

MEMORANDUM

TO: Science, Space, and Technology Committee Members and Staff
FROM: Committee on Science, Space, and Technology Staff
DATE: Monday, April 8, 2013
RE: Full Committee Markup

The Committee on Science, Space, and Technology will meet on **Thursday, April 11, 2013, at 10:00 a.m.** in Room 2318 of the Rayburn House Office Building to consider the following measure:

- **H.R. 875, *To provide for a comprehensive assessment of the scientific and technical research on the implications of the use of mid-level ethanol blends, and for other purposes.***
- **H.R. XXXX, *the EPA Science Advisory Board Reform Act of 2013***

H.R. 875

Background and Need

Since the 1970s, the Federal Government has supported numerous policies to increase efficiency of fuel use and reduce petroleum consumption. In 1978, EPA authorized the use of 10 percent ethanol blended gasoline (E10), which was not used on a widespread basis until the Clean Air Act Amendments of 1990. In 2005, Congress established the Renewable Fuel Standard (RFS) in the Energy Policy Act (EPAct).¹ The RFS mandates that transportation fuels contain renewable fuels, such as biodiesel or corn-based ethanol, and required that 4 billion gallons of renewable fuels be blended into in the national fuel mix by 2006 and 7.5 billion by 2012.

Congress greatly expanded the RFS requirement in the Energy Independence and Security Act of 2007 (EISA), and mandated the blending of 15.2 billion gallons of biofuels by 2012, and 36 billion gallons by 2022.² The RFS expansion, referred to as RFS II, also required the use of advanced biofuels and capped the amount of corn-based ethanol that could be used to meet the mandated volumes at 15 billion gallons.

Blending fuel at concentrations greater than E10 in order to meet the increased production volumes required by the RFS presents a challenge referred to as the “blend wall,” or upper limit to the total amount of ethanol that can be blended into the national gasoline supply using E10. In an effort to avoid the blend wall, on March 6, 2009, Growth Energy and 54 ethanol manufacturers petitioned EPA to grant a waiver to allow E15, a mid-level or intermediate ethanol blend, into commerce.

¹ P.L. 109-58.

² P.L. 110-140.

In order to grant such a waiver, EPA must determine that E15 would not “cause or contribute to a failure of an emission control device or system.” Additionally, Section 211 (f) of the Clean Air Act prohibits the Administrator of the EPA from granting a waiver for any fuel or fuel additive that is not “substantially similar” to the existing certification fuel (i.e. regular unleaded gasoline without added ethanol).

EPA issued a partial waiver for E15 on October 13, 2010, allowing the introduction of E15 into commerce for use in model year 2007 and newer cars, light-duty trucks, and SUV’s. On January 26, 2011, EPA granted another partial waiver for use of E15 in model year 2001 and newer vehicles. EPA did not grant a waiver for the use of E15 fuel in model years prior to 2001, non-road engines, vehicles, and equipment, motorcycles, or heavy-duty gasoline engines.

The waiver decision and subsequent release of E15 fuel into the marketplace has raised technical and practical concerns regarding the impact of E15 on engines and fuel supply infrastructure, focused broadly on two main issues: (1) The potential for E15 to damage vehicle engines of all model years, and (2) The potential for this bifurcated fueling system to result in widespread misfueling.

Major Provisions

H.R. 875 directs the EPA Administrator, acting through the Assistant Administrator of the Office of Research and Development, to enter into an agreement with the National Academy of Sciences to provide a comprehensive assessment of the scientific and technical research on the implications of the use of mid-level ethanol blends. The bill repeals EPA’s waiver decision allowing E15 into the marketplace until the Agency submits a report to relevant Committees on the assessment, and suspends the authority of the Agency to grant further waiver decisions during this period.

Legislative History

On February 26, 2013, the Environment Subcommittee held a hearing entitled “Mid-Level Ethanol Blends: Consumer and Technical Research Needs.” The purpose of the hearing was to examine the scientific, technical, and consumer impacts of the Environmental Protection Agency’s decisions to allow the introduction of mid-level ethanol blends (E15) into the marketplace. Additionally, the hearing examined the impact of E15 on engines and fuel supply infrastructure, and identify research gaps or areas in which policymakers and the public could benefit from more information on the fuel. Witnesses from the American Automobile Association, the American Motorcyclist Association, and the Coordinating Research Council were also asked to comment on a draft version of H.R. 875.

In the 112th Congress, the Science, Space, and Technology Committee passed H.R. 3199, authored by Rep. Jim Sensenbrenner. H.R. 875 is similar to this legislation. This legislation required that a comprehensive assessment of the scientific and technical research on the implications of the use of mid-level ethanol blends be conducted prior to the implementation of any waiver decision for E15. The bill directed the EPA Administrator, acting through the

Assistant Administrator of the Office of Research and Development, to enter into an agreement with the National Academy of Science (NAS) to provide such an assessment.

Also in the 112th Congress, the Energy and Environment Subcommittee held a hearing on November 2, 2011, entitled “Conflicts and Unintended Consequences of Motor Fuel Standards.” The purpose of the hearing was to examine the consequences and potential for adverse impacts from federal and state motor fuel standards, including renewable fuel mandates and incentives for ethanol fuel production and use. The Energy and Environment Subcommittee also held a hearing on July 7, 2011 entitled “Hitting the Ethanol Blend Wall: Examining the Science on E15.” The purpose of the hearing was to examine the scientific and technical issues related to EPA’s waiver decision permitting E15 blends in gasoline. Witnesses also provided feedback on a draft version of H.R. 3199.

H.R. XXXX, the EPA Science Advisory Board Reform Act of 2013

Background and Need

EPA’s Science Advisory Board (SAB) was established by Congress in the Environmental Research, Development, and Demonstration Authorization Act of 1978 (ERDDAA)³. Under this authorization, the SAB provides scientific advice as may be requested by the EPA Administrator and interested Congressional Committees.

Since its enactment, the size and function of the SAB has evolved. ERDDAA established a minimum number of nine members, one of which is to be the designated Chair. Members are appointed by the EPA Administrator to serve a 3-year term and may be reappointed for a second 3 year term. There are currently 51 members of the chartered SAB. The SAB and its subcommittees and ad hoc subpanels provide scientific advice on a wide range of issues, including stream and wetland connectivity, hydraulic fracturing, environmental justice screening, and regulatory cost estimates.⁴ The Board has also begun providing advice on the science underpinning several potential, forthcoming Agency regulatory activities.⁵

The SAB is operated in accordance with the Federal Advisory Committee Act of 1972, which requires that advisory panels have a charter and be "fairly balanced in terms of the points of view represented and the functions to be performed." According to EPA, SAB’s mission includes:

- reviewing the quality and relevance of the scientific and technical information being used or proposed as the basis for Agency regulations;
- reviewing research programs and the technical basis of applied programs;

³ Public Law 95-155

⁴ <http://yosemite.epa.gov/sab/sabproduct.nsf/WebProjectsbyTopicBOARD!OpenView>.

⁵ Dave Reynolds, “Advisors Narrow List Of Pending EPA Rules For Novel Scientific Scrutiny,” Inside EPA, March 11, 2013, <http://insideepa.com/201303112427282/EPA-Daily-News/Daily-News/advisors-narrow-list-of-pending-epa-rules-for-novel-scientific-scrutiny/menu-id-95.html>.

- reviewing generic approaches to regulatory science, including guidelines governing the use of scientific and technical information in regulatory decisions, and critiquing such analytic methods as mathematical modeling;
- advising the Agency on broad scientific matters in science, technology, social and economic issues; and
- advising the Agency on emergency and other short-notice programs.⁶

Toward those goals, the chartered SAB conducts much of its work through subcommittees or subpanels focused on specific issues. Currently, these subcommittees include: Drinking Water Committee; Ecological Processes and Effects Committee; Environmental Economics Advisory Committee; Environmental Engineering Committee; Exposure and Human Health Committee; Radiation Advisory Committee; and the Chemical Assessment Advisory Committee (established January 30, 2013).⁷ Under the SAB’s charter,⁸ these “[c]ommittees, panels, and workgroups have no authority to make decisions on behalf of the SAB and may not report directly to the Agency.”

EPA also receives advice from and manages 22 additional Federal Advisory Committees, including entities like the EPA Board of Scientific Counselors, the Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel, and the Clean Air Scientific Advisory Committee (CASAC).⁹ These bodies carry out a variety of advisory functions. For example, CASAC “provides independent advice to the EPA Administrator on the technical bases for EPA’s national ambient air quality standards” and “addresses research related to air quality, sources of air pollution, and the strategies to attain and maintain air quality standards and to prevent significant deterioration of air quality.” The Chair of CASAC also sits on the chartered SAB.¹⁰

EPA staff and the chartered SAB allow for some public involvement in advisory activities through the nomination of experts for committees and panels and involvement in advisory committee meetings and report developments. In response numerous comments during an SAB Session on Public Involvement in June 2011, the SAB Staff Office announced additional steps to enhance public involvement in advisory activities beginning in FY2012.¹¹

Summary of Major Provisions

The legislation reforms EPA’s Science Advisory Board and its sub-panels by strengthening public participation, improving the process for selecting expert advisors, expanding transparency requirements, and limiting non-scientific policy advice.

⁶ <http://yosemite.epa.gov/sab/sabpeople.nsf/Webcommittees/BOARD>.

⁷ <http://yosemite.epa.gov/sab/sabproduct.nsf/WebBOARD/CommitteesandMembership?OpenDocument>.

⁸ <http://yosemite.epa.gov/sab/sabproduct.nsf/WebBOARD/currentcharter?OpenDocument>.

⁹ <http://www.epa.gov/ocem/faca/facacomcontacts.htm>.

¹⁰ <http://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/CASAC>.

¹¹ <http://yosemite.epa.gov/sab/sabproduct.nsf/WebSABSO/PublicInvolvement?OpenDocument>.

Legislative History

On March 20, 2013, the Environment Subcommittee held a hearing entitled “Improving EPA’s Scientific Advisory Processes.” The purpose of the hearing was to examine the Environmental Protection Agency’s process for receiving independent scientific advice and to receive testimony on draft legislation.

In the 112th Congress, then-Chairman Ralph Hall, along with current Chairman Lamar Smith and other members of the Science, Space, and Technology Committee introduced H.R. 6564, *the EPA Science Advisory Board Reform Act of 2012*. This legislation would have altered EPA’s advisory process by: strengthening public participation and comment opportunities; changing SAB and sub-panel selection process; requiring chances for dissenting members to make their views known and the communication of uncertainties; and limiting non-scientific policy advice.