

## **DID YOU KNOW?**

**Federal Diesel Emission Standards** were created for all vehicles built after 2007. The standard called for the industry to reduce Nitrogen Oxide (NOx) emissions by 50 % and Particulate Matter (PM) emissions, also known as soot, by 90%, relative to the 2004 standard.

Critical technology engine manufacturers met these requirements using a Diesel Particulate Filter (DPF) which traps and removes particulate matter from diesel exhaust.

### **Why do buses appear to emit black smoke?**

Over time, soot builds up on the DPF channel walls (Inside the DPF) and is cleaned through regeneration. The filter is cleaned – “regenerated”- by burning off the soot at a high temperature. What is left is *harmless* ash residue which comes out the exhaust pipe as black smoke.

Overall, EPA estimates that the new standard will reduce smog-forming NOx emissions by 2.6 million tons annually when the program is fully implemented in the year 2030. Emissions of Particulate Matter (PM) will be reduced by 110,000 tons each year, hydrocarbons by 115,000 tons each year, and toxic air pollutants, such as Benzene, by 17,000 tons annually. EPA estimates that the emission reduction benefits of the rule is equivalent to removing 13 million of today’s (2007) trucks out of service.

### **RTA strives to make our fleet more environmentally friendly**

From 2008 to 2010, the RTA added (3) new Gillig Hybrid vehicles, (8) new International Hybrid vehicles and (2) Diesel International vehicles. In 2011 and 2012, Howard County purchased (3) new Gillig Hybrids and (3) Diesel International Hybrids vehicles. An additional (4) Diesel International vehicles were purchased in 2013 and 2014.

Presently Howard County is overseeing a Grant to purchase (3) fully Electronic vehicles from BYD in California. These vehicles are scheduled to deliver in mid-September 2016.

### **The current RTA fleet**

Our fleet is currently made up of (42) fixed route buses, (24) paratransit vans and (11) support vehicles totaling (77) units in service covering (15) routes and serving over 1.8 million riders a year.

### **Types of Vehicles**

(3) Thomas Buses; <http://www.thomasbus.com/>

(17) Gillig Buses <http://www.gillig.com/>

(18) International Buses (Truck Style)

<http://www.navistar.com/navistar/globalportfolio/products/buses>

(2) Nabi Buses <http://www.nabusind.com/>

(1) Chevy Truck Bus

<http://www.bing.com/images/search?q=chevy+bus&id=22C28A12F5CFA624E742C1B8BD3EA0C86EE694C0&FORM=IQFRBA>

(17) Ford E450 <https://www.coachandequipment.com/>

(7) Ford Fusions <http://www.ford.com/cars/fusion/>

### **Additional Resources**

<http://www.meca.org/regulation/us-epa-20072010-heavyduty-engine-and-vehicle-standards-and-highway-diesel-fuel-sulfur-control-requirements>

<http://www.dieselnet.com/tech/dpf.php>

<http://www.worktruckonline.com/channel/fuel-management/article/story/2008/01/what-fleet-managers-should-know-about-diesel-particulate-filters.aspx>