



**Environmental
Protection**

LOCAL LAW AIR REPORTS

FISCAL YEAR 2009



Table of Contents

I.	Local Law 38 Annual Report	3
	The LL38 Report documents the City's purchase of efficient cars and vans.	
II.	Local Law 39 Annual Report	11
	The LL39 Report documents the City's use of a specific diesel fuel, ultra low sulfur diesel fuel (ULSDF), in diesel-powered onroad vehicles owned by the City or used by contractors working for the City. It also documents the use of best available retrofit technology (BART) for reducing the emission of pollutants from these vehicles.	
III.	Local Law 40 Annual Report	15
	The LL40 Report documents both the use of ULSDF and BART in sanitation vehicles.	
IV.	Local Law 42 Annual Report	19
	The LL42 Report documents the use of ULSDF and BART in school buses.	
V.	Local Law 77 Annual Report	21
	The LL77 Report documents the use of ULSDF and best available technology (BAT) to reduce harmful emissions from diesel-powered off road vehicles used by the City or its contractors.	

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, improving 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 will 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 2009, the City met and exceeded the mandated 12% increase in fuel economy by achieving a 23% increase. In addition, the City achieved its goal that 95% of purchases of these types of vehicles were the lowest polluting vehicles in their class.

Below are the answers to the questions posed in the legislation describing exactly where the City stands in implementing this law.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)	8	0	8
Dept. of Environmental Protection (DEP)	56	4	60
Dept. of Transportation (DOT)	38	20	58
Dept. of Citywide Administrative Services (DCAS)	105	14	119
Dept. of Sanitation (DSNY)	82	33	115

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

Agency	Light Duty	Medium Duty	Total
Dept. of Parks & Recreation (DPR)	38	73	111
Police Dept. (NYPD)	62	19	81
Fire Dept. (NYFD)	41	0	41
Dept. of Correction (DOC)	4	8	12
Total	434	171	605*

*This total was the baseline for Fiscal Year 2009 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*	392	17	4	173	19	605

*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.

3. How many Alternative Fuel Buses were purchased?

One alternative fuel bus was purchased. The bus ordered was a Ford E450 with a Supreme StarTrans bus body. It is designed to carry 20 individuals and a driver making it a bus under LL38.

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
17	0	Compact Sedan
267	17	Medium Size Sedan
n/a	n/a	Large Sedan
9	0	Mini Vans
109	3	Mid size Sports Utility
3	13	Large size Sports Utility
n/a	n/a	Mid size Light Duty Pick-up

Lowest Category	Other	Vehicle Type
n/a	n/a	Large Light Duty Pick-up
76	0	Medium Duty Vans
91	0	Medium Duty Pickups
Total: 572	Total: 33	
Total: 95%*		

*This figure shows that the City achieved its goal of purchasing the lowest polluting vehicles 95% of the time.

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

The average fuel economy is 40.3 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.

DEP issued the following waivers:

- One waiver for five Ford Expeditions was granted to the Office of Chief Medical Examiner since the lowest emitting vehicle, the GMC Yukon Hybrid, was more than 50% more costly and did not meet the towing capacity needed for the agency.
 - One waiver to the Department of Homeless Services to buy three Dodge Chargers was denied, as Nissan Altima Hybrids were on the requirements contract and are in a lower LEV category.
 - One waiver was granted for a Ford E450 bus for the Police Department. The City had already purchased a hybrid electric bus. The Ford E450 purchase did not hinder the City's goal (20%) of alternate-fueled bus purchases for FY 2009.
7. What is the percentage increase in fuel economy? Target of 5% to 20%.

The increase in average fuel economy was 23%, which exceeds the required reduction of 12% by Fiscal Year 2009. The baseline 2005 average was 31.1 miles per gallon and was 40.3 miles per gallon in 2009.

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	2009 Gallons of Diesel
337,554	406,328

2005 Gallons of Gasoline	2009 Gallons of Gasoline
2,828,217	2,955,491

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.

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?

CO ₂ Calculations for LL38 Fiscal 2009		
Year	2005	2009
Gasoline Consumed (gal)	2,828,217	2,955,491
CO ₂ emissions (lbs)	54,867,410	57,336,525
Diesel Consumed (gal)	337,554	406,328
CO ₂ emissions (lbs)	7,493,699	9,020,482
Total CO ₂ Emissions (lbs)	62,361,109	66,357,007
Reduction (lbs)		(3,995,898)
Reduction (%)		(6.41)%

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

EMISSIONS RATINGS ON CITY REQUIREMENTS CONTRACTS FOR FY 09

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

COMPACT SEDAN						
FORD FOCUS			17			
MID-SIZE SEDAN						
TOYOTA PRIUS		267				
NISSAN ALTIMA, HYBRID			16			
FORD FUSION			0			
LARGE SEDAN						
FORD TAURUS						1
FORD CROWN VICTORIA						0
MINIVANS						
BUICK TERRAZA						0
DODGE CARAVAN					9	
MID-SIZE SPORTS UTILITY VEHICLES						
FORD ESCAPE HYBRID		109				
TOYOTA HIGHLANDER				3		
LARGE SPORT UTILITY VEHICLES						
GM YUKON						0
CHEVY AVALANCHE						6
FORD EXPEDITION						4
CHEVY SUBURBAN						3
FORD EXPLORER					3	
MID-SIZE LIGHT DUTY PICKUPS						
FORD RANGER					0	

EMISSIONS RATINGS ON CITY REQUIREMENTS CONTRACTS FOR FY 09

	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					43	
FORD E-150					2	
FORD E-350					31	
MEDIUM DUTY PICKUPS						
FORD F-350 10,000 GVW SRW & Cab 9,200 GVW					20	
FORD F-250 8500 GVW					71	

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 2009
CALCULATION OF AVERAGE CITY MILEAGE AS REQUIRED FOR LL38 REPORTING

TYPE VEHICLE	NUMBER PROCURED IN FY 09	FUEL TYPE	EPA MPG CITY	WEIGHTED FACTOR (COL. B x COL. C)
DODGE CARAVAN (3.3L)	9	GAS	17	153
FORD ESCAPE HYBRID (2.5L)	65	ELECTRIC/GAS	19	1235
FORD EXPEDITION (5.4L)	4	GAS	12	48
FORD FOCUS (2.0L)	17	GAS	24	408
FORD TAURUS (3.5L)	1	GAS	18	18
NISSAN ALTIMA HYBRID	16	GAS	35	560
TOYOTA HIGHLANDER HYBRID (3.3L)	3	ELECTRIC/GAS	27	81
TOYOTA PRIUS HYBRID (1.5L)	275	ELECTRIC/GAS	48	13200
GRAND TOTALS	390			15703
AVERAGE CITY MILEAGE FOR LIGHT DUTY VEHICLES PURCHASED IN FY 09				40.3

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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 collection trucks and DEP's truck fleet, to use a specific diesel fuel, namely ultra low sulfur diesel fuel (ULSDF) to further 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 2009, 56% of the required vehicles used an emission reduction device, which exceeded the required mandate of 50% by Fiscal Year 2009. Also, all diesel vehicles are powered by ULSDF.

Below are the answers to the questions posed in the legislation describing exactly where the City is in achieving these milestones.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, 2009
DEP	482
DSNY	3,700
DPR	453
DOT	896
DCAS	84
Total	5,615

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

Agency	ULSDF Vehicles as of June 30, 2009
DEP	482
DSNY	3,700
DPR	453*
DOT	896
DCAS	84
Total	5,615

*ULSDF is blended with 20% biodiesel

Note: As the above chart shows, all diesel fuel-powered motor vehicles owned or operated by City agencies are powered by ULSDF.

² Section 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 06-30-2009	Powered by ULSD	Retrofitted with BART	Retrofitted with other technology	2007 or newer vehicles	Total Vehicles Reducing Emissions	Percentage of Vehicles
DEP	482	482	52	0	81	133	28%
DSNY	3700	3700	508	114	1627	2249	61%
DPR	453	453	53	0	162	215	47%
DOT	896	896	182	184	155	521	58%
DCAS	84	84	0	0	20	20	24%
TOTAL	5615	5615	2739	298	2045	3138	56%

Note: As the chart shows, the City has exceeded the 50% BART mandate with a citywide total of 56% 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	DOC
DPR 10 yd. Packer	Donaldson	DOC
DPR 5 yd. Dump	Donaldson	DOC
DPR GMC-TC6C042	OEM	DOC
DPR GMC-TC6C042	OEM	DOC
DOT MACK Dump Truck	JM	DPF
DOT MACK Dump Truck	ECS/AIRMEEX	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 2,045 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

There were no requests for a waiver.

³ These 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 ULSDF 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 a specific diesel fuel, namely ultra low sulfur diesel fuel (ULSDF). 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 2009, 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.⁴ The 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 28 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 28 vehicles used for these contracts were powered by ultra low sulfur diesel fuel.

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	FS200-MKM	2002	HUSS/CF
Wheel Loader	FS200-MKL	2008	HUSS/CF
Fork Lift	FS80 MKL	2007	HUSS/CF
Excavator	FS100 MKL	2002	HUSS/CF
Railcar Switcher	FS100 MKL	2000	HUSS/CF
Container Handler	FS 200MKL	1993	HUSS/CF
Reach Stacker	FS200M	1996	HUSS/CF
Skid Loader	863	2002	DCL MINE-X
Railcar Switcher	FS100 MKL	2002	HUSS/CF
Wheel Loader	FS100 MLK	1994	HUSS/CF
Forklift	FS80 MKL	2007	HUSS/CF
Ld. Cont. Handler	DCF410CSG	2006	Clearie
Ld. Cont. Handler	DCF410CSG	2007	Clearie

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

Sweeper	SE	2006	Clearie
Type of Vehicle	Model	Engine Year	Technology
Terminal Tractor	Ottawa	2007	Clearie
Loader	S220	2006	ECS
Excavator	EC290	2009	HUSS/CF
Loader	966FII	1997	Clearie
Sweeper	SE	2003	Clearie
Container Handler	TEC 950L	1993	HUSS/CF
Front Loader	CAT 966G	2005	CRT
Front Loader	CAT 966G	2002	CCRT
Front Loader	CAT 966G	2004	CRT
Front Loader	CAT 966H	2008	CCRT
Fork Lift	H80FT	2007	HUSS/CF
Excavator	PC220LC	2001	Clearie
Front Loader	CAT 962G	1999	DLT4 MINE
Skid Loader	863	2000	DCLX MINE

Note: The above chart shows that all 28 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 19 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. DSNY Transfer Station, 577 Court Street, Brooklyn;
- b. Varick 1, 221 Varick Avenue, Brooklyn;
- c. Harlem River Yard, 98 Lincoln Avenue, Bronx;
- d. BQE, 475 Scott Avenue, Brooklyn;
- e. DSNY Transfer Station, 110 50th Street, Brooklyn;
- f. 600 West Service Road, Staten Island;
- g. 115 Thames Street, Brooklyn;

- h. 598 Scholes Street, Brooklyn; and
- i. 941 Stanley Avenue, Brooklyn.

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))

No such waivers were issued.

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.

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LL42 Annual Report

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

As of Fiscal Year 2009, the Department of Education was using ULSDF for their fleet of school buses with vehicles manufactured between 2001 and now. 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, 94% are using emission control devices with 64% 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 2,343 school buses used to fulfill the requirements.

2. What is the total number of such buses that were powered by ULSDF? (Ad. Code 24.163.7(j)(1)(ii))

Almost all buses were as ULSDF powered 2,336 buses. The seven buses that did not operate on ULSDF were operated on gasoline.

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))

Sixty-four 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))

2,149 buses used other authorized technology. Please see Table 1 at the end of the report for the breakdown.

⁷ 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.

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))

Fifty-seven buses were equipped with the applicable 2007 EPA standard.

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. This waiver expired on September 14, 2010.

Table 1:

Technology	Manufacturer	Engine-Type	ULSD	Meets 2007 EPA Standard	No. of Buses
Diesel Particulate Filter (DPF)	IC, Bluebird, Thomas & Freightliner	Unavailable	Yes	57	64
Diesel Oxidation Catalyst with Crankcase Filtration System	IC, Bluebird, GMC, Thomas, Ford & Freightliner	Unavailable	Yes	Unknown	1,071
Diesel Oxidation Catalyst Only (DOC)	IC, Bluebird, GMC, Thomas, Ford, Chevy & Freightliner	Unavailable	Yes	Unknown	1,078
Total General Bus Fleet				57*	2,213**

* The 57 buses are a subset of the 2,213 buses.

**Excludes 130 Special Needs Buses.

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

LL77 Annual Report

Local Law 77 (LL77) requires that any diesel powered off road vehicle used by the City use ultra low sulfur diesel fuel (ULSDF). 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 ULSDF in onroad diesel vehicles by July 1, 2006, and will require ULSDF 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 ULSDF 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 2009, all City vehicles are using ULSDF 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))

Please see Table 1 for information.

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

Please see Table 1 for information.

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

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 6.30.09	Vehicles Leased as of 6.30.09	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	149	48	149	48	0	48	0	0
DDC	0	211	n/a	211	n/a	0	n/a	0
DCAS	5	0	5	n/a	1	0	n/a	n/a
DSNY	284	0	284	n/a	77	19	0	0
DPR	88	0	88	n/a	0	n/a	0	n/a
DOT	214	0	214	n/a	48	n/a	0	n/a
Total	740	259	740	259	125	68	0	0

Note: This table reflects retrofits for Fiscal Year 2009 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
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 Contractor at Croton, Bronx
CLEAN AIR	FTF	DSNY
AIR FLOW CATALYST SYSTEM	DOC	DSNY
CLEARIE	ADPF/DPF	DOT
LUBRIZOL	DPF	DCAS
CAT	DPF	DEP Contractor at Vallhalla

Manufacturer	Technology	Agency
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 ULSDF 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 ULSDF 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)?

Yes, the following waivers were issued.

- a. A waiver was issued for two backhoes to DPR as the contract did not specify retrofits and the Department lacked funding to install the retrofits for the 2009 fiscal year.
- b. There was a waiver granted for 180 days to a DEP contractor who needed additional time to finalize the installation design to retrofit a backhoe to a Category I level. The backhoe has been retrofitted with a Category II technology, a diesel oxidation catalyst.

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 ULSDF 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.