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IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF SAN FRANCISCO

ENVIRONMENTAL LAW FOUNDATION; OUR CHILDREN'S EARTH FOUNDATION; and COMMUNITIES FOR A BETTER ENVIRONMENT, On Behalf of the General Public Plaintiffs, v. LAIDLAW TRANSIT INC. dba LAIDLAW EDUCATION SERVICES; LAIDLAW TRANSIT SERVICES, INC.; DURHAM SCHOOL SERVICES; DURHAM SCHOOL SERVICES, L.P.; NATIONAL EXPRESS CORPORATION; and DOES 1 through 100, inclusive, Respondents.	CASE NO.: CGC-06-451832 **DECLARATION OF PROF. EDUARDO BEHRENTZ IN SUPPORT OF PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION; AND EXHIBITS VOL. I** [CCP §§526, 527] Date: June 8, 2007 Time: 1:30 p.m. Court: Dept. 613 Judge: Hon. Ernest H. Goldsmith Complaint filed: May 2, 2006 Trial Date: Sept. 4, 2007

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I, Professor Eduardo Behrentz, D.Env., hereby declare:

1. I have personal knowledge of the following and could competently testify thereto if called as a witness.

2. I am an Assistant Professor of Civil and Environmental Engineering, at the University of de los Andes, Santa Fe de Bogota, Colombia.

3. I have a doctoral degree in Environmental Science and Engineering from the University of California, Los Angeles, where I received the Dean's Outstanding Graduating Student Award.

4. I completed the equivalent of a Post-Doctoral research fellowship at the Department of Environmental Health Sciences, School of Public Health at the University of California, Los Angeles.

5. I hold a Master of Science degree in Environmental Engineering and a Bachelor of Science degree in Civil Engineering with a minor in Biology.

6. A true and correct copy of my curriculum vitae is attached hereto as Exhibit A.

7. For several years I have conducted analysis of the exposure of children to diesel engine exhaust while on school buses and other related microenvironments.

8. I was a lead participating researcher for the report published by the California Air Resources Board ("CARB"), entitled, "Characterizing the Range of Children's Pollutant Exposure During School Bus Commutes" (October 10, 2003) ("CARB Study"). A true and correct coy of the CARB Study is attached hereto as Exhibit B.

9. I have published several peer-reviewed scientific journal articles on the topic of children's exposure to diesel engine exhaust, some of which are attached hereto. True and correct copies are attached hereto of the following articles for which I have been either the principal author or co-author:

    a. E. Behrentz, et al, "Measuring Self-Pollution in School Buses Using a Tracer Gas Technique," 30 *Atmospheric Environment* p. 3735 (Apr. 2004) (Ex. C);

b. E. Behrentz, et al., “Relative Importance of School Bus-Related Microenvironments to Children’s Pollutant Exposure,” *Journal of Air and Waste Management Ass’n* (2005) (Ex. D);

c. J. Marshall, E. Behrentz, “Vehicle Self-Pollution Intake Fraction: Children’s Exposure to School Bus Emissions,” 39 *Environ. Science and Technology* 2559 (2005) (Ex. E);

d. L. Sabin, E. Behrentz, et al., “Characterizing the Range of Children’s Air Pollutant Exposure During School Bus Commutes,” 15 *Journal of Exposure Analysis and Environmental Epidemiology* 377 (2005) (Ex. F):

e. L. Sabin, et al., “Analysis of Real-Time Variables Affecting Children’s Exposure to Diesel-Related Pollutants During School Bus Commutes in Los Angeles,” 39 *Atmospheric Environment* 5243 (2004) (Ex. G)

10. I continue to conduct research in the area of diesel exhaust pollution on school buses, transit buses, and related microenvironments.

11. Diesel engine exhaust is classified by the State of California as a chemical known to cause cancer in humans. (California Office of Environmental Health Hazard Assessment, “Health Risk Assessment for Diesel Exhaust” (May 1998) (PLTF 762-797) (Ex. H))

12. In particular, over 30 epidemiological studies have found a causal relationship between diesel exhaust and lung cancer. (California Scientific Review Panel, Report on Diesel Exhaust, ¶¶17-19 (May 20, 2004) (Ex. I))

13. The State of California Scientific Review Panel on Diesel Exhaust concluded, “A level of diesel exhaust exposure below which no carcinogenic effects are anticipated has not been identified.” (California Scientific Review Panel, Report on Diesel Exhaust, ¶20 (May 20, 2004) (Ex. I))

14. Diesel particulate matter is the largest contributor to health risk posed by toxic air pollutants, constituting approximately 70 percent of the total statewide risk. (CARB Initial Statement of Reasons: Proposed Amendments to Verification Procedure for In-use

Strategies to Control Emissions from Diesel Engines, p. 5 (Ex. J))

15. Diesel exhaust contains over 40 substances that are listed by the United States Environmental Protection Agency ("US EPA") as hazardous air pollutants. Fifteen of these substances are listed by the International Agency of Research on Cancer ("IARC") as carcinogenic to humans, or as probable or possible human carcinogens, including, arsenic, benzene, dioxins, lead mercury compounds and others. (California Scientific Review Panel, Report on Diesel Exhaust, ¶4 (May 20, 2004) (Ex. I))

16. Approximately 94% of the mass of diesel particulate matter is less than 2.5 microns in diameter. Because of their small size, these particles can be inhaled and a portion will become trapped within the small airways of the lung. (California Scientific Review Panel, Report on Diesel Exhaust, ¶5 (May 20, 2004) (Ex. I))

17. Children are particularly susceptible to air pollution because of their high inhalation rates and lung surface area per body weight, narrow lung airways, low lung clearance rates, and immature immune systems. (Marshall, Behrentz, Vehicle Self-Pollution Intake Fraction: Children's exposure to School Bus emissions, p. 2559 (Ex. E))

18. Concentrations of diesel engine exhaust are higher in and near school buses than at centrally located monitors. (Marshall, Behrentz, Vehicle Self-Pollution Intake Fraction: Children's exposure to School Bus emissions, p. 2559 (Ex. E))

19. It is now well-established that exposure to the highest concentrations of many air contaminants occurs in microenvironments other than the ambient air, such as a vehicle's cabin. (Fruin, et al, "Black Carbon Concentrations in California Vehicles and Estimation of In-Vehicle Diesel Exhaust Particulate Matter Exposures," 38 *Atmospheric Environment* 4123 (2004) (Ex. K))

20. Exposure to diesel engine exhaust on school buses has been recognized by state agencies as one of the most significant risks to public health due to four factors: (1) diesel exhaust is a highly potent human carcinogen; (2) high levels of diesel exhaust accumulate on school buses due in large part to "self-pollution" (the bus' own exhaust infiltrates the

cabin); (3) children are exposed to diesel exhaust every day, for well over a decade; and (4) children are much more susceptible to cancer due to their higher respiratory rates, developing respiratory systems, and other factors. (CARB, Characterizing the Range of Children's Pollutant Exposure During School Bus Commutes (Oct. 10, 2003), pp. 3-4 (Ex. B))/

THE CARB STUDY

21. CARB sponsored one of the most comprehensive studies ever conducted of pollutant concentrations inside school buses, which was performed by researchers at the University of California, Los Angeles and the University of California Riverside.

22. I was a lead participating researcher for the CARB Study. (Ex. B)

23. Real time and integrated measurements of pollutant concentrations were conducted in the spring of 2002 while driving actual Los Angeles Unified School District bus routes in Los Angeles. To provide a range of bus ages similar to those commonly in use in California, five conventional diesel school buses manufactured in 1975, 1985 (2 buses), 1993, 1998 were tested. In addition, a 1998 model bus with a particulate matter trap and a 2002 model bus running on compressed natural gas (CNG) were also tested. (CARB Study (Ex. B), p. 18)

24. All of the diesel buses were tested using ultra-low sulfur diesel fuel (less than 15 parts per million sulfur content), also known as "green diesel" or "clean diesel."

25. The buses were equipped with a wide array of sophisticated sampling instruments that sampled from the front and back of the bus, and outside the bus. The following sampling instruments were used:

a. Custom/Harvard Impactor (PM-2.5 integrated mass)

b. TSI DustTrak (PM-2.5 real time mass)

c. Custom/Harvard Impactor (PM-10 integrated mass)

d. TSI DustTrak (PM-10 real-time mass)

e. Climet Spectro OPC (Fine particle counts)

f. CE-CERT SEMS (Ultra-fine particle counts)

g. Magee Aethalometer (Elemental carbon)

h. Gas chromatographic methods (Gaseous hydrocarbons)

i. Langan electrochemical cell (Carbon monoxide)

j. CE-CERT NOx/PAN Luminal GC (NO2)

k. DNPH collection/HPLC analysis (Aldehydes and ketones)

l. EcoChem PAS 2000 (Particle-bound PAH)

m. Rotronics MP101A (Temperature in bus)

n. Garmin GPS Map 76 (Location and speed)

o. AeroVironment CTA 1000 (SF6)

p. Sony CSC-390 Video Camera (Traffic documentation)

26. Air samples were drawn from the front and rear of each bus and from the outside air.

27. The air samples were analyzed to determine the concentrations of a wide range of gaseous and particulate matter species inside the cabins of the tested school buses.

28. The results of the analyses conducted to the air samples were used to quantify children's pollutant exposures during school bus transit.

29. A tracer gas, sulfur hexafluoride (SF6), was injected into the bus exhaust systems to measure the rate of self-pollution. Since SF6 is not generated by any common sources, the SF6 tracer gas injected into the system allowed calculation of the amount of each bus's own exhaust that self-polluted the bus's own cabin.

30. Among the results of the CARB study were that black carbon levels (and therefore diesel exhaust levels) on the buses ranged from four to ten times higher than background levels. (CARB Study, p. 90 (Ex. B)). Similar results were found for other diesel-related pollutants such as nitrogen oxides, particle-bound polycyclic aromatic hydrocarbons, and fine particulate matter.

31. Every diesel-powered bus was found to display "self-pollution," in other words, the bus's

own diesel exhaust migrated into the bus's own passenger cabin.

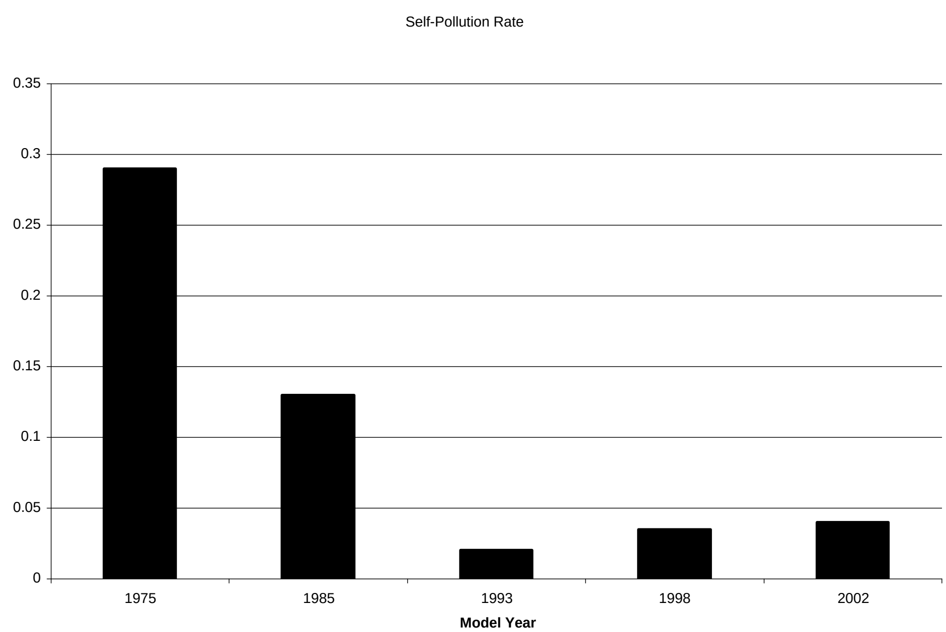
32. For diesel-related pollutants, the dominant variable associated with high concentrations inside the bus cabin when the bus windows were open was the presence of another diesel vehicle in the proximity of the test bus. For the same set of pollutants, when bus windows were closed the dominant factor determining in-cabin exposure was the degree of self-pollution. In other words, reducing school bus emissions will have a double benefit: it will reduce the pollutant exposure caused by self-pollution as well as the pollutant exposure related to surrounding diesel traffic.

33. The dominant mechanisms for self-pollution are not yet completely understood, but possibilities include that engine emissions: (a) flow directly from the exhaust train into the bus via cracks or leaks in the exhaust train, or crankcase, and the bus floor; (b) exit the tailpipe, are entrained under or behind the bus by turbulence, and then enter via cracks or other openings ion the floor, rear, or sides of the bus; and (c) emissions exit the tailpipe, are swept to the side of the bus by turbulence, and then enter via open windows.

34. The CARB Study documented that self-pollution in school buses is a function of bus model-year and window position (open or closed). Older buses exhibit a larger self-pollution compared to newer buses. In fact, self-pollution rates on older buses were approximately ten times higher than on newer buses. (See, Figure 1) In general, older buses are not well isolated from outside air compared with the newer buses, due to design, construction, and maintenance factors, as well as the effect of cumulative wear. However, it is important to note that self-pollution was detected on all buses.

35. Figure 1, below, shows school bus self-pollution rates as a function of school bus model year. All results shown are for experiments conducted with windows closed. These results were published in the scientific journal, *Atmospheric Environment* (Vol. 38, pp. 3735-3746 (Ex. C)), in an article entitled, "Measuring Self-Pollution in School Buses Using a Tracer Gas Technique." In the study, SF6 was metered into the bus's exhaust system using a mass flow controller whose flow rate was logged by a data acquisition

system and processed with the concurrent real-time pollutant measurement data. At the same time, the SF6 concentration inside the bus was measured using an AeroVironment CTA-1000 continuous analyzer connected to a series of solenoids that switched the sample inlet between the front and rear of the bus cabin. To account for baseline drift of the CTA-1000, SF6-free air was also drawn through a line located outside at the front of the bus. Although this third sample line generally provided a reference zero value, it also showed that under certain wind conditions (i.e., wind from the rear) when the bus was stopped and was idling, significant amounts of the bus's own exhaust reached this location at the front of the bus. Self-pollution, the percentage of the bus's own exhaust that can be found inside its cabin, was a function of the bus type and age, and a function of window position (i.e., open or closed). We estimated that up to 0.3% of the air inside the cabin was from the bus's own exhaust in older buses, approximately 10 times the percentage observed for newer buses, and 25% of the black carbon concentration variance was explained by the buses' self-pollution.



36. In the *Atmospheric Environment* journal article (Ex. C), we calculated the approximate

level of black carbon on the school bus resulting from self-pollution. Our calculations were performed on one of the buses exhibiting the lowest level of self-pollution (the 1993 bus, with a self-pollution percentage of 0.03%), using measured black carbon emission rates from published scientific literature. (Miguel, et al., "On-Road Emission of Particulate Polycyclic aromatic Hydrocarbons and Black Carbon From Gasoline and Diesel Vehicles," 32 *Environmental Science and Technology* 450-455) We calculated the concentration of black carbon inside the cabin due to the bus's own exhaust to be approximately 5 micrograms per cubic meter (5 ug/m3), compared to a total amount of black carbon measured on the bus of 10 ug/m3. (38 *Atmospheric Environment* at p. 3743 (Ex. C)) In other words, up to 50% of the black carbon found inside the bus cabin could be related to the bus's own exhaust. (Id. at p. 3744)

37. We conducted a regression analysis concluding that over all buses and commutes, on average, approximately 25% of the black carbon concentration variance inside the buses was explained by self-pollution. (Id. at 3744)

38. Black carbon levels measured in the CARB Study on the diesel-powered school buses without particulate traps ranged from 5 micrograms per cubic meter (ug/m3) to 19 ug/m3. (CARB Study, p. 112 (Ex.B)). These values are far larger than typical black carbon urban background levels of about 2 ug/m3.

39. Demonstrating the importance of the buses' own emissions, self-pollution was found to be more than twice as high when the bus windows were closed compared to with the bus windows open. (Behrentz, et al., "Relative Importance of School Bus-Related Microenvironments to Children's Pollutant Exposure," *Journal of Air and Waste Management Ass'n* (2005) (Ex. D); CARB Briefing Paper, "Characterizing the Range of Children's Pollutant Exposure During School Bus Commutes, Summary, No. 00-322 (Oct. 2003) Bates, 156-172 (Ex. M))

40. The CARB Study found that "self-pollution from the bus's own exhaust was found to play a significant role in on-board bus concentrations, especially when the windows were

closed," and that "intrusion was detected in all buses." (CARB Study, p. 1 (Ex. B))

41. Based on the results of the CARB Study and other studies, I conclude that diesel exhaust self-pollution occurs on all diesel school buses, and that all passengers of school buses are exposed to diesel engine exhaust due to self-pollution. (CARB Study, p. 167 (Ex. B))

42. The CARB Study also found that diesel exhaust levels on the school buses were strongly influenced by surrounding traffic. Pollution levels on the school buses were found to increase substantially when the buses followed other sources of diesel exhaust, such as other school buses.

43. This was identified as a particular problem for school buses since they often "caravan," meaning that school buses often leave school and follow each other for long distances. (L. Sabin, et al., "Analysis of Real-Time Variables Affecting Children's Exposure to Diesel-Related Pollutants During School Bus Commutes in Los Angeles," 39 *Atmospheric Environment* 5243 (2004) (Ex. G))

44. Thus, in addition to self-pollution, diesel exhaust emissions from school buses also contribute to high levels found on other school buses. (*Id*.)

45. Many of the results discussed above were further confirmed by a second CARB study conducted by researchers from the University of California at Riverside and the University of California, Los Angeles (Evaluation of mechanisms of exhaust intrusion into school buses and feasible mitigation measures), in which self-pollution as well as leader-vehicle pollution were determined using a dual-tracer gas experiment. In this study, SF6 and propane tracer gas was added to the exhaust of the leader vehicle (school bus) while its cabin concentrations were measured in both vehicles, the leader and the follower (another school bus).

OTHER STUDIES ON DIESEL ENGINE EXHAUST ON SCHOOL BUSES

46. **Intake Fraction Study**: Recognizing the importance of self-pollution in determining the exposure to air pollutants during school bus commutes, researchers from the University

of California, Berkeley and the University of California, Los Angles, estimated values for a new parameter “vehicle self-pollution individual intake fraction.” This parameter represents the fraction of a vehicles’ emission inhaled by an individual riding on that vehicle. The overall concept of intake fraction can be understood as the ratio of total attributable intake to total emissions. Intake fraction summarizes the emission-inhalation relationship for a specific emission source, pollutant, and population. In particular, the individual intake fraction represents the cumulative mass inhaled by an individual (e.g., a child riding on a school bus) per mass emitted by the specific pollutant source (e.g., a school bus). Results from this research indicated that average per capita inhalation of emission from any single school bus is up to 1 million times greater for a student on that bus than for a typical resident in the South Coast Air Basin. In other words, the probability that a molecule emitted by the school bus is inhaled by a child on the bus is a million times higher than that of any other person in the region to inhale the same molecule. This research was published in the scientific journal, Environmental Science and Technology. (J. Marshall, E. Behrentz, “Vehicle Self-Pollution Intake Fraction: Children’s Exposure to School Bus Emissions,” 39 *Environ. Science and Technology* 2559 (2005) (Ex. E))

47. **UCB/NRDC Study**: A study conducted by the University of California at Berkeley and the Natural Resources Defense Council reached very similar results to those of the CARB study. The researchers employed continuous measurements of PM-2.5 and black carbon concentrations inside four school buses, in the Los Angeles area, with bus ages of 1986 (2 buses), 1987, and 1988. For comparison, they also conducted measurements of PM-2.5 and black carbon concentrations outside the buses and in a passenger car traveling immediately in front of the buses. They found the level of black carbon was up to four times higher on the school bus with windows closed than in the passenger car immediately ahead of the bus. The study found that diesel particulate matter levels in school buses tested were 12-20 ug/m3 higher than in the car in front of the bus and

approximately ten times above background levels. The average diesel particulate matter concentration on the buses was 19 ug/m3, while the concentration in the car averaged 6 ug/m3 – a difference of 13 ug/m3. (Solomon, et al., "No Breathing in the Aisles: Diesel Exhaust Inside School Buses," p. 8 (2001) (Ex. N))

48. **Yale Study:** Prof. John Wargo of Yale University placed "backpack" monitors on school children, taking real-time measurements of PM-2.5, PM-10 and volatile organic compounds ("VOCs"). Aethalometers were also mounted in school buses to measure black carbon. Measurements where made throughout the school day, including time spent traveling to and from school on diesel school buses. Average concentrations of PM-2.5 were found to be up to ten times higher than background levels when children were riding inside school buses. The real time measurements showed that PM-10 levels rose almost immediately upon the children boarding diesel school buses, and dropped dramatically when the children disembarked from the school buses. The study also measures black carbon levels on diesel school buses with windows closed ranging from approximately 2.5 ug/m3 to approximately 12 ug/m3. (Wargo, "Children's Exposure to Diesel Exhaust on School Buses," pp. 2, 39, 45 (2002) (Ex. O))

49. **Borak Study:** Even a study that called into question the conclusions of the CARB Study ultimately reached very similar results using an entirely different methodology. Prof. J. Borak of Yale University School of Medicine equipped two school buses with side-by-side Aethalometers (used in the CARB Study and UCB/NRDC Study) and NIOSH 5040 Method samplers. Samples were collected while the buses ran on a test track to eliminate pollution from sources other than self-pollution. Prof. Borak concluded that the aethalometers were inaccurate due to vibration, and that NIOSH Method 5040 was highly accurate. However, even using the NIOSH Method 5040 Prof. Borak found that elemental carbon levels measured on the buses was 4.3 ug/m3, which is only slightly lower than the levels measured in the CARB Study and UCB/NRDC Study. (Borak, et al., "Comparison of NIOSH 5040 Method versus Aethalometer to Monitor Diesel

Particulate in School Buses and at Work Sites," 64 *American Industrial Hygiene Assoc*. 260, at 264 (Mar./Apr. 2003) (Ex. P)).

50. It is noteworthy, however, that the vibration limitation documented by the Borak Study may be explained by the dynamic and transient nature of the process of self-pollution in school buses during a moving run. In addition, the Aethalometer has proven to be a reliable instrument for real-time black carbon concentration measurements and has been widely used in research reported in the peer-reviewed literature.

51. At least a dozen studies and articles, many published in the leading peer-reviewed academic research journals, have reached conclusions very similar to those of the CARB Study. (Behrentz, "Measuring Self-Pollution in School Buses Using a Tracer Gas Technique," Vol. 30 *Atmospheric Environment* p. 3735 (Apr. 2004), (Ex. C); Behrentz, et al., "Relative Importance of School Bus-Related Microenvironments to Children's Pollutant Exposure," *Journal of Air and Waste Management Ass'n* (2005) (Ex. D); Bonner, "Exposure and Control of Emissions of Diesel Particulate Matter From School Bus Engines," Purdue Univ. (Dec. 2005), (Ex. Q); Borak, "Comparison of NIOSH 5040 Method versus Aethalometer to Monitor Diesel Particulate in School Buses and at Work Sites," Vol. 64 *American Industrial Hygeiene Assoc*. 260 (2003), (Ex. P); Campbell, et al., Coalition for Clean Air, "Failing the Grade: How Diesel School Buses Threaten Our Children's Health" (1999), (Ex. R); Gilliam and Reeves, "A Safer Ride to School: How to Clean Up School Buses and Protect Our Children's Health: The Results of a Citizen Monitoring Study of Diesel School Buses in Atlanta, Georgia." (Jan. 2005) ("Atlanta Study"), (Ex. S); Hill, et al., Clean Air Task Force, "A Multi-City Investigation of the Effectiveness of Retrofit Emissions Controls in Reducing Exposures to Particulate Matter in School Buses," (Jan. 2005), (Ex. T); Mark, Morey, Union of Concerned Scientists, Rolling Smokestacks: Cleaning Up America's Trucks and Buses (Oct. 2000), (Ex. U); J. Marshall, E. Behrentz, "Vehicle Self-Pollution Intake Fraction: Children's Exposure to School Bus Emissions," 39 Environ. Science and Technology 2559 (2005), (Ex. E); P.

Monahan, Union of Concerned Scientists, School Bus Pollution Report Card 2006 (May 2006), (Ex. V); Sabin, Behrentz, et al., "Characterizing the Range of Children's Air Pollutant Exposure During School Bus Commutes," Vol. 15 *Journal of Exposure Analysis and Environmental Epidemiology* 377 (2005), (Ex. F).

52. Review of the scientific evidence has led the United States Environmental Protection Agency's ("US EPA") Clean Air Act Advisory Committee to conclude: "reducing emissions from the nation's school bus fleet should be a first priority." (US EPA, Clean Air Act Advisory Committee, "Recommendations for Reducing Emissions from the Legacy Diesel Fleet," p. iv (Apr. 10, 2006), (Ex. W))

POLLUTION CONTROLS

53. Control technologies exist to reduce the level of harmful emissions from diesel engines.

54. Affordable pollution control technologies exist, such as particulate traps (which physically capture harmful particles), as well as alternative cleaner fuels such as compressed natural gas. (CARB, List of Currently Verified Technologies for diesel emission control, (Ex. X); Hill, et al., "A Multi-City Investigation of the Effectiveness of Retrofit Emissions Controls in Reducing Exposures to Particulate Matter in School Buses," (Jan. 2005) (Ex. T)).

55. Pollution control technologies can reduce school bus emissions by up to 90% at a cost ranging from $1000 to $10,000 per bus. (US EPA, Clean School Bus USA, Technology Options Chart, (Ex. L); US EPA, Clean School Bus USA, "Retrofit," (Ex. Y); San Joaquin Valley Unified Air Pollution Control District Final Draft Staff Report for Proposed Rule 9310 (School Bus Fleets) (Aug. 17, 2006), p. C-5 – C-6, (Ex. Z))

56. True and correct copies of the above-mentioned studies are attached to this declaration.

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I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed at Bogotá, Colombia, on April 5, 2007.

Prof. Eduardo Behrentz, D.Env.

Proof of Service

I am employed in the County of San Mateo, California. I am over the age of 18 and not a party to this action. My business address is 601 Gateway Blvd., Suite 1000, South San Francisco, California, 94080.

On _________________, 2007, I served the foregoing document described as:

DECLARATION OF PROF. EDUARDO BEHRENTZ IN SUPPORT OF PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION; AND EXHIBITS VOL. I

on the parties listed below by US First Class mail or overnight mail (as noted):

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I declare under penalty of perjury of the laws of the California that the foregoing is true and correct and that this was executed on _____________, 2007 in South San Francisco, California.

____
Bonnie Heeley