

The Volkswagen air pollution emissions scam

Professor Arnold W. Reitze, Jr.

Professor Arnold W. Reitze, Jr. teaches environmental law at The University of Utah's S.J. Quinney College of Law.

On September 18, 2015, the U.S. Environmental Protection Agency (EPA) announced that Volkswagen sold 482,000 diesel engine vehicles in the United States that were programmed to pass the government's emissions tests, but under normal driving conditions would emit air pollutants significantly above legal limits. Interestingly, EPA only recently discovered the cheating through the results of an independent study, even though it had been going on for many years. The International Council on Clean Transportation (ICCT), a European environmental group, wanted to have the U.S. technology adopted for European motor vehicles because Volkswagen was meeting emission standards in the United States that were more stringent than those imposed in the European Union. The ICCT provided a grant to West Virginia's Center for Alternative Fuels, Engines and Emissions (CAFEE) to study emissions during real-world driving. After extensive testing of various Volkswagen diesel models in California, and driving test diesel vehicles to Seattle, the CAFEE researchers concluded the vehicle's emissions were exceeding the Clean Air Act (CAA) standards by 5 to 35 times. On March 31, 2014, the results of this study were presented at an industry conference in San Diego, which led to Volkswagen, on September 3, 2015, admitting to U.S. and California regulators that it deliberately outfitted its cars with "defeat devices."

The vehicles involved include model year (MY) 2009 through 2015 Volkswagen Beetle and Jetta models and the MY 2014 and 2015 Passat models. Subsequently, Volkswagen announced that about 11 million vehicles of various models with 1.6- and 2.0-liter diesel engines sold worldwide have affected diesel engines. According to EPA, Volkswagen programmed the computer that controls the engine performance to activate the emissions controls when driving patterns are detected that are consistent with a testing protocol. When the vehicle is operated on the road, the computer is programmed to maximize fuel economy, but air pollution emissions increase dramatically. On November 2, 2015, EPA and the California Air Resources Board (CARB) announced that Volkswagen, Audi, and Porsche vehicles with 3-liter diesel engines also have defeat devices, which adds about 10,000 vehicles plus an unknown number of MY 2016 vehicles to the list of vehicles alleged to violate the CAA. On November 19, 2015, Volkswagen admitted 85,000 3.0-liter diesel engine vehicles had technology that was not disclosed to EPA during the certification process. This could result in an additional maximum penalty of \$412 million. Moreover, Volkswagen has admitted that carbon dioxide emissions and related fuel consumption levels were misrepresented for up to 800,000 vehicles. However, the carbon dioxide issue may not be as serious as initially thought. Volkswagen has estimated the financial impact of these transgressions at over \$9.24 billion.

The decision by Volkswagen to cheat on the emissions requirement may have its root in the 2007 decision to not use the Daimler Blue Tec device that sprays urea into the exhaust stream to neutralize nitrogen oxide (NO_x) formation. The company wanted to avoid the use of urea tanks, which are expensive, take up space, and are an inconvenience to consumers. Moreover, Volkswagen would have had to meet EPA regulations on the use of selective catalytic reductions (SCR) systems that, at that time, made it almost impossible for light-duty vehicles to comply. They chose to use a “Lean NO_x” system that injects extra fuel into the engine and into the exhaust system. This involves a trade-off between NO_x formation and fuel economy that requires complex calibration of the onboard engine control computer. Unfortunately, it appears that the system could not meet the stringent U.S. emission standards while still preserving the fuel economy benefits of the diesel technology.

Under the CAA § 203(a)(3)(b), the use of components intended to defeat or bypass pollution controls is prohibited; § 203(a)(1) prohibits the sale of vehicles that do not conform to the specifications under an approved certificate of conformity issued by EPA. Volkswagen now faces a maximum civil penalty of \$37,500, with the adjustments for inflation, for each of the over half million diesel vehicles involved in the testing violations. This could result in a civil penalty as high as \$20 billion. On January 4, 2016, the U.S. Department of Justice filed a civil complaint against Volkswagen, Audi, and Porsche for violations involving almost 600,000 diesel engine vehicles.

The U.S. Department of Justice is also conducting a criminal investigation. Under the CAA, violations of the mobile source provisions are not subject to criminal prosecution for knowing violations, although CAA § 113(c)(2) provides for criminal fines and imprisonment for up to two years for false statements and certifications. In situations such as Volkswagen’s, the violation the government is likely to allege is giving false statements pursuant to 18 U.S.C. § 1001, which provides for criminal fines and a prison sentence of up to five years.

Moreover, at least 28 states, led by California, are looking into state enforcement actions against Volkswagen. In late September 2015, Texas became the first state to sue Volkswagen Group of America, Inc. The state is seeking \$100 million in damages for worsening air quality in Harris County, which is already an ozone nonattainment area. The Texas Attorney General is also suing Volkswagen for violating the Texas Deceptive Trade Practices Consumer Protection Act. In October 2015, the West Virginia Attorney General’s Office filed a lawsuit against Volkswagen of America, Inc., for at least \$43 million for alleged violations of the state’s consumer protection law. In addition, many individual consumer lawsuits have been filed. This led the U.S. Judicial Panel on Multidistrict Litigation to transfer 63 pending consumer lawsuits to the U.S. District Court for the Northern District of California with the potential to add 451 actions against Volkswagen.

The most costly part of any settlement, however, could be requirements to mitigate the harm,

which could include both supplemental environmental projects *and* repair of the defective emission technology. Repairing the defective vehicles could involve many European countries because the governments of Germany, Spain, Sweden, Switzerland, Italy, and Belgium are recalling the vehicles. Because diesel vehicles account for half the European car market, the mandatory recall imposed by Germany will require the repair of 8.5 million vehicles. The fix will take time because the affected cars involve three generations of diesel technology. Generation three vehicles include MY 2015 and 2016. They will be the easiest to repair and are to be addressed in 2016. Generation two vehicles will begin to be repaired in mid-2016. However, generation one vehicles, which make up most of the affected fleet, will require a more substantial engineering effort. The time for these repairs to be initiated and completed is unknown.

Volkswagen, on November 3, 2015, told its dealers to halt the sale of some Volkswagen and Audi new and used models. Porsche has halted sales of its Cayenne sports utility vehicle. On November 4, 2015, Moody's Investors Service Inc., downgraded Volkswagen's credit rating to A3 from A2 with the potential of additional downgrades. In November, Fitch lowered the long-term credit rating to BBB+ and in December so did Moody. The ramifications of Volkswagen's alleged violations can be expected to continue to unfold for years.