Local Law 38 Annual Report Fiscal Year 2015

This report details New York City's purchase of fuel efficient light and medium duty cars (typically, cars and vans respectively). The aim of Local Law 38 (LL38) is to achieve a 20% reduction in fuel consumption by 2015 and thereafter as compared to baseline fuel efficiency data from 2004. This drop in fuel consumption would reduce the amount of greenhouse gas being released and would also improve the city's air quality.

The milestones in the legislation are as follows:

- October 1, 2005: The City will complete a fuel economy inventory of all light-duty vehicles purchased by the City during Fiscal Year 2005 and will calculate the average fuel economy of these vehicles.
- <u>July 1, 2006</u>: Each light-duty vehicle and medium-duty vehicle that the City purchases will achieve the highest California LEV II standards. The City will also achieve a 5% increase in average fuel economy in all light duty vehicles.
- <u>January 1, 2007</u>: The City will report for the last time, whether it has complied with the Local Law standard that 80% of the light duty vehicles are alternative fuel vehicles.

Following the July 2006 fuel economy milestone, the City is to achieve an increase of 8% in average fuel economy in 2007; 10% in 2008; 12% in 2009; 15% in 2010; 18% by 2012; and 20% for fiscal year 2015 and thereafter.

As of Fiscal Year 2015, the City exceeded the mandated 20% increase in fuel economy for light duty vehicles. Gasoline usage by light and medium duty vehicles has decreased from 2005, but diesel consumption increased because emergency services makes greater use of the gas card program for diesel fueling. This trend does not represent total fuel use which combines in-house and gas card (private) fueling. The City exceeded the legislative goal that 95% of purchases be of the lowest polluting vehicles in their class, by purchasing 98.6% of the City's fleet in the lowest polluting class. The City made a policy decision to purchase CNGs which are in a lower polluting category than the non CNG vehicles. However, not all agencies have the capacity for this charging infrastructure.

The answers below describe the status of the City's implementation of the law and respond to the specific questions posed in the legislation.¹

¹Section 24-163.1 (e)(1) of the Administrative Code sets forth seven questions to which the Annual Report is required to provide an answer.

1. What is the total number of light-duty vehicles and medium-duty vehicles purchased by each agency?

Agency	Light Duty	Medium Duty	Total
Dept. of Health & Mental Hygiene (DOHMH)	6	7	13
Dept. of Environmental Protection (DEP)	148	0	148
Dept. of Transportation (DOT)	73	12	85
Dept. of Citywide Administrative Services (DCAS) &	185	23	
Managed by DCAS	47,000,000		208
Dept. of Sanitation (DSNY)	86	0	86
Dept. of Parks & Recreation (DPR)	39	0	39
Dept. of Education (DOE)	6	11	17
Total	543	53	596

^{*} FDNY and PD are exempt from this reporting requirement as they are emergency vehicles.

- 2. What is the total number of light and medium duty vehicles purchased in each rating category, disaggregated by vehicle model?
 - a. The total number of zero emission vehicles (ZEV) purchased;
 - b. The total number of advanced technology partial zero emission vehicles (ATPZEV) purchased;
 - c. The total number of partial zero emission vehicles (PZEV) purchased;
 - d. The total number of super ultra-low emission vehicles (SULEV) purchased;
 - e. The total number of ultra-low emission vehicles (ULEV) purchased; and
 - f. The total number of low emission vehicles (LEV) purchased.

Total ZEV	Total ATPZEV	Total PZEV	Total SULEV	Total ULEV	Total LEV	Vehicle Total
50	274	29	48	195	0	596

Note: Please see Attachment A for the breakdown of the above numbers disaggregated by vehicle model. It shows that the vehicles purchased were within the highest fuel efficiency ratings.

- 3. How many Alternative Fuel Buses were purchased? Zero buses were purchased.
- 4. What is the percentage of light and medium duty vehicles purchased as the lowest polluting vehicle in each category? Target of 95%.

Lowest Category	Other	Vehicle Type
359*	5	Medium Size Sedan
8	0	Regular Size Van
146	0	Small-size Sports Utility
29	3	Large size Sports Utility
37	0	Medium Duty Vans
9	0	Medium Duty Pick-ups
Total: 588	Total: 8	* *
Total: 98.6%(accounting for the 5% exemption)		

- *As per 24-163.1(b)(2), the city shall not be required to purchase a zero emission vehicle or advanced technology partial zero emission vehicle in accordance with paragraph one of this subdivision if the only available vehicle or vehicles that achieve such a rating cost greater than fifty percent more than the lowest bid as determined by the applicable procurement process for a vehicle available in the next highest rating category that meets the requirements for the intended use by the city of such vehicle. EVs and plug-in vehicles fall within this exception.
- **As per 24-163.3 (b)(3) five percent of light and medium duty vehicles are not subject to the purchasing requirements.
- 5. What is the average fuel economy of light duty vehicle purchases?

The average fuel economy is 50.7 miles per gallon. Please see Attachment B for details.

6. If a vehicle was not purchased in the highest fuel rating category, what was the basis for purchasing a vehicle in the next highest fuel rating category?

A waiver is needed from DEP in order to select a vehicle in the next rating category. In FY 2015, DEP issued no waivers.

7. What is the percentage increase in fuel economy? Target of 5% to 20%.

The increase in average fuel economy was 50.7%, which exceeds the required reduction of 20% by Fiscal Year 2015. The baseline 2005 average fuel economy was 31.1 miles per gallon.

8. What is the estimated amount of fuel consumed by motor vehicle, disaggregated by vehicle type?

The chart below is based on the Gas Card System which shows an increase in consumption of diesel since 2005. The increase in diesel use is because emergency services makes greater use of the gas card program for diesel fueling. This trend does not represent total fuel use which combines in-house and gas card (private) fueling. There was a decrease in gasoline consumption across the entire city fleet (light and medium duty vehicles) since 2005 as well as in FY 2015, when 2,293,173 gallons were consumed.

2015 Gallons of Diesel
771,296

2005 Gallons of Gasoline	2015 Gallons of Gasoline
2,828,217	2,293,173
	Pro Province American

9. What is the estimated total amount of equivalent carbon dioxide emitted for each type of fuel consumed by motor vehicles, disaggregated by fuel type?

CO2 Calculations for LL38 Fiscal Year 2015					
Year	2005	2015			
Gasoline Consumed (gal)	2,828,217	2,293,173			
CO ₂ emissions (lbs)	54,867,410	44,487,556.2			
Diesel Consumed (gal)	337,554	771,296			
CO ₂ emissions (lbs)	7,493,699	17,122,771.2			
Total CO ₂ Emissions (lbs)	62,361,109	61,610,327.4			
Reduction (lbs)	NA	(750,781.6)			
Reduction (%)	NA	(1.20%)			

Attachment A Emissions Ratings on City Requirements Contracts for Fiscal Year 2015

Vehicle Type	ZEV	AT PZEV	PZEV	LEV II SULEV	LEV II ULEV	LEV II LEV
Light Duty Vehicles						
Medium Sedan					T	
Toyota Camry, Hybrid		3				
Chevrolet Volt				6*		
Toyota Prius		271				
Ford Fusion, Plug-in			29*			
Nissan Leaf EV	50*					
Ford Taurus					2	
Toyota Avalon				3		
Regular Size Van				-		
Ford Transit Connect					7	
Dodge Grand Caravan					1	1
Small-Size Sports Utility						
Vehicles						
Ford Escape					146	
Large Sport Utility Vehicles						
Ford Expedition					1	
Toyota Highlander Hybrid				29		
GMC Yukon					2	
Medium Duty Vehicles						
Medium Duty Vans	-					T
Chevrolet Express					37	
Medium Duty Pickups			1			
Ford F-250					9	

Emission Ratings

(as defined by the California Air Resources Board) www.driveclean.ca.gov

ZEV: Zero Emission Vehicles

ZEVs have zero tailpipe emissions and are 98% cleaner than the average new model year vehicle. These include battery electric vehicles and hydrogen fuel cell vehicles.

AT PZEV: Advanced Technology PZEVs

AT PZEVs meet the PZEV requirements and have additional "ZEV-like" characteristics. A dedicated compressed natural gas vehicle or a hybrid vehicle with engine emissions that meet the PZEV standards would be an AT PZEV.

PZEV: Partial Zero Emission Vehicle

PZEVs meet SULEV tailpipe emission standards; have zero evaporative emissions and a 15 year/150,000 mile warranty. No evaporative emissions means that they have fewer emissions while being driven than a typical gasoline car has while just sitting.

SULEV: Super Ultra Low Emission Vehicle

SULEVs are 90% cleaner than the average new model year car.

ULEV: Ultra Low Emission Vehicles

ULEVs are 50% cleaner than the average new model year car.

LEV: Low Emission Vehicle

Minimum rating that will meet California Air Resources Board standards.

Attachment B

Citywide Light Duty Vehicle Purchases Fiscal Year 2015 Calculation Of Average City Mileage As Required For LL38 Reporting

TYPE VEHICLE	NUMBER PROCURED IN FY'15	FUEL TYPE	EPA MPG CITY	WEIGHTED FACTOR (COL. B x COL. C)
CHEVROLET VOLT	6	ELECTRIC/GAS	98	588
DODGE GRAND CARAVAN	1	GAS	17	17
FORD ESCAPE	146	ELECTRIC/GAS	22	3,212
FORD EXPEDITION	1	GAS	15	15
FORD EXPLORER	1	GAS	17	17
FORD FUSION ENERGI, PLUGIN	29	ELECTRIC/GAS	88	2,552
FORD TAURUS	2	GAS	18	36
GMC YUKON	2	GAS	16	32
NISSAN LEAF	50	ELECTRIC	126	6,300
TOYOTA AVALON HYBRID	3	GAS	40	120
TOYOTA CAMRY HYBRID	3	ELECTRIC/GAS	43	129
TOYOTA HIGHLANDER HYBRID	30	GAS	27	810
TOYOTA PRIUS HYBRID	274	ELECTRIC/GAS	51	13,974
GRAND TOTALS	548			27,802

GRAND TOTALS	548	27,802
AVERAGE CITY MILEAGE FOR LIGHT DUTY		
VEHICLES PURCHASED IN FY'15		50.7



Local Law 40 Annual Report (FY' 15)

Local Law 40 (LL40) requires all contractors managing the City's solid waste disposal program or recycling program for the Department of Sanitation to use ultra-low sulfur diesel fuel (ULSD). It also requires these vehicles to be equipped with emissions reduction technology to reduce the pollutants their vehicles emit into the environment.

As of Fiscal Year 2015, all contractor vehicles were in compliance with this legislation or had received an appropriate waiver.

Below are answers to the questions posed in the legislation describing the City's status in achieving these milestones. The data for these questions was provided from the Department of Sanitation and their contractors.

1. What is the total number of diesel fuel-powered motor vehicles and diesel powered off road vehicles, respectively, used in the performance of solid waste contracts or recyclable materials contracts? (Ad. Code 24-163.5(j)(1)(i))

There were 70 vehicles used for these contracts and all of them are off road vehicles.

No.	Type of Vehicle	Make	Model	Year	Technology (BART)
1	Loader	Caterpillar	CAT 966	1996	ESW/Thermacat ADPF
2	Loader	Caterpillar	CAT 950	1994	ESW/Thermacat ADPF
3	Loader	Caterpillar	CAT 966M	2014	**Tier 4 Final
4	Front Loader	Komatsu	WA-500	1996	DCL MINE-X Sootfilter
5	Front Loader	Komatsu	WA-500	1997	DCL MINE-X Sootfilter
6	Excavator	Komatsu	PC 200	1998	DCL MINE-X Sootfilter
7	Excavator	Komatsu	PC 300	1998	DCL MINE-X Sootfilter
8	Waste Handler	Komatsu	WA-470	2010	DCL MINE-X Sootfilter
9	Waste Handler	Caterpillar	CAT-966H	2008	DCL MINE-X Sootfilter
10	Waste Handler	Komatsu	WA470	2014	Tier 4 Interim
11	Wheel Loader	Volvo	L180F	2008	HUSS/ADPF
12	Wheel Loader	Volvo	L180F	2008	HUSS/ADPF
13	Forklift	Hyster	H80FT	2007	HUSS/ADPF
14	Wheel Loader	Volvo	L70	2009	HUSS/ADPF
15	Excavator	Volvo	EC300	2014	**Tier 4 Final
16	Container Handler	Taylor	SK122467	1993	HUSS/ADPF
17	Container Handler	Taylor	975	2012	Tier 4 Interim
18	Railcar Switcher	Rail King	SS4600	2000	HUSS/ADPF
19	Railcar Switcher	Shuttle Wagon	SWX 465	2002	HUSS/ADPF
20	Wheel Loader	Volvo	L 120	2015	**Tier 4 Final
21	Wheel Loader	Volvo	L180	2012	Tier 4 Interim
22	Wheel Loader	Volvo	L60	2012	Tier 4 Interim

No.	Type of Vehicle	Make	Model	Year	Technology (BART)
23	Excavator	Volvo	330	2007	HUSS/ADPF
24	Excavator	Caterpillar	325MH	2005	HUSS/ADPF
25	Compactor	Caterpillar	826K	2014	**Tier 4 Final
26	Wheel Loader	Caterpillar	980H	2007	HUSS/ADPF
27	Wheel Loader	Volvo	L 180 G	2013	Tier 4 Interim
28	Wheel Loader	Volvo	L 180 G	2014	Tier 4 Interim
29	Compactor	Caterpillar	826G	2005	ESW/ADPF
30	Railcar Switcher	Shuttle Wagon	SWX525BE	2010	HUSS/ADPF
31	Railcar Switcher	Shuttle Wagon	SWX605C	2007	HUSS/ADPF
32	Wheel Loader	Volvo	L180	2008	HUSS/ADPF
33	Wheel Loader	Volvo	L180	2008	THERMACAT/ADPF
34	Wheel Loader	Volvo	L180H	2015	**Tier 4 Final
35	Wheel Loader	Volvo	L70H	2015	**Tier 4 Final
36	Excavator	Volvo	EC 300	2015	**Tier 4 Final
37	Reach Stacker	Taylor	TS9972	2015	Tier 4 Interim
38	Reach Stacker	Taylor	TS9972	2015	Tier 4 Interim
39	Railcar Switcher	Shuttle Wagon	NVX6030	2015	Tier 4 Interim
40	Wheel Loader	Volvo	L180	2002	HUSS/ADPF
41	Forklift	Hyster	H80FT	2007	HUSS/ADPF
42	Wheel Loader	Volvo	L150	2012	Tier 4 Interim
43	Loader	Caterpillar	966D	1986	*DCL/DOC
44	Loader	Caterpillar	966E	1990	*DCL/DOC
45	Top Pick / Kalmar	Kalmar	DCF410CSG	2006	Cleaire Phoenix
46	Top Pick / Kalmar	Kalmar	DCF410CSG	2006	Cleaire Phoenix
47	Skid Loader	Bobcat	Bobcat S220	2006	Waiver/ECS DOC
48	Switch Yard Jocky	Ottawa	Ottawa 4X2	2007	Cleaire Phoenix
49	Switch Yard Jocky	Ottawa	Ottawa 4X2	2007	Cleaire Phoenix
50	Switch Yard Jocky	Ottawa	Ottawa 4X2	2007	Cleaire Phoenix
51	Mech. Broom	Elgin	Elgin/Pelican	2006	Cleaire Phoenix
52	Front Loader	Caterpillar	962G	1999	DCL/DPF
53	Front Loader	Caterpillar	966H	2010	DCL/DPF
54	Front Loader	Caterpillar	966H	2010	DCL/DPF
55	Skid Steer	Bobcat	863	2002	Waiver / BAT Unavailability
56	Skid Steer	Bobcat	S250	2009	Waiver / BAT Unavailability
57	Skid Steer	Bobcat	863	2000	Waiver / BAT Unavailability
58	Front Loader	Caterpillar	966G	2002	JM/CCRT
59	Front Loader	Caterpillar	966H	2008	JM/CCRT
60	Skid Steer	Bobcat	863	2000	Waiver / BAT Unavailability
61	Skid Steer	Bobcat	S630	2011	Waiver / BAT Unavailability
62	Loader	Caterpillar	CAT 966FII	1998	DCL/DPF
63	Excavator	Komatsu	PC220LC-7L	2004	DCL/DPF
64	Loader	Volvo	L120G	2013	Tier 4 Interim
65	Material Handler	Sennebogen	830M'E'	2012	Tier 4 Interim
66	Material Handler	Sennebogen	830	2012	Tier 4 Interim

No.	Type of Vehicle	Make	Model	Year	Technology (BART)
67	Loader	VOLVO	L120G	2014	Tier 4 Interim
68	Loader	VOLVO	L150G	2013	Tier 4 Interim
69	Material Handler	Sennebogen	840M'E'	2013	Tier 4 Interim
70	Material Handler	Sennebogen	840M'E'	2014	Tier 4 Interim

^{*} Unavailability waiver expired. Waiver could not be renewed because of Local Law 74 of 2013. Contractor is in the process to replace the equipment with Local Law 40 compliant equipment.

2. What is the number of such vehicles that were powered by ultra-low sulfur diesel fuel (ULSDF)? (Ad. Code 24-163.5(j)(1)(ii))

All 70 vehicles used for these contracts were powered by ULSDF.

3. What is the number of such vehicles that used the best available retrofit technology (BART), including a breakdown of such vehicles by model, engine year, and technology? (Ad. Code 24-163.5(j)(1)(iii))

The above chart shows that out of the seventy vehicles, thirty eight used the best available retrofit technology (BART). Seventeen vehicles are certified to Tier 4 Interim engines. Seven vehicles are certified to Tier 4 Final. Five were granted waivers for unavailability. Three used DOC's, in which two machines had waivers which expired, and those waivers could not be renewed as per Local Law 74 of 2013.

These classification levels are a hierarchical structure for reducing particulate matter. Tier 4 Final is the most effective way to decrease pollutants as it uses PM and Nox reduction OEM equipped technology. Tier 4 Interim uses only PM reduction OEM equipped Technology. Classification Level IV decreases PM as it uses a diesel particulate filter as compared to Level II which uses a diesel oxidation catalyst.

4. What is the number of such vehicles that used other authorized technology? (Ad. Code 24-163.5(j)(1)(iv))

No technology other than those discussed above, were used.

5. What is the number of vehicles equipped with an engine certified to the applicable 2007 EPA standard for particulate matter as set forth in section 86.007-11 of title 40 of the Code of Federal Regulations (CFR)? (Ad. Code 24-163.5(j)(1)(v))

There are 45 vehicles certified to comply with section 86.007-11 of Title 40 of the CFR as they are model engine year 2007 or later.

6. What were the locations where such vehicles were used? (Ad. Code 24-163.5(j)(1)(vi))

^{**} There are seven Tier 4 Final equipment. These equipment achieve the greatest reduction in particulate matter and also achieve reduction in emissions of nitrogen oxide.

The locations were as follows:

- 1) Brooklyn Transfer Inc. 105-115 Thames Street Brooklyn, NY 11237
- 2) American Recycling Mgmt. 172-33 Douglas Ave Jamaica, NY 11433
- 3) Tully Environmental Inc. 127-20 34th Ave Flushing, NY 11368
- 4) Waste Management of NY LLC221 Varick AveBrooklyn, NY 11237
- 5) Waste Management of NY LLC 98 Lincoln Ave Bronx, NY 10474
- 6) Waste Management of NY LLC 38-22 Review Ave Long Island City, NY 11101
- 7) Waste Management of NY LLC 475 Scott Ave Brooklyn, NY 11222

- 8) Regal Recycling 172-02 Douglas Ave Jamaica, NY 11433
- 9) Allied Waste Systems 600 West Service Road Staten Island, NY 10314
- 10) IESI NY Corporation 110 50th Street Brooklyn, NY 11232
- 11) IESI NY Corporation 577 Court Street Brooklyn, NY 11231
- 12) Action Environmental Systems, LLC941 Stanley AveBrooklyn, NY 11208
- 13) Sims Municipal Recycling of NY 30-27 Green point Ave Long Island City, NY 11101
- 14) Sims Municipal Recycling of NY 850 Edgewater Road Bronx, NY 10474
- 15) Sims Municipal *Recycling* of NY 472 2nd Ave
 Brooklyn, NY 11232
- 7. What waivers were issued for ULSDF? (Ad. Code 24-163.5(j)(1)(vii))

There were no waivers requested for ULSDF.

8. What waivers were issued for the use of other authorized technology in lieu of the best available technology? (Ad. Code 24-163.5(j)(1)(viii))

A total of eight waivers were issued. Five waivers were granted for unavailability for smaller equipment until 2017, then Local Law 73 of 2013 (wherein the vehicles must operate using Level IV technology) will take effect. Out of three pieces of equipment retrofitted with DOCs, two expired and could not be renewed because of Local Law 74 of 2013 (wherein the commissioner shall not renew any waiver issued after January 1, 2014).

Local Law 42 Annual Report for FY 2015

Local Law 42 (LL42) required that by September 1, 2006, certain General Education (GE) diesel fuel-powered school buses be powered by a specific diesel fuel, ultra low sulfur diesel fuel (ULSD). In addition, LL 42 required that by September 1, 2007, all of these school buses use best available retrofit technology (BART) to reduce emissions.

Of DOE's GE diesel fueled fleet, 95.7% are using emission control devices with 84.2% using the best available devices.

Below are answers to the questions posed in the legislation describing the City's status in achieving these milestones.^[1] Table 1 summarizes the answers to questions one through five.

1. What is the total number of school buses used to fulfill the requirements of school bus contracts? (Ad. Code 24-163.7(j)(1)(i))

There was a fleet of 1,970 Type C and D, general education school buses used to fulfill the requirements.

- 2. What is the total number of such buses that were powered by ULSD? (Ad. Code 24.163.7 (j)(1)(ii))
 - 1,970 buses were powered by ULSD.
- 3. What is the number of such buses that used BART, including a breakdown by vehicle model, engine year, and the type of technology used for each vehicle? (Ad. Code 24.163.7(j)(1)(iii))
 - 944 buses used this technology. Please see Table 1 for the breakdown.
- 4. What is the number of such buses that used other authorized technology in accordance with the law, including a breakdown by model and engine age technology? (Ad. Code 24.163.7 (j)(1)(iv))
 - 169 buses used other authorized technology. Please see Table 1 for the breakdown.
- 5. What is the number of such buses that are equipped with an engine certified to the applicable 2007 EPA standard for particulate matter in accordance with the law? (Ad. Code 24.163.7(j)(1)(v))
 - 714 buses were equipped with the applicable 2007 EPA standard engines.

^[1] Section 24-163.7 (j)(1) of the Administrative Code sets forth seven questions to which the Annual Report is required to provide an answer.

- 6. Where were the locations of the school districts where such buses were powered by ULSDF, used BART or other authorized technology in accordance with this section, or were equipped with an engine certified to the applicable 2007 EPA standard for particulate matter? (Ad. Code 24.163.7(j)(1)(vi))
 - All 32 community school districts in the city used these buses.
- 7. Were any waivers granted pursuant to 24-163.7(h) of this law? [2]

A waiver was granted to DOE on September 14, 2007, after they provided documentation that diesel particulate filters (DPFs), which constitute the best available technology, would have caused serious operational issues. On May 24th, 2010, that waiver was extended to March 15, 2011. As of March 1, 2016 the DOE has in its fleet three (3) vehicles remaining that are required to be retrofitted with DPFs.

Table 1

Technology	Manufacturer	Engine-Type	ULSD	Meets 2007 EPA Standard	No. of Buses*
Diesel Particulate Filter (DPF)	IC, Bluebird, Thomas & Freightliner	Unavailable	Yes	714	1,658
Diesel Oxidation Catalyst (DOC) with Closed Crankcase Ventilation System (CCVS)	IC, Bluebird, GMC, Thomas, Ford & Freightliner	Unavailable	Yes	Unknown	169
DOC Only	IC, Bluebird, GMC, Thomas, Ford, Chevy & Freightliner	Unavailable	Yes	Unknown	27
CCVS Only	IC, Bluebird, Thomas & Freightliner	Unavailable	Yes	Unknown	31
None	IC, Bluebird, Thomas & Freightliner	Unavailable	Yes	Unknown	85
Total GE Diesel Fueled Bus Fleet		Unavailable	Yes	714	1,970

^{*}bus count as of June 2016

^[2]Section 24-163.7(h) authorizes DEP to grant such a request when best available technology is unavailable.

Local Law 41 Annual Report (FY' 2015)

Local Law 41 (LL41) requires all City-licensed sightseeing diesel buses to use Ultra Low Sulfur diesel (ULSD) to reduce pollutants. In addition, to lower the emission of harmful pollutants into the environment, these vehicles must install emission reduction devices (BART).

As of Fiscal Year 2015, 100% of the required vehicles are in compliance by use of classification level 4 (BART) or equipped with 2007 or newer certified engines. Also, all diesel vehicles are powered by ULSD (since the passage of LL41, the EPA has required ULSD to be sold nationwide).

LL41 codified at Section 24-163.6 (g) (1) of the Administrative Code, sets forth seven questions to be answered in the Annual Report. The questions and the charts below summarize those responses from Sightseeing Bus Companies and City Agencies.

1. What is the total number of diesel fuel-powered sightseeing buses licensed pursuant to subchapter 21 of chapter 2 of title 20 of the administrative code? (Ad. Code 24-163.6(g) (1) (i))

There are 225 diesel sightseeing buses.

2. What is the number of such buses that utilized the best available retrofit technology? (24-163.6(g) (1) (ii))

Sight Seeing Bus Company	Number Licensed by DCA	Number with BART	Type of Technology	
Gray Line New York Tours Inc.	94	94	There are 94 Classification Level IV Johnson Matthey CRT's.	
City Sights New York LLC	33	33	There are 33 Classification Level IV Diesel Particulate Filter (DPF's). Continuous Regenerating Traps (CRT's).	
Go New York Tours Inc.	23	23	Eight CDTI Active Electrical Regeneration units, Thirteen CDTI Passive units and Two Classification Level IV Johnson Matthey CRT's.	
Experience the Ride	4	0	All four are certified as 2008 model year engines.	
CP Limousine & Consulting Services Inc.	1	0	One 2013 model year (MY) engine.	
Big Bus New York / Skyline LLC / Taxi Tours Inc.	49	16	There are Sixteen Classification Level IV Diesel Particulate Filters (DPF)'s. Three are with 2012 MY engines, Twelve are 2013 MY engines and Eighteen buses are 2014 MY engines.	
RDSL Urban NY, LLC/ DBA Open Tour NY	21	6	Fifteen are 2014 model year. + Six **"Glider Vehicles" retrofitted with Donaldson LNF DPF's	

* Pursuant to EPA regulations, all 2007 and later model engine years are certified to be at least as stringent as "BART" requirements because the manufacturer (OEM) pre-retrofits the majority of them with DPFs. These engines, therefore, meet LL41 requirements.

2007 and newer engines meet applicable United States Environmental Protection Agency (EPA) standards for particulate matter as set forth in section 86.007-11 of title 40 of the Code of Federal Regulations.

According to Local Laws of the City of New York for the year 2013 no.73 and no.74, none of these buses are under any waiver provisions, and they all meet level 4 emission control strategies.

- **A chassis and cab assembly produced by a vehicle manufacturer without a new engine, transmission, or rear axle. A third party then installs a used engine, transmission, and/or rear axle to complete assembly of the vehicle. The completed vehicle then is called "Glider Vehicle".
- 3. What is the number of such buses that utilized other authorized technology? (24-163.6(g) (1) (iii)? Not applicable. All were either Level IV (DPF) or equipped with 2007 or newer model year engine.
- 4. What is the number of such buses that are equipped with engines certified to the applicable 2007 USEPA standard for particulate matter as set forth in §86.007-11 of title 40 of the CFR? (24-163.4(g)(1)(iv)

There are 53 such buses out of the 225 that are certified to the applicable 2007 USEPA standard. The remainder are equipped with BART.

5. What were the locations where such buses utilized the best available retrofit technology? (24-163.6(g)(1)(v))

These buses tour all of New York City, and as a result, this report provides the permanent addresses for the sightseeing companies.

Sight Seeing Bus Co.	Permanent Address	Mailing Address
Gray Line New York Tours Inc.	43 2 nd Avenue, Brooklyn, NY 11215	1430 Broadway, New York, NY 10018
City Sights New York LLC	33 2 nd Avenue, Brooklyn, NY 11215	1430 Broadway, New York, NY 10018
Go New York Tours Inc.	2 East 42 nd Street, New York, NY 10017	Same
Experience The Ride NY LLC	545 8th Avenue, New York, NY 10018	Same
CP Limousine & Consulting Services Inc.	275 Madison Avenue, New York, NY 10016	Same
Big Bus New York / Skyline LLC / Taxi Tours Inc.	723 7 th Avenue (5 th Floor) New York, NY 10019	Same
RDSL Urban NY, LLC/ DBA Open Tour NY	757 3 rd Avenue (20 th Floor) New York, NY 10017	Same

6. What was the age of the engine that did not utilize BART? (§ 24-163.6(g) (l) (VI))?

All were certified to 2007 and later model engines, which are exempt from BART pursuant to 40 C.F.R. § 86.007-11.

7. Were any waivers issued for failure to use BART? (§24-163.6(g) (1) (vii))?

No waivers were issued.