# Stem 5: TAC (11.09.10)

#### **ENVIRONMENTAL PROTECTION AGENCY**

[EPA-HQ-OAR-2009-0211: FRL-9215-51

Partial Grant and Partial Denial of **Clean Air Act Waiver Application** Submitted by Growth Energy To Increase the Allowable Ethanol Content of Gasoline to 15 Percent; **Decision of the Administrator** 

**AGENCY:** Environmental Protection Agency.

**ACTION:** Notice of partial waiver decision.

**SUMMARY:** The Environmental Protection Agency (EPA) is partially granting Growth Energy's waiver request application submitted under section 211(f)(4) of the Clean Air Act. This partial waiver allows fuel and fuel additive manufacturers to introduce into commerce gasoline that contains greater than 10 volume percent ethanol and no more than 15 volume percent ethanol (E15) for use in certain motor vehicles if certain conditions are fulfilled. We are partially approving the waiver for and allowing the introduction into commerce of E15 for use only in model year 2007 and newer light-duty motor vehicles, which includes passenger cars, light-duty trucks and medium-duty passenger vehicles. We are denying the waiver for introduction of E15 for use in model year 2000 and older light-duty motor vehicles, as well as all heavy-duty gasoline engines and vehicles, highway and off-highway motorcycles, and nonroad engines, vehicles, and equipment. The Agency is deferring a decision on the applicability of a waiver to model year 2001 through 2006 lightduty motor vehicles until additional test data, currently under development, is

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2009-0211. All documents and public comments in the docket are listed on the http:// www.regulations.gov Web site. Publicly available docket materials are available either electronically through http:// www.regulations.gov or in hard copy at the Air and Radiation Docket in the EPA Headquarters Library, EPA West Building, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding holidays. The telephone number for the Reading Room is (202) 566-1744. The Air and Radiation Docket and Information Center's Web site is http://www.epa.gov/oar/ docket.html. The electronic mail (email) address for the Air and Radiation Docket is: a-and-r-Docket@epa.gov, the telephone number is (202) 566-1742 and the fax number is (202) 566-9744.

#### FOR FURTHER INFORMATION CONTACT:

Robert Anderson, Office of Transportation and Air Quality Mailcode: 6405J, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: (202) 343-9718; fax number: (202) 343-2800; e-mail address: Anderson.Robert@epa.gov.

#### SUPPLEMENTARY INFORMATION:

#### **Table of Contents**

- I. Executive Summary
  - MY2007 and Newer Light-Duty Motor Vehicles
  - Durability/Long-Term Exhaust Emissions
  - Immediate Exhaust Emissions
  - **Evaporative Emissions**
  - Materials Compatibility
- Drivability and Operability
- MY2000 and Older Light-Duty Motor Vehicles
- MY2001-2006 Light-Duty Motor Vehicles
- · Nonroad Engines, Vehicles, and Equipment (Nonroad Products)
- Heavy-Duty Gasoline Engines and Vehicles
- Highway and Off-Highway Motorcycles
- Conditions on Today's Partial Waiver
- Misfueling Mitigation Measures Notice of Proposed Rulemaking (NPRM)
- II. Introduction
- A. Statutory Background
- B. Growth Energy Application and Review Process
- C. Today's Notice of Proposed Rulemaking (NPRM) on Misfueling Mitigation Measures
- III. Method of Review
- IV. Waiver Submissions and Analysis of Light-Duty Motor Vehicle Issues
  - A. MY2007 and Newer Motor Vehicles
  - 1. Exhaust Emissions-Long-Term Durability
  - a. Growth Energy's Submission
- b. Public Comment Summary
- c. EPA Response Regarding the Need for Long-Term Exhaust Emissions (Durability) Testing
  i. General Long-term Exhaust Emissions
- (Durability) Concerns
- ii. Response to Growth Energy's First Argument
- iii. Conclusion to Growth Energy's Second Argument
- d. Durability Studies and EPA Analysis
- i. DOE Catalyst Study Overview
- ii. Vehicle Selection and Matching
- iii. Fuels and Blending
- iv. Emissions Test Protocol
- v. Mileage Accumulation
- vi. Powertrain Component Inspection
- vii. Summary and Conclusions of the Final Results of the DOE Catalyst Study
- 2. Exhaust Emissions—Immediate Effects for MY2007 and Newer Light-Duty Motor Vehicles
- a. Growth Energy's Submission

- b. Public Comment Summary
- c. EPA Analysis
- d. Conclusion
- 3. Evaporative Emissions on MY2007 and Newer Light-Duty Motor Vehicles
- a. Introduction
- b. Growth Energy's Submission
- c. Public Comment Summary
- d. EPA Analysis
- e. Conclusion
- 4. Materials Compatibility for MY2007 and Newer Light-Duty Motor Vehicles
- a. Introduction
- b. Growth Energy's Submission
- c. Public Comment Summary
- d. EPA Analysis
- e. Conclusions
- 5. Driveability and Operability for MY2007 and Newer Light-Duty Motor Vehicles
- a. Introduction
- b. Growth Energy's Submission
- c. Public Comment Summary
- d. EPA Analysis
- e. Conclusions
- 6. Overall Immediate and Long-Term **Emissions Conclusions**
- B. MY2001-2006 Light-Duty Motor Vehicles
- C. MY2000 and Older Light-Duty Motor Vehicles
- 1. Growth Energy's Submission
- 2. Public Comment Summary
- 3. EPA Analysis and Conclusion
- a. Scope of MY2000 and Older Motor Vehicles Data to Support a Waiver Decision
- b. Exhaust Emissions-Long-Term Durability
- i. General Exhaust Emissions Durability Concerns
- ii. Immediate Exhaust Emission Impacts
- c. Evaporative Emissions
- d. Materials Compatibility
- V. Nonroad Engines, Vehicles and Equipment (Nonroad Products)
  - A. Introduction
- B. Growth Energy Submission
- C. Public Comment Summary
- D. EPA Analysis
- 1. Scope of Nonroad Data to Support a Waiver Decision
- 2. Long-Term Exhaust Emissions (Durability)
- 3. Immediate Exhaust Emission Effects
- 4. Evaporative Emissions
- 5. Materials Compatibility
- 6. Driveability and Operability
- E. Conclusion
- VI. Heavy-Duty Gasoline Engines and Vehicles
- VII. Motorcycles
- VIII. E12 Midlevel Ethanol Blends
- A. First Argument: E12 Is Already Used in the Marketplace With No Reported Problems
- 1. ADM Argument
- 2. Comments
- 3. EPA Analysis
- B. Second Argument: EPA Effectively Allows Ethanol Blends Greater Than E10
- 1. ADM Argument
- 2. EPA Analysis
- C. Third Argument: EPA's Models Allow Greater Than 10 vol% Ethanol
- 1. ADM Argument
- 2. API and Alliance Comments

# ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[EPA-HQ-OAR-2010-0448; FRL-9215-4]

RIN 2060-AQ17

Regulation To Mitigate the Misfueling of Vehicles and Engines With Gasoline Containing Greater Than Ten Volume Percent Ethanol and Modifications to the Reformulated and Conventional Gasoline Programs

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

SUMMARY: EPA is proposing a regulatory program to help mitigate the potential for misfueling of certain engines, vehicles and equipment with gasoline containing greater than 10 volume percent ("vol%") ethanol up to 15 vol% ethanol (E15). This proposal is in conjunction with the Agency's partial waiver, pursuant to Clean Air Act section 211(f)(4), which allows for the introduction into commerce of gasolineethanol blends containing up to 15 vol% ethanol for use in model year 2007 and newer on-highway light-duty motor vehicles. The E15 waiver is limited in scope to a portion of the light-duty fleet. and the proposed misfueling mitigation program will help avoid the misfueling of all other engines, vehicles, and equipment with unapproved fuels. This proposed rule would require all E15 gasoline fuel dispensers to have a label if a retail station chooses to sell E15 and seeks comment on separate labeling requirements for fuel blender pumps and fuel pumps that dispense E85. Similar to the prohibition in section 211(f)(1), the proposed rule would prohibit the use of gasoline containing greater than 10 vol% ethanol in vehicles and engines not covered by the partial waiver for E15. In addition, the proposed rule would require product transfer documents specifying ethanol content and Reid Vapor Pressure (RVP) to accompany the transfer of gasoline blended with ethanol and a national survey of retail stations to ensure compliance with the these requirements. The proposed rule would also modify the Reformulated Gasoline ("RFG") program by updating the Complex Model to allow fuel manufacturers to certify batches of gasoline containing up to 15 vol%

DATES: Comments must be received on or before January 3, 2011. Under the Paperwork Reduction Act, comments on the information collection provisions are best assured of full consideration if the Office of Management and Budget (OMB) receives a copy of your comments on or before December 6, 2010, thirty days after date of publication in the **Federal Register**.

Hearing: We will hold a public hearing on November 16, 2010 at the Millennium Knickerbocker Hotel in Chicago, IL. The hearing will start at 10 a.m. local time and continue until everyone has had a chance to speak. If you want to testify at the hearing, notify the contact person listed under FOR FURTHER INFORMATION CONTACT by November 8, 2010.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2010-0448, by one of the following methods:

• http://www.regulations.gov: Follow the on-line instructions for submitting comments.

• E-mail: E15@epa.gov.

• Fax: (202) 566-1741.

• Mail: Air and Radiation Docket, Docket ID No. EPA-HQ-OAR-2010-0448, Environmental Protection Agency, Mailcode: 6102T, 1200 Pennsylvania Avenue, NW., Washington, DC 20460. Please include a total of two copies.

• Hand Delivery: EPA Docket Center, Public Reading Room, EPA West Building, Room 3334, 1301 Constitution Avenue, NW., Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-HQ-OAR-2010-0448. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at http:// www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through http:// www.regulations.gov or e-mail. The http://www.regulations.gov Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through http:// www.regulations.gov your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and

made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or ČD-ŘOM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket, visit the EPA Docket Center homepage at http:// www.epa.gov/epahome/dockets.htm. For additional instructions on submitting comments, go to "What Should I Consider as I Prepare My Comments for EPA?" in the

**SUPPLEMENTARY INFORMATION** section of this document.

Docket: All documents in the docket are listed in the http:// www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in http:// www.regulations.gov or in hard copy at the Air and Radiation Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air Docket is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: Julia MacAllister, Office of Transportation and Air Quality, Assessment and Standards Division, Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, MI 48105; Telephone number: 734–214–4131; Fax number: 734–214–4816; E-mail address: macallister.julia@epa.gov, or Assessment and Standards Division Hotline; telephone number (734) 214–4636; E-mail address asdinfo@epa.gov.

## SUPPLEMENTARY INFORMATION:

### Does This Action Apply to Me?

Entities potentially affected by this action include those involved with the production, importation, distribution, marketing, or retailing of diesel fuel and production of gasoline. Categories and entities affected by this action include: