

Note

**Proposed Mandatory Vehicle Emissions Testing in Florida:
Safeguarding Agriculture, Tourism, & Health in the Third Most Populous State**

Tim Asta

Introduction

On September 18, 2015, the Environmental Protection Agency (EPA) notified Volkswagen AG, Audi AG, and Volkswagen Group of America (collectively, VW) that an ongoing investigation had led the agency to determine that the German car manufacturer had violated the Clean Air Act (CAA)¹ by using “defeat devices” to alter vehicle emissions during testing.² The investigation, now involving the Department of Justice (DOJ),³ has already led to the resignation of Porsche Automobil Holding SE leader and former Chief Executive Officer Martin Winterkorn and makes VW subject to hefty civil fines.⁴ Amid an environment of increased interest and concern about climate change, the case has brought vehicle emissions testing to the forefront of public health policy. Florida, despite being the third most populous state in the country⁵ and home to

¹ 42 U.S.C. §§ 7401-7671q (2015).

² Letter from Phillip A. Brooks, Dir., Air Enforcement Div., Office of Civil Enforcement, EPA, to David Geanacopoulos, Exec. Vice President Pub. Affairs & Gen. Council, Volkswagen Grp. of Am., Inc. (Sept. 18, 2015). <http://www.epa.gov/sites/production/files/2015-10/documents/vw-nov-caa-09-18-15.pdf>.

³ Fred Imbert, *DOJ: Volkswagen Investigation Under Way*, CNBC, (Sept. 25, 2015, 1:40 PM), <http://www.cnbc.com/2015/09/25/epa-expect-range-of-penalties-for-vw-amid-scandal.html> [hereinafter *Volkswagen Investigation*].

⁴ Letter from Phillip A. Brooks, *supra* note 2.

⁵ ANNUAL ESTIMATES OF THE RESIDENT POPULATION FOR THE UNITED STATES, REGIONS, STATES, AND PUERTO RICO: APRIL 1, 2010 TO JULY 1, 2014, EPA (2014), <http://www.census.gov/popest/data/state/totals/2014/tables/NST-EST2014-01.xls> [hereinafter *Population Estimates*].

more than 19 million vehicles,⁶ currently employs no vehicle emissions testing program whatsoever.⁷

This Note will address why Florida should adopt a mandatory vehicle emissions testing program despite being currently exempted from federal regulation under the CAA.⁸ By examining the history of vehicle emissions regulation throughout the United States under the CAA and as applied by the EPA, the specific limitations of this federal regulation will shed light on why an emissions testing program is not required for Florida. A comparative analysis of various states across the nation will contextualize Florida's position in terms of both voluntary and mandatory testing while providing real examples for potential regulatory plans moving forward. Narrowing the view to Florida, a socioeconomic analysis coupled with a cultural analysis will show why, on balance, Florida would benefit from instituting a testing program. Finally, the paper will outline a potential testing program for Florida based on the comparative analysis of other states.

Part I examines why states implement vehicle inspection programs, the legal authority by which states can be federally required to test, and the types of testing required by the EPA. An analysis of dangerous gases and particulates contained in tailpipe vehicle emissions explains how these air pollutants threaten the health of state residents and exacerbate climate change, creating potentially devastating effects

⁶ *Florida Department of Highway Safety and Motor Vehicles By the Numbers*, FLA. DEP'T OF HIGHWAY SAFETY & MOTOR VEHICLES (2014), <http://www.flhsmv.gov/html/factsfigures/factsfiguresinfographic.pdf> [hereinafter *FL Cars*].

⁷ *Buying or Selling a Car*, FLA. DEP'T OF HIGHWAY SAFETY & MOTOR VEHICLES (2015), <http://www.flhsmv.gov/dmv/usedcar.html#12> [hereinafter *Buying or Selling*].

⁸ 42 U.S.C. §§ 7401-7671q (2015).

throughout the United States as well as Florida in particular. This section also provides a brief history of emissions testing in the United States and the current regulatory environment, and details background information on how states test vehicle emissions.

Part II contains an analysis of testing conditions in the most populous and least populous states in the nation as compared to Florida. Testing among the five most populated states in the nation contextualizes Florida's position as the third most populous state. A comparison of emissions testing in the states with the lowest populations, and Vermont in particular, which ranks 49th out of the 50 states in population yet requires statewide vehicle emissions testing, contextualizes Florida's contribution to air emissions within the United States.

Part III analyzes previous testing in Florida, and how socioeconomic and cultural conditions affected previous attempts at testing emissions in the state. This section examines the rise and fall of the last major emissions testing legislation in Florida, The Clean Outdoor Air Law,⁹ and the effects of toxic air and climate change due to chemicals found in vehicle emissions on Florida's agricultural, tourist, and health care industries. This section will provide examples of the increased support for greener practices throughout the country, and in Florida, to determine whether support for testing currently exists within the state.

Part IV looks at possible testing programs for the state moving forward in the face of tighter federal standards and greater risks due to climate change. An application of the Environmental Protection Agency's new ozone attainment levels to areas of Florida helps illuminate the likelihood that an inspection/maintenance program would

⁹ FLA. STAT. §§ 325.201-325.223 (1988) (repealed 2000).

be federally required of the state in 2017. Finally, by examining potential programs for Florida in light of the comparative study of other states' testing initiatives, a potential plan will be set forward to ensure Floridian's health and industry.

I. The State of State Vehicle Emissions Testing

A. Why States Test Vehicle Emissions

1. Vehicle Emissions – What's That You're Emitting?

While emissions from a single vehicle are relatively low, aggregate amounts of automobile air pollution can be quite high.¹⁰ In many cities, vehicles represent the greatest source of air pollution, and operating a vehicle is likely the most polluting activity the average driver participates in per day.¹¹ Incomplete engine combustion, evaporation of fuel, and engine leakage all lead to the release of pollutants.¹² Automobile tailpipe emissions include hydrocarbons (HC), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), toxic air pollutants, and particulate matter.¹³ Hydrocarbons, which combine with nitrogen oxide in the air in a process involving sunlight, create ground-level ozone, also known as smog.¹⁴ These chemicals present direct and dangerous threats to public health, as discussed in the following subpart.¹⁵ Additionally, vehicles

¹⁰ *Automobile Emissions: An Overview*, EPA 400-F-92-007 (1994), <http://www3.epa.gov/otaq/consumer/05-autos.pdf> [hereinafter *Automobile Emissions*].

¹¹ *Id.*

¹² *Id.*

¹³ *See Id. See also Cars, Trucks, and Air Pollution*, UNION OF CONCERNED SCIENTISTS (DEC. 5, 2014), http://www.ucsusa.org/clean_vehicles/why-clean-cars/air-pollution-and-health/cars-trucks-air-pollution.html#.VkfFdHarSUK.

¹⁴ *Health Effects from Automobile Emissions*, WASH. STATE DEP'T OF ECOLOGY, <https://fortress.wa.gov/ecy/publications/documents/0002008.pdf> (last visited Dec. 1, 2015) [hereinafter *Emissions Effects*].

¹⁵ *The Harmful Effects of Vehicle Exhaust*, ENV'T & HUMAN HEALTH, INC., <http://www.ehhi.org/reports/exhaust/summary.shtml> (last visited Dec. 1, 2015) [hereinafter *Human Health*].

emit greenhouse gases like carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and non-methane volatile organic compounds (NMVOC).¹⁶ These greenhouse gases (GHGs) contribute to climate change and increased global warming.¹⁷

2. Health Effects of Gas Emissions – Why No One Likes a Flatulent State

Vehicle exhaust, at ground level, is dangerous for people to inhale. Concern over vehicle emissions continues to increase as the “nation is experiencing an epidemic of illnesses made worse by air pollution.”¹⁸ Such illnesses include lung cancer, asthma, diabetes, and cardiovascular disease, among others.¹⁹ Children and the elderly are especially at risk, with air pollution killing more Americans than prostate cancer and breast cancer combined.²⁰ Carbon monoxide, emitted by vehicle exhaust due to incomplete combustion of fossil fuel in the engine, interferes with oxygen flow to major organs in the human body, especially in young or unborn children.²¹ At ground level, ozone, or smog, creates serious respiratory issues, even in healthy individuals,²² including shortness of breath, coughing, chest pain, increased susceptibility to lung infection, and aggravates existing conditions including asthma, bronchitis, and

¹⁶ *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013*, EPA 430-R-15-004, ES-2 (April 15, 2015),

<http://www.epa.gov/climatechange/emissions/usinventoryreport.html>.

¹⁷ *Climate Change Indicators in the United States*, EPA,

<http://www3.epa.gov/climatechange/science/indicators/ghg/> (last visited Dec. 1, 2015) [hereinafter *Change Indicators*].

¹⁸ *The Harmful Effects Of Vehicle Exhaust: A Case For Policy Change*, ENV'T & HUMAN HEALTH, INC. 6, <http://www.ehhi.org/reports/exhaust/exhaust06.pdf>.

¹⁹ *Id.* at 8.



For the rest of the article,
please contact the author, Tim Asta.



Email Tim Asta
tim@timasta.com