



**CASE STUDY**

**EMOC INSTALLS OVER 30 HOSE REELS TO CAPTURE DIESEL & CNG EXHAUST EMISSIONS**



**THE CHALLENGE**

Before the new Equipment Maintenance Operations Center (EMOC) facility was built, Montgomery County's public mass transit and county Department of Transportation fleet equipment was maintained in an out-of-date, cramped facility. The facility was servicing vehicles using a system from another manufacturer, whose vehicle exhaust equipment was obsolete and inefficient. Workers grabbed hot exhaust pipes with their hands, risking serious injury. Soot and particulate were visible on the walls of the facility, further evidence of harmful conditions.

When the new fleet maintenance facility was designed, special attention was given to providing a spacious, safe, well-lit, environmentally friendly facility. One of the most important objectives was to provide a healthy work area for both the mechanics and office support staff.

Plymovent was selected to furnish and install the vehicle exhaust and welding fume removal systems for the main maintenance building and at another smaller building just up the street.



Because the main garage serviced buses on one side and the County Dept. of Public Works on the other, two slightly different systems would be required to meet the needs of each.

Plymovent worked in conjunction with and coordinated installation with the following teams: Baker & Associates (Architect), Maintenance Design Group (equipment design), and Coakley Williams Construction, Inc. (General Contractor).

The EMOC jobsite is a collection of 13 buildings stretching over 41 acres on two separate plots of land. The project achieved LEED Gold certification, providing a positive impact on the health of occupants while also enhancing renewable, clean energy. EMOC maintains over 150 transit buses and 500 maintenance vehicles for both the county Dept. of Transportation and the Dept. of General Services.

## THE SOLUTION

Plymovent furnished and installed 32 Motorized Spring Hose Reels including two different temperature rated hoses, all with direct mount fans to efficiently capture and remove diesel exhaust emissions. All of the hose reels were provided with a Plymovent SA-24 fan starter control box, which provides instant fan operation whenever a hose is brought down for use, allowing for exceptional usability. In addition, Plymovent also provided welding smoke removal systems in two shops.

Each of the systems were selected to be ergonomically friendly and provide optimum efficiency to ensure that all hazardous fumes are captured and removed from the work area, thus providing everyone a healthier work environment. After installing and putting the product into operation, no evidence of visible soot has been found in the facility, unlike the residue found in the previous existing building. Employees notice not only a vast improvement in cleanliness and safety of their work environment, but also in their health and well-being. Maintenance workers at the EMOC facility now breathe clean air while maintaining and servicing the vehicles.

Along with the EMOC facility, Plymovent has provided exhaust capture and removal systems in all of the county fire stations, as well as their emergency vehicle maintenance garage in Rockville, MD.



## MAIN BENEFITS

- Minimizes exposure to carcinogenic chemicals found in vehicle exhaust.
- Virtually 100% source capture, which is the most efficient way to capture fumes.
- Each hose reel and fan assembly is compact and self-contained.
- An individual fan on each hose reel lowers heating, ventilation and make up air energy costs.
- Automatic fan operation for easy use.

## PRODUCT/SYSTEM FACTS

### Plymovent products

- 32x MSHR-850-120 hose reels
- 32x FUA-2700/3000 fans
- 32x SA-24 fan starter control boxes with MSR-24 micro switches
- 15x EF2 -150-10 hoses with aluminum conical nozzles and vise grips
- 17x HT-1000-6 and HT-1500-6 hoses with galvanized conical nozzle and vise grips
- 1x Mobile One portable welding fume filter
- 2x Flex-Max FM-4540 Welding fume arms with FUA-3000 fans and SA-24 motor starters.

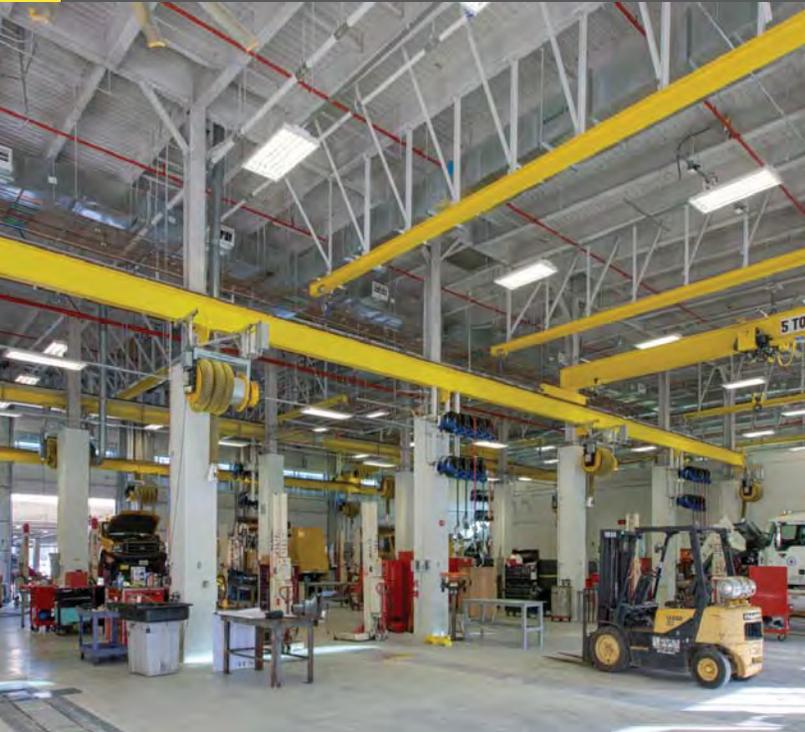
### Year of installation

- 2013



Plymovent Corp. is ISO 9001:2008 Certified

US-03



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