

Oppose Increase in Ethanol Blend Level

Intermediate ethanol blends will put consumers, public health at risk

Legislative Objective. The Renewable Fuels Standard must be revised to prevent the damage that ethanol blends above the 10% level will cause to engines of all types. Congress must provide sufficient funding for additional scientific testing of a broad range of engines, including marine engines and equipment.

Background

- EPA has approved partial waivers permitting the use of E15 for cars and light truck model years 2001 and newer. EPA did not approve E15 for marine engines, but it has taken no steps to prevent misfueling except for a small (3" x 3.5") sticker that would be placed on gasoline pumps.
- There are serious and well-documented human safety, environmental, and technology concerns associated with ethanol blends over 10 percent in recreational boat fuel tanks and engines. An increase to 15 percent ethanol in gasoline will have potentially catastrophic effects on boat engines that are designed, tested, calibrated, and manufactured for E10 or below. An E15 blend is also quite likely to harm the engines on the 120+ million automobiles that are older than the 2001 model year and the engines on the 200+ million pieces of outdoor power equipment.
- Tests conducted by major marine engine manufacturers have demonstrated that for marine engines that are designed to run on gasoline at E10 or below by volume, higher concentrations of ethanol pose serious problems, including (1) catastrophic damage to valves, push rods, and bearings; (2) performance issues, such as drivability (e.g., starting, stalling, fuel vapor lock); (3) increased water absorption and phase separation of gasoline and water while in the tank; (4) fuel tank corrosion, leading to oil/fuel leaks; (5) increased emission of smog-forming pollutants such as NOx; and (6) potential safety issues for boaters who operate in harsh marine environments, sometimes miles from shore. The US Coast Guard recognized this last possibility in a 2009 letter to the EPA in which it opposed E15 blend gasoline.
- Ninety-five percent of all recreational boats are fueled at traditional gas stations, and if E15 becomes the commonly-available blend at these stations, misfueling will occur, and marine engines will be damaged. Since EPA has not required fuel retailers to continue to make E10 available, consumers may not readily find the fuels they need for their boats.
- Misfueling with E15 that causes engine damage will invalidate warranties on both boats and automobiles. A survey showed that over one-third of the retailers who are currently selling E15 have not posted the required warning labels.
- EPA should thoroughly and comprehensively test recreational marine engines, fuel systems, and components to determine the effect E15 will have on marine engine air emissions devices.

- Unless the renewable fuels mandate is changed, it is likely that EPA would require 35%-40% ethanol in gasoline by the year 2022.
- Every time EPA changes the percentage of ethanol in gasoline, engines have to be recalibrated and engine designs changed.
- There are approximately 400 million engines of all types currently in use in the United States that are not designed to run on more than 10% ethanol.
- NMMA supports the following legislation to address the problems associated with mid-level ethanol: S. 344 (Sens. Wicker and Vitter: Prohibits EPA from approving gasoline with >E10 level); HR 875 (Rep. Sensenbrenner: Requires comprehensive assessment by the National Academy of Sciences of the effects of mid-level ethanol on engines of all kinds; suspends current EPA waivers that allow E15); S.1195 (Sens. Barrasso/Pryor/Toomey: full RFS repeal).

The following chart indicates the renewable fuel mandate in the Energy Independence and Security Act of 2007.

Renewable Fuel Mandates					
from The Energy Independence and Security Act of 2007					
Calendar Year	Total Renewable Fuel Mandate	Advanced Biofuel Mandate	Cellulosic Biofuel Mandate	Biomass Based Biodiesel	Implied Maximum Corn Ethanol Mandate**
	<i>billion gallons</i>				
2006	4				4
2007	4.7				4.7
2008	9				9
2009	11.1	0.6		0.5	10.5
2010	12.95	0.95	0.1	0.65	12
2011	13.95	1.35	0.25	0.8	12.6
2012	15.2	2	0.5	1	13.2
2013	16.55	2.75	1	1	13.8
2014	18.15	3.75	1.75	1	14.4
2015	20.5	5.5	3	1	15
2016	22.25	7.25	4.25	1	15
2017	24	9	5.5	1	15
2018	26	11	7	1	15
2019	28	13	8.5	1	15
2020	30	15	10.5	1	15
2021	33	18	13.5	1	15
2022	36	21	16	1	15

* Advanced biofuels exclude ethanol made from corn starch

** Global Insight calculations

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