



# MEMO

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**To: CT Department of Environmental Protection**  
**From: Madeleine Weil, Environment Northeast**  
**Date: January 2, 2006**  
**Re: ENE Comments DEP Draft Executive Summary**

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Thank you for the opportunity to present comments on DEP's Draft Executive Summary (12/19/05).

ENE Comments, Summary:

- The three priority fleets (transit buses, school buses and state-funded construction equipment) were highlighted by SA 05-7 because their exhaust creates harmful exposures to sensitive populations, often in densely populated areas, and because they are publicly-owned or involve significant public funding. For the same reasons, California, New York, New Jersey, Massachusetts and other states have focused first on these fleets as starting points – determining that these fleets presented a relatively easy opportunity for controlling risks to a large number of people. As the text of SA 05-7 makes clear, it was principally written and enacted as a measure to reduce health risks. Although this objective is not inconsistent with DEP's requirements under the SIP, there was no indication during the legislative process that Legislators intended the Act to be foremost aimed at SIP conformity.
- We recognize that wood burning generates a large proportion of Connecticut's PM2.5 emissions and is therefore a source of interest to the DEP for purposes of the Agency's SIP responsibilities. However, we are confused as to why wood burning emission reduction strategies belong in a plan intended to reduce diesel emissions. Diesel and wood-burning are two very different emission sources that result in very different human exposure patterns and require completely different control efforts. It seems clear from the text of SA 05-7 that the Connecticut General Assembly intended that this plan should focus on diesel emissions sources and reduction strategies.
- It is critical that citations for any scientific studies referenced in DEP's Diesel Plan be included so that stakeholders and legislators can better understand the context and precedent for points being asserted by the DEP.
- By labeling the tables "near-term," "mid-term," and "long-term," it is implied that some strategies are not currently feasible. Since, as DEP explained in the public meeting on Dec. 20<sup>th</sup>, the categories actually describe tiered implementation costs, we recommend changing the table labels to more accurately reflect DEP's intention.
- While we are grateful for the time and resources DEP has invested in this important initiative, we had hoped to see more discussion in the planning process and the final draft report of actual implementation policies, programs, and funding models for Connecticut to consider adopting. The many efforts afoot in states and municipalities across the country to address diesel emissions arise from recognition by government and industry that reducing diesel emissions is one of the most cost-effective ways to clean up air pollution and reduce health risks. In this context, more specific recommendations of potential policies, programs and funding models from the DEP

would enable the state to move faster, using affordable, commercially available technologies, to reduce the health risks to Connecticut citizens.

- Although the first paragraph in Section 1 of SA 05-7 says that the DEP's reduction strategy should achieve diesel particulate matter reductions consistent with the targets in CT's Climate Action Plan (approximately 75% reduction by 2015, inclusive of federal new engine rules), the question of how this goal was to be achieved received very little attention in the DEP planning process and almost none in DEP's draft plan. Going forward, these objectives could be advanced through better resolution of the diesel PM inventory and an itemization of what reductions would be necessary from each sector to meet the long-term reduction goal. A better sense of the overall, 10-year task would help stakeholders and policy makers pace for setting up priority programs in the short to mid-term.
- We reiterate our concern with the way that DEP has characterized natural fleet turnover process. Waiting for the existing fleet to be replaced, over time, with newer and cleaner engines, should be clearly characterized in the DEP's reports as the "do-nothing" option. Complying with federal standards requires no action on the part of state, nor can the state or any diesel operator in the state choose to opt out. This is why costs and benefits associated with compliance of existing federal standards are always treated as "business-as-usual." We feel it would be a departure from normal accounting practices and could be misleading to readers to suggest that the costs and benefits of complying with existing federal regulations are attributable to various options under the Connecticut Clean Diesel Plan (as with Option 2 in the school bus and transit sector reports).

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

- Page 2: Please provide a citation for the spatial study of BC in greater Boston.
- Page 3: Please provide a citation for the study that contains estimates of the percentage of PM2.5 concentrations and emissions comprised of DPM in New Haven County.
- Page 3: In the 2002 MANE-VU inventory, total mobile source diesel PM2.5 emissions equal 1810 tons. Total PM2.5 emissions (including dust) equal 21,063 tons, so mobile source diesel emissions equal 8.6% of statewide PM2.5 emissions (rather than 7.5%). If MANE-VU provides emissions information at a greater resolution (county or metro-area level) these numbers should be included. Note: EPA's 1999 National Emissions Inventory (NEI) shows the following contributions of mobile source diesel emissions to total county-level PM2.5 emissions (not including dust – dust has been subtracted from the total because it is not considered to be as harmful to health as PM2.5 from combustion):
  - Fairfield County: 27%, or 755 tons per year from DPM;
  - New Haven County: 20%, or 631 tons per year from DPM;
  - Hartford County: 16%, or 520 tons per year from DPM.
- Page 4-5: The table that summarizes strategies for reducing diesel PM emissions from transit buses, school buses, and construction equipment by timelines required in SA 05-7 is an appropriate way to highlight these strategies for the plan's readers. However, we think that even for a summary, the components included in the table are sparse. The summary would be more useful and clear to readers if DEP added a few additional important details. Examples for your consideration are the funding and incentive components of the school bus proposal, and better estimates of the benefits of the school bus and construction proposals. It would also help the reader if this table were to provide a summary of the key components of the implementation strategies, with cross-references to the section of the full plan where readers can find more details. By itself, as currently written, we are concerned this summary table could be read out of context and lead to several misunderstandings about the plan.
- Page 6: As noted in an email to DEP staff on December 20<sup>th</sup>, the heating oil figures are incorrect. MANE-VU's 2002 Connecticut emissions inventory shows that heating oil emissions total no

more than 976 tons (8 tons from point sources, 602 tons from residential area sources, and a maximum of 366 tons from industrial/commercial area sources). Since the figure for industrial/commercial area sources also includes emissions from natural gas combustion, actual heating oil emissions are likely considerably lower.

- Page 6: It is our understanding that even though the fuel is the same, because the combustion processes are different, emissions from mobile source diesel engines are different and more harmful to health than those produced by other types of combustion systems, including home heating oil furnaces. It would be helpful to see this issue addressed in the report.
- Page 7-8: RPM Systems Inc.'s Connecticut-based survey of residential wood-burning patterns (RPM Systems Inc. "Survey of Residential Use of Woodfuel in Connecticut" for OPM, 1991) showed that only 6.2% of wood-burning in Connecticut occurred in urbanized areas, and only 3.9% of households using wood as their primary heating fuel were in urban areas. To our knowledge this is the only Connecticut-specific survey available. There is much work yet to do in Connecticut to determine whether wood burning poses a significant public health risk given exposure patterns, unlike diesel emissions where the risk is better understood. Using EPA data and models, the Clean Air Task Force (CATF) determined in a study last year that in Connecticut, the cancer risk from diesel pollution was about 6.5 times the cancer risk from *all other air toxics combined* – this includes air toxics from wood smoke, but also all industrial sources, gasoline-powered vehicles, etc. (see [www.catf.us/goto/ENEdieselhealth](http://www.catf.us/goto/ENEdieselhealth), search CT, read "*How did CATF compare the risk of diesel particulate to other air toxics?*").

Again, we thank the DEP for this opportunity to comment on the diesel strategic plan. Environment Northeast looks forward to reading the final report and working to implement solutions to the health risks posed by diesel pollution in Connecticut.