NACAA
national association of clean air agencies

March 5, 2008

U.S. Environmental Protection Agency
Air and Radiation Docket
Attention: Docket ID No. EPA-HQ-OAR-2007-0121
Mail Code 6102T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

To Whom It May Concern:

On behalf of the National Association of Clean Air Agencies (NACAA), we are pleased to submit the following comments regarding the U.S. Environmental Protection Agency's (EPA's) Advance Notice of Proposed Rulemaking (ANPRM) for the *Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder*, as published in the *Federal Register* on December 7, 2007 (72 FR 69522). NACAA is the national organization of air pollution control agencies in 53 states and territories and more than 165 metropolitan areas across the country. Our association strongly supports efforts to curb emissions from Category 3 (C3) marine vessels as soon as possible.

C3 marine engines emit large quantities of oxides of nitrogen (NO_x) and sulfur oxides (SO_x) – which are precursors to the formation of ambient particulate matter and ozone – as well as toxic particulates. These pollutants pose adverse air quality impacts on port cities across the nation, as well as areas downwind of these cities. An array of studies confirms that exposure to these pollutants can increase mortality, cancer risk and respiratory illnesses, and substantially increases health costs as well. In many cities, neighborhoods adjacent to marine ports experience increased health risks from exposure to diesel exhaust that greatly exceed acceptable levels. The air pollution from ships and port-related activities also creates significant environmental justice issues in many communities.

In the South Coast Air Basin of California, for example, emissions from C3 vessels are responsible for more than half of the region's SO_x and will soon become the area's single largest source of NO_x. The South Coast Air Quality Management District estimates

that marine vessel pollution causes hundreds of premature deaths each year and, further, contributes to cancer risks near ports that are well over 2,000 in a million. Likewise, in New Jersey, where there are ports located in Newark and Camden – both of which are environmental justice areas – nearby residents are disproportionately affected by diesel exhaust. The New Jersey Environmental Federation concludes, in *Diesel Hot Spots: A Snapshot of Newark, New Jersey* (June 2006), that Essex County, in which the Newark port is located, has the highest asthma-related mortality rates in the state, with minority populations affected at double the county rate. Data from the Port Authority of New York and New Jersey show that emissions from ships calling on the North Jersey (Newark) port contribute substantial levels of emissions into the air – approximately equivalent to those from a mid-sized power plant. Further, the emissions from New Jersey's ports are transported for hundreds of miles northward along the east coast. A number of other port cities in the nation also experience substantial levels of risk and exposure from C3 marine emissions.

Notwithstanding the already critical nature of the problem posed by emissions from C3 marine vessels, emissions from these sources are expected to grow due to the substantial increase in cargo throughput that is projected to occur in coming years.

International trade is expected to continue to grow at a rate of 7 percent annually, which is a doubling of activity approximately every 10 years. Trade with Asia has been growing at a rate substantially exceeding the overall rate of growth; this growth is expected to continue.

At this time, however, emissions from C3 engines remain virtually uncontrolled. This is in contrast to the aggressive emission control levels required by EPA for other types of diesel-powered equipment, which exceed 90 percent for most engines. By EPA's own estimates, if left uncontrolled, the contribution of C3 engines will increase, by 2030, to more than one-third of the national mobile source NO_x inventory, 45 percent of the national mobile source $PM_{2.5}$ inventory and nearly 95 percent of the national mobile source SO_x inventory. The emission contributions of C3 engines for these pollutants will be significantly larger for individual port cities. Therefore, NACAA supports promulgation of a federal regulation that will impose tough emission standards for C3 marine vessel engines and requirements for cleaner-burning, low-sulfur fuel.

NACAA believes the regulatory components set forth in EPA's ANPRM, including the following key provisions, serve as a firm foundation for such a federal rule:

- a Tier 2 NO_x standard for new engines, to achieve a 15- to 25-percent NO_x reduction below the current Tier 1 standard "as early as 2011";
- a Tier 3 NO_x standard for new engines, to achieve an 80-percent NO_x reduction below the Tier 2 standard "as early as 2016";
- a PM standard for new engines of 0.5 g/kW-hr "as early as 2011";
- an SO_x standard for new engines of 0.4 g/kW-hr "as early s 2011";

- an alternative PM and SO_x compliance option of using a distillate fuel with a maximum allowable sulfur level, such as 1000 parts per million, "as early as 2011"; and
- requirements for existing engines to be retrofitted to meet the Tier 1 NO_x standard "as early as 2012".

The standards envisioned by EPA in the ANPRM would contribute significantly to state and local efforts to achieve and sustain health-based clean air standards. And, these limits can be achieved at relatively low cost.

NACAA is concerned, however, that in the approach outlined by EPA in the ANPRM, the agency refers to implementation dates using the phrase "as early as". We cannot overstate the importance of implementing this critical program as soon as possible and *no later* than the dates cited – 2011 for the new-engine Tier 2 NO_x, PM and SO_x standards and alternative PM/SO_x fuel-standard compliance approach, 2012 for retrofitting existing engines and 2016 for the Tier 3 NO_x standard. We urge EPA to commit to these dates.

We also note that in the ANPRM, EPA envisions setting performance standards or emission limits for NO_x and PM controls. For PM and SO_x control, EPA discusses the potential use of 0.1 percent distillate sulfur fuels, the use of scrubbers or combinations of lower-sulfur fuels and scrubbing within certain distances of the coastline. For Tier 3 NO_x control, EPA also envisions the establishment of coastal areas where the controls would be required, and would allow the controls to be turned off outside of those areas. While we applaud the flexibility for compliance mechanisms in the ANPRM, and recognize the near-term need for geographic limits, we are concerned about enforcement with flexibility options, and urge that EPA adopt adequate enforcement mechanisms in the rule as well. A clear set of methods or mechanisms is necessary to ensure that appropriate equipment and fuels are being used within the geographic control areas established. With the very large number of vessels traveling to and from U.S. ports, and with many of those vessels visiting a particular port infrequently, clear compliance mechanisms and strong penalty provisions that exceed the costs of non-compliance are needed. Provisions for fuel sampling and inspection, fuel purchase logs and maintenance of fuel use records, as well as instrumentation to log compliance with emission limits should all be considered. We are aware that lax enforcement of the fuel sulfur limits in Europe within the SO_x Emission Control Areas is a problem and leads to increased emissions. Such difficulties must be overcome to ensure the promise of emission reductions is achieved and enforced.

At this time, NACAA also offers its strong support for the February 9, 2007 U.S. proposal to the International Maritime Organization (IMO). The proposal is based on the same key tenets as the ANPRM, and the *Marine Vessel Emissions Reduction Act of 2007* – S. 1499 and H.R 2548 – which NACAA also supports. If adopted by the IMO, the U.S. proposal will substantially reduce ship emissions on an international scale, yielding farther-reaching benefits than domestic action alone. We, therefore, urge EPA to hold fast to the key provisions of that proposal as it continues to participate in the IMO negotiations.

Action to decisively address the air quality and public health threats posed by emissions from C3 marine engines is long overdue. As we continue to observe the IMO process with hopes that the body will adopt rigorous international standards in line with the U.S. proposal, we also support swift federal action – regulatory and legislative – to ensure a timely and stringent program in the U.S., irrespective of the outcome of the IMO process.

On behalf of NACAA, we offer our support and cooperation as EPA works to craft a proposed rule and to promulgate a final rule as quickly as possible. If you require any further information, please do not hesitate to contact either of us or Bill Becker, Executive Director of NACAA.

Sincerely,

Nancy L. Seidman (Massachusetts)
Co-Chair
NACAA Mobile Sources and Fuels Committee

Dennis J. McLerran (Seattle, WA)
Co-Chair
NACAA Mobile Sources and Fuels Committee