



**Environmental
Protection**

LOCAL LAW AIR REPORTS

FISCAL YEAR 2010



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LL38 Annual Report

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.
- July 1, 2006: 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.
- January 1, 2007: 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 2010, the City met and exceeded the mandated 15% increase in fuel economy by achieving a 29% increase in fuel economy. In addition, the City exceeded the legislative goal that 95% of purchases be of the lowest polluting vehicles in their class by purchasing 98% in the lowest polluting class. However, gasoline use has decreased only slightly, and diesel use has increased.

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

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)	37	0	37
Dept. of Environmental Protection (DEP)	69	15	84
Dept. of Transportation (DOT)	11	27	38
Dept. of Citywide Administrative Services (DCAS)	67	12	79
Dept. of Sanitation (DSNY)	87	0	87
Dept. of Parks & Recreation (DPR)	59	57	116
Police Dept. (NYPD)	213	5	218
Fire Dept. (NYFD)	0	0	0
Dept. of Correction (DOC)	0	0	0
Total	543	116	659*

*This total was the baseline for Fiscal Year 2010 used to determine if the City achieved its goal of purchasing 95% of new vehicles that have the highest fuel efficiency ratings in their class.

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
0*	489	2	3	160	5	659

*No such models were available for purchase

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.

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.

3. *How many Alternative Fuel Buses were purchased?*

Four alternative buses were purchased. They are International Harvester LLC model CE-300. Two are configured for 30 passenger use and two for 49 passenger use.

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
2	0	Compact Sedan
395	2	Medium Size Sedan
1	0	Large Sedan
8	0	Mini Vans
94	2	Mid size Sports Utility
6	5	Large size Sports Utility
48	0	Mid size Light Duty Pick-up
37	0	Medium Duty Vans
59	0	Medium Duty Pickups
Total: 650	Total: 9	
Total: 98.6%*		

*This figure shows that the City achieved its goal of purchasing the lowest polluting vehicles 98.6% of the time.

5. *What is the average fuel economy of light duty vehicle purchases?*

The average fuel economy is 43.6 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 2010, DEP issued the following waivers:

- a. The Department of Homeless Services sought approval for a Toyota Highlander hybrid. That request was rejected and a Ford Escape hybrid was suggested.
- b. A waiver was given to OCME to purchase 5 Ford Expedition hybrids since the least polluting vehicle was 50% more expensive or did not have the towing capacity.
- c. A waiver for NYPD to buy a gasoline bus since the alternative fueled bus targets were met for the year.

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

The increase in average fuel economy was 29%, which exceeds the required reduction of 15% by Fiscal Year 2010. The baseline 2005 average was 31.1 miles per gallon and was 43.6 miles per gallon in 2010.

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:

2005 Gallons of Diesel	2010 Gallons of Diesel
337,554	454,669

2005 Gallons of Gasoline	2010 Gallons of Gasoline
2,828,217	2,821,351

Note: More agencies are using gas cards that directly measure the consumption of gasoline/diesel, where as other agencies such as DSNY have their own filling stations. The quantity of gasoline/diesel used at the agency filling stations measures what is purchased and may over-estimate the actual quantity of gasoline/diesel fuel consumed by the fleet. Gas card data is a better representation of the actual fuel consumed and as a result the amount of gasoline consumed appears to be higher than in 2005. The chart below shows the amount of biodiesel used which reduces CO2 emissions, but since biodiesel was not purchased in 2005 to use this data would skew the comparison for reporting purposes.

Biodiesel Purchased in Bulk (not Gas Card)	Gallons
5% biodiesel/ultra low sulfur diesel blend (B5:1D-ULSB)	10,198,272
5% biodiesel/ultra low sulfur diesel blend (B5:2D-ULSB-5%)	5,660
20% blend (B20:1D-ULSB)	563,468
Jet Fuel	201,436

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 2010		
Year	2005	2009
Gasoline Consumed (gal)	2,828,217	2,821,351
CO ₂ emissions (lbs)	54,867,410	54,734,209.4
Diesel Consumed (gal)	337,554	454,669
CO ₂ emissions (lbs)	7,493,699	10,093,651.2
Total Co ₂ Emissions (lbs)	62,361,109	64,827,861.2
Reduction (lbs)		(2,466,752.2)
Reduction (%)		(3.95)%

Note: As fuel consumption increased, so too did the emission of CO₂.

EMISSIONS RATINGS ON CITY REQUIREMENTS CONTRACTS FOR FY 10

	ZEV	AT-PZEV	PZEV	LEVII SULEV	LEV II ULEV	LEV II LEV
LIGHT DUTY VEHICLES						
COMPACT SEDAN						
FORD FOCUS			2			
MID-SIZE SEDAN						
TOYOTA PRIUS, HYBRID		219				
NISSAN ALTIMA, HYBRID		21				
FORD FUSION, HYBRID		155				
DODGE AVENGER					1	
TOYOTA MATRIX					1	
LARGE SEDAN						
FORD TAURUS				1		
MINIVANS						
DODGE CARAVAN					8	
MID-SIZE SPORTS UTILITY VEHICLES						
FORD ESCAPE HYBRID		94				
TOYOTA HIGHLANDER				2		
LARGE SPORT UTILITY VEHICLES						
GM YUKON						1
FORD EXPEDITION					6	
FORD EXPLORER						4
MID-SIZE LIGHT DUTY PICKUPS						
CHEVEROLET COLORADO					18	
FORD RANGER					30	

EMISSIONS RATINGS ON CITY REQUIREMENTS CONTRACTS FOR FY 10

	ZEV	AT-PZEV	PZEV	LEVII SULEV	LEV II ULEV	LEV II LEV
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MEDIUM DUTY VEHICLES

MEDIUM DUTY VANS						
FORD E-250					19	
FORD E-350					18	
MEDIUM DUTY PICKUPS						
FORD F-350 10,000 GVW SRW & Cab 9,200 GVW					18	
FORD F-250 8500 GVW					41	

Emission Ratings [as defined on 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.

**CITYWIDE LIGHT DUTY VEHICLE PURCHASES FY'10
CALCULATION OF AVERAGE CITY MILEAGE AS REQUIRED FOR LL38 REPORTING**

TYPE VEHICLE	NUMBER PROCURED IN FY'10	FUEL TYPE	EPA MPG CITY	WEIGHTED FACTOR (COL. B x COL. C)
CHEVROLET COLORADO (3.7L)	18	GAS	16	288
DODGE AVENGER (3.5L)	1	GAS	16	16
DODGE CARAVAN (3.3L)	8	GAS	17	136
FORD ESCAPE HYBRID (2.5L)	51	ELECTRIC/GAS	30	1530
FORD EXPEDITION (5.4L)	6	GAS	12	72
FORD EXPLORER (4.6L)	4	GAS	14	56
FORD FOCUS (2.0L)	2	GAS	24	48
FORD FUSION HYBRID (2.5L)	6	ELECTRIC/GAS	41	246
FORD TAURUS (3.5L)	1	GAS	18	18
GMC YUKON HYBRID (6.0L)	1	ELECTRIC/GAS	20	20
NISSAN ALTIMA HYBRID (2.5L)	16	GAS	35	560
TOYOTA HIGHLANDER HYBRID (3.3L)	2	ELECTRIC/GAS	27	54
TOYOTA MATRIX (2.4L)	1	GAS	20	20
TOYOTA PRIUS HYBRID (1.8L)	205	ELECTRIC/GAS	51	10455
GRAND TOTALS	303			13215
AVERAGE CITY MILEAGE FOR LIGHT DUTY VEHICLES PURCHASED IN FY'10				43.6

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LL39 Annual Report

Local Law 39 (LL39) requires all City owned and operated diesel powered vehicles greater than 8,500 lbs., such as garbage collection trucks and DEP's truck fleet, to use ultra low sulfur diesel (ULSD), to reduce pollutants. In addition, in order to lower the emission of harmful pollutants into the environment, these vehicles are to install emission reduction devices.

As of Fiscal Year 2010, 71% of the required vehicles used an emission reduction device, which exceeded the required mandate of 70% by Fiscal Year 2010. Also, all diesel vehicles are powered by ULSD (since the passage of LL39, the EPA has required ULSD to be sold nationwide).

The answers below describe the status of the City's implementation of the law and respond to the specific questions posed in the legislation.²

1. *What is the total number of diesel fuel-powered motor vehicles owned or operated by each City agency? (Ad. Code 24-163.4(g)(1)(i))*

Agency	Vehicles Owned as of June 30, 2010
DEP	473
DSNY	2,876
DPR	513
DOT	891
DCAS	58
Total	4,811

2. *What is the number of such diesel fuel-powered motor vehicles that were powered by ULSD? (Ad. Code 24-163.4(g)(1)(ii))*

Agency	ULSD Vehicles as of June 30, 2010
DEP	473
DSNY	2,876
DPR	513*
DOT	891
DCAS	58
Total	4,811

*ULSD is blended with 20% biodiesel

²Section 24-163.4 (g)(1) of the Administrative Code sets forth seven questions to which the Annual Report is required to provide an answer.

3. *What is the number of such diesel fuel-powered motor vehicles that used best available retrofit technology (BART) to reduce the emission of pollutants, including a breakdown by vehicle model and the type of technology used for each vehicle? (Ad. Code 24-163.4(g)(1)(iii))*

Agency	Vehicles Owned as of 06-30-2010	Powered by ULSD	Retrofitted with BART	Retrofitted with other technology	2007 or newer vehicles	Total Vehicles Reducing Emissions	Percentage of Vehicles
DEP	473	473	52*	0	107	159	34%
DSNY	2,876	2,876	508	114	1,592	2,214	77%
DPR	513	513	151	0	273	424	83%
DOT	891	891	216	184	168	568	64%
DCAS	58	58	26	0	32	58	100%
Total	4,811	4,811	953	298	2,172	3,423	71%

*DEP's diesel fleet consists of many different vehicle types, each requiring a different design solution to achieve the mandated reductions in emissions while complying with the safety requirement of properly enclosing the exhaust system and diesel particulate filter with a guard. The DEP fleet is scheduled to be fully compliant in FY 2012.

Note: As the chart shows, the City has exceeded the 70% BART mandate with a citywide total of 71% vehicles using BART.

4. *What is the number of such diesel fuel-powered motor vehicles that used other authorized technology in accordance with this section, including a breakdown by vehicle model and the type of technology used for each vehicle? (Ad. Code 24-163.4(g)(1)(iv))*

Type of Vehicle	BART Manufacturer	BART Type
DSNY Mechanical Broom	OEM	Diesel Particulate Filter (DPF)
DSNY Collection Truck	JM	DPF
DSNY Collection Truck	Clearie	DPF
DSNY Collection Truck	Englehardt	DPF
DSNY Dual Bin Collection Truck	ESW	DPF
DPR 16 yd. Packer	Donaldson	Diesel Oxidation Catalyst (DOC)
DPR 10 yd. Packer	Donaldson	DOC
DPR 5 yd. Dump	Donaldson	DOC
DPR GMC-TC6C042	OEM	DOC
DOT Utility Truck	ESW Thermacat	Active DPF
DOT MACK Dump Truck	JM	DPF
DOT MACK Dump Truck	ECS/AIRMEEEX	DPF/DOC
DOT Dump Truck Crew Cab	NELSON	DOC
DOT Collection Truck	ECS	DOC
DOT Tractor-Trailer	ECS	DPF

DEP CAT L9500	CAT	DOC
MACK CV713	Donaldson	DPF
CAT 112	Donaldson	DOC/CCFS

Note: For a complete list of diesel equipment, engine details, and agency-wide breakdown, please contact DEP.

5. *What were the number of such motor vehicles equipped with the applicable 2007 EPA standard for particulate matter as set forth in §86.007-11 of title 40 of the CFR? (24-163.4(g)(1)(v))*

As the chart for question three shows, there were 2,172 vehicles from 2007 or newer certified to these requirements.

6. *Were any findings made or waivers issued pursuant to §24-163.4(g)(1)(vii)?³*

One waiver was issued to DCAS for a vehicle that had a very low underside clearance to mount a DPF.

³These waivers are granted for vehicles that do not use ultra low sulfur diesel fuel. These waivers were contemplated during the enactment of this legislation as it was uncertain a sufficient supply of vehicles that run on ULSD would be available.

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LL40 Annual Report

Local Law 40 (LL40) requires all contractors managing the City's solid waste disposal program or recycling program for the Department on 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 2010, all sanitation vehicles were in compliance with this legislation.

Below are answers to the questions posed in the legislation describing the City's status in achieving these milestones.⁴The data for these questions was provided from the Department of Sanitation.

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 50 vehicles used for these contracts and all of them are off road vehicles.

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

All 50 vehicles used for these contracts were powered by ULSD.

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))*

Type of Vehicle	Model	Engine Year	Technology
Wheel Loader	L220	2007	HUSS/CF
Compactor	BC772RB	2007	HUSS/CF
Excavator	EC330	2007	HUSS/CF
Wheel Loader	L220	2006	HUSS/CF
Wheel Loader	L180E	2004	HUSS/CF
Excavator	325MH	2005	HUSS/CF
Wheel Loader	L70E	2005	HUSS/CF
Compactor	826H	2007	HUSS/CF
Wheal Loader	980H	2007	HUSS/CF

⁴Section 24-163.5 (j)(1) of the Administrative Code sets forth eight questions to which the Annual Report is required to provide an answer.

Wheel Loader	980H	2007	HUSS/CF
Wheel Loader	L70E	2008	HUSS/CF
Rail Switcher	SWX5252BE	2003	HUSS/CF
Rail Switcher	SWX605C	2007	HUSS/CF
Wheel Loader	L180F	2008	HUSS/CF
Rail Switcher	SS4600	2000	HUSS/CF
Cont. Handler	TEC 950L	1993	HUSS/CF
Reach Stacker	RSD45214TI	1996	HUSS/CF
Rail Switcher	SWX 465	2002	HUSS/CF
Forklift	H80FT	2007	HUSS/CF
Excavator	EC290	2009	HUSS/CF
Wheel Loader	L70F	2009	HUSS/CF
Wheel Loader	L180F	2002	HUSS/CF
Forklift	H80FT	2007	HUSS/CF
Wheel Loader	L180F	2008	HUSS/CF
Waste Handler	WA-470-6	2010	DCL
Waste Handler	966H	2008	DCL
Front Loader	966G	2005	Johnson Matthey/CF
Front Loader	966H	2009	Johnson Matthey/CF
Front Loader	962G	1999	DCL
Front Loader	966G	2002	Johnson Matthey/CF
Front Loader	966H	2010	DCL
Front Loader	966H	2010	DCL/CF
Front Loader	WA-500-3LE	1998	DCL
Front Loader	WA-500-3LE	1997	DCL
Excavator	PC-200-6LE	1998	DCL
Excavator	PC-300-6LE	1998	DCL
Sweeper	SE	2003	Claire/Phoenix
Excavator	PC220LC	2001	Claire/Phoenix
Loader	966FII	1999	Claire/Phoenix
Loader	966FII	1997	Claire/Phoenix
Cont. Handler	DCF410CSG	2006	Claire/Phoenix
Cont. Handler	DCF410CSG	2007	Claire/Phoenix
Sweeper	SE	2006	Claire/Phoenix
Terminal Tractor	Ottawa	2007	Claire/Phoenix
Terminal Tractor	Ottawa	2007	Claire/Phoenix
Loader	S220	2006	ECS / Purimuffler
Terminal Tractor	Ottawa	2007	Claire/Phoenix
Loader	L120F	2008	HUSS
Mate. Handler	MHL 350D	2007	HUSS

Note: The above chart shows that all 50 of these vehicles used Active Diesel Particulate Filters, and some of the vehicles used a crankcase filter (CF). All vehicles used Classification Level IV, except one loader which used Classification Level II. These classification levels

are a hierarchical structure for reducing particulate matter. Classification Level IV is the most effective way to decrease pollutants as it uses a diesel particulate filter (DPF) 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, was 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 were 26 vehicles certified to comply with section 86.007-11 of Title 40 of the CFR.

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

The locations were as follows:

- a. WM/ Harlem River Yard / 98 Lincoln Ave, Bronx
- b. WM/ Varick 1 / 221 Varick Ave, Brooklyn
- c. WM/ BQE / 475 Scott Ave, Brooklyn
- d. WM / Reviw Ave / 38-50 Review Ave, Queens
- e. Tully / Export of MSW from Queens/ 127-30 34th Ave, Queens
- f. IESI / DSNY Transfer Station / 577 Court Street, Brooklyn
- g. IESI / DSNY Transfer Station / 110 50th Street, Brooklyn
- h. IESI Sub / DSNY Transfer Station / 172-33 Douglas Ave, Queens
- i. Allied Waste Services / 598 Scholes Street, Brooklyn
- j. Allied Waste Services / 941 Stanley Ave, Brooklyn
- k. Allied Waste Services / 115 Thames Street, Brooklyn
- l. Allied Waste Services / 600 West Service Road, Staten Island
- m. SIMS / 30-27 Greenpoint Ave, Queens
- n. SIMS / 850 Edgewater Road, Bronx

7. *What waivers were issued for ULSD? ⁵(Ad. Code 24-163.5(j)(1)(vii))*

No waivers were issued.

8. *What waivers were issued for the use of other authorized technology in lieu of the best available technology? ⁶(Ad. Code 24-163.5(j)(1)(viii))*

⁵ These waivers would have been granted for off road vehicles that did not need to be equipped with an emissions reducing device because they already had a 2007 or later engine that EPA has certified as reducing particulate matter according to the standard in this law.

⁶ These waivers would be granted by DEP if a City agency documents that best available technology is unavailable for purchase.

No such waivers were issued.

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LL42 Annual Report

Local Law 42 (LL42) required that by September 1, 2006, certain general education 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.

As of Fiscal Year 2010, the Department of Education was using ULSD for their fleet of school buses with vehicles manufactured after 2001. DOE is also going beyond the scope of the requirements of the legislation to reduce the emission of pollutants from Type C and D school buses by retrofitting special education buses with BART. Of DOE's total fleet, 100% are using emission control devices with 63% using the best available devices.

Below are answers to the questions posed in the legislation describing the City's status in achieving these milestones.⁷ Table 1, at the end of this report, 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 2,160 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))*

All 2,160 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))*

142 buses used this technology. Please see Table 1 at the end of this report 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))*

468 buses used other authorized technology. Please see Table 1 at the end of the report for the breakdown.

⁷Section 24-163.7 (j)(1) of the Administrative Code sets forth seven questions to which the Annual Report is required to provide an answer.

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))*

659 buses were equipped with the applicable 2007 EPA standard engines.

6. *Where were the locations of the school districts where such buses were powered by ULSD, 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?*⁸

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 a May 24th, 2010, that waiver was extended to March 15, 2011.

Table 1

Technology	Manufacturer	Engine-Type	ULSD	Meets 2007 EPA Standard	No. of Buses
Diesel Particulate Filter (DPF)	IC, Bluebird, Thomas & Freightliner	Unavailable	Yes	659	801
Diesel Oxidation Catalyst with Crankcase Filtration System	IC, Bluebird, GMC, Thomas, Ford & Freightliner	Unavailable	Yes	Unknown	468
Diesel Oxidation Catalyst Only (DOC)	IC, Bluebird, GMC, Thomas, Ford, Chevy & Freightliner	Unavailable	Yes	Unknown	891
Total General Education Bus Fleet				659	2,160

⁸Section 24-163.7(h) authorizes DEP to grant such a request when best available technology is unavailable.

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LL77 Annual Report

Local Law 77 (LL77) requires that any diesel powered offroad vehicle used by the City use ultra low sulfur diesel (ULSD) fuel. It also requires these vehicles be retrofitted with an emissions controlled device to reduce the release of harmful pollutants into the environment.

The milestones in the legislation are as follows:

- June 2004: Diesel powered off road vehicles used by the City in Lower Manhattan must meet LL77's requirements
- December 2005: Any diesel-powered off road vehicle, 50 horsepower and greater, that the City used must meet the requirements.

Federal regulations required ULSD in onroad diesel vehicles by July 1, 2006, and will require ULSD in off road diesel vehicles by 2010. To meet these nationwide requirements, DEP and other City agencies have worked to improve air quality by going beyond the emission requirements in LL77. The Department of Sanitation has been using ULSD, alone and in combination with biodiesel blends, and emissions controlling devices well in advance of the effective dates of LL77, and DEP, as a voluntary measure, has been using this fuel and these devices at the Croton Water Filtration Plant construction site.

As of Fiscal Year 2010, all City vehicles are using ULSD and the City continues to install best retrofit technology in its vehicles. Unlike other local laws, it took time for industry to standardize best available emission control equipment and the processes necessary to comply with this Local Law. This industry delay, in turn, caused delays in implementation of the law's measures. As technology improves and the universe of devices increases, there have been less operational issues with implementing this law and more agencies are coming into compliance.

Below are answers to the questions in the legislation describing the City's status in achieving these milestones.⁹ Table 1, after question three, summarizes the data for the first three questions.

1. *What is the total number of diesel-powered off road vehicles owned by, operated by or on behalf of, or leased by each city agency or used to fulfill the requirements of a public works contract for each city agency? (Ad. Code 24-163.3(g)(1)(i))*

⁹Section 24-163.3 (g)(1) of the Administration Code sets forth seven questions to which the Annual Report is required to provide an answer.

Please see Table 1 for information.

2. *What is the number of such off road vehicles that were powered by ULSD? (Ad. Code 24-163.3(g)(1)(ii))*

Please see Table 1 for information.

3. *What is the number of such off road vehicles that used BAT for reducing the emission of pollutants, including a breakdown by vehicle model and the type of technology used for each vehicle? (Ad. Code 24-163.3(g)(1)(iii))*

Please see Table 1 for information.

Table 1

Agency	Vehicles Owned as of 6.30.10	Vehicles Leased as of 6.30.10	Vehicles Owned Using ULSD	Vehicles Leased Using ULSD	Vehicles Owned Retrofitted with BAT	Vehicles Leased Retrofitted with BAT	Vehicles Owned Retrofitted with other Technology	Leased Vehicles Retrofitted with other Technology
DEP	136	149	136	149	0	149	0	0
DDC	0	235	0	235	0	0*	0	0
DCAS	6	0	6	0	0	0	0	0
DSNY	288	11	288	11	30	11	0	0
DPR	89	0	89	0	7	0	0	0
DOT	212	2	212	2	18	2	0	0
Total	731	397	731	397	55	162	0	0

*17 were retrofitted for FY 11 already.

Note: This table reflects retrofits for Fiscal Year 2010 only.

4. *What is the number of such off road vehicles that used other authorized technology in accordance with this section, including a breakdown by vehicle model and the type of technology used for each vehicle? (Ad. Code 24-163.3(g)(1)(iv))*

Manufacturer	Technology	Agency
NETT	Selective Catalytic Reduction (SCR) Flow Through Filter (FTF)	DSNY
DONALDSON	DOC; DPF	DSNY; DOT; PARKS
DAEWOO	DOC	DSNY
HUSS	Active Diesel Particulate Filter (ADPF) ADPF	DSNY DEP Contractor at Croton, Bronx
JM	DPF/FTF DPF	DSNY DOT
DCL	DPF/FTF; DPF	DSNY; DDC; DEP Contractors
CLEAN AIR	FTF	DSNY

AIR FLOW CATALYST SYSTEM	DOC	DSNY
CLEARIE	ADPF/DPF	DOT
LUBRIZOL	DPF	DCAS
CAT	DPF	DEP Contractor at Vallhalla
ECS	DPF/DOC	DEP Contractor at Wards Island, Manhattan; Croton, Bronx; and Avenue V , Brooklyn

Note: This chart represents a sampling of best available technology. The complete list can be obtained by contacting DEP.

5. *What were the locations in Lower Manhattan where such off road vehicles that were powered by ULSD¹⁰ and/or used BAT for reducing the emission of pollutants or other authorized technology were used? (Ad. Code 24-163.3(g)(1)(v))*

All City vehicles were used citywide. DEP contractors also used off road vehicles at Valhalla and DSNY used off road vehicles at Fresh Kills Landfill.

6. *Were any findings issued that there was an insufficient amount of ULSD¹⁰ pursuant to § 24-163.3(k)(1)? If so, please describe those findings. ¹⁰ (Ad. Code 24-163.3(g)(1)(vi))*

No findings were made.

7. *Were any findings issued that the best available technology for reducing the emission of pollutants was unavailable for a particular vehicle pursuant to §24-163.3 (k)(1)?*

No waivers were issued.

8. *Were any findings issued that the use best available technology for reducing the emission of pollutants might endanger the operator of such vehicle or those working near such vehicle, due to engine malfunction?*

No such findings were made.

¹⁰ If ULSD that contains no more than 15 parts per million was unavailable, DEP would grant a waiver to an agency allowing them to use diesel fuel that has a sulfur content of more than 30 parts per million.