *Told to Review California Oxygenate Waiver Request*, 101 OIL & GAS JOURNAL, no. 31 (Aug. 11, 2003).