

Santa Barbara City Fire Department - Standard Operating Procedures Routine Operations	Code: R-I-3
Plymovent Ventilation System	
Chpt: I Station Operations	Revised: 5/12/14 Pages: 5

I. SAFETY

Many studies indicate that breathing vehicle exhaust fumes inside the firehouse can cause or contribute to serious illnesses (emphysema, cancer, heart attack, and stroke) and even death for fire fighters who work and, many times, eat and sleep in the facility.

The exhaust from engines burning diesel fuel is a complex mixture of gases and fine particulates. They contain toxic substances that disperse in the breathing area in a firehouse. Also, exhaust residue adheres to walls and other surfaces, and becomes embedded in clothing, furniture, etc., where it can be absorbed through the skin.

II. POLICY

- A. The station captain of the respective stations shall have primary responsibility for administration of this policy.
- B. **The use of the vehicle exhaust system is considered mandatory.** Any ongoing non-compliant actions should be reported to the duty Battalion Chief.
- C. This policy establishes the guidelines and explanations for use of the Plymovent Vehicle Exhaust Systems located in Santa Barbara City Fire Stations.
- D. The Plymovent Vehicle Exhaust Systems have been installed to protect the health and safety of all internal personnel and visitors, and must be used as instructed to fulfill current NFPA 1500, 2002 edition guideline. The following information shall outline the procedure for proper handling and operations of the Plymovent Vehicle Exhaust System. In connection with this procedure all basic safety regulations (State and Federal) regarding vehicle operations shall be followed.
- E. Review the video provided by Plymovent for more detailed operation instructions.

III. USING THE PLYMOVENT EXHAUST SYSTEMS

A. Policy and procedure for exiting station:

1. Upon starting vehicle, system fan will automatically start and it will turn off automatically based on the setting of the timer mechanism located in the Plymovent control box.
2. Vehicles shall exit stations at a safe speed as required by the Plymovent manual to prevent injuries to personnel inside the station and possible damage to the exhaust system.

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3. All personnel shall stay clear of the exiting vehicle and exhaust system. The hose moves with the vehicle along the track or rail and detaches from the tailpipe as the system's trolley engages the uncoupling valve (uncoupling valve may be adjusted on track or rail based on type of vehicle and exiting speed). After grabber nozzle detaches from tailpipe, hose will retract to a normal resting position. The Plymovent Vehicle Exhaust Removal System is a moving system when connected to a vehicle, and in-station personnel must stay clear of its traveling path to ensure their safety.

B. Policy and procedure for entering station while backing:

1. Upon returning to station, a designated backing spotter (SOP S-III-1) shall stop the vehicle prior to entering the station, but close enough to allow the Plymovent to be attached. Some stations may require clearing the threshold prior to attaching. The Captain shall retrieve the hose and grabber nozzle and bring it to the exhaust pipe, immediately connecting it.



2. Once connected, and the Captain is clear, the backing spotter will continue to guide the vehicle into station (signal person must be visible to the driver at all times).

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Note: The arrow on the grabber nozzle should be at the top center of the tailpipe when connected, then press the black button on the manual inflation valve before letting go of the hose.



C. Policy and procedure for entering station driving through (Station 1, Station 2 and Station 4)

1. Upon returning to station, designated person (usually the firefighter) shall retrieve the hose and grabber nozzle and bring it to the outside threshold (if possible) of the overhead door, designated person should have the vehicle stopped at appropriate location for connection, grabber nozzle is placed on the exhaust, and the designated person clears the area and motions for the driver to proceed to parking.

D. Non-Moving system operation:

1. For operation of a vehicle inside the station the switch on the control box must be turned to the MANUAL position before starting any vehicles. System fan can operate for as long as any vehicle engine is running at idle. In addition, any vehicle may be accelerated up to 1500 rpm for five (5) minutes as long as the switch is turned to the manual position. When the vehicle is turned off, the switch

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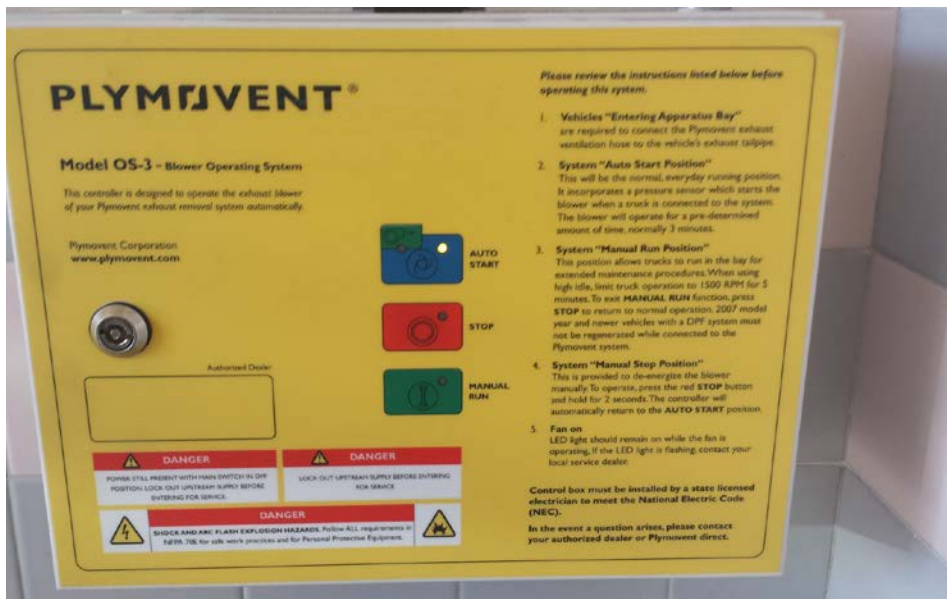
on the control box must be turned to the OFF position and the switch will automatically spring to the AUTO position.

E. Maintenance of the Plymovent Vehicle Exhaust System:

1. The screen, located at the nozzle, shall be checked monthly for debris.
2. The compressor tank shall be checked and drained monthly **on the engine service day**.
3. The Plymovent Exhaust System shall be serviced once a year by a certified service technician.
4. Any problems or malfunctions shall be reported immediately to the on duty Battalion Chief.

F. Trouble shooting the system

1. Two problem solving solutions for the Plymovent system.
 - a. The Plymovent might not work if your generator runs or if it gets, “dirty power”.
 - b. The lights will work on the buttons but the system will not turn on.



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You can open the door with a flathead screwdriver.

