

Data Logging Results Instructions for Documentation

The following information describes the data logging documentation that the Clean Buses for Kids Program requires as part of each school district's Payment Documentation (see Payment Documentation Instructions and Forms at <http://www.cleanbusesforkids.com/forms.html>). The presentation of data logging results (or an explanation of why a bus was not data logged) must accompany a Certificate of Installation Form for **each bus retrofitted**.

The diesel particulate filters (DPFs) that are eligible to receive payment from the Clean Buses for Kids Program must be verified by either the Environmental Protection Agency (EPA) or the California Air Resources Board (CARB). The manufacturer of each filter that has been verified receives a letter from either EPA or CARB clearly defining the applications, including specific engines and exhaust temperature requirements, for which a filter is verified. As part of these verification letters (EPA verification letters are listed at <http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm> and CARB verification letters are listed at <http://www.arb.ca.gov/diesel/verdev/level3/level3.htm>), a minimum exhaust temperature profile is required. The temperature profile specifies that the exhaust temperature must meet or exceed a certain level for a pre-specified percentage of the duty cycle (bus route). To determine whether a bus meets this temperature profile requirement and is therefore verified for use with its chosen DPF, each school district should have its buses data logged. The Clean Buses for Kids program allows data logging of a representative sample of buses to determine eligibility. The following describes how we will interpret the results to determine which buses are funded under our program.

Buses that are Data Logged

If the bus **exceeds** the required temperature profile listed in the verification letter, then the bus is considered verified and will be funded under the program.

If the bus temperature profile is **marginal** (i.e., the exhaust temperature profile is above the required temperature for only the required percentage of the duty cycle or within one percent of the requirement), insulation can be added to the exhaust system to allow that bus to be verified. The Clean Buses for Kids program will pay the additional cost of insulation for those buses that are marginal.

If the bus **does not meet** the required temperature profile (i.e., the exhaust temperature profile is not above the required temperature for the specified percent of the duty cycle), it will not be funded under this program. However, the vendor and school district can work together to modify the bus route. The bus can then be data logged again under the new conditions, even if it means waiting until the school year starts again. If the bus meets the temperature profile under the modified conditions, it will be considered as meeting the program requirements and will be funded. Under these conditions, as part of the data logging documentation, the district must sign a statement indicating that (1) the bus will be used in the manner for which it was newly data logged that caused it to meet the requirements of the verification letter and our program and (2) the routes of other buses retrofitted under the Clean Buses for Kids program have not been adversely affected such that those buses will no longer meet the temperature profile requirement.

For each data logged bus, the Clean Buses for Kids program requires the following data be submitted with a Certificate of Installation Form:

- ✓ Data logging trace, i.e., either a histogram with temperature bins or a graph showing exhaust temperature versus percent of duty cycle with the verification requirement clearly marked
- ✓ Description of where the temperature probe was placed in the exhaust system
- ✓ Data logging interval, i.e., length of time data logger recorded temperature results
- ✓ Date the bus was data logged

Buses that are Not Data Logged

For buses that are not data logged, the district and vendor should work together to determine which buses are similar to those data logged in terms of engine make and model, engine mounting (front or rear), and route. **For each bus that is like a data logged bus**, the district and vendor must provide a statement indicating that the bus not data logged has the following characteristics:

- ✓ Is similar to the bus data logged in engine make, model, mounting and route
- ✓ Will meet the minimum exhaust temperature requirements for which the filter was verified by either EPA or CARB

Buses that are Eliminated (or Replaced)

For all buses that are eliminated from the initial list of buses to be retrofitted, as provided in Section 4 of the Funding Application, the following information must be provided:

- ✓ Explanation of why bus was eliminated (i.e., the bus did not meet the minimum temperature profile required for the filter or the bus engine was not verified for use with the given filter)
- ✓ If replaced, new bus data, including the following:
 - Assurance that bus meets program requirements listed in the Program Description
 - Revised copy of Table 4-2 (Bus Data Spreadsheet) of the Funding Application (to be submitted with the Project Installation Report)