School Bus Regulatory Requirements

The reduction of diesel exhaust emissions is imperative to reducing all Californians exposure to cancer-causing and smog-forming compounds. School age children are an especially vulnerable segment of our population to the affects of air pollution. Reducing children's exposure to the harmful affects of diesel exhaust can be achieved through the implementation of the proposed regulation.

A. School Bus Regulatory Requirements

Diesel-fueled school buses as defined in the California Vehicle Code section 545 with a GVWR above 14,000 pounds will need to install a Verified PM retrofit device meeting the requirements of the regulation. Unlike all the other vehicle sectors subject to the proposed NOx and PM requirements of the proposed regulation, school buses are only required to meet the proposed PM requirements and are subject to several special provisions and timetables specifically designed for this sector. School buses manufactured prior to April 1, 1977, before minimum federal safety standards, will be required to be removed from service by January 1, 2012. Proposition 1B, approved by California voters in 2006, will provide $200 million, through the Lower-Emission School Bus Program, to replace all remaining eligible pre-1977 model year school buses, replace approximately 1000 model year 1977 to 1986 school buses and install diesel particulate filters on about 3500 buses. All buses replaced or retrofitted through the Lower-Emission School Bus Program will be in compliance with the proposed regulation. All remaining diesel-fueled school buses must meet one of the following three proposed compliance options:

- The Best Available Control Technology (BACT) Compliance Schedule
- The BACT Percentage Limits Compliance option
- Fleet Average Compliance Option

School buses would be considered in compliance with the proposed regulation when they have installed the highest level VDECS available for the school buses engine, either a Level-2 or Level-3 (50 percent or 85 percent reduction in PM, respectively) by the designated compliance date under the option selected. Depending on the compliance option chosen and the VDECS that is installed, a school bus fleet may be subject to proposed reporting requirements.

If it is not technologically feasible for the school bus engine to be retrofitted with a Level-2 or Level-3 VDECS, then compliance may be delayed until January 1, 2018. Before the beginning of 2018 the unretrofittable school bus engine needs to be replaced with an engine that is in compliance with the proposed regulation or the school bus needs to be replaced.

B. The BACT Compliance Schedule Option

It is anticipated most school bus fleets would use the BACT compliance option. School bus fleet operators would be required to retrofit specific model year school bus engines with the highest level VDECS meeting the requirements of the proposed regulation by specified dates as described in Table 1 below. School buses that can not be retrofitted with a Level-2 or higher VDECS will be allowed to delay compliance with the proposed regulation until January 1, 2018. However, operators will be required to report the status of that school bus engine to the ARB annually through 2017.

Table 1: Best Available Control Technology Compliance Schedule for Schoolbus Fleets

Compliance Deadline (as of January)	Engine Model-Years
2011	2000 and newer
2012	1994 – 1999
2013	1987 – 1993
2014	Pre-1987

C. The BACT Percentage Limits Compliance Option

School bus fleet operators that choose the BACT Percentage Limits compliance option will be required to retrofit a percentage of the school bus fleet with the highest level VDECS meeting the requirements of the proposed regulation by specified dates as described in Table 2 below. School buses that can not be retrofitted with a Level-2 or higher VDECS will be allowed to delay compliance with the proposed regulation until January 1, 2018. If the school bus fleet operator chooses the BACT Percentage Limits compliance option than all school buses in the fleet will need to be reported annually to the ARB.

The percentage limits compliance option would work well for school bus fleets that either have a large number of newer school buses or school bus fleets that have taken advantage of available incentive funding to retrofit a large portion of their school bus fleet. School bus fleets that already have significant retrofit penetration into their fleet could potentially be in compliance with the proposed regulation for the first year or two.

Table 2: Percent of Total School Bus Fleet That Must Comply with PM BACT Standard

Compliance Deadline (as of January 1)	Percent of Total Fleet Complying with PM BACT
2011	25%
2012	50%
2013	75%
2014	100%