MEMO

To: CT Department of Environmental Protection
From: Madeleine Weil, Environment Northeast
Date: December 16, 2005
Re: ENE Comments DEP Draft School Bus Sector Report

Thank you for the opportunity to present comments on DEP's Draft School Bus Sector Report (11/10/05).

In Special Act 05-7, the CT General Assembly directed CTDEP to recommend "An implementation strategy, and an estimate regarding the cost and benefits to the state or municipalities of implementing such strategy, to maximize, not later than December 31, 2010, diesel particulate matter emission reductions from school buses and to prevent by said date diesel particulate matter engine emissions from entering the passenger cabin of the buses;"

The draft "School Bus Sector Report" contains three strategy options. We respectfully request that the DEP correct the language in the report that characterizes the Options as "Subcommittee Recommendations" (page 13). No process was established for seeking consensus recommendations from the subcommittee.

ENE Comments, Summary:

- Environment Northeast believes the DEP report should present a specific set of recommendations, rather than point to a set of options;
- We are disappointed not to see a coherent policy proposal outlined in Option 1, as we believe that a coordinated and comprehensive retrofit and replacement program is the best approach for achieving the objectives of SA 05-7 on the specified timeline;
- We do not believe that waiting until federal emission standards are implemented (Option 2) constitutes an acceptable approach to reducing health risks to Connecticut's school children, nor should this option be characterized as meeting the goals of SA 05-7;
- We encourage the DEP to flesh out the recommended process and timeline for developing model contract language and a financial incentive program for replacing and retrofitting the school bus fleet, as outlined in Option 3. We believe these are some of the critical ingredients to fulfilling the risk-reduction objectives on the timeline outlined in SA 05-7.

Below are some additional, specific comments pertaining to the draft plan:

- Page 2: "*Type I buses generally seat twenty to ninety passengers and comprise approximately 78% (5,486 buses) of the fleet; of this total, approximately 4,929 (70% of the total) are diesel fueled vehicles.*" According to this data, 90% of Type 1 buses use diesel fuel. We think the portion of Type 1 buses using diesel fuel may be even higher. COSTA's "Safety Gram" memo, for instance, says that about 98% of CT's school bus fleet uses diesel fuel, and this is consistent with national statistics: http://www.asthmaregionalcouncil.org/about/documents/CToutreach.pdf.

101 Whitney Avenue • New Haven, CT 06510 • (203) 495-8224
28 Grand Street • Hartford, CT 06106 • (860) 246-7121
8 Summer Street • P.O. Box 313 • Rockport, ME 04856 • (207) 236-6470 • (207) 236-6471 (fax)
www.env-ne.org

- Page 5: *"Based on survey information compiled by DEP and the CASBO, conditions in existing school bus contracts between school districts and transportation providers will insure that the whole fleet will be comprised of buses meeting the federal 2007 engine standards via the natural process of fleet turnover by 2019."* This is not consistent with DMV's inventory of School Buses Registered for the 2005-2006 School Year on page 3 of DEP's report. In a business as usual scenario, in 2019, only about 90% of the school bus fleet will have turned over to 2007-compliant standards.
- Page 5: "*DEP research of available literature illustrates very little in-cabin PM emissions from rear engine school buses. Therefore, installation of crankcase controls on rear engine school buses is not the most beneficial investment for targeting PM emission reductions and in-cabin exposure to diesel exhaust."* Please provide a citation for the available literature referenced here to support this assertion. Additionally, given the serious health risks associated with children's exposure to diesel PM, it would be helpful to see more specificity or definition as to what is meant by "very little."
- Page 6: The report should clarify that closed crankcase filtration systems can significantly reduce the portion of PM that seeps into the cabin of the bus and exposes children on the way to/from school. At the first school bus subcommittee meeting, Environment Northeast presented a summary of a study conducted by the Clean Air Task Force that showed that crankcase filters eliminated detectable PM from the inside of the school bus. This study is available at http://www.catf.us/publications/view/82.
- Pages 7-8: These two pages contain critiques of specific aspects of the proposals for implementing SA 05-7 presented in the ENE Options Memo (9/27/05) and the CT Clean Diesel Initiative Straw Proposal (11/10/05). We note that most of DEP's critiques appear to be based on experience with the Norwich, New Haven and (proposed) Hartford retrofit projects. While we agree that these pilot projects provided valuable hands-on experience, we submit that new retrofit projects need not follow the very same implementation pathway and therefore trigger the same inefficiencies that have been observed in these projects. DEP presents no alternatives in this report that could potentially improve the efficiency of the retrofit process, compared to previous efforts. The following observations and suggestions are offered in an effort to continue pursuing the objectives outlined in SA 05-7:
  - DEP contends that the difficulty in renegotiating school bus contracts would seriously limit or delay the viability of a mandatory replacement and retrofit program. An alternative would be to place requirements on school bus owners, rather than school districts. This approach would circumvent many of the obstacles noted on pages 7-8.
  - DEP contends that achieving an average of 680 installations per year is "*most likely an unrealistic schedule from an operational standpoint."* Again, please give a citation for this contention. If it is based on experience from retrofit pilot projects dating 2000-2004, there are reasons to expect that greater efficiencies are forthcoming. New York City contracted with Lubrizol Engine Control Systems and installed 2,000 DOCs, and 1,000 Spiracles just this summer. The business opportunity for emissions control systems will be significant as demand grows, and economic logic suggests that suppliers will respond, as evidence from New York demonstrates.
  - Footnote #17 notes that filter maintenance and replacement are not included in the cost assessment on page 7. DOCs do not have filters and therefore have no associated filter maintenance and replacement costs. If this footnote refers to the cost of filter replacement of a Spiracle, it would help avoid confusion to note this.
  - On page 8, as a critique of a recommendation in the Clean Diesel Initiative's straw proposal to disallow 1993 and older model year buses from transporting children in CT, the DEP notes, *"A mandatory provision constituting a flat ban of school buses based upon model year may encounter significant legal hurdles in adoption, either in statute or through regulation,*

and may not justifiable under these circumstances." DEP provides no support for this contention. In 1994, the PM emission standard for school buses went from 0.25 g/bhp-hr to 0.1 g/bhp-hr – a 60% improvement. New Jersey has a state law that prevents any school bus 12 years old or older from transporting school children. The recommendation in CCDI's proposal is less strict, as its minimum age limit is fixed rather than floating.

- Page 9: "*The oldest school buses in Connecticut are in a few districts that have set the contractual age limit for school buses at 12 years. Therefore, by 2019 the entire Connecticut school bus fleet under contract will be 2007-compliant."* If it were true that the oldest school buses in Connecticut are located in districts with a maximum bus age limit of 12 years, then by 2006, there should be no problem with disallowing buses from 1993 or older. Unfortunately, according to the DMV inventory of school buses registered for use during the 2005-2006 school year, older buses are still actively carrying Connecticut school children.
- Page 9: *"Compressed Natural Gas (CNG)-powered buses emit 70-90% less PM than diesel - powered buses."* It should be clarified that this comparison applies only to pre-2007 engines that do not use DPFs and ultra low sulfur diesel. With DPFs, the difference in PM emissions between NG and diesel is negligible.
- Page 10: The $4,000 estimate of sales tax for a new school bus came initially from David Larson, Director of the School Superintendents Association, at the September 27th School Bus Subcommittee meeting. In the November 10th straw proposal, the CCDI proposed that the state offer a sales tax waiver for 2007-compliant buses up to $4,000 through 2010.
- Page 13: This section can not be entitled "Diesel Plan School Bus Subcommittee Recommendations." The subcommittee made no recommendations.
- Page 13: Option #2 is characterized as "One option for meeting the goals of The Act" (SA 05-7). The option of ignoring the 2010 deadline in the Act and waiting for the phase-in of federal emission standards as new engines are purchased, but taking no additional action at the state level, does not meet the express terms of SA 05-7. This is a "do-nothing" option and should be characterized as such. The costs and benefits associated with "Option 2" if included, should be clearly defined for the Legislature as strictly "business-as-usual" costs, not costs that are associated with the CT Clean Diesel Plan.
- Page 14: *"The availability of ultra low sulfur diesel fuel has been raised as a potential problem."* If DEP feels that the availability of ULSD is in fact a problem the Legislature should be aware of, the reasons should be clarified in the report. As DEP notes, "*There are currently no shortages in the supply of ULSD in the State of Connecticut,"* and beginning next year, ULSD will be the standard fuel for on-road diesel fuel. As to whether implementation of this regulation will be delayed, Margo Oge (Director of the EPA Office of Transportation and Air Quality), said Dec. 7th at EPA's National Clean Diesel Campaign Policy Leaders Summit, "There will be no more extensions – the Administrator has made that clear – and the Industry is not asking for more."
- Page 15: The report should clarify the DEP's position on instituting an inspection and maintenance program for school buses.
- Page 16: The Act requires the DEP to provide "A strategy for securing and leveraging federal funds and funds from other sources to defray the costs of meeting the goals." This report briefly notes that DEP intends to continue to submit school bus retrofit proposals for federal funding, but is silent about ways in which CT can establish other funding streams and maximize its chances to earn federal dollars.