

Tenleytown Automotive

GreenWrench Technical Assistance Case Study

Overview

The GreenWrench Technical Assistance Program (GreenWrench) provides free pollution prevention guidance and training to mechanics and automotive repair businesses in the District of Columbia (District). This voluntary program is offered free of charge by the District Government's Department of Energy and Environment (DOEE) thanks to grant funding from the U.S. Environmental Protection Agency. GreenWrench is designed to help businesses become compliant with local and federal environmental regulations, protect the environment, and improve their bottom line by encouraging pollution prevention.

The GreenWrench program encourages practices that reduce, eliminate, or prevent pollution before treatment or disposal (also known as source reduction). These case studies highlight pollution prevention actions that participating facilities have implemented in order to demonstrate the impact of the actions on the environment and their cost-effectiveness. It is hoped that by highlighting these success stories, others are inspired to take similar actions that are both good for the environment and good for businesses.

DOEE, along with their contractor DesignGreen, LLC, worked with Tenleytown Automotive to assess their energy consumption, hazardous waste accumulation, and overall contribution to pollution. The automotive repair shop was given a pollution prevention plan (P2 Plan) with recommendations as to how they can comply with local and federal regulations, reduce their carbon footprint, and save money. While implementation of the P2 Plan was optional, Tenleytown Automotive decided to implement many recommendations provided by DOEE. Some recommended actions from the P2 Plan that the shop could improve on is to ensure that 100% of the lights in the shop are LED, use non-lead wheel weights, and switch to greener cleaning products. These actions may reduce MTCO_{2e} by 0.0494 metric tons. Implementation of specific actions recommended in the P2 Plan will qualify the facility to be considered for GreenWrench certification, recognizing the facility as committed to reducing pollution and using environmentally friendly practices in the District.

GreenWrench Impact

The goal of GreenWrench is to encourage auto shops to be more mindful of their environmental impact and to then recognize the shops that took strides in implementing the actions highlighted in their P2 Plan through the GreenWrench Certification.

GreenWrench provides an opportunity to protect both human and environmental health, ensure compliance with DC Government regulations, and try environmentally friendly products free of charge. Implementation of their personalized P2 Plan helps the shop to become more environmentally friendly by reducing their contribution to air and water pollution while increasing savings on their water and electric bill.



GREEN WRENCH

TECHNICAL ASSISTANCE

DEPARTMENT OF ENERGY & ENVIRONMENT



Tenleytown Automotive

Location: 4244 Wisconsin Ave NW, Washington, DC 20016

Type of Business: Full-Service Auto Shop

Number of Employees: 10

About The Shop

Tenleytown Automotive is a highly regarded auto repair shop in the Northwest Washington, DC. The shop is owned by Phil Rosen with administrative help from Andrea Probst. They are accompanied by 8 other employees who carry out the day-to-day interactions of auto repair. The shop is well received as shown through the surplus of positive reviews which only solidifies its reliability and trustworthiness within the neighborhood.

Tenleytown Automotive has made many strides to improve the facility and reduce the impact it makes on the environment surrounding it. The shop is committed to sustainability and takes steps to be a model for other auto shops in the area.

Background

Before the GreenWrench Technical Assistance program connected with Tenleytown Automotive, the shop already had some LED lights installed (reduces energy usage and costs), used eco-friendly cleaning products, and had licensed haulers for both trash

and recycling. This shop, as well as every other shop that participates in the program, was given a personalized P2 Plan. The plan pinpointed steps that could be taken to become more environmentally conscious and save money. Some recommended actions from the P2 Plan that the shop could improve on is to ensure that 100% of the lights in the shop are LED, use non-lead wheel weights, and switch to greener cleaning products.

Results

Current Actions and Material Usage

Some actions from the P2 plan that have been completed thus far include using degreasers that do not contain Volatile Organic Compounds (VOCs), having adequate supplies of spill absorbent, performing copper-free brake pad changes, and implementing methods to reduce waste like cutting back on paper waste. These changes all have potential financial benefits to the shop and can also prevent pollution.

With materials provided by the GreenWrench Program, Tenleytown Automotive was able to test environmentally friendly alternatives to popular products, put stickers near light switches as a reminder to turn them off, install a no engine idling sign, and have their storm drains marked to remind employees to minimize

Table 1. Activities where reductions have been or can be achieved during GreenWrench Participation.

Asterisk (*) denotes recommended actions not yet implemented

Activity	Before (per month)	After (per month)	MTCO ₂ e Reduced (per month)	Gallons Water Reduced (per month)	Air Pollution Reduced lbs. VOC (per month)
Unregulated waste (trash containers)	3	2	0.0112554	N/A	N/A
Recycling	15 lbs.	20 lbs.	0.0065	N/A	N/A
Aerosol Cans	4	4	N/A	N/A	N/A
Scrap Metal	10 lbs.	7.5 lbs.	0.0017	N/A	N/A
Fluorescent Lightbulbs disposed*	1	0	0.0299	N/A	N/A
Air Conditioner coolants	12 oz	12 oz	N/A	N/A	N/A
Total Reductions	-	-	0.0494	N/A	N/A

discharge of contaminated water and other liquid products. Each of these actions contribute to a reduction in air and water pollution while saving money for the company by reducing electric consumption and amount of hazardous waste generated.

Pollution Prevention

Based on the actions that have been or will be completed, Tenleytown Automotive's participation with GreenWrench will result in reduction of 0.0494 metric tons of carbon dioxide equivalent (MTCO_{2e}) per month. If a low flow toilet is installed in the shop's restroom, water usage would be reduced by about 97 gallons per month. The amount of coolant collected for disposal and reuse also translates to wastewater reduction.

Cost Effectiveness

These actions can provide significant financial savings for Tenleytown Automotive. Switching to a low flow toilet shop's restroom could result in savings of about \$140 dollars a year (EPA, n.d.). With LED light bulbs, savings are shown through reduced electric costs per year, and the ten-year costs compared to fluorescent and halogen bulbs. If 20 LED light bulbs are installed, savings could amount to \$1000 over a decade (CFA, 2017). If Tenleytown Automotive

switches to a non-lead wheel weight system, the shop could save \$500 per year after its second year (EPA, n.d.). Lastly when switching to the safer products that GreenWrench gave to them, they can save on average \$5 per container.

Future Goals

In order to become GreenWrench Certified, Tenleytown Automotive is working towards implementing a non-lead wheel weight system and working with a licensed scrap metal hauler. Additionally, they are seeking to train employees on spill prevention and response as well as hazardous waste identification and management which is not a requirement for the certification.

Conclusion

Tenleytown Automotive is dedicated to the idea of an environmentally friendly auto shop. This level of commitment can also be achieved in facilities across the District. Smaller steps could be taken like turning off lights in empty rooms and increasing recycling rates.

The GreenWrench program will continue to work with automotive businesses in the District to provide guidance on ways to protect the environment.

Works Cited

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