Local Law 77 Annual Report for Fiscal Year 2018

Local Law 77 (LL77) requires that any diesel powered off road vehicle used by the City use Ultra Low Sulfur Diesel (ULSD) Fuel. It also requires these vehicles be retrofitted with an Emissions Control Device to reduce the release of harmful pollutants into the environment.

Federal regulations required ULSD in on road diesel vehicles by July 1, 2006, and required 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. DCAS also has in place a pilot project that uses Renewable Diesel in several city fleet vehicles. Renewable Diesel reduces greenhouse gas emissions over 60% and reduces tailpipe pollution.

As of Fiscal Year 2018, all City vehicles are using ULSD, alone and in combination with biodiesel blends and the City continues to install best retrofit technology on its vehicles. Unlike for on road vehicles, it took time for industry to standardize best available emission control technology for off road vehicles 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. More city contractors and city agencies are coming into compliance by retrofitting their equipment or by purchasing EPA certified, OEM installed Tier 4 interim or Tier 4 Final Engines.

Below are answers to the questions in Section 24-163.3 (g) (1) of the Administration Code and describes the City's status in achieving these milestones. Table 1 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.

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 Tables 1 and 2 for information.

Table 1

Agency	Vehicles Owned as of 6.30.18	Vehicles Leased as of 6.30.18	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	88	9	88	9	42	0	42	0
DDC	N/A	108	N/A	108	0	17	0	0
DCAS	14	0	14	0	3	0	9	0
DSNY	440	0	440	0	44	0	103	0
DPR	138	0	138	0	3	0	11	0
DOT	295	0	295	0	64	0	53	0
Total	**975**	**117**	**975**	**117**	**156**	**17**	**218**	**0**

***** These technologies are not verified or were formerly verified. Re-evaluation of technologies are still pending.

Table 2

Manufacturer	Technology	Agency
ESW Technologies ThermaCat/Cleancat XP	Active DPF	DOT, DEP, DSNY and DDC Contractors throughout the five boroughs
Huss	Active Diesel Particulate Filter (ADPF)	DOT DEP Contractor
Johnson Matthey	CRT, DPF & DOC	DSNY, DOT
DCL International	DPF/Mine-X-Sootfilter	DSNY, DDC Contractors, DEP Contractors
Cleaire	ADPF/DPF	DOT
CDTI/ECS (Engine Control System)	DPF/Purifilter, DOC/Purimuffler	DEP and DDC Contractors throughout the five boroughs. DOT, DSNY, DEP, DCAS

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

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))*

A total of 218 off road vehicles used other authorized technology at DEP, DCAS, DSNY, DOT and DPR. A sample of this technology is listed in the table below.

EQ Type	Mfg.	Model	MY	BAT Mfg.	BAT Type
Front End Loader	Doosan	DL200	2009	NETT	DOC
Front End Loader	Doosan	DL200	2009	ESW	FTF
Skid Steer / Front End Loader	Deutz / GEHL	5640E	2009 2008	DCL International	DOC
Fel Medium	Daewoo	M200-5	2004	Johnson Matthey	DOC

***** Please contact DEP for the full list.

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 off road vehicles were used citywide. DEP contractors used off road vehicles at Gilboa Dam, Malboro, Valhalla, Carmel, Wappingers Falls and Croton N.Y. Also DDC and DEP contractors are using off road equipment throughout the five boroughs.

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.*[1] *(Ad. Code 24-163.3(g)(l)(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 in Fiscal Year 2018 for Unavailability.

8. *Were any findings issued that the use of 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?*

   Yes, three safety waivers were issued in Fiscal Year 2018.

[1] 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.