

### **Accountability and Commitment**

Routine maintenance activities at most FirstGroup America (FGA) facilities do not result in significant air emissions requiring extensive operations in order to comply with the Clean Air Act. Each FGA facility is evaluated to determine the impact of operations on air quality and Clean Air Act applicability. The responsibility for the implementation and maintenance of this policy and its associated procedures is assigned to the individual indicated below. As the employee designated with this responsibility at this facility, I agree with and commit to enacting the Standard Operating Procedure (SOP) detailed in this manual section in an effort to help the company fulfill all environmental objectives at this location.

Assign responsibility for this SOP to one individual. Additional signature spaces are provided to accommodate personnel changes in the future.

**SOP Assignment: 12.4 Exhaust Emissions**

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## **BACKGROUND**

The following sections address exhaust emissions from both diesel and gasoline powered vehicles and equipment serviced, used and/or maintained at FGA facilities. The emissions from combustion of petroleum hydrocarbons in vehicles and equipment at FGA facilities have the potential to adversely impact FGA employees as well as the surrounding environment. This procedure has been established to minimize such impacts.

### **1.0 SCOPE**

This procedure applies to all FGA facilities.

### **2.0 POLICY**

It is the policy of FGA to ensure that activities at all FGA facilities are conducted in a manner that minimizes impacts to the environment.

### **3.0 OBJECTIVE**

The objective of this procedure is to ensure that all FGA facilities are properly managing materials and equipment on-site in a manner to comply with local, state, and federal regulations pertaining to air quality and emission compliance; however, this SOP is not inclusive to all state and local regulations and requirements. Contact Strata Environmental if you have any questions specific to your facility.

### **4.0 DEFINITIONS**

Regional Personnel - Region Standards Manager, Region Director of Maintenance, or Region Manager.

### **5.0 RESPONSIBILITIES**

Responsible Official (typically the Contract Manager, General Manager, or designee) - Ensure all potential air pollution sources have been evaluated to determine their applicability to air permitting/registration requirements.

### **6.0 PROCEDURES**

In an effort to reduce the emissions from combustion sources at all FGA facilities, the following procedures are being implemented. These are procedures aimed primarily at assisting facilities with environmental compliance and stewardship initiatives. There is also a significant employee safety issue here as well, because it is FGA's goal to reduce employee exposure to combustion emissions to the lowest possible level. For detailed guidelines on proper safety practices to reduce and/or eliminate employee exposures to combustion emissions, please contact your respective Regional Personnel.

#### **6.1 Anti-Idling Policy**

Typical school bus engines burn about half a gallon of fuel per hour of idling. Elimination of unnecessary idling can save significant dollars in fuel costs each year. This policy is designed to eliminate all unnecessary idling by school and other transport buses operated by or on FGA facilities such that idling time is minimized in every aspect of bus operations.

1. When bus drivers arrive at loading or unloading areas to drop off or pick up passengers, they should turn off their buses as soon as possible to eliminate idling time and reduce emissions. The bus should not be restarted until it is ready to depart and there is a clear path to exit. Exceptions include conditions that would compromise passenger safety, such as extreme weather conditions and idling in traffic.
2. At bus depots, limit the idling time during early morning warm-up to what is recommended by the manufacturer (generally 3-5 minutes) in all but the coldest weather.
3. Buses should not idle while waiting for students during field trips, extracurricular activities, or other events where students are transported off school grounds.
4. In colder weather, schools are directed to provide a space inside the school where bus drivers who arrive early can wait.
5. In colder weather, if the warmth of the bus is an issue, idling is to be at a very minimum and occur outside the school zone. The "warmed" bus is to enter the school zone as close to pick-up time as possible to maintain warmth and then shut down.
6. All service delivery vehicles shall turn off the engines while making deliveries.
7. Transportation Operations staff are directed to revise bus schedules so that school bus caravanning can be avoided and the cleanest buses assigned to the longest routes.
8. All drivers shall be retrained on the FGA anti-idling policy at the beginning of every school year.

## **6.2 Heaters and Warming Buses**

School buses can be retrofitted with equipment that helps reduce idling. While some of this equipment is standard or optional on new buses, older buses most likely will not have the equipment standard.

Aftermarket auxiliary heaters can be used to warm up engines and passenger compartments in colder climates. The equipment runs off the school bus fuel tank or off electric outlets, and includes a timer that can be programmed to automatically start the heating function. The basic types of heaters include:

- Engine Block Pre-Heaters;
- Compartment/Engine Block Heaters; and
- Electric Plug-in Block Heaters.

These types of auxiliary heaters use as little as ½ to 1 cup of fuel or rely on electricity for their operation. They save on engine and engine oil wear and greatly reduce emissions by cutting the idle time necessary to warm up bus engines and passenger compartments. The use of these auxiliary heaters aids in reducing combustion emissions to the atmosphere from idling and reduces the potential employee exposure to combustion emissions during bus preparation and warming operations. No heater or generator should be used in a closed confined space against manufacturer recommendations as harmful levels of exhaust fumes can build rapidly and become a

danger to employees in the area. For more information regarding employee exposure to exhaust fumes and methods of reducing potential exposure, contact your respective Regional Personnel.

### **6.3 Operations**

There are a number of other practices which can be instituted to reduce bus emissions and minimize exposure to exhaust emissions, diesel emissions in particular.

- Maintenance - Follow manufacturer suggested engine maintenance recommendations.
- Fleet Operation and Planning - Assign the cleanest buses in the fleet to the longest routes. Train drivers in appropriate "following practices." Following other diesel vehicles too closely can contribute to higher concentrations of diesel exhaust inside and outside the bus. Instruct bus drivers not to "caravan."
- Reduce emissions from other vehicle operations - Prohibit other vehicles (i.e., delivery vehicles, parents carpooling, employees) from idling. Do not use gas or diesel powered generators indoors or near air intakes. Plumb ventilation equipment (ducting equipped with fans) to exhaust elements of vehicles that must be idling during particular repairs or testing.

Combustion and vehicle emission limitations are often regulated by state and/or local authorities as a result of air quality initiatives in a particular geographic area. For further information concerning emissions from gas and diesel combustion equipment and vehicles and the specifics of state or local restrictions on those emissions, contact Strata Environmental.

### **7.0 CONTACT INFORMATION**

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