

MEMORANDUM

TO: Members of the Chartered SAB and SAB Liaisons

FROM: James R. Mihelcic, Chair, SAB Work Group on EPA Planned Actions for SAB Consideration of the Underlying Science */signed/*

DATE: March 8, 2015

SUBJECT: Preparations for Chartered Science Advisory Board (SAB) Discussions of EPA Planned Agency Actions and their Supporting Science in the Fall 2015 Regulatory Agenda

The Chartered SAB will discuss whether to review the adequacy of the science supporting planned regulatory actions identified by the EPA as major actions in the Fall 2015 semi-annual regulatory agenda at its March 31 – April 1, 2016 meeting. To support this discussion, an SAB Work Group was charged with identifying actions for further consideration by the Chartered SAB. This memorandum provides background on this activity, a short description of the process for identifying actions for SAB consideration, a summary of the process used by the Work Group and Work Group recommendations on the planned actions.

Background

The Environmental Research, Development, and Demonstration Authorization Act of 1978 (ERDDAA) requires the EPA to make available to the SAB proposed criteria documents, standards, limitations, or regulations provided to any other Federal agency for formal review and comment, together with relevant scientific and technical information on which the proposed action is based. The SAB may then make available to the Administrator, within the time specified by the Administrator, its advice and comments on the adequacy of the scientific and technical basis of the proposed action.

EPA's current process (Attachment A) is to provide the SAB with information about the publication of the semi-annual regulatory agenda and to provide descriptions of major planned actions that are not yet proposed but appear in the semi-annual regulatory agenda. These descriptions provide available information regarding the science informing agency actions. This process for engaging the SAB supplements the EPA's process for program and regional offices to request science advice from the SAB.

Summary of the Process Used by the SAB Work Group

The SAB Work Group followed the [process adopted by the Chartered SAB](#) in 2013¹ to initiate its review of major planned actions identified in the Unified Regulatory Agenda by EPA. The current SAB review began when the EPA Office of Policy informed the SAB Staff Office that the Fall 2015 Unified

¹ Available at [http://yosemite.epa.gov/sab/sabproduct.nsf/WebSABSO/ProcScreenRegSci/\\$File/SABProtocol.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/WebSABSO/ProcScreenRegSci/$File/SABProtocol.pdf)

(Regulatory) Agenda and Regulatory Plan had been published on November 20 2015. This semi-annual regulatory agenda is available at <http://www.reginfo.gov/public/>.

This SAB Work Group was formed in December 2015 and includes SAB members with broad expertise in scientific and technological issues related to the proposed actions. The Work Group consists of Drs. James R. Mihelcic (chair), H. Christopher Frey, Denise Mauzerall, Madhu Khanna, Surabi Menon, Charles Werth and Mr. Richard Poirot.

On December 22, 2015, the Work Group received information and short descriptions from the EPA Program Offices on the major planned actions that are listed in the Fall 2015 semi-annual regulatory agenda but not yet proposed. On January 20, 2016, the Work Group met via teleconference to discuss the five actions and requested additional information Regarding the Renewables Enhancement and Growth Support Rule (2060-AS66). SAB staff facilitated this request. Work Group members concurred on the recommendations presented in this memorandum via email. A compiled set of the EPA description of the actions, a summary of fact finding and the Work Group's recommendations are provided in Attachment B.

Work Group Recommendations Regarding Planned EPA Actions of Interest to the SAB

The Work Group based the recommendations below on information received from the EPA and the Work Group's research. Of the five major planned actions considered, the Work Group recommends that none of the actions merit further SAB consideration.

However, the SAB should request a briefing on how the agency is responding to the National Research Council (NRC) Climate Intervention: Carbon Dioxide Removal and Reliable Sequestration (October 2015) and considering carbon capture and sequestration research.

The Work Group notes the agency used a similar approach to reducing GHG emissions in the New Source Performance Standards for Electricity Generating Units (2060 AQ91). After evaluating the science and technical issues associated with that proposed rule, the SAB found that a regulatory framework for commercial-scale carbon sequestration needs to ensure the protection of human health and the environment. The Board further advised the agency to monitor technological progress on carbon capture and noted that research on carbon sequestration merits review by the NRC or SAB. Based on the previous evaluation, SAB recommendations, and the similar approach to utilize carbon capture and storage in the Renewables Enhancement and Growth Support Rule (2060-AS66) the Work Group agrees with the previous advice and recommends that, at a minimum, the SAB request briefings on how the agency is considering recent NRC publications on climate intervention and carbon capture and sequestration research.

Table 1 identifies the five planned actions reviewed and summarizes the Work Group's recommendations. Attachment B provides the EPA's descriptions of the planned actions, and the SAB Work Group's recommendation for each of the planned actions with the supporting rationales.

Table 1: Summary of Proposed Actions that the SAB Work Group Considered for Additional SAB Comment on the Supporting Science

RIN ²	Planned Action Title	Workgroup Recommendation
2040-AF57	Municipal Separate Storm Sewer System General Permit Remand Rule	No further SAB consideration is merited.
2060-AS62	Revisions to the Prevention of Significant Deterioration and Title V Greenhouse Gas (GHG) Permitting Regulations and Establishment of a GHG Significant Emissions Rate	No further SAB consideration is merited.
2060-AS66	Renewables Enhancement and Growth Support Rule	No further SAB consideration is merited. The SAB should request a briefing on how the agency is responding to the National Research Council <i>Climate Intervention: Carbon Dioxide Removal and Reliable Sequestration</i> (October 2015) and carbon capture and sequestration research.
2060-AS72	Proposed Renewable Fuel Volume Standards for 2017 and Biomass Based Diesel Volume (BBD) for 2018	No further SAB consideration is merited.
2060-AS76	Considering Cost in Appropriate and Necessary Finding for the Mercury and Air Toxics Standards (MATS)	No further SAB consideration is merited.

²The Regulatory Identification Number provides a hyperlink to the Office of Management and Budget's webpage and information on the planned action provided in the Unified Regulatory Agenda.

Attachments

- Attachment A: Implementation Process for Identifying EPA Planned Actions for SAB Consideration
- Attachment B: SAB Work Group Recommendations on Major EPA Planned Actions Identified in the Fall2015 Semi-Annual Regulatory Agenda.

Attachment A

Implementation Process for Identifying EPA Planned Actions for SAB Consideration

Background on the EPA Process

- ◆ The Environmental Research, Development, and Demonstration Authorization Act of 1978 (ERDDAA, see p. 4)
 - ◆ Requires the EPA to make available to the SAB proposed criteria documents, standards, limitations, or regulations provided to any other Federal agency for formal review and comment together with relevant scientific and technical information in the possession of the agency on which the proposed action is based.
 - ◆ States that the Board may make available to the Administrator, within the time specified by the Administrator, its advice and comments on the adequacy of the scientific and technical basis of the proposed actions.
- ◆ In January 2012, Office of Policy Associate Administrator Michael Goo issued a memorandum to strengthen coordination with the SAB by providing the Board with information about *proposed* agency actions. (see page p. 9)
- ◆ In February 2012, SAB Staff developed an initial proposal to provide the SAB with information about *proposed* agency actions.
 - ◆ EPA Senior Leadership concluded that providing information to the SAB for consideration at the proposal stage was *too late* in the process for meaningful involvement.
- ◆ In March 2012, the SAB held a public meeting and discussed the Goo memo and a pilot to consider the science underlying four proposed rules identified by OAR (standards for air toxics from boilers and incinerators and greenhouse gas emissions and fuel economy standards for light-duty vehicles).
 - ◆ The SAB:
 - ◆ Did not identify any science topics related to the four proposed rules warranting SAB comment.
 - ◆ Noted that the proposal stage was *too late* in the process for meaningful input.
 - ◆ Discussed the need for adequate information on the underlying science for agency actions early in the process. Information beyond the information presented in the Semiannual Regulatory Agenda is needed for this purpose.
- ◆ On January 2, 2013, Associate Administrator Michael Goo, the Administrator’s Science Advisor Glenn Paulson, and the SAB Office Director Vanessa Vu issued a memorandum (see p. 10) “Identifying EPA Planned Actions for Science Advisory Board (SAB) Consideration of the Underlying Science – Semi-annual Process” requiring EPA to provide short descriptions of *major planned actions that are not yet proposed* appearing in the semi-annual regulatory agenda

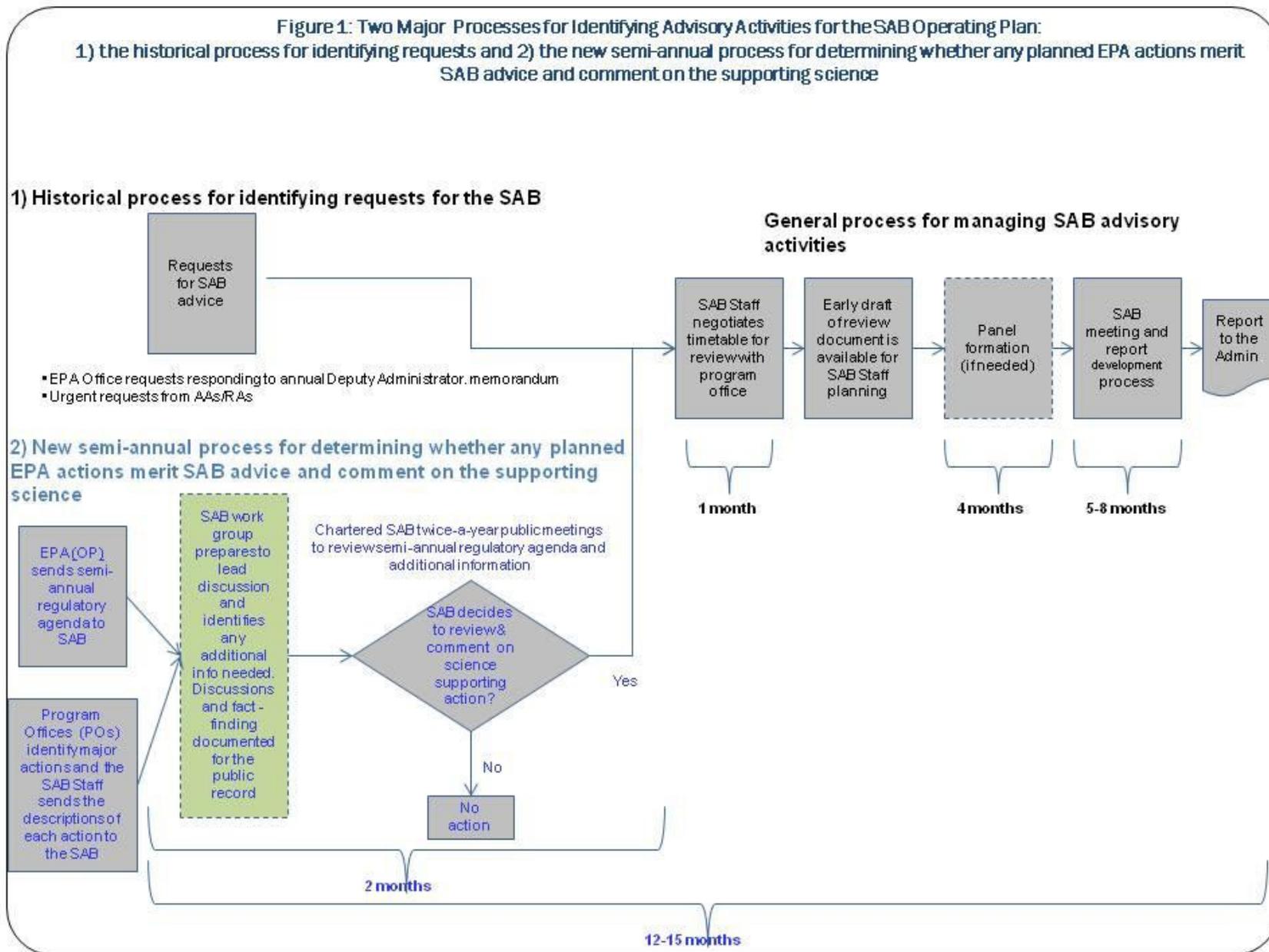
Attachment A: Identifying EPA Planned Actions for SAB Consideration

- ◆ This process supplements the Deputy Administrator's annual memorandum requesting program and regional offices to identify scientific issues that might be appropriate for SAB consideration.

SAB Process

- ◆ The SAB Staff manages the semi-annual process for determining whether any planned EPA actions merit SAB advice and comment on the supporting science as part of the entire SAB operating plan (see Figure 1).

Attachment A: Identifying EPA Planned Actions for SAB Consideration



**Environmental Research, Development, and Demonstration Authorization Act
[(ERDDAA), 42 U.S.C. 4365]**

TITLE 42--THE PUBLIC HEALTH AND WELFARE

CHAPTER 55--NATIONAL ENVIRONMENTAL POLICY

SUBCHAPTER III--MISCELLANEOUS PROVISIONS

Sec. 4365. Science Advisory Board

(a) Establishment; requests for advice by Administrator of Environmental Protection Agency and Congressional committees

The Administrator of the Environmental Protection Agency shall establish a Science Advisory Board which shall provide such scientific advice as may be requested by the Administrator, the Committee on Environment and Public Works of the United States Senate, or the Committee on Science, Space, and Technology, on Energy and Commerce, or on Public Works and Transportation of the House of Representatives.

(b) Membership; Chairman; meetings; qualifications of members

Such Board shall be composed of at least nine members, one of whom shall be designated Chairman, and shall meet at such times and places as may be designated by the Chairman of the Board in consultation with the Administrator. Each member of the Board shall be qualified by education, training, and experience to evaluate scientific and technical information on matters referred to the Board under this section.

(c) Proposed environmental criteria document, standard, limitation, or regulation; functions respecting in conjunction with Administrator

(1) The Administrator, at the time any proposed criteria document, standard, limitation, or regulation under the Clean Air Act [42 U.S.C. 7401 et seq.], the Federal

Attachment A: Identifying EPA Planned Actions for SAB Consideration

Water Pollution Control Act [33 U.S.C. 1251 et seq.], the Resource Conservation and Recovery Act of 1976 [42 U.S.C. 6901 et seq.], the Noise Control Act [42 U.S.C. 4901 et seq.], the Toxic Substances Control Act [15 U.S.C. 2601 et seq.], or the Safe Drinking Water Act [42 U.S.C. 300f et seq.], or under any other authority of the Administrator, is provided to any other Federal agency for formal review and comment, shall make available to the Board such proposed criteria document, standard, limitation, or regulation, together with relevant scientific and technical information in the possession of the Environmental Protection Agency on which the proposed action is based.

(2) The Board may make available to the Administrator, within the time specified by the Administrator, its advice and comments on the adequacy of the scientific and technical basis of the proposed criteria document, standard, limitation, or regulation, together with any pertinent information in the Board's possession.

(d) Utilization of technical and scientific capabilities of Federal agencies and national environmental laboratories for determining adequacy of scientific and technical basis of proposed criteria document, etc.

In preparing such advice and comments, the Board shall avail itself of the technical and scientific capabilities of any Federal agency, including the Environmental Protection Agency and any national environmental laboratories.

(e) Member committees and investigative panels; establishment; chairmanship

The Board is authorized to constitute such member committees and investigative panels as the Administrator and the Board find necessary to carry out this section. Each such member committee or investigative panel shall be chaired by a member of the Board.

(f) appointment and compensation of secretary and other personnel; compensation of members

Attachment A: Identifying EPA Planned Actions for SAB Consideration

(1) Upon the recommendation of the Board, the Administrator shall appoint a secretary, and such other employees as deemed necessary to exercise and fulfill the Board's powers and responsibilities. The compensation of all employees appointed under this paragraph shall be fixed in accordance with chapter 51 and subchapter III of chapter 53 of title 5.

(2) Members of the Board may be compensated at a rate to be fixed by the President but not in excess of the maximum rate of pay for grade GS-18, as provided in the General Schedule under section 5332 of title 5.

(g) Consultation and coordination with Scientific Advisory Panel

In carrying out the functions assigned by this section, the Board shall consult and coordinate its activities with the Scientific Advisory Panel established by the Administrator pursuant to section 136w(d) of title 7.

(Pub. L. 95-155, Sec. 8, Nov. 8, 1977, 91 Stat. 1260; Pub. L. 96-569, Sec. 3, Dec. 22, 1980, 94 Stat. 3337; Pub. L. 103-437, Sec. 15(o), Nov. 2, 1994, 108 Stat. 4593; Pub. L. 104-66, title II, Sec. 2021(k)(3), Dec. 21, 1995, 109 Stat. 728.)



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460**

2

OFFICE OF THE ADMINISTRATOR

MEMORANDUM

SUBJECT: Identifying EPA Planned Actions for Science Advisory Board (SAB)
Consideration of the Underlying Science- Semi-annual Process

FROM: Michael Goo, Associate Administrator
Office of Policy

Glenn Paulson
Science Advisor

Vanessa Vu, Director
SAB Staff Office

TO: General Counsel
Assistant Administrators
Associate Administrators
Regional Administrators

The purpose of this memorandum is to provide guidance for implementing improved coordination with the SAB, the goal of the memorandum dated January 19, 2012 on that topic (Attachment A).

We ask that you work with the Office of Policy to provide the SAB Staff Office with information about the science supporting major planned agency actions (Tier 1 and Tier 2 actions) that are in the pre-proposal stage. The *2012 Unified (Regulatory) Agenda and Regulatory Plan* was published on December 21, 2012 on the Office of Management and Budget web site <http://www.reginfo.gov/public/>.

Please provide the SAB Staff Office (contact: Angela Nugent) by January 30, 2013, a brief description of each action along with its supporting science, following the format provided in Attachment B. Please ensure that these submissions to the SAB are consistent with information developed in the action development process.

This process supplements the Deputy Administrator's annual memorandum requesting program and regional offices- to identify scientific issues that might be appropriate for SAB consideration.

Attachment A: Identifying EPA Planned Actions for SAB Consideration

We look forward to working with you on this new process to strengthen science supporting EPA's decisions. Please contact us or Caryn Muellerleile (202-564-2855) in the Office of Policy or Angela Nugent (202-564-2218) in the SAB Staff Office, should there be questions.

Attachments

cc: Administrator
Deputy Administrator
Chief of Staff
Deputy Chief of Staff

Attachment A: January 19, 2012 Memorandum from Michal L. Goo



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 19 2012

OFFICE OF
POLICY

MEMORANDUM

SUBJECT: Coordination with the Science Advisory Board Regarding Proposed Criteria Documents, Standards, Limitations and Regulations

FROM: Michael L. Goo, Associate Administrator *MLG*
Office of Policy

TO: Assistant Administrators
General Counsel
Chief of Staff
Associate Administrators
Regional Administrators

This is to confirm the procedures that we have discussed regarding coordination with the Science Advisory Board (SAB) on the science and technical information underlying the EPA's proposed criteria documents, standards, limitations and regulations.

In addition to the current process by which program offices identify actions on which they plan to seek advice from the SAB on scientific and technical issues, OP will semiannually inform the SAB, through the SAB Staff Office, of upcoming proposed actions. This process will focus on those proposed regulations, criteria documents, standards or limitations that undergo interagency review and will operate as follows:

1. OP will submit to the SAB staff office a list, based on the Agency's *Semiannual Regulatory Agenda (Regulatory Agenda)*, augmented as necessary, of upcoming proposed regulations, criteria documents, standards or limitations that are expected to undergo interagency review. OP will work with program and regional offices to ensure that any actions not listed in the *Regulatory Agenda* that nevertheless are expected to be submitted for interagency review are included in this submission. For any of these additional actions, offices should provide a description similar to that provided for actions included in the *Regulatory Agenda*.

Attachment A: Identifying EPA Planned Actions for SAB Consideration

2. Program and Regional offices will notify the SAB staff office when proposed Agency actions that undergo interagency review become formally available for public review and comment. EPA programs are also expected to provide additional information as requested by the SAB Staff Office to facilitate the SAB's consideration of this information.

If the SAB decides to review and, as appropriate, comment on the scientific and technical basis for a proposed action, OP will work with the SAB Staff Office and the relevant program or regional office to establish the appropriate time frame for SAB review and comment.

Thank you for your assistance in adhering to this process. If you have any questions or concerns, please contact me, or your staff can contact Nicole Owens owens.nicole@epa.gov, at 202 (564-1550).

cc: Bob Perciasepe
Bob Sussman
Deputy Assistant Administrators
Deputy Associate Administrators
Deputy Regional Administrators
Assistant Regional Administrators
Alex Cristofaro
Nicole Owens
Vanessa Wu
Thomas Brennan

**Attachment B - Sample Description of Major Planned EPA Action-
Information to be Provided to the SAB**

Name of action: Development of Best Management Practices for Recreational Boats Under Section 312(o) of the Clean Water Act

EPA Office originating action: OW

Brief description of action and statement of need for the action:

This action is for the development of regulations by EPA to implement the Clean Boating Act (Public Law 110-288), which was signed by the President on July 29, 2008. The Clean Boating Act amends section 402 of the Clean Water Act (CWA) to exclude recreational vessels from National Pollutant Discharge Elimination System permitting requirements. In addition, it adds a new CWA section 312(o) directing EPA to develop regulations that identify the discharges incidental to the normal operation of recreational vessels (other than a discharge of sewage) for which it is reasonable and practicable to develop management practices to mitigate adverse impacts on waters of the United States. The regulations also need to include those management practices, including performance standards for each such practice. Following promulgation of the EPA performance standards, new CWA section 312(o) directs the Coast Guard to promulgate regulations governing the design, construction, installation, and use of the management practices. Following promulgation of the Coast Guard regulations, the Clean Boating Act prohibits the operation of a recreational vessel or any discharge incidental to their normal operation in waters of the United States and waters of the contiguous zone (i.e., 12 miles into the ocean), unless the vessel owner or operator is using an applicable management practice meeting the EPA-developed performance standards.

Timetable:

Statutory: Phase 1 - 2009, Phase 2 - 2010, and Phase 3 – 2011
Regulatory Agenda: Phase 1 NPRM - 2013, Phase 1FR - 2014

Does the action rely on science that meets the EPA *Peer Review Handbook* definition of "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"

No

Scientific questions to be addressed and approach:

Recreational boating activities can contribute to the spread of aquatic nuisance species, primarily through the secondary transport of organisms introduced to U.S. waters via other vectors. For example, recreational boating has been linked to the spread of Zebra and Quagga mussels from their initial introduction into the Great Lakes to other U.S. waters. Consequently, the Agency is considering the development of regulations designed to reduce the spread of such organisms by reducing propagule pressure from the recreational vessel vectors. Propagule pressure is a measure

Attachment A: Identifying EPA Planned Actions for SAB Consideration

of the number of individual organisms released as well as the number of discrete release events. While there is a general consensus that an increase in propagule pressure increases the probability of establishing a self-sustaining population of an aquatic nuisance species, the probability is a complex function of a wide range of variables. These variables include species traits (e.g., viability, reproductive capability, and environmental compatibility) and environmental traits (e.g., retention of propagules, and interactions with resident species). When addressing secondary transport via recreational vessels, as this project is designed to specifically do, additional variables such as vessel characteristics, voyage type, and propagule exposure need to be considered. Due to the complexity of this issue, the Agency is seeking expert scientific opinions on management practices that can reduce propagule pressure that results from recreational boating activities.

Plans for scientific analyses and peer review:

The Agency is planning to convene a workshop on secondary transport of aquatic nuisance species via recreational vessels. Invited participants will have expertise in the field of invasion biology and each participant will be charged to provide their expert scientific opinion on management practices that the Agency should consider as part of this rule making.

Attachment B
SAB Work Group Recommendations on
Major EPA Planned Actions in the
Fall 2015 Semi-Annual Regulatory Agenda

The SAB formed a Work Group on EPA Planned Actions for SAB Consideration of the Underlying Science in December 2015 to review information and short descriptions provide by the EPA Program Offices on the major planned actions that are listed in the Fall 2015 semi-annual Unified Regulatory Agenda but not yet proposed.

After reviewing the Descriptions of Tier 1 and Tier 2 Actions and additional information provided by EPA, SAB Work Group members developed and concurred on the recommendations and discussion provided in this attachment to the March 8, 2016 Work Group memorandum.

Agency/ Office	Title	RIN	Page
EPA/ WATER	Municipal Separate Storm Sewer System General Permit Remand Rule	<u>2040-AF57</u>	1
EPA/Air and Radiation	Revisions to the Prevention of Significant Deterioration and Title V Greenhouse Gas (GHG) Permitting Regulations and Establishment of a GHG Significant Emissions Rate	<u>2060-AS62</u>	5
EPA/Air and Radiation	Renewables Enhancement and Growth Support Rule	<u>2060-AS66</u>	11
EPA/Air and Radiation	Proposed Renewable Fuel Volume Standards for 2017 and Biomass Based Diesel Volume (BBD) for 2018	<u>2060-AS72</u>	17
EPA/Air and Radiation	Considering Cost in Appropriate and Necessary Finding for the Mercury and Air Toxics Standards (MATS)	<u>2060-AS76</u>	22

Description of Planned EPA Tier 1 or Tier 2 Action

Name of action: Municipal Separate Storm Sewer System General Permit Remand Rule

RIN Number: RIN: 2040–AF57

EPA Office originating action: EPA Office of Water, Office of Wastewater Management, Water Permits Division

Brief description of action and statement of need for the action:

The EPA is proposing to revise its regulations in response to a remand from the U.S. Court of Appeals for the Ninth Circuit (*Env. Defense Center v. U.S. Env. Protection Agency*, 344 F.3d 832 (9th Cir. 2003)) (“*EDC v. EPA*”). The court in *EDC v. EPA* found deficiencies in the EPA’s Phase II stormwater regulations regarding the procedures for providing coverage to small MS4s under general permits. The court held that the rule’s lack of permitting authority review and lack of public notice and opportunity to request a hearing for an MS4’s Notice of Intent to be covered under a general permit failed to meet Clean Water Act requirements. The court partially vacated and remanded the Phase II rule to the EPA to establish requirements for small MS4 general permits consistent with the court ruling.

In 2014, EDC and the Natural Resources Defense Council filed a petition for a *writ of mandamus* asking the Ninth Circuit to require the EPA to take action on a strict schedule to address the 2003 *EDC v. EPA* ruling, since the EPA still had not modified its regulations in accordance with the 2003 ruling. As a result of reaching a settlement agreement with the petitioners on August 26, 2015, the EPA and the petitioners filed a joint motion with the Ninth Circuit requesting it to enter an order requiring that a rule addressing the court remand be published by December 17, 2015, and finalized by November 17, 2016. The Ninth Circuit granted the joint motion on September 14, 2015.

The proposed rule includes three different options for modifying the Phase II regulation’s procedural requirements to address the Ninth Circuit remand. The rule is exclusively procedural in nature and does not address or change the applicable substantive requirements under the rule. One option (called the “Traditional General Permit Approach”) would align the process for issuing small MS4 general permits with the way NPDES general permits are issued for other categories of discharges. A second option (called the “Procedural Approach”) would add procedural requirements to the existing rule structure requiring the permitting authority to ensure that each NOI to be covered under the general permit includes adequate controls to meet the NPDES regulatory requirement to reduce pollutant discharges from the MS4 to the maximum extent practicable, to protect water quality, and satisfy the appropriate water quality requirements of the Clean Water Act. The public would also be given an opportunity to comment on NOI and request a hearing, and the permitting authority would have the opportunity to require changes to the proposed best management practices before permit authorization goes into effect. A third option (called the “State Choice Approach”) would enable the permitting authority to choose between the Traditional General Permit and Procedural Approaches, or to implement a combination of these approaches in issuing and authorizing coverage under a general permit. A pre-publication version of the rule is available at: <http://www.epa.gov/npdes/stormwater-rules-and-notices#proposed>.

Timetable:

Deadlines ordered by the U.S. Court of Appeals for the Ninth Circuit: NPRM December 17, 2015; Final Rule November 17, 2016.

Scientific products that will inform the action and plans for peer review:

The rule is exclusively procedural in nature. There were no major scientific or technical products supporting this action as defined by the agency's Peer Review Handbook. Therefore, no supporting documents were submitted for peer review.

(a). Describe the scientific work products that have been or will be developed to inform decisions regarding the planned action.

None

(b). For each work product, describe the approach the agency is taking to develop the needed science or analysis (e.g., any inter-agency collaboration, workshops to inform the analysis).

None

(c). For each work product, identify whether the action relies on science that meets the EPA Peer Review Handbook definition of "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"

(d). Peer review: None

Recommendation from the SAB Work Group on EPA Planned Actions for SAB Consideration of the Underlying Science

Name of planned action: Municipal Separate Storm Sewer System General Permit Remand Rule (2040-AF57)

Please respond to the following questions based on the short description EPA provided for the planned action.

	Yes	No
Is the action planned or under review by the SAB? If not, has EPA identified other high-level external peer review (i.e., by the NAS, CASAC, or FIFRA SAP)?		x
Is the action primarily administrative (i.e., involve reporting or record keeping)?	x	
Has EPA characterized the action as one that has "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"		x
Is the action an extension of an existing initiative? (<i>it does modifies an existing initiative</i>)		x

Please indicate whether the action merits a high, medium or low level of interest regarding the following historical SAB science- and problem-driven criteria, based on the short description EPA provided for the planned action.

	High	Medium	Low
Involves scientific approaches that are new to the agency			x
Addresses areas of substantial uncertainties			x
Involves major environmental risks		x	
Relates to emerging environmental issues			x
Exhibits a long-term outlook		x	

Please provide a recommendation regarding whether the SAB should consider this action for review and comment on the adequacy of the supporting science and provide a brief rationale.

Recommendation: This action does not merit further SAB consideration.

The EPA is proposing to revise its regulations in response to a remand from the U.S. Court of Appeals for the Ninth Circuit because the court found deficiencies in the EPA’s Phase II stormwater regulations regarding the procedures for providing coverage to small MS4s under general permits. The court held that the rule’s lack of permitting authority review and lack of public notice and opportunity to request a hearing for an MS4’s Notice of Intent to be covered under a general permit failed to meet Clean Water Act requirements. The court partially vacated and remanded the Phase II rule to the EPA to establish requirements for small MS4 general permits consistent with the court ruling. The proposed rule includes three different options for

modifying the Phase II regulation's procedural requirements to address the Ninth Circuit remand. The rule is exclusively procedural in nature and does not address or change the applicable substantive requirements under the rule.

EPA Description of Planned Action

Name of action: Proposed Rulemaking on Revisions to the Prevention of Significant Deterioration and Title V Greenhouse Gas (GHG) Permitting Regulations and Establishment of a GHG Significant Emissions Rate

RIN Number: 2060-AS62

EPA Office originating action: Office of Air and Radiation (OAR)/Office of Air Quality Planning and Standards (OAQPS)

Brief description of action and statement of need for the action: This proposed rulemaking responds to two decisions issued by U.S. Supreme Court and U.S. Circuit Court of Appeals for the District of Columbia Circuit (D.C. Circuit) regarding major stationary source permitting obligations regarding greenhouse gas emissions.

Regulatory Background

On June 3, 2010, the EPA published a final rule, known as the Tailoring Rule, which phased in permitting requirements for GHG emissions from stationary sources under the Clean Air Act (CAA) Prevention of Significant Deterioration (PSD) and title V permitting programs. In “Step 1” of the Tailoring Rule, which began on January 2, 2011, the EPA limited the application of PSD and title V requirements to sources that were only subject to PSD or title V “anyway” due to their emissions of non-GHG pollutants and, for the PSD program, if their GHG emissions were equal to or higher than a 75,000 tons per year (tpy) CO_{2e} applicability threshold. These sources are referred to as “anyway sources.” In “Step 2” of the Tailoring Rule, which began on July 1, 2011, the EPA applied the PSD and title V permitting requirements under the CAA to sources that were classified as major, and, thus, required to obtain a permit, based solely on their GHG emissions or potential to emit GHGs, and to modifications of otherwise major sources that required a PSD permit because they increased only GHG emissions above the level in the EPA regulations.

On June 23, 2014, the U.S. Supreme Court issued a decision in *Utility Air Regulatory Group (UARG) v. EPA*, 134 S. Ct. 2427, addressing the application of stationary source permitting requirements to GHGs. The Supreme Court held that the EPA may not treat GHGs as an air pollutant for the specific purpose of determining whether a source is a major source (or a modification thereof) and thus required to obtain a PSD or title V permit. However, the Supreme Court also said, among other things, that the EPA could continue to require that PSD permits, otherwise required based on emissions of non-GHG pollutants, contain limitations on GHG emissions based on the application of GHG Best Available Control Technology (BACT), which for GHGs, usually entails implementing energy efficiency measures. The Supreme Court decision also said that EPA may limit the application of BACT to those situations where a permit applicant’s source has the potential to emit GHG above a specified threshold (or *de minimis*) level, and that EPA would need to justify any *de minimis* threshold, including our existing 75,000 tpy interim threshold established for this purpose, on appropriate grounds.

Following the Supreme Court’s decision, the case was remanded to the D.C. Circuit which issued an Amended Judgment (Nos. 09–1322, 10–073, 10–1092 and 10–1167), implementing the *UARG v. EPA* Supreme Court decision. In the Amended Judgment, the D.C. Circuit ordered that

the EPA regulations under review be vacated to the extent they require a stationary source to obtain a PSD permit if GHGs are the only pollutant (i) that the source emits or has the potential to emit above the applicable major source thresholds, or (ii) for which there is a significant emissions increase from a modification. The D.C. Circuit also ordered that the regulations under review be vacated to the extent they require (i) a stationary source to obtain a title V permit solely because the source emits or has the potential to emit GHGs above the applicable major source thresholds and (ii) the EPA to consider further phasing in the GHG permitting requirements at lower GHG emission thresholds for both PSD and title V. Furthermore, the D.C. Circuit ordered that the EPA consider whether any further revisions to its regulations are appropriate in light of *UARG v. EPA*, and if so, undertake to make such revisions.

Proposed Action

In the current proposed rulemaking action¹, the EPA is proposing revisions to the PSD and title V GHG permitting regulations to fully respond to the Courts' decisions. The proposed revisions to the PSD regulations and the title V regulations involve changes to several regulatory definitions in the PSD and title V regulations, and other revisions necessary to ensure that neither the PSD nor title V rules require a source to obtain a permit solely because the source emits or has the potential to emit GHGs above the applicable thresholds (i.e., complete removal of any "Step 2" language from the PSD and title V rules). Furthermore, the EPA is proposing a significant emissions rate (SER) for GHGs under the PSD program that would establish an appropriate threshold level below which BACT is not required for a source's GHG emissions. If not for provisions that remain in EPA's definition of "subject to regulation" at this time and that we are proposing to eliminate in this action, then any GHG emissions increase would be considered "significant" and thus require a newly constructed major source, or a major modification at an existing facility, to undergo a PSD BACT review for GHGs. The GHG SER level we are proposing is based on *de minimis* considerations (i.e. trivial or no value considerations), and not the administrative necessity considerations included in the previous "Tailoring Rule."

Timetable: We are expecting to submit the proposed rule to OMB in spring 2016 and publish the proposal in the Federal Register in fall 2016.

Scientific products that will inform the action and plans for peer review:

(a). Describe the scientific work products that have been or will be developed to inform decisions regarding the planned action.

No scientific work products have been or will be developed to inform the decisions in this planned action. The analytical work underlying the GHG SER being proposed in this action is mainly based on existing and historical PSD permitting information for permits issued to "anyway sources" and this information was used to determine the types and size of GHG emission units that are likely to be part of PSD permits and thus GHG BACT reviews for "anyway sources" in the future. We have been issuing permits for "anyway sources" since 2011. Therefore, we are not relying on research products from the EPA Science Inventory for the development of this action.

¹ Consistent with the Amended Judgment, on August 12, 2015 the EPA finalized a rule that, among other things, removed from the PSD and title V regulations the requirement that the EPA consider further phasing-in GHG permitting requirements into the PSD and title V permitting programs at lower GHG emissions thresholds. The rule also announced that the EPA intended to further revise the PSD and title V regulations to fully implement the Amended Judgment in a separate rulemaking and this action constitutes this separate rulemaking.

(b). For each work product, describe the approach the agency is taking to develop the needed science or analysis (e.g., any inter-agency collaboration, workshops to inform the analysis).

The EPA is mainly basing our proposed GHG SER level on a review of past permitting activity to determine the types and size of GHG emission units that are likely to be part of PSD permits that could be issued for “anyway sources” in the future. To evaluate the information on past permitting actions, the EPA looked at a variety of permitting information including, but not limited to, the following: (1) GHG permitting information from our regional offices and state partners and (2) general GHG and non-GHG permitting information from our RACT/BACT/LAER Clearinghouse. The GHG permitting information submitted to the EPA from the EPA Regional Offices and states was part of EPA’s effort under the phase-in process established in the Tailoring Rule to collect information on PSD permits issued with GHG BACT limits. This information provided actual, historical information on the type of emissions units undergoing GHG BACT review at the 75,000 tpy CO₂e permitting applicability level that applied to “anyway sources” as part of Step 1 of the Tailoring Rule and that currently applies as an interim applicability level for “anyway sources.” The second information source the EPA looked at as part of this permitting review was information from EPA’s RACT/BACT/LAER Clearinghouse (RBLC). The RBLC is a voluntary, national reporting database containing PSD permit information, including permits for which no GHG BACT review was conducted after GHGs became regulated in 2011. The EPA reviewed the RBLC data to further characterize PSD permits in regards to potential GHG emitting sources and to specifically identify the likelihood of new “anyway” PSD sources emitting (or a modified “anyway source” increasing) GHG emissions in an amount less than 75,000 tpy CO₂e. Such a source would not have been subject to GHG BACT review under Step 1 of the Tailoring Rule.

(c). For each work product, identify whether the action relies on science that meets the EPA Peer Review Handbook definition of "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"

This action does not rely on work products involving science that meets the definition of "an influential scientific or technical work product" that “has a major impact, involves precedential, novel, and/or controversial issues, or the agency has a legal and/or statutory obligation to conduct a peer review.” The EPA has experience in developing SER levels for other pollutants under the PSD program and the implementation of GHG BACT reviews for “anyway permits” now or a subset of “anyway permits” in the future under a certain GHG SER level would not be a novel activity. The EPA has 5 years of experience in conducting or reviewing GHG BACT reviews for a variety of industry types and therefore different GHG emission levels and as such we have developed a well-established knowledge base of effective GHG BACT measures that can be applied to “anyway sources.” The EPA is mainly basing the proposed GHG SER level on a review of available historical permitting information to identify affected GHG emitting sources at facilities most likely to be permitted for PSD for non-GHG pollutants and the implications of a proposed GHG SER value and GHG BACT review on those sources. The EPA did not rely on models or projection analyses to predict absolute numbers of PSD projects and subsequently identify a GHG SER value based on those projections because of the inherent uncertainties in attempting to predict future PSD permitting actions.

(d). Peer review:

There are no plans at this time to peer review the historical permitting data underlying the analysis beyond the measures that are or were already in place to ensure the integrity of this data. The EPA review of GHG permitting information submitted to the EPA from the EPA Regional Offices and states as part of EPA's effort under the phase-in process established in the Tailoring Rule to collect information on PSD permits issued with GHG BACT limits came directly from actual PSD permits that were issued by states or regional permitting authorities, and thus contained permit record data that had been reviewed through the extensive permit application and review process that is associated with issuing final PSD permits. In addition, the EPA's RBLC has been in place for over 20 years and there are a number of Quality Assurance/Quality Control steps that cover these submissions, including record reviews by EPA OAR staff overseeing the clearinghouse, as well as system checks for reasonableness of the permit data saved in the system. This is a proposed rulemaking and a public comment period on this information will be offered.

Recommendation from the SAB Work Group on EPA Planned Actions for SAB Consideration of the Underlying Science

Name of planned action: Proposed Rulemaking on Revisions to the Prevention of Significant Deterioration and Title V Greenhouse Gas (GHG) Permitting Regulations and Establishment of a GHG Significant Emissions Rate (2060-AS62)

Please respond to the following questions based on the short description EPA provided for the planned action.

	Yes	No
Is the action planned or under review by the SAB? If not, has EPA identified other high-level external peer review (i.e., by the NAS, CASAC, or FIFRA SAP)?		x
Is the action primarily administrative (i.e., involve reporting or record keeping)?		x
Has EPA characterized the action as one that has "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"		x
Is the action an extension of an existing initiative?	x	

Please indicate whether the action merits a high, medium or low level of interest regarding the following historical SAB science- and problem-driven criteria, based on the short description EPA provided for the planned action.

	High	Medium	Low
Involves scientific approaches that are new to the agency			x
Addresses areas of substantial uncertainties			x
Involves major environmental risks	x		
Relates to emerging environmental issues			x
Exhibits a long-term outlook	x		

Please provide a recommendation regarding whether the SAB should consider this action for review and comment on the adequacy of the supporting science and provide a brief rationale.

Recommendation: This action does not merit further SAB consideration.

The proposed action is in response to recent U.S. Supreme Court and DC Circuit Court decisions that affected EPA’s prior proposed “tailoring rule” for CO₂ emissions from stationary sources. The planned action is intended to respond to the court decisions. The proposed revisions to the Prevention of Significant Deterioration (PSD) regulations and the title V regulations involve changes to several regulatory definitions in the PSD and title V regulations. A key component of the planned action is to propose a significant emission rate (SER) that is a threshold below which Best Available Control Technology (BACT) is not required for a source’s greenhouse gas

(GHG) emissions. The SER is to be based on *de minimus* considerations. EPA will develop the SER determination based on review of historical and existing PSD permits. EPA has been issuing so-called “anyways” permits under PSD permitting that address GHGs, and will not be using any new scientific products to develop this action. EPA will be using existing products including the GHG permitting information from regional offices and the RACT-BACT-LAER Clearinghouse (RBLC). Overall, this planned action is based on established information sources using inference methods based on EPA’s experience over the last few years in conducting or reviewing GHG BACT determinations.

EPA Description of the Planned Action

Name of action: Renewables Enhancement and Growth Support Rule

RIN Number: 2060-AS66

EPA Office originating action: Office of Air and Radiation

Brief description of action and statement of need for the action:

The Renewables Enhancement and Growth Support (REGS) proposed rule is a compilation of amendments to EPA's Renewable Fuel Standard (RFS) program. Most of the proposed amendments are programmatic changes intended to address compliance-related issues.

One element of this action would modify our existing fuel regulations to clarify how they apply to ethanol blends. The proposal would group fuel blends containing 16 to 50 volume percent ethanol (E16-E50) with other ethanol blends that can only be used in flexible fuel vehicles (FFVs) (i.e., E51-E83) rather than continuing to treat E16-E50 as gasoline. This element of the proposal would not change how these blends are being formulated today; rather, the proposal would help clarify what blends are considered gasoline for compliance purposes, and what blends are considered a different fuel type. This action would also implement environmentally protective fuel quality specifications for fuel blends containing 16 to 83 volume percent ethanol (ethanol flex fuel or EFF), consistent with those already in place for gasoline. These amendments include streamlined compliance provisions for producers of E16-E50 blends to facilitate their expansion in the marketplace. This action would provide significant regulatory flexibility and reduce the burden of compliance while continuing to ensure an equivalent level of emissions control performance to that of gasoline for EFF blends used in FFVs.

A second element of this action would make compliance-related changes to the RFS regulations in order to enable increased production of cellulosic and other advanced biofuels. There are several companies that have developed renewable fuel production technologies that pre-process renewable biomass at one facility into a proto-renewable fuel (such as bio-oil) known as a biointermediate. The biointermediate is then further processed into renewable fuel at another facility. Because our existing RFS regulations require all steps in the conversion of renewable biomass to renewable fuel to occur at a single facility, renewable fuel producers who want to use feedstocks that are partially processed at a different facility cannot generate Renewable Identification Numbers (RINs). The proposed regulatory changes would remove this restriction and allow for the use of biointermediates to produce renewable fuels.

In this rule, EPA is also proposing to allow biofuels produced from short-rotation woody crops to be eligible to generate cellulosic RINs. EPA's lifecycle greenhouse gas emissions analysis is based on the same methodology and approach used in previous rulemakings approving new pathways under the RFS program. In this rule, EPA is also taking comment on the methodology that could be used to calculate the GHG reductions associated with using carbon capture and storage (CCS) as an advanced technology under the RFS program. While current RFS regulations do not include provisions for CCS as an advanced technology, we have received a number of petitions to apply CCS technology to reduce the lifecycle GHG emissions associated with ethanol production. This action will propose and seek comment on the registration,

recordkeeping, and reporting requirements that would apply if EPA were to permit the use of CCS in the RFS program. The proposed requirements would build on existing GHG Reporting Program registration, recordkeeping, and reporting requirements.

Finally, we are proposing to resolve several outstanding issues and provide clarification on certain RFS requirements and other fuels regulations. More information about the RFS program can be found [here](#).² More information about EPA's fuels program can be found [here](#).³

Timetable:

We are planning to transmit the proposed rule to OMB for their EO 12866 review by late February or early March 2016. OMB may take up to their full 90-day review period. This would result in signing the proposed rule in late May or early June 2016.

Does the action rely on science that meets the EPA Peer Review Handbook definition of "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"

No. It is not expected that there will be any analytical work conducted as part of this rulemaking of an influential scientific or technical nature that has a major impact or is precedential, novel or controversial, as the objective of the proposed rule is to provide significant additional regulatory flexibility and streamlined compliance provisions for the production of renewable transportation fuel. While it is expected to support the increase in the production and use of renewable fuels, we are not in a position to quantify such volume changes. These would be captured in future RFS annual rulemakings.

Scientific questions to be addressed and approach:

There are no scientific questions identified as needing to be addressed in advance of or as part of the proposed rule at this time.

Plans for scientific analyses and peer review:

There are no plans at this time for peer review or scientific analyses.

² Renewable Fuel Standard Program. <http://www.epa.gov/renewable-fuel-standard-program>

³ Gasoline Standards <http://www.epa.gov/gasoline-standards>

•

Recommendation from the SAB Work Group on EPA Planned Actions for SAB Consideration of the Underlying Science

Name of planned action: Renewables Enhancement and Growth Support Rule (2060-AS66)

Please respond to the following questions based on the short description EPA provided for the planned action.

	Yes	No
Is the action planned or under review by the SAB? If not, has EPA identified other high-level external peer review (i.e., by the NAS, CASAC, or FIFRA SAP)?		x
Is the action primarily administrative (i.e., involve reporting or record keeping)?	x*	
Has EPA characterized the action as one that has "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"		x
Is the action an extension of an existing initiative?	x	

*The Work Group notes that the planned action describes an accounting framework to report, track, and document reductions in GHG emissions. However that accounting is based on the scientific and technical issues regarding carbon sequestration via underground injection control.

Please indicate whether the action merits a high, medium or low level of interest regarding the following historical SAB science- and problem-driven criteria, based on the short description EPA provided for the planned action.

	High	Medium	Low
Involves scientific approaches that are new to the agency			x
Addresses areas of substantial uncertainties			x
Involves major environmental risks		x	
Relates to emerging environmental issues			x
Exhibits a long-term outlook		x	

Please provide a recommendation regarding whether the SAB should consider this action for review and comment on the adequacy of the supporting science and provide a brief rationale.

Recommendation: This action does not merit further SAB consideration.

However, the SAB should request a briefing on how the agency is responding to the National Research Council (NRC) *Climate Intervention: Carbon Dioxide Removal and Reliable Sequestration* (October 2015).

The Work Group notes the agency used a similar approach to reducing GHG emissions in the New Source Performance Standards for Electricity Generating Units (2060 AQ91).⁴ After evaluating the science and technical issues associated with that proposed rule, the SAB found that a regulatory framework for commercial-scale carbon sequestration needs to ensure the protection of human health and the environment. The Board further advised the agency to monitor technological progress on carbon capture and noted that research on carbon sequestration merits review by the NRC or SAB.⁵ Based on the previous evaluation, SAB recommendations, and the similar approach to utilize carbon capture and storage in the Renewables Enhancement and Growth Support Rule (2060-AS66) the Work Group agrees with the previous advice and recommends that, at a minimum, the SAB request briefings on how the Agency is considering recent National Research Council (NRC) publications on climate intervention and research on carbon capture and sequestration.

Background

The Renewables Enhancement and Growth Support Rule (2060-AS66) will propose programmatic changes related to implementation of the Renewable Fuel Standard (RFS) program to reduce the burden of compliance with existing regulations related to the RFS. It will classify fuel blends with 16-50% ethanol in the same category as blends with 51-83% rather than treating them as gasoline which is anticipated to improve compliance flexibility. It will also modify the manner in which biointermediaries are treated for purposes of generating Renewable Identification Numbers (RIN) for compliance with the RFS. This change would allow renewable fuel producers who want to use feedstocks that are partially processed at a different facility to obtain a RIN. The new rule will allow biofuels from short rotation woody crops to generate a cellulosic RIN.

Methods to determine the lifecycle greenhouse gas intensity are the same as those approved in previous rulemakings. Lastly, the new rule will include the potential for incorporating GHG reductions due to carbon capture and storage in the lifecycle GHG intensity estimation for ethanol production. The agency finds that no new science is anticipated to be involved that requires peer review by the SAB.

⁴ SAB Discussions about EPA Planned Actions in the Spring 2013 Unified Agenda and their Supporting Science. <http://yosemite.epa.gov/sab/sabproduct.nsf/02ad90b136fc21ef85256eba00436459/de4689350a3fe32885257c22005f5828!OpenDocument&TableRow=2.3#2>.

⁵ Science Advisory Board (SAB) Consideration of EPA Planned Actions in the Spring 2013 Unified (Regulatory) Agenda and their Supporting Science. (January 29, 2014), EPA-SAB-14-003

Fact Finding

The Work Group asked EPA for clarification about how the agency may consider carbon capture and storage in the planned action (2060-AS-66). The Work Group noted that the previous RFS rules⁶ did not evaluate carbon storage in the Regulatory Impact Analysis or peer reviews and that the agency does not plan to conduct additional analyses or peer review for this action.

Mr. Thomas Carpenter, Designated Federal Officer for the SAB Work Group, met with Office of Air and Radiation staff on February 23, 2016 to clarify what components of carbon capture and storage were considered in the previous RFS rule, what would be considered in the planned action, and the use of CCS advanced technologies in the planned action.

Ms. Sharyn Lie, Director of the Climate Economics and Modeling Center, explained that the agency will seek public comment on how carbon capture and storage could be used by facilities producing biofuels to reduce greenhouse gas emissions. Ms. Lie clarified that the agency is not evaluating advanced CCS technologies for the rule, but that the RFS considers biofuels or technologies as advanced when they meet the 50% greenhouse gas emission reduction as defined in the RFS. She noted that carbon capture technologies are currently being used by ethanol facilities for other purposes (e.g., selling to the beverage industry) and the same methodologies used in the lifecycle analyses developed for the 2010 and 2012 rule makings will be used to support the current action.

She further explained that the carbon storage anticipated for the RFS is based on the requirements for the Underground Injection Control permitting process.⁷ The agency anticipates seeking comments on using compliance with the UIC program and the Greenhouse Reporting program (i.e., registration, record keeping and reporting requirements) as the basis for documenting the carbon storage associated with a facility's reduction in greenhouse gas emissions.

Discussion

The Work Group notes the agency used a similar approach to reducing GHG emissions in the New Source Performance Standards for Electricity Generating Units (2060 AQ91). In evaluating the science issues associated with that proposed rule the Board commented that carbon sequestration is a complex process which may have unintended consequences. The SAB advised the agency to monitor technological progress on carbon capture and noted that research on carbon sequestration merits review by the NRC or SAB.

The SAB deferred to EPA's legal view, communicated to the SAB by staff from EPA's Office of Air and Radiation, that the portion of the rulemaking addressing coal-fired power plants focuses on carbon capture and that the regulatory mechanisms for addressing potential risks associated with carbon sequestration are not within the scope of the Clean Air Act.

⁶ See Agency/Docket Numbers: EPA-HQ-OAR-2005-0161 FRL-9112-3; RIN:2060-A081; Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Agency: Environmental Protection Agency (EPA). <https://www.gpo.gov/fdsys/pkg/FR-2010-03-26/pdf/2010-3851.pdf>

See Agency/Docket Numbers: EPA-HQ-OAR-2011-0542; FRL-9760-2; Supplemental Determination for Renewable Fuels Produced Under the Final RFS2 Program From Grain Sorghum; Agency: Environmental Protection Agency (EPA). ACTION: Final rule. <https://www.gpo.gov/fdsys/pkg/FR-2012-12-17/pdf/2012-30100.pdf>

⁷ Federal Regulations for the Underground Injection Control (UIC) Program. 40 CFR Parts 124, 144, 145, 146, and 147 Docket: [EPA-HQ-OW-2008-0390 (FR 75 77230) December 10, 2010.

During the fact finding the EPA staff noted that carbon capture is currently used to provide CO₂ as a commodity and carbon storage using geologic sequestration is regulated under the Safe Drinking Water Acts Underground Injection Control program. The Work Group notes that a facility's carbon emissions for the production of renewable fuel sources are most likely produced at a smaller scale than emissions for coal fired electric generating units facilities discussed in the proposed rule (2060AQ91). The Work Group further finds that the agency uses the same approach in both rules to use underground injection and geologic carbon sequestration to reduce CO₂ emissions.

The Work Group agrees with the Board's previous concern that a regulatory framework for commercial-scale carbon sequestration needs to ensure the protection of human health and the environment. The Board found that research and information from the EPA, Department of Energy, and other sources related to carbon sequestration merit scientific review by the NRC or the SAB. Further, Section 704 of the Energy Independence and Security Act of 2007 directly calls for the NRC to review such research conducted by the Department of Energy. Recent publications from the NRC⁸ may have fulfilled this important review and the Work Group recommends that at a minimum, the SAB request briefings on how the agency is considering the recent NRC reviews.

⁸ Climate Intervention: Carbon Dioxide Removal and Reliable Sequestration, 2015 National Research Council National Academies Press, Washington DC . ISBN 978-0-309-30529-7 | DOI 10.17226/18805 <http://nap.edu/18805>

**EPA Description of the Planned Action
(Optional Form for a Recurring Action
that may not Merit SAB Consideration)**

Name of action: Proposed Renewable Fuel Volume Standards for 2017 and Biomass Based Diesel Volume (BBD) for 2018

RIN Number: 2060-AS72

EPA Office originating action: OAR

Brief description of action

Section 211(o) of the Clean Air Act establishes the Renewable Fuels Standard (RFS) program, which requires that an increasing amount of transportation fuel be made from renewable feedstocks over time, reaching 36 billion gallons by 2022. These 36 billion gallons are made up of four different categories of biofuels, each with its own standard: cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel. The statute includes tables indicating volume objectives through 2022 for cellulosic biofuel, advanced biofuel, and total renewable fuel, and through 2012 for biomass-based diesel. After 2012 for biomass-based diesel and after 2022 for the other standards the statute provides EPA the authority to determine the volumes (the statute sets a minimum of 1 billion gallons for biomass-based diesel), and specifies factors for EPA to consider in determining the required volumes. The Act also includes waiver authorities allowing EPA to reduce statutory volumes in appropriate circumstances.

EPA finalized Renewable Fuel Standards regulations implementing Section 211(o) of the Clean Air Act in 2007, and also adopted substantial revisions in 2010 to implement statutory amendments enacted as part of the 2007 Energy Independence and Security Act. However, the statute requires EPA to promulgate annual rules to translate the renewable fuel volumes into percentage standards that reflect the projected gasoline and diesel fuel demand in the following year. In establishing these annual standards EPA may implement either the statutory volumes, or alternative volumes that EPA establishes using its discretionary authorities to lower statutory volumes or to set volumes for years not addressed in the statute. EPA has promulgated these annual standards every year beginning with 2007. For 2014, for the first time, EPA proposed to exercise our waiver authorities to set the applicable volumes of advanced and total renewable fuels below statutory levels, in light of unavailability of certain types of renewable fuels and practical and legal constraints on supplying renewable fuels to consumers. The SAB reviewed this action as part of the Review of the Spring 2013 Regulatory Agenda and concluded that the action did not merit further consideration.⁹ EPA subsequently re-proposed the 2014 annual standards along with standards for 2015 and 2016. On November 30, 2015, EPA finalized the annual standards for 2014-16 and the biomass-based diesel applicable volumes for 2017, getting us back on the statutory schedule for completing these actions.

The 2017 Annual RFS volume rule is the next of these statutorily-required annual RFS rulemakings.

⁹ SAB [Discussions about EPA Planned Actions in the Spring 2013 Unified Agenda and their Supporting Science](#) and recommendations are available on the SAB website

Justification for considering this action a recurring action.

As stated above, this is a statutorily mandated annual rulemaking. EPA is required to issue a rulemaking every year establishing applicable volume requirements for obligated parties under the RFS program. This is a routine action that will rely on the same approach and sources of data that were used in the rule establishing required volumes for 2014-2016. The analytical work underlying the annual RFS volume rules (including for 2017) is based on historical data regarding renewable fuel production, imports, distribution, and use. That information is then used to project renewable fuel volumes for use in the proposed/final rulemakings. We then divide those volumes by gasoline and diesel projections taken from the Energy Information Agency (EIA) to calculate the percentage standards that apply directly to obligated parties like refiners.

For 2017, we will be updating all relevant data as we formulate the proposed and final rules. We do not expect to incorporate new methodological approaches that would rely on any new scientific data or touch upon novel issues.

For reference purposes, EPA is attaching the template we submitted to the SAB for the 2015 annual RFS volume rulemaking action. The SAB declined to select that action for in-depth review.

The SAB's decision on the earlier action (check the appropriate line)

The SAB did not select the earlier action for in-depth review

The SAB selected the earlier action for in-depth review.

**Attachment to EPA Description of the
Proposed Renewable Fuel Volume Standards for
2017 and Biomass Based Diesel Volume (BBD) for 2018¹⁰**

Name of action: Renewable Fuel Standard (RFS) Volume Standards for 2015

RIN Number: 2060-AS22

EPA Office originating action: OAR

Brief description of action and statement of need for the action:

Section 211(o) of the Clean Air Act establishes the Renewable Fuels Standard (RFS) program, which requires that an increasing amount of transportation fuel be made from renewable feedstocks over time, reaching 36 billion gallons by 2022. These 36 billion gallons are made up of four different categories of biofuels, each with its own standard: cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel. The statute includes tables indicating volume objectives through 2022 for cellulosic biofuel, advanced biofuel, and total renewable fuel, and through 2012 for biomass-based diesel. After 2012 for biomass-based diesel and after 2022 for the other standards the statute provides EPA the authority to determine the volumes (the statute sets a minimum of 1 billion gallons for biomass-based diesel), and specifies factors for EPA to consider in determining the required volumes. The Act also includes waiver authorities allowing EPA to reduce statutory volumes in appropriate circumstances.

EPA finalized Renewable Fuel Standards regulations implementing Section 211(o) of the Clean Air Act in 2007, and also adopted substantial revisions in 2010 to implement statutory amendments enacted as part of the 2007 Energy Independence and Security Act. However, the statute requires EPA to promulgate annual rules to translate the renewable fuel volumes into percentage standards that reflect the projected gasoline and diesel fuel demand in the following year. In establishing these annual standards EPA may implement either the statutory volumes, or alternative volumes that EPA establishes using its discretionary authorities to lower statutory volumes or to set volumes for years not addressed in the statute. EPA has promulgated these annual standards every year beginning with 2007. In 2014, for the first time, EPA proposed to exercise our waiver authorities to set the applicable volumes of advanced and total renewable fuels below statutory levels, in light of unavailability of certain types of renewable fuels and practical and legal constraints on supplying renewable fuels to consumers. The SAB reviewed this action in the as part of the Review of the Spring 2013 Regulatory Agenda and concluded that the action did not merit further consideration.¹¹

The 2015 RFS volume rule is the next of these statutorily-required annual RFS rulemakings.

¹⁰ Previously submitted in the Spring 2014 Discussions about EPA Planned Actions in the Spring 2014 Unified Agenda and their supporting Science

¹¹ SAB [Discussions about EPA Planned Actions in the Spring 2013 Unified Agenda and their Supporting Science](#) and recommendations are available on the SAB website

Timetable:

To OMB: late fall or early winter 2014
NPRM - Signature: TBD

Does the action rely on science that meets the EPA *Peer Review Handbook* definition of "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"

No. The analytical work underlying the annual RFS volume rules is based on historical data regarding renewable fuel production, imports, distribution, and use, along with information on micro- and macro-economic factors affecting the underlying data. That information is then used to project renewable fuel volumes for use in the proposed/final rulemakings. This rulemaking will follow the same basic approach as prior annual rulemakings.

Scientific questions to be addressed and approach:

None – as noted above, the data and methodologies supporting this action are consistent with approaches established by previous volume standards, including the 2013 volume standard approach reviewed by the SAB.

Plans for scientific analyses and peer review:

As with previous rules, the analytical work underlying this annual RFS volume rule is based on historical data and updates to historical data regarding renewable fuel production, imports, distribution, and use, along with information on micro- and macro-economic factors affecting these underlying data. The updated information is used to conduct analyses and project renewable fuel volumes for use in the proposed/final rulemakings. This technical/analytical work, which is expected to apply approaches already established through prior volume standards, does not raise any new scientific issues. We also rely to some extent on the analyses conducted as part of the RFS2 final rulemaking released on March 26, 2010.¹² In addition to going through the full public notice and comment process, the relevant data and methods that might have raised novel scientific issues in establishing the RFS2 final regulations in 2010 were peer-reviewed. We do not expect to conduct an additional peer review process for analyses underlying the 2015 standards rule since the decisions will be informed by analyses and employ methodologies that are not expected to present any additional novel or controversial scientific issues and/or have been previously utilized.

¹² Materials on the RFS2 are available on the EPA web page:

- Fact Sheet: [EPA Finalizes New Regulations for the National Renewable Fuel Standard Program for 2010 and Beyond \(PDF\)](#) (7 pp, 162K, EPA-420-F-10-007, February 2010)
- Fact Sheet: [EPA Lifecycle Analysis of Greenhouse Gas Emissions from Renewable Fuels \(PDF\)](#) (4 pp, 109K, EPA-420-F-10-006, February 2010)
- [Q&A on the RFS2](http://www.epa.gov/otaq/fuels/renewablefuels/compliancehelp/rfs2-aq.htm) <http://www.epa.gov/otaq/fuels/renewablefuels/compliancehelp/rfs2-aq.htm>
- The FR Notice <http://www.gpo.gov/fdsys/pkg/FR-2010-03-26/pdf/2010-3851.pdf>

Recommendation from the SAB Work Group on EPA Planned Actions for SAB Consideration of the Underlying Science

Name of planned action: Proposed Renewable Fuel Volume Standards for 2017 and Biomass Based Diesel Volume (BBD) for 2018 (2060-AS72)

Please respond to the following questions based on the short description EPA provided for the planned action.

	Yes	No
Is the action planned or under review by the SAB? If not, has EPA identified other high-level external peer review (i.e., by the NAS, CASAC, or FIFRA SAP)?		x
Is the action primarily administrative (i.e., involve reporting or record keeping)?	x	
Has EPA characterized the action as one that has "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"		x
Is the action an extension of an existing initiative?	x	

Please indicate whether the action merits a high, medium or low level of interest regarding the following historical SAB science- and problem-driven criteria, based on the short description EPA provided for the planned action.

	High	Medium	Low
Involves scientific approaches that are new to the agency			x
Addresses areas of substantial uncertainties			x
Involves major environmental risks			x
Relates to emerging environmental issues			x
Exhibits a long-term outlook			x

Please provide a recommendation regarding whether the SAB should consider this action for review and comment on the adequacy of the supporting science and provide a brief rationale.

Recommendation: This action does not merit further SAB consideration.

This action involves setting the applicable volume of advanced and renewable fuels to meet the statutory requirements of the Renewable Fuels Standard (RFS) program. This is a statutorily-required annual activity undertaken by the EPA. There is no new scientific approach underlying this action that needs to be reviewed by the SAB.

EPA Description of Planned Action

Name of action: Considering Cost in the Appropriate and Necessary Finding for the Mercury and Air Toxics Standards (MATS)

RIN Number: 2060-AS76

EPA Office originating action: Office of Air and Radiation

Brief description of action and statement of need for the action: On December 1, 2015, the EPA published a proposed supplemental finding that including a consideration of cost does not alter the EPA's previous determination that it is appropriate to regulate air toxics, including mercury, from power plants ([80 FR 75025](#)). This proposed supplemental finding responds to a narrow decision by the U.S. Supreme Court that the EPA erred when the agency did not consider cost in the previous "appropriate and necessary" finding supporting MATS. As described in the published action, the EPA has considered whether the cost of compliance with MATS is reasonable when weighed against, among other things, the substantial hazards to public health and the environment posed by emissions of air toxics from power plants.

Timetable: The EPA will accept comments on the proposed supplemental finding until January 15, 2016. Litigation associated with the final rule was remanded back to the DC Circuit Court of Appeals for further proceedings. The EPA has represented to the Court its intention to complete the final finding by April 16, 2016. That date is the final compliance deadline for sources that received a 1-year compliance extension.

Scientific products that will inform the action and plans for peer review:

(a). Describe the scientific work products that have been or will be developed to inform decisions regarding the planned action.

There are no new scientific work products associated with this proposed supplemental notice. The proposal has a very narrow focus and does not revisit any scientific or technical aspect of the MATS rulemaking or the "appropriate and necessary" finding. The proposal only considers whether the cost of compliance with MATS is reasonable when weighed against, among other things, the substantial hazards to public health and the environment posed by air toxics from power plants. The proposal relies on existing information in the MATS rulemaking administrative record – including information from the existing "appropriate and necessary" finding, the Regulatory Impact Analysis (RIA), and other supporting materials.

(b). For each work product, describe the approach the agency is taking to develop the needed science or analysis (e.g., any inter-agency collaboration, workshops to inform the analysis).

There are no new scientific work products associated with this proposed supplemental notice.

(c). For each work product, identify whether the action relies on science that meets the EPA Peer Review Handbook definition of "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"

There are no new scientific work products associated with this proposed supplemental notice. The proposal presents a consideration of whether the cost of compliance with MATS is reasonable when weighed against, among other things, the substantial hazards to public health and the environment posed by air toxics from power plants. The analytic methodologies that are used to evaluate and consider cost are not new approaches – rather they are accepted and routinely-used approaches to considering cost. The proposal relies on existing information in the MATS rulemaking administrative record. Much of the existing information in the MATS rulemaking record was subjected to peer review during the development of the proposed and final standards (examples provided below).

U.S. Environmental Protection Agency-Science Advisory Board (U.S. EPA-SAB). 2011a. [*Peer Review of EPA's Draft National-Scale Mercury Risk Assessment*](#). EPA-SAB-11-017. September 2011.

U.S. Environmental Protection Agency—Science Advisory Board (U.S. EPA-SAB). 2010. [*Review of EPA's draft entitled, 'Risk and Technology Review \(RTR\) Risk Assessment Methodologies: For Review by the EPA's Science Advisory Board with Case Studies—MACT I Petroleum Refining Sources and Portland Cement Manufacturing'*](#). EPA-SAB-10-007. May 2010.

(d). Peer review:

There are no new scientific work products associated with this proposed supplemental notice. The proposal relies on existing information in the MATS rulemaking administrative record – much of the existing information in the MATS rulemaking record was subjected to peer review.

Recommendation from the SAB Work Group on EPA Planned Actions for SAB Consideration of the Underlying Science

Name of planned action: Considering Cost in the Appropriate and Necessary Finding for the Mercury and Air Toxics Standards (MATS) (2060-AS76)

Please respond to the following questions based on the short description EPA provided for the planned action.

	Yes	No
Is the action planned or under review by the SAB? If not, has EPA identified other high-level external peer review (i.e., by the NAS, CASAC, or FIFRA SAP)?		x
Is the action primarily administrative (i.e., involve reporting or record keeping)?		x
Has EPA characterized the action as one that has "an influential scientific or technical work product" that "has a major impact, involves precedential, novel, and/or controversial issues, or the Agency has a legal and/or statutory obligation to conduct a peer review?"		x
Is the action an extension of an existing initiative?	x	

Please indicate whether the action merits a high, medium or low level of interest regarding the following historical SAB science- and problem-driven criteria, based on the short description EPA provided for the planned action.

	High	Medium	Low
Involves scientific approaches that are new to the agency			x
Addresses areas of substantial uncertainties		x	
Involves major environmental risks		x	
Relates to emerging environmental issues		x	
Exhibits a long-term outlook		x	

Please provide a recommendation regarding whether the SAB should consider this action for review and comment on the adequacy of the supporting science and provide a brief rationale.

Recommendation: This action does not merit further SAB consideration.

This planned action is in response to a Supreme Court decision regarding the Mercury and Air Toxics Standards (MATS). In its ruling, the Court found that EPA did not consider cost in its "appropriate and necessary" finding supporting the MATS. In this planned action, EPA is considering whether cost of MATS compliance is reasonable when weighed against the health benefits of the rule. There are no new scientific work products associated with this action. The proposal relies on existing information in the MATS rulemaking administrative record. For example, and perhaps most notably, the action relies on the existing Regulatory Impact Analysis.

Technical materials that supported the original MATS proposal were previously reviewed by SAB.¹³ Thus, it is recommended that this action does not merit review by the SAB.

¹³ U.S. Environmental Protection Agency-Science Advisory Board (U.S. EPA-SAB). 2011a. [*Peer Review of EPA's Draft National-Scale Mercury Risk Assessment*](#). EPA-SAB-11-017. September 2011.