## Statement of Edward Nam, Director Air Quality and Modeling Center Office of Transportation and Air Quality U.S. Environmental Protection Agency

United Nations Economic Commission for Europe 167<sup>th</sup> Session of the World Forum for Harmonization of Vehicle Regulations (WP.29) Geneva, Switzerland November 10, 2015

Mr Chairman, respected members of this committee, ladies and gentlemen, I appreciate the opportunity to update this Committee on the United States Environmental Protection Agency's Notices of Violation issued to Volkswagen.

On September 18, 2015, EPA sent a Notice of Violation (NOV) of the Clean Air Act to Volkswagen (Volkswagen AG, Audi AG, and Volkswagen Group of America, Inc.) alleging that 2 liter Volkswagen and Audi diesel cars sold in the U.S. from model years 2009 to 2015 include software that circumvents EPA emissions standards. Volkswagen manufactured and installed software in the electronic control module of these vehicles that sensed when the vehicle was being tested for compliance with EPA emission standards. Put simply, these cars contain software that turns off or significantly reduces the effectiveness of emissions controls when driving normally, and turns them on when the car is undergoing an emission test.

Known as a "defeat device," this design feature results in the cars emitting up to 40 times the emissions that are allowed to ensure public health

is protected. These devices contain a "switch" that senses whether the vehicle is being tested or not based on various inputs, including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. The NOV that EPA issued covers roughly 482,000 diesel cars in the United States.

On November 2, 2015, EPA sent another Notice of Violation to VW, Audi, and Porsche AG alleging that the companies manufactured and installed defeat devices in certain model year 2014-2016 light-duty vehicles equipped with 3.0 liter diesel engines. The notice covers approximately 10,000 vehicles sold in the United States (plus an unknown number of model year 2016 vehicles). The defeat device causes these vehicles to emit up to 9 times the applicable NOx standard levels, depending on model types and type of driving. This testing was conducted by the EPA's National Vehicle and Fuel Emissions Laboratory, California Air Resources Board Haagen-Smit Laboratory, and Environment Canada's River Road Laboratory.

All new cars sold in the United States must have an EPA-issued "certificate of conformity" demonstrating that the car meets applicable federal emission standards to control air pollution. The Clean Air Act also assigns EPA the responsibility along with broad authority to oversee compliance after certification. There are five key components of EPA's compliance program. Together, these span a vehicle's regulatory useful life from pre-production through production and beyond into customer service.

• First, EPA has a rigorous process in place for certifying that new vehicles meet federal emission standards for air pollutants. This certification program, which includes new car testing and application review/approval, covers every car family sold in the U.S. The emission tests used to measure

compliance with the standards cover a wide range of driving conditions, including aggressive driving as well as cold & hot temperature operation.

- Second, EPA selects approximately 15-20% of new car families to test at our lab to confirm the certification levels that manufacturers are reporting.
- Third, manufacturers test customer-owned vehicles under a mandatory in-use verification program
- Fourth, we have an in-use surveillance program where we actually bring cars that have been driving around for several years back into our lab for testing and further evaluation (this could include measuring onroad emissions using Portable Emissions Measurement Systems).
- Finally, the Agency holds manufacturers accountable for violations uncovered in our compliance program through rigorous enforcement of the CAA penalties.

By making and selling vehicles with defeat devices that allowed for higher levels of air emissions than were certified to EPA, VW violated multiple important Clean Air Act provisions. These violations are very serious. Not only because the illegal defeat device results in excess emissions many times the allowable standard, but also because after the high emissions were discovered, VW concealed the facts from EPA, the State of California, and from consumers.

\* \* \*

EPA will continue to work closely with Environment Canada and the California Air Resources Board during the investigation. CARB led and contributed much of the effort to get us to this point – our agencies work

closely together on the implementation and oversight of the vehicle emissions programs.

\* \* \*

On September 25<sup>th</sup>, the EPA sent a letter to all auto manufacturers notifying them that we are stepping up our testing activities in response to VW's alleged violations. Over the 40-plus year history of our program, we have continuously updated and adapted our approaches to compliance oversight as technologies and situations changed. We take seriously our responsibility to oversee the implementation and enforcement of our clean air regulations. It is this oversight that ensures the benefits of clean air emissions standards are realized, that the industry is competing on a level playing field, and that consumers are getting what they pay for.

Thank you again for the opportunity to address this committee on this important topic.