

## NESCAUM Comments

*August 4, 2009 Public Hearing – New York City, NY*

### US EPA Notice of Proposed Rulemaking

#### Control of Emissions of Air Pollution from Category 3 Marine Diesel Engines

Good morning, my name is Matt Solomon. On behalf of the Northeast States for Coordinated Air Use Management (NESCAUM) I am providing comments today regarding the Agency's Notice of Proposed Rulemaking to control the emissions of Air Pollution from Category 3 Marine Diesel Engines. In addition to today's testimony, NESCAUM intends to provide detailed written comments prior to the submittal deadline.

First, I would like to commend EPA for its leadership and technical work on this issue. The Agency's submittal to the International Maritime Organization of a proposal to designate certain coastal waters of the U.S. as an Emission Control Area for nitrogen oxides, sulfur oxides, and particulate matter, and its development of proposed standards to control air pollution emissions from U.S. flagged ocean going vessels together have the potential to result in substantial reductions in C3 engine emissions. EPA's proposed rule will lower NOx emissions 80 percent and PM emissions 85 percent when fully implemented in conjunction with the ECA designation. We strongly support the Agency's proposal.

EPA estimates that ocean going vessels currently contribute 6 percent of U.S. mobile source NOx, over 10 percent of U.S. mobile source PM2.5, and 40 percent of U.S. mobile source SOx. OGV activity is projected to increase significantly in the U.S. in general, and on the East Coast in particular. Given the projected increase in vessel activity and the implementation of stringent emissions and fuel quality standards that have been established for other mobile sources, the relative importance of this sector is anticipated to grow substantially. EPA projects OGVs will contribute 40 percent of mobile source NOx, 75 percent of diesel mobile source PM2.5, and 95 of mobile source SOx in 2030. In the Northeast, emissions from category 3 engines are a significant source of NOx, fine particulate, and SO2. The region has many ports. In 2000, the

Port of New York and New Jersey received 139 million short tons of cargo and was ranked the third largest port in the U.S. Approximately 230 tons of PM<sub>2.5</sub> were emitted by OGVs in that year in the Port of New York and New Jersey – more than a third of all PM<sub>2.5</sub> emissions from non-drayage port-related activity. Marine fleet operators in a number of Northeast states – including New York, New Jersey, Maine, Vermont, and New Hampshire – are undertaking significant efforts to reduce emissions from selected vessels in their fleets. For example, Staten Island ferry boats operating in New York harbor have been retrofitted with selective catalytic reduction (SCR) or rebuilt to more stringent emissions standards. In addition, 42 private ferries in New York Harbor have been retrofitted with diesel oxidation catalysts. In other parts of the region, tugboat engines, fishing boats and other vessels are also being rebuilt, repowered, or retrofitted. These significant efforts demonstrate the region's commitment to reducing emissions from marine vessels. However, because states in the region have no authority to require reductions from ocean going vessels we are wholly reliant upon EPA to regulate this source. We have a few specific comments on EPA's proposal, which are as follows.

NESCAUM supports the Tier 2 NO<sub>x</sub> standards and believes they are technically feasible using such approaches as common rail fuel injection, advanced turbochargers, and improved valve timing and combustion chamber design. Common rail systems are currently being produced by manufacturers such as MAN Diesel and Wartsila. Use of this technology along with other approaches will allow manufacturers to meet the proposed Tier 2 NO<sub>x</sub> standards in the timeframe proposed by EPA.

NESCAUM also supports the proposed Tier 3 NO<sub>x</sub> standards and believes they are achievable in the timeframe proposed by EPA. Today, over 300 C2 and C3 engines have been equipped with SCR; some of these marine vessels have been in service for 10 years, and have accumulated 80,000 hours in use with the SCR aftertreatment systems in place. Here in New York, a Staten Island ferry boat equipped with SCR – the Alice Austen - has demonstrated NO<sub>x</sub> reductions as high as 95% in cruise mode. Other marine vessels that have been fitted with SCR include cruise ships, icebreakers, tankers, container ships. In addition, other technologies such as EGR, direct

water injection, or water emulsification could be used to meet the proposed Tier 3 NOx standards in the timeframe EPA has proposed.

EPA has not proposed to set PM emission standards for C3 engines, but would require engine manufacturers to measure and report PM emissions. We strongly support the Agency's plans to evaluate the impacts of its proposed actions on PM emissions, and to assess the feasibility of further PM reductions. However, because of the potential for carbonaceous PM to increase due to a NOx/PM tradeoff, and because of the lack of certainty that anticipated reductions in organic PM will actually occur, we ask that the Agency strengthen its commitment by setting a date certain by which it will complete its evaluation and propose a PM standard if appropriate.

Finally, we ask that EPA consider the establishment of a program to reduce emissions from existing C3 engines, since these engines will be in service for many years to come and will continue to pollute at very high rates unless action is taken to reduce their emissions. We believe that a Voluntary Marine Verification Program, as described in the Preamble to the proposed rule, could play an important role in addressing emissions from existing engines. We urge EPA to pursue the development of such a program.

In conclusion, we strongly support the Agency's proposed rulemaking. We believe the proposal could be strengthened with the inclusion of the items mentioned above. We look forward to working with you in any way that we can to see that the proposal is finalized as expeditiously as possible.