



## Mid-Level Ethanol Poses Serious Concerns for Boaters NMMA Urges Further Study on Mid-Level Ethanol Blends

## BACKGROUND

NMMA is a strong supporter of reducing America's dependence on foreign sources of oil as well as policies to promote the development and consumption of renewable fuels in the U.S., including increasing the use of 10 percent ethanol in the gasoline supply and expanding E85 availability. However, NMMA is deeply concerned that current discussions on Capitol Hill about expanding ethanol insufficiently consider the serious and well-documented human safety, environmental, and technology concerns associated with ethanol blends over 10 percent in recreational boat fuel tanks and engines. Any effort to incrementally increase ethanol blends in gasoline will have catastrophic effects on boat engines that are designed, tested, calibrated and manufactured for E10. The technology for higher blends of ethanol, such as E20, is simply not available.

In December 2007, Congress passed and President Bush signed into law comprehensive energy legislation mandating an increase of renewable fuel use nationwide. The energy bill expands the Renewable Fuel Standard—the amount of renewable fuel such as ethanol required to be in the national gasoline supply—to 9 billion gallons in 2008 and increases it to 36 billion gallons by 2022. The significant new renewable fuel mandate raises serious concerns regarding higher concentrations of ethanol in gasoline fuel.

## THE PROBLEM

NMMA is currently working with federal agencies to further study the implications of allowing the legal sale of fuel that contain greater than 10 percent ethanol content by volume. This position is based on known safety and durability concerns and supported by many well documented studies, although much more information is needed. Mid-grade ethanol fuel corrodes boat fuel tanks, leading to leaks, fires and possibly explosions, reduces fuel efficiency and increases smog-forming pollution and other emissions that will harm water quality and habitat.

Because ethanol absorbs water, higher amounts of ethanol in fuel equate to higher amounts of water in fuel tanks. This, naturally, causes corrosion, which itself creates particulate matter that then clogs fuel filters, fuel systems, and damages engine components. The harsh marine environments in which boats operate accelerate this rate of corrosion. Features common to boats further exacerbate corrosion, such as copper from brass fittings. Mid-grade ethanol also causes galvanic corrosion in aluminum tanks since the presence of ethanol and water will conduct electricity. Fuel tank corrosion can perforate aluminum fuel tanks, producing leaks that may pollute marine environments. Higher ethanol blends may also cause boat drivability problems or contribute to the failure of a marine engine to comply with exhaust or evaporative emission standards over its useful life. NMMA also shares concerns with the U.S. Coast Guard that increasing the alcohol content in fuel could potentially cause fuel system failures due to material incompatibility.

## THE SOLUTION

NMMA sought and achieved a provision in H.R. 6, the Energy Independence and Security Act of 2007, to strengthen the approval process for new fuels, such as E20. That provision—Sec. 251—became law in December 2007. NMMA sought this language in anticipation of requests from states to the Environmental Protection Agency (EPA) to allow the sale of mid-level blends of ethanol (e.g. E/20) in gasoline. The language change strengthens the Clean Air Act approval process for the introduction of new fuels, such as E20. Currently, the maximum amount of ethanol that can be blended into gasoline for use in conventional vehicles is 10 percent (E10) under EPA regulations. Previous to the NMMA-sought provision, the Clean Air Act had a serious flaw, which allowed EPA to "default approve" a petition for a new fuel by simply not acting on such a petition within 180 days. Given known concerns with midlevel ethanol, this default approval process was not acceptable. Now EPA must affirmatively approve any new ethanol fuels after determining that they will not bring marine engines out of compliance with the Clean Air Act.

NMMA continues to work with the Environmental Protection Agency and the Department of Energy on fully assessing the impacts of midlevel ethanol blends on marine equipment. For more information contact Mat Dunn (<u>mdunn@nmma.org</u>; or 202-737-9760).