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Air and Radiation Docket and Information Center
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave., NW
Washington, DC 20460

Re: National Marine Manufacturers Association Comment – Docket ID No. EPA-HQ-OAR-2008-0318 – Advance Notice of Proposed Rulemaking: Regulating Greenhouse Gas Emissions under the Clean Air Act

Via E-MAIL: a-and-r-Docket@epa.gov

Dear Sir or Madam:

The National Marine Manufacturers Association (NMMA), the nation's leading recreational marine industry trade association, appreciates the opportunity to provide comment on the Environmental Protection Agency's Advance Notice of Proposed Rulemaking to regulate greenhouse gas (GHG) emissions under the Clean Air Act (CAA). NMMA recognizes that EPA has published this Advance Notice in response to the April 2007 Supreme Court ruling in *Massachusetts vs. EPA*, which enables—but does not require—EPA to regulate tailpipe greenhouse gas emissions as an air pollutant under the Clean Air Act. Given the dramatic and unprecedented scope of GHG regulation under the Clean Air Act, the regulatory cascade caused by an endangerment finding, and the potential short- and long-term impacts of such regulation for all segments of the economy, including recreational marine manufacturing, NMMA offers these initial comments as guidance to EPA on the marine sector.

It is important to note that our industry's concerns permeate nearly all aspects of the economy—from broad manufacturing and stationary source issues, the global supply chain, transportation and freight shipments of product, consumer towing and operation of vessels, and many other issues. NMMA's comments here purposefully focus on recreational marine industry-specific concerns, but we also incorporate herein the comments of the National Association of Manufacturers (NAM), which address the concerns of manufacturers more broadly.

NMMA represents nearly 1,700 boat builders, engine manufacturers, and marine accessory manufacturers who collectively produce more than 80 percent of all recreational marine products made in the United States. With almost 59 million boaters nationwide and 18 million recreational boats in operation, recreational boating has a \$108 billion dollar annual impact on the American economy with direct spending totaling \$39.572 billion and indirect trip spending by boaters totaling \$68.492 billion.

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CAA Regulation of Greenhouse Gas Emissions is Inappropriate, Complex and Costly

The prevailing question posed in the Advance Notice is whether the Clean Air Act is the appropriate regulatory vehicle for controlling greenhouse gas emissions. EPA poses this question in a document which appears to presume an endangerment finding for GHG, outlining in nearly a thousand pages various theories through which EPA may regulate emissions from not just new motor vehicles and new motor vehicle engines (as was the question in *Massachusetts vs. EPA*), but for all sources, stationary and mobile. NMMA is deeply concerned that EPA intends to move forward with GHG regulation for all sources under the Clean Air Act, even though it is clear that CAA is not the appropriate regulatory tool in each, or any, case.

NMMA is further concerned that such a vast and unprecedented application of the Clean Air Act—which was not designed for economy-wide regulations—would pose grave harm to the national economy and place substantial undue hardship on manufacturers of product and American consumers. NMMA strongly encourages EPA to recognize the limitations of the Clean Air Act, which Congress never intended to address the global concern of greenhouse gas emissions. While NMMA supports a comprehensive federal climate policy that will not harm the national economy and the U.S. manufacturing industry and preempt a patchwork of state and regional regulatory initiatives to control GHG emissions, the CAA is the wrong regulatory instrument to approach this issue.

NMMA therefore concurs with EPA Administrator Johnson and the federal agencies who have determined that the regulatory options outlined in the Advance Notice would impose substantial costs on both the American manufacturing industry and American consumers while damaging U.S. competitiveness in a time of great economic uncertainty in return for a limited impact on global greenhouse gas emissions. Domestic GHG regulations outside of an international framework such as those considered in the Advance Notice will do little to curb emissions but much to accelerate the erosion of the U.S. manufacturing base, a key pillar of the American economy.

Particularly in this time of economic uncertainty, EPA should avoid imposing additional costly regulations on the U.S. manufacturing sector and other aspects of the economy. The U.S. recreational marine industry is comprised mostly of small- and medium-sized businesses. In 2007, recreational boating directly and indirectly impacted 337,758 U.S. jobs with a labor income of \$10.4 billion. Nearly 19,000 boating businesses directly employ more than 154,000 U.S. workers. Additionally, recreational marine consumers are largely middle-class Americans—75 percent of boat owners earned an annual household income of less than \$100,000, and 95 percent of boats in use are less than 26 feet in length (in other words, trailerable boats).

The current economic landscape is having a severe impact on the American recreational marine industry. The credit and housing crises, the collapse of consumer confidence, and the weakening export market have caused sales in our industry to decline an average of 26 percent so far in 2008 and 40 percent since the housing crisis and falling consumer confidence began, with much higher declines in certain segments. As a consequence, many American marine companies are shutting their doors, closing manufacturing facilities permanently or temporarily and making painful decisions about their operations in order to survive. Companies that have not closed are dramatically reducing production, cutting back on expenses, reducing labor and taking on mounting losses.

According to an industry survey conducted by NMMA in November 2008, an estimated 80 percent of recreational marine companies have implemented cost-saving measures in response to the economic slowdown, 64 percent have laid-off employees and/or closed facilities (both permanent and temporary) and payrolls have been reduced by 1/3 since January, 1, 2008. Executives today anticipate an additional 1 in 10 jobs will be lost in 2009. It is not the time to add major new costs on American industries whose operations are already fragile and eroding.

NMMA concurs with the National Association of Manufacturers' (NAM) view that expanding existing CAA programs as outlined by the ANPRM would impose significant adverse impacts on the economy with no measurable environmental outcomes. The various permitting programs, for example, that could be triggered by an expansion of regulatory authority would merely mandate emissions limits on specific sources, with no clear goal of actually reducing GHG concentrations in the environment in the United States or around the world. In contrast, properly crafted climate legislation could take into account the costs and benefit of any GHG regulation and ensure that any burdens imposed on the economy are justified by real environmental benefits. Congress can better take into account the fuller international context of climate change to ensure that any action taken domestically is done in the context of worldwide efforts to address the global issue.

By operating within the existing context of the CAA, the ANPRM is structurally incapable of pre-empting state and regional climate change programs that would establish the necessary predictability and uniformity to comply with new requirements. The patchwork of state and regional regulations that would exist under CAA regulation would create more investment uncertainty and undermine regulatory effectiveness by failing to achieve tangible results. Under such an illogical scenario, manufacturers in different regions of the United States would be regulated in different ways not because their emissions or effects of their emissions are any different, but merely because of the policies of the state where they are located. Congress should bypass current provisions of the CAA and debate a national uniform approach to this global issue.

NMMA also emphasizes the nearly unparalleled advances in recreational marine engine and boat technologies that have occurred over the last decade as an illustration of the ways in which marine manufacturers have reduced air emissions, improved fuel efficiency, contributed to environmental quality and met consumer demand through innovation.

1996 Recreational Marine Engine Regulations

Consistent with EPA's request in the Advance Notice for comment on "marine-specific issues EPA should consider," NMMA offers the following narrative of the dramatic advances in recreational marine engine technology over the last 12 years. A full consideration of these advances validates a number of EPA claims in the Advance Notice that existing regulations already function to reduce GHG emissions in certain sectors.

NMMA concurs with the Advance Notice claim that "EPA has designed nonroad regulatory programs that have resulted in significant air quality gains with little sacrifice of products' ability to serve their purpose" (ANPRM 323). With the substantial recreational marine engine regulations that have been implemented or finalized since the passage of the Clean Air Act Amendments of 1990, there has been a technological revolution in the marine engine sector, obviating the need for Clean Air Act GHG regulations for recreational marine. As EPA notes in the ANPRM, the recreational marine SI category is of minimal prominence in terms of CO₂ emissions, well below the percentage

total of other mobile sources of CO₂. Boats and other marine vessels, according to a 2006 EPA report, account for only 3 percent of U.S. transportation GHG emissions in 2003, with the recreational marine sector making up only **one-fifth** of that total (**or .6 percent of total U. S. transportation GHG emissions**). See “Greenhouse Gas Emissions from the U.S. Transportation Sector 1990-2003,” USEPA (March 2006).

EPA notes in its ANPRM that a transition to four-stroke engines “would be feasible and beneficial” (ANPRM 328). In the recreational marine engine sector, this transition is already well underway and further demonstrates the lack of need for new Clean Air Act regulations on GHG emissions for this sector. The conventional carbureted two stroke outboard spark-ignition engine is being phased out and replaced with high pressure direct-injection two stroke and four stroke engines. This transition emerged as recreational marine engine manufacturers moved to comply with EPA regulations finalized in a 1996 rulemaking that required marine engine manufacturers to reduce hydrocarbon and NO_x exhaust emission for spark-ignition gasoline marine engines by an average 75 percent between 1998 and 2006 on all new outboards and personal watercraft. Subsequent regulations imposed by the California Air Resources Board (CARB) not only accelerated the implementation of the rule nationwide, but have resulted in a new generation of marine engines that exceed EPA-mandated reductions. Any additional EPA, regulation on recreational marine engines, or attempts to regulate operational use of these engines by the end-user, may result in the perverse incentive of causing consumers to delay purchasing new marine engines and equipment for longer periods of time, slowing the transition to new-technology marine engines.

At the time of the 1996 rulemaking, EPA acknowledged then that its emission standard would “require revolutionary technology that does not currently exist across the product line, the lead time for implementation is short, and the targeted reductions across the phase-in are large.” As noted, marine engine manufacturers met the challenge and responded to the rulemaking by pursuing two key technology advancements: direct fuel injected (DFI) two-stroke engine technology and four-stroke engines. In two-stroke DFI engines, fuel is injected directly into the combustion chamber and burned while the exhaust port is blocked by the piston at the top of its stroke, effectively reducing emissions by preventing unburned fuel from escaping through the exhaust port. Four-stroke engines, like those in a car, are lubricated by circulating multi-viscosity oil in the engine. These engines require oil changes after a certain period of time, and easily meet EPA’s emissions standards. Although four-stroke engines are heavier, more complex, and more expensive than traditional two-stroke engines, they are at least 40 percent more fuel efficient, lowering fuel costs and reducing air emissions.

2008 EPA Emission Standards for New Nonroad Spark-Ignition Engines, Equipment and Vessels

On September 4, 2008, EPA finalized a long-anticipated landmark regulation that imposes major new engine emission standards for marine outboard spark-ignition engines that will complete the transition and effectively remove new carbureted two-stroke marine engines from sale in the U.S. commencing in 2010. See “Control of Emissions From Nonroad Spark-Ignition Engines and Equipment,” 73 Fed. Reg. 59,033 (Oct. 8, 2008).

All recreational marine engines, including stern drive and inboard (SD/I) spark-ignition engines, are now regulated by EPA, with new emission standards that will require catalyst technology, closed-loop fuel injection and onboard emission diagnostic systems starting in 2010.

SD/I engines are typically four-stroke automotive engines that have been “marinized” for operation in a boat. By adding catalyst exhaust emissions, these engines will be identified by the California Air Resources Board star label program as Four Star “Super Ultra Low Emissions” engines.

Additionally, EPA in this Final Rule has adopted new standards to control evaporative emissions for all vessels using marine spark-ignition engines, including requirements for fuel tank permeation, fuel line permeation and diurnal fuel tank vapor emissions. According to EPA, these new requirements, when fully implemented, “will result in an estimated 70 percent reduction in HC+NO_x emissions and a 50 percent reduction in CO from new SD/I engines’ exhaust. The standards will also result in a 60 percent reduction in HC+NO_x emissions from OB/PWC engines. The new standards will reduce evaporative emissions by about 70 percent.” See: USEPA Regulatory Announcement, EPA420-F-08-013 (September 2008).

As EPA notes in its Advance Notice, substantial GHG emissions can be achieved by making marine engines more efficient. As outlined above, the recreational marine engine sector has achieved this success. Further noted in the ANPRM is that “marine engines are already subject to exhaust emission standards. Many of the noxious emissions emitted by internal combustion engines may also be GHGs. These pollutants include NO_x, methane and black carbon soot. Additionally, some strategies used to mitigate NO_x and PM emissions can also indirectly impact GHGs though their impact on fuel use” (ANPRM 345). For the recreational marine sector, the 1996 and 2008 landmark rulemakings have and will substantially reduce air emissions and will have a direct impact on reducing greenhouse gas emissions from recreational boats and engines. EPA estimates that by 2030, annual reductions of pollutant emissions from recreational marine engines and fuel systems as a result of this new rule will approximate 600,000 tons of volatile organic hydrocarbon emissions, 130,000 tons of NO_x emissions and 5,500 tons of direct particulate matter (PM_{2.5}) emissions, as well as annual reductions of 1.5 million tons of carbon monoxide emissions.

It is clear that the recreational marine engine sector has moved rapidly to enhance the performance and fuel efficiency of its engines while substantially reducing air emissions. These technological advances underscore the comparatively small contribution recreational marine engines make to the global greenhouse gas inventory. NMMA strongly encourages EPA to resist any effort to pursue additional regulations on the recreational marine engine sector by classifying GHG as a pollutant under the Clean Air Act and utilizing its discretionary authority under the CAA to regulate non-road sources such as recreational marine.

Boat Designs

The ANPRM also references water resistance draining fuel economy as a result of drag due to friction on the hull of the vessel. EPA suggests that one mechanism to reduce GHG emissions is by changing the design of vessels in order to perform more fuel efficiently. EPA has no experience with vessel design, which is proprietary and highly sophisticated. Additionally, the manufacture of recreational boats is highly regulated by the U.S. Coast Guard (USCG) for safety, another area in which EPA has no expertise and the issuance of any EPA guidance in this area risks conflicting with USCG safety regulations. While the recreational boat building sector has made numerous advances in vessel hull design and technologies over the years, EPA should recognize that vessels are typically manufactured for specific functions and environments. While certain vessel changes may be accomplished in some circumstances to enhance the performance of the vessel, this should not be considered a categorical remedy.

Boat builders are doing their part to meet consumer demand by increasing fuel efficiency through the design and development of lighter, more technologically advanced hulls. These innovations, to name but a select few, include the use of fiberglass cloth injected with a resin to reduce the weight from fiberglass without compromising any additional strength. According to the manufacturer of a vessel employing this technology, a 34 foot yacht of this composite hull requires only 11 gallons of diesel fuel per hour to run at 25 knots, which is up to three to four times less fuel than its comparable counterparts. Other manufacturers are utilizing unique hull contouring systems to offer higher performing models that operate with minimum fuel use. Another hull fabrication product used in making lighter, more fuel efficient hulls and decks is balsa core. In addition to conserving fuel, the cores are a renewable resource that is produced without depleting hydrocarbons. Again, this is not an exhaustive list, and vessel hull design and construction is proprietary and protected by copyright laws.

Conclusion

NMMA appreciates the opportunity to provide preliminary comment on EPA's Advance Notice of Public Rulemaking: Regulating Greenhouse Gas Emissions under the Clean Air Act. NMMA urges EPA to resist regulating greenhouse gases through the unwieldy and clearly ill-suited structures of the Clean Air Act. Any climate change proposal should be fully vetted by the public, undergo a meaningful national debate, and must be flexible, market-based, global in scope and properly account for impacts on the U.S. economy and U.S. manufacturers and consumers. GHG regulation under the Clean Air Act meets none of these basic requirements. NMMA appreciates your consideration of its views on this important matter. Please do not hesitate to contact me (202-737-9760; mdunn@nmma.org) if I can be of any further assistance.

Respectfully submitted,

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National Marine Manufacturers Association