



June 2015

EPA'S SCIENCE ADVISORY BOARD

Improved Procedures Needed to Process Congressional Requests for Scientific Advice

Why GAO Did This Study

EPA formulates rules to protect the environment and public health. To enhance the quality and credibility of such rules, EPA obtains advice and recommendations from the SAB and CASAC—two federal advisory committees that review the scientific and technical basis for EPA decision-making. ERDDAA requires the SAB to provide both the EPA Administrator and designated congressional committees with scientific advice as requested. Amendments to the Clean Air Act established CASAC to, among other things, provide advice to the Administrator on NAAQS.

GAO was asked to look into how the SAB and CASAC are fulfilling their statutory obligations in providing such advice. This report examines (1) the extent to which EPA procedures for processing congressional requests to the SAB ensure compliance with ERDDAA; (2) the extent to which CASAC has provided advice related to NAAQS; and (3) policies EPA has to ensure that the SAB and CASAC maintain their independence when performing their work. GAO reviewed relevant federal regulations and agency documents, and interviewed EPA, SAB, and other relevant officials.

What GAO Recommends

GAO recommends that to better ensure compliance with ERDDAA, EPA take steps to improve its procedures for processing congressional committee requests to the SAB for advice. EPA agreed with GAO's recommendations.

EPA'S SCIENCE ADVISORY BOARD

Improved Procedures Needed to Process Congressional Requests for Scientific Advice

What GAO Found

The Environmental Protection Agency's (EPA) procedures for processing congressional requests for scientific advice from the Science Advisory Board (SAB) do not ensure compliance with the Environmental Research, Development, and Demonstration Authorization Act of 1978 (ERDDAA) because these procedures are incomplete. For example, they do not clearly outline how the EPA Administrator, the SAB staff office, and others are to handle a congressional committee's request. While the procedures reflect EPA's responsibility to exercise general management controls over the SAB and all its federal advisory committees under the Federal Advisory Committee Act (FACA), including keeping such committees free from outside influence, they do not fully account for the specific access that designated congressional committees have to the SAB under ERDDAA. For example, EPA's policy documents do not establish how EPA will determine which questions would be taken up by the SAB. EPA officials told GAO that in responding to congressional requests, EPA follows the same process that it would apply to internal requests for questions to the SAB, including considering whether the questions are science or policy driven or are important to science and the agency. However, under ERDDAA, the SAB is required to provide requested scientific advice to select committees, regardless of EPA's judgment. By clearly documenting how to handle congressional requests received under ERDDAA consistent with federal standards of internal control, EPA can provide reasonable assurance that its staff process responses consistently and in accordance with the law.

The Clean Air Scientific Advisory Committee (CASAC) has provided certain types of advice related to the review of national ambient air quality standards (NAAQS), but has not provided others. Under the Clean Air Act, CASAC is to review air quality criteria and existing NAAQS every 5 years and advise EPA of any adverse public health, welfare, social, economic, or energy effects that may result from various strategies for attainment and maintenance of NAAQS. An EPA official stated that CASAC has carried out its role in reviewing the air quality criteria and the NAAQS, but CASAC has never provided advice on adverse social, economic, or energy effects related to NAAQS because EPA has never asked CASAC to do so. In a June 2014 letter to the EPA Administrator, CASAC indicated it would review such effects at the agency's request.

EPA has policies and guidance to help ensure that its federal advisory committees—including the SAB and CASAC—maintain their independence from the agency when the advisory committees perform their work. Under General Services Administration regulations for implementing FACA, an agency must develop procedures to ensure that its federal advisory committees are independent from the agency when rendering judgments. EPA policies and guidance to help ensure the independence of its federal advisory committees include guidance specifically for the SAB and general requirements that apply to all of EPA's federal advisory committees, including the SAB and CASAC. For example, EPA's Scientific Integrity Policy states that EPA prohibits managers and other agency leadership from intimidating or coercing scientists to alter scientific data, findings or professional opinions, or inappropriately influencing scientific advisory boards.

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Abbreviations

CASAC	Clean Air Scientific Advisory Committee
DFO	Designated Federal Officer
EPA	Environmental Protection Agency
ERDDAA	Environmental Research, Development, and Demonstration Authorization Act of 1978
FACA	Federal Advisory Committee Act
NAAQS	National Ambient Air Quality Standards
OCIR	Office of Congressional and Intergovernmental Relations
SAB	Science Advisory Board

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June 4, 2015

The Honorable James M. Inhofe
Chairman
Committee on Environment and Public Works
United States Senate

The Honorable Lamar Smith
Chairman
Committee on Science, Space, and Technology
House of Representatives

The Environmental Protection Agency (EPA) uses scientific studies and methodologies when formulating rules to protect the environment and public health. EPA seeks to enhance the quality and credibility of such rules by obtaining reviews from experts of the underlying studies and methodologies. For example, EPA requests and obtains advice and recommendations from the Science Advisory Board (SAB) and the Clean Air Scientific Advisory Committee (CASAC). The Environmental Research, Development, and Demonstration Authorization Act of 1978 (ERDDAA) mandated that EPA establish the SAB and required the SAB to provide the EPA Administrator with scientific advice as requested. In 1980, Congress amended ERDDAA by adding a provision requiring the SAB to also provide scientific advice to designated congressional committees when requested.¹ CASAC was established pursuant to amendments to the Clean Air Act in 1977 to, among other things, provide advice to the Administrator with regard to EPA's National Ambient Air Quality Standards (NAAQS). The Clean Air Act requires EPA to set and periodically review and revise NAAQS for certain air pollutants, the emission of which cause or contribute to air pollution that may endanger public health or welfare.

The SAB and CASAC are both federal advisory committees and therefore must comply with the Federal Advisory Committee Act (FACA) and its

¹These designated committees currently include the Senate Committee on Environment and Public Works; the House Committee on Science, Space, and Technology; the House Committee on Energy and Commerce; and the House Committee on Transportation and Infrastructure.

implementing regulations.² For example, the SAB and CASAC are required to operate in accordance with charters.³ In addition, EPA must have procedures to ensure that the advice or recommendations of its federal advisory committees, including the SAB and CASAC, are products of their independent judgment and not “inappropriately” influenced by EPA.⁴ The SAB consists of the Board, standing and ad hoc committees, panels, and workgroups. CASAC also has subcommittees and panels. The EPA Administrator appoints members to the SAB (and its standing committees) and CASAC, and the SAB staff director appoints consultants to the SAB ad hoc committees, panels, and workgroups and CASAC subcommittees and panels.⁵ The SAB staff office, among other things, oversees the selection and formation of SAB and CASAC panels and work groups and processes EPA requests for scientific and technical advice.⁶ The SAB, its staff office, and CASAC report directly to the EPA Administrator.

Recent interactions between the House Committee on Science, Space, and Technology and the SAB related to specific SAB reviews on hydraulic fracturing and water body connectivity have raised questions with the Committee regarding whether the SAB is fulfilling its statutory obligations

²FACA governs the establishment, operation, and termination of advisory committees within the executive branch of the federal government. The General Services Administration (GSA) prepares regulations on federal advisory committees to be prescribed by the GSA Administrator and issues other administrative guidelines and management controls for advisory committees.

³Charters must be filed with EPA and the congressional committees with legislative jurisdiction over the agency. The purpose of the advisory committee charter is to specify the committee’s mission or charge and general operational characteristics.

⁴41 C.F.R. § 102-3.105(g) (2014).

⁵SAB ad hoc committees, panels, and workgroups and CASAC subcommittees and panels include both members and consultants and are established for limited periods to provide advice on specific matters where the Board or standing committee members do not have all the requisite expertise.

⁶The SAB staff office is staffed by EPA employees and is responsible for two of EPA’s 20 FACA committees—the SAB and CASAC. The SAB staff office publishes a Federal Register Notice announcing opportunities for the public to nominate candidate experts to serve on the SAB, certain SAB standing committees, and CASAC.

to provide scientific advice to the designated congressional committees.⁷ In addition, recent testimony received by the Committee has raised questions regarding whether CASAC is carrying out its statutory obligations to advise EPA of any adverse public health, welfare, social, economic, or energy effects that may result from various strategies for attainment and maintenance of NAAQS.

You asked us to review how the SAB and CASAC are fulfilling their statutory obligations in providing scientific advice. This report examines (1) the extent to which EPA procedures for processing congressional committees' requests for scientific advice from the SAB ensure compliance with ERDDAA; (2) the extent to which CASAC has provided advice related to NAAQS; and (3) policies, if any, EPA has to ensure the SAB and CASAC maintain their independence from the agency when performing their work.

To examine the extent to which EPA procedures for processing congressional committees' requests for scientific advice from the SAB ensure compliance with ERDDAA, we reviewed ERDDAA and its legislative history, the SAB's charters, legal cases involving the SAB, and EPA documents to determine how requests to the SAB from congressional committees were addressed. We also interviewed officials from the SAB staff office, EPA's Office of General Counsel, and EPA's Office of Congressional and Intergovernmental Relations (OCIR). To examine the extent to which CASAC has provided advice related to NAAQS, we reviewed the Clean Air Act, its legislative history, and legal cases involving the act. We also interviewed SAB staff office and EPA Office of General Counsel officials. To examine what policies, if any, EPA has to ensure the SAB and CASAC maintain their independence from the agency when performing their work, we reviewed and analyzed FACA, the General Services Administration's (GSA) regulations for implementing FACA, and EPA documents. We interviewed officials from the SAB staff office about written policies concerning FACA's requirements about independence. We also interviewed officials from GSA to discuss the

⁷Hydraulic fracturing is a process used in natural gas wells where millions of gallons of water, sand, and chemicals are pumped underground to break apart the rock and release the gas. Water body connectivity is the biological, chemical, and hydrologic connectivity of waters and the effects that small streams, wetlands, and open waters have on larger downstream waters such as rivers, lakes, estuaries, and oceans.

agency's regulations requiring federal agencies to develop procedures to ensure the independence of their federal advisory committees.

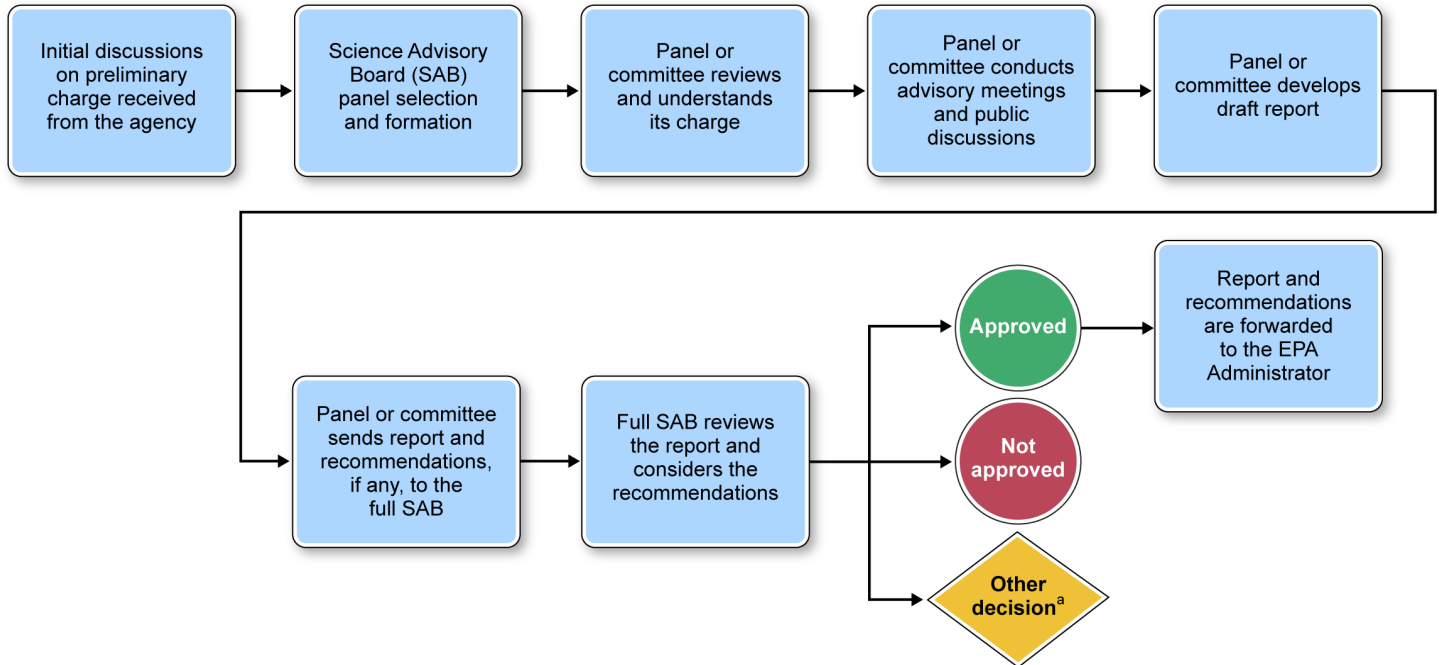
We conducted this performance audit from June 2014 to June 2015, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

The SAB provides a mechanism for EPA to receive peer review and other advice in the use of science at EPA. The SAB is authorized to, among other things, review the adequacy of the scientific and technical basis of EPA's proposed regulations. The SAB and its subcommittees or panels focus on a formal set of charge questions on environmental science received from the agency.⁸ Depending on the nature of the agency's request, the entire advisory process generally takes 4 to 12 months from the initial discussion on charge questions with EPA offices and regions to the delivery of the final SAB report. Figure 1 depicts the stages of the SAB advisory process.

⁸The charge guides, but need not limit, the deliberations of the committee or panel.

Figure 1: The SAB Advisory Process



Source: GAO analysis of EPA documents. | GAO-15-500

^aIn addition to approving or not approving a report and recommendations, the full SAB has other options it can take, such as making revisions to the draft report or sending the draft report back to the authoring panel or committee for further work.

CASAC provides independent advice to EPA on “air quality criteria.”⁹ Under the Clean Air Act as amended, CASAC is to review the criteria and the existing NAAQS every 5 years and make recommendations to EPA for new standards and revisions of existing standards, as appropriate. In addition, CASAC is directed to advise EPA of the areas in which additional knowledge is required to appraise the adequacy and basis of the NAAQS and describe the research efforts necessary to provide the required information. CASAC also is directed to advise EPA of the relative contribution to air pollution of concentrations of natural as well as human

⁹Under the Clean Air Act, air quality criteria must accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare, which may be expected from the presence of certain air pollutants in the ambient air.

activity, and any adverse public health, welfare, social, economic, or energy effects that may result from various strategies for attainment and maintenance of the NAAQS. CASAC's advisory process is similar to the SAB's process, including the option of establishing subcommittees and panels that send their reports and recommendations to CASAC.

As federal advisory committees, the SAB and CASAC are subject to FACA, which broadly requires balance, independence, and transparency. FACA was enacted, in part, out of concern that certain special interests had too much influence over federal agency decision makers. The head of each agency that uses federal advisory committees is responsible for exercising certain controls over those advisory committees. For example, the agency head is responsible for establishing administrative guidelines and management controls that apply to all of the agency's advisory committees, and for appointing a Designated Federal Officer (DFO) for each advisory committee. Advisory committee meetings may not occur in the absence of the DFO, who is also responsible for calling meetings, approving meeting agendas, and adjourning meetings.¹⁰ As required by FACA, the SAB and CASAC operate under charters that include information on their objectives, scope of activities, and the officials to whom they report. Federal advisory committee charters must be renewed every 2 years, but they can be revised before they are due for renewal in consultation with GSA.

In addition to being subject to FACA, the SAB is subject to ERDDAA, which requires the SAB not only to provide advice to its host agency but also to designated congressional committees. (There is no similar statutory provision that allows congressional committees to request or receive scientific advice from CASAC). Specifically, in 1980, Congress amended ERDDAA by adding a provision requiring the SAB to provide scientific advice to designated congressional committees when requested.¹¹ According to SAB staff office officials, since that time, the SAB has responded to general congressional questions and concerns. However, in 2013, representatives of a congressional committee formally

¹⁰A DFO is required by FACA to chair or sit in attendance of each advisory committee meeting and is authorized to adjourn any such meeting whenever he/she determines it to be in the public interest. FACA also requires that no advisory committee shall conduct any meeting in the absence of that officer or employee.

¹¹An analysis of changes in the SAB's charter regarding to whom the SAB is to provide advice is included in appendix I.

requested advice from the SAB regarding two reviews the SAB was conducting. According to EPA officials, this was the first time representatives of a congressional committee formally requested advice from the SAB. Both requests were addressed and submitted directly to the SAB Chair and the Chair of the relevant SAB panel and sent concurrently to the SAB staff office and EPA Administrator.¹² While ERDDAA does not outline a role for EPA in mediating responses from the SAB to the designated congressional committees, EPA identifies such a role for itself under FACA. Specifically, EPA points to the DFO's responsibility to manage the agenda of an advisory committee. Also under FACA, EPA is responsible for issuing and implementing controls applicable to its advisory committees. Responses to the committee's requests for scientific advice were handled by the SAB staff office and EPA's Office of Congressional and Intergovernmental Relations (OCIR). The SAB staff office and, later, OCIR responded to the committee's first request for advice, and OCIR responded to the committee's second request for advice. See table 1 for more information on these requests.

¹²The first request was copied to EPA's Acting Administrator.

Table 1: Congressional Committee’s Formal Requests for Advice from the Scientific Advisory Board (SAB) and the Environmental Protection Agency’s (EPA) Acknowledgments since 1980

Congressional committee request letter	Nature of request	Agency acknowledgment
<p>May 2, 2013, by Representative Chris Stewart, Subcommittee on Environment, Committee on Science, Space and Technology</p>	<p>The Committee requested that the SAB and its Hydraulic Fracturing Research Advisory Panel consider additional areas for inquiry as it began its examination of EPA’s study of the potential impacts of hydraulic fracturing on drinking water resources. The Committee submitted 14 questions that it wanted the SAB and the panel to answer.</p>	<p>May 31, 2013—The SAB staff office acknowledged the Committee’s letter. The SAB staff office responded to the Committee’s request for advice and provided responses to 3 of the 14 questions outlined in the Committee’s request. The SAB staff office also explained that the SAB would have an opportunity to independently consider the remaining 11 questions. The Committee’s letter was provided to the SAB panel at its meeting on May 7– 8, 2013, and posted on the SAB website.</p> <p>December 11, 2013—EPA’s Office of Congressional and Intergovernmental Relations (OCIR) acknowledged the Committee’s letter. OCIR’s Associate Administrator stated that an Aug. 4, 2011, SAB advisory report on EPA’s draft <i>Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources</i> addressed many of the themes embodied in the remaining 11 questions contained in the House Committee’s request. The Associate Administrator also stated that the Committee’s questions not addressed in the 2011 report would require new research or would be considered once EPA has completed its <i>Draft Hydraulic Fracturing Drinking Water Assessment Report</i>.</p>
<p>November 6, 2013, by Representatives Lamar Smith, Chairman, Committee on Science, Space, and Technology and Chris Stewart, Subcommittee on Environment, Committee on Science, Space and Technology</p>	<p>The Committee requested that the SAB and the SAB panel for the review of EPA’s Water Body Connectivity Report address additional charge questions as part of their review.</p>	<p>December 16, 2013—EPA’s OCIR acknowledged the Committee’s letter. OCIR stated that EPA had begun an initial review of the questions, but that many of the questions were already being addressed under the existing charge questions being reviewed by the SAB panel or “went beyond the scientific review that is the expert technical panel’s statutory focus.”</p>

Source: GAO analysis of EPA documents. | GAO-15-500

EPA's Procedures for Processing Congressional Requests to the SAB Do Not Ensure Compliance with ERDDAA

EPA's procedures for processing congressional requests for scientific advice from the SAB do not ensure compliance with ERDDAA because the procedures are incomplete and do not fully account for the statutory access designated congressional committees have to the SAB. Specifically, EPA policy documents do not clearly outline how the EPA Administrator, the SAB staff office, and members of the SAB panel are to handle a congressional committee's request for advice from the SAB. In addition, EPA policy documents do not acknowledge that the SAB must provide scientific advice when requested by select congressional committees.

EPA's written procedures for processing congressional committee requests to the SAB are found in the SAB charter and in the following two documents that establish general policies for how EPA's federal advisory committees are to interact with outside parties:

- *EPA Policy Regarding Communication Between Members of Federal Advisory Committee Act Committees and Parties Outside of the EPA* (the April 2014 policy), and
- *Clarifying EPA Policy Regarding Communications Between Members of Scientific and Technical Federal Advisory Committees and Outside Parties* (the November 2014 policy clarification).

Collectively, the SAB's charter, EPA's April 2014 policy, and EPA's November 2014 policy clarification provide direction for how EPA and the SAB are to process requests from congressional committees. However, these documents do not clearly outline procedures for the EPA Administrator, the SAB staff office, and members of the SAB panel to use in processing such requests.

At the time of the House committee's two requests to the SAB in 2013, the SAB charter was the only EPA document that contained written policy relating to congressional committee requests under ERDDAA. The SAB charter briefly noted how congressional committees may access SAB advice, stating; "While the SAB reports to the EPA Administrator, congressional committees specified in ERDDAA may ask the *EPA Administrator to have SAB provide advice* on a particular issue." (GAO italics) Beyond what the charter states, however, no EPA policy specified a process the Administrator should use to have the SAB provide advice and review a congressional request.

In response to a request from the SAB staff office that EPA clarify the procedures for handling congressional committee requests, EPA, through an April 4, 2014, memorandum informed the SAB that committee members themselves and the federal advisory committees as a whole should refrain from directly responding to these external requests. Attached to the memorandum was the April 2014 policy that stated: “if a FACA committee member receives a request relating to the committee’s work from members of Congress or their staff, or congressional committees, the member should notify the DFO, who will refer the request to the EPA OCIR. OCIR will determine the agency’s response to the inquiry, after consulting with the relevant program office and the DFO.” This policy, however, did not provide more specific details on processing requests from congressional committees under ERDDAA.

In November 2014, EPA issued a clarification to the April 2014 policy, specifying that SAB members who receive congressional requests pursuant to ERDDAA should acknowledge receipt of the request and indicate that EPA will provide a response. The November 2014 policy clarification does not identify the SAB as having to provide the response. The November 2014 policy clarification also stated that the request should be forwarded to the appropriate DFO and that decisions on who and how best to respond to the requests would be made by EPA on a case-by-case basis. While the November 2014 policy clarification provides greater specificity about processing requests, it is not consistent with the SAB charter because the policy indicates that congressional committee requests should be handled through the DFO, whereas the charter indicates that they should be handled through the EPA Administrator and provides no further information. A senior-level EPA official stated that the agency considered that the charter and the November 2014 policy clarification differed in the level of detail, but not in the broad principle that the agency is the point of contact for congressional requests to the SAB (and SAB responses to those requests). However, under the federal standards of internal control,¹³ agencies are to clearly document internal controls, and the documentation is to appear in management directives, administrative policies, or operating manuals. While EPA has documented its policies, they are not clear, because the charter and the November 2014 policy

¹³GAO, *Standards for Internal Control in the Federal Government*, [GAO/AIMD-00-21.3.1](#) (Washington, D.C.: November 1999).

clarification are not consistent about which office should process congressional requests. Agency officials said that the SAB charter is up for renewal in 2015. By modifying the charter when it is renewed to reflect the language in the November 2014 policy clarification—that congressional requests should be forwarded to the appropriate DFO—EPA can better ensure that its staff process congressional committee requests consistently when the agency receives such a request.

Moreover, neither the April 2014 policy nor the November 2014 policy clarification clearly documents EPA's procedures for reviewing congressional committee requests to determine which questions would be taken up by the SAB consistent with the federal standards of internal control. Because EPA's procedures for reviewing congressional committee requests are not documented, it will be difficult for EPA to provide reasonable assurance that its staff are appropriately applying criteria when determining which questions the SAB will address. EPA officials told us that internal deliberations in response to a congressional request follow those that the agency would apply to internal requests for charges to the SAB. Specifically, officials told us that EPA considers whether the questions are science or policy driven, whether they are important to science and the agency, and whether the SAB has already undertaken a similar review. In addition, under ERDDAA, the SAB is required to provide requested scientific advice to select committees, regardless of EPA's judgment. As EPA has not fully responded to the committee's two 2013 requests to the SAB, by clearly documenting its procedures for reviewing congressional requests to determine which questions should be taken up by the SAB and criteria for evaluating requests, the agency can provide reasonable assurance that its staff process these and other congressional committee requests consistently and in accordance with both FACA and ERDDAA.

Furthermore, the charter states that when scientific advice is requested by one of the committees specified in ERDDAA, the Administrator will, when appropriate, forward the SAB's advice to the requesting congressional committee. Neither the charter nor the April 2014 policy and November 2014 policy clarification specify when it would be "appropriate" for the EPA Administrator to forward the SAB's advice to the requesting committee. Such specificity would be consistent with federal standards of internal control that call for clearly documenting internal controls. Without such specification, the perception could be created that EPA is withholding information from Congress that the SAB is required to provide under ERDDAA. EPA officials stated that the EPA Administrator does not attempt to determine whether advice of the SAB contained in

written reports should be forwarded to the requesting committee and that all written reports are publically available on the SAB website at the same time the report is sent to the EPA Administrator. By modifying the charter or other policy documents to reflect when it is and when it is not appropriate for the EPA Administrator to forward the advice to the requesting committee, EPA can better ensure transparency in its process.

In general, under FACA, as a federal advisory committee, the SAB's agenda is controlled by its host agency, EPA.¹⁴ As such, the SAB generally responds only to charge questions put to it by EPA although, under ERDDAA, the SAB is specifically charged with providing advice to its host agency as well as to designated congressional committees. In addition, it is EPA's responsibility under GSA regulations for implementing FACA to ensure that advisory committee members and staff understand agency-specific statutes and regulations that may affect them,¹⁵ but nothing in the SAB charter, the April 2014 policy, or the November 2014 policy clarification communicates that, ultimately, SAB must provide scientific advice when requested by congressional committees. For example, we found no mechanism in EPA policy for the SAB to respond on its own initiative to a congressional committee request for scientific advice unrelated to an existing EPA charge question. A written policy for how the SAB should respond to a congressional committee request that does not overlap with charge questions from EPA would be consistent with federal internal control standards. Moreover, such a policy would better position the SAB to provide the advice it is obligated to provide under ERDDAA and for EPA to provide direction consistent with GSA regulations for implementing FACA.

¹⁴An advisory committee under FACA is a committee "established or utilized by" a federal agency for the purpose of obtaining advice or recommendations. 5 U.S.C. App. 2 § 3(2) (2015). The term "utilized" means "under the actual management or control of the agency." See, e.g. *Town of Marshfield v. F.A.A.* 552 F.3d 1, 6 (1st Cir. 2008).

¹⁵41 C.F.R. § 102-3.125(c) (2014).

CASAC Has Provided Certain Types of Advice Related to Air Quality Standards

CASAC has provided certain types of advice related to the review of NAAQS. The Clean Air Act requires CASAC to review air quality criteria and existing NAAQS every 5 years and advise EPA of any adverse public health, welfare, social, economic, or energy effects that may result from various strategies for attainment and maintenance of NAAQS.¹⁶

According to a senior-level EPA official, CASAC has carried out its role in reviewing the air quality criteria and the NAAQS, but has never provided advice on adverse social, economic, or energy effects related to NAAQS because to date EPA has not asked CASAC to do so. This is in part because NAAQS are to be based on public health and welfare criteria, so information on the social, economic, or energy effects of NAAQS are not specifically relevant to setting NAAQS.

In a June 2014 letter to the EPA Administrator, CASAC indicated that, at the agency's request, it would review the impacts (e.g., the economic or energy impacts) of strategies for attaining or maintaining the NAAQS but stressed that such a review would be separate from reviews of the scientific bases of NAAQS.¹⁷ In response to such a request, the letter stated that an ad hoc CASAC panel would be formed to obtain the full expertise necessary to conduct such a review.

¹⁶42 U.S.C. §§ 7409(d)(2)(B), (d)(2)(C)(iv) (2015).

¹⁷A senior-level EPA official stated that EPA continues to examine this issue and is considering how to proceed. Information from EPA-requested reviews could be useful for the states, which implement the strategies necessary to achieve the NAAQS. EPA is required to provide states, after consultation with appropriate advisory committees, with information on air pollution control techniques, including the cost to implement such techniques. 42 U.S.C. § 7408(b)(1) (2015). According to a senior-level EPA official, EPA collects this information from other federal advisory committees, the National Academy of Sciences, and state air agencies, among others, and EPA fulfills its statutory obligation by issuing Control Techniques Guidelines and other implementation guidance.

EPA Has Policies and Guidance to Ensure That the SAB and CASAC Maintain Their Independence from the Agency

EPA has policies and guidance to help ensure that its federal advisory committees maintain their independence from the agency when performing their work.¹⁸ Under GSA regulations for implementing FACA, agencies must develop procedures to ensure that the federal advisory committees are independent from the agency when rendering judgments.¹⁹ EPA policies and guidance to help ensure the independence of its federal advisory committees include general discussions of FACA requirements that apply to all of EPA's federal advisory committees as well as those specifically for the SAB.²⁰ For example, the April 2014 Policy refers to the agency's responsibilities under FACA to maintain its separation from its federal advisory committees. In addition, EPA's Scientific Integrity Policy sets out the expectation that all agency employees, including scientists, managers and political appointees, will ensure, among other things, that the agency's scientific work is of the highest quality and free from political interference or personal motivations.²¹ This policy states that EPA prohibits managers and other agency leadership from intimidating or coercing scientists to alter scientific data, findings, or professional opinions or to inappropriately influence scientific advisory boards. The agency has also developed the *EPA Peer Review Handbook* to provide guidance to EPA staff and managers who are planning to conduct peer reviews.²² The handbook

¹⁸Independence is defined here as freedom from institutional or ideological bias regarding the issues under review. U.S. Environmental Protection Agency, *Peer Review Handbook*, 3rd Edition.

¹⁹41 C.F.R. §102-3.105(g) (2014). The form that these procedures should take (e.g., whether as guidance or policies and amount of detail) is not defined in the regulations and, according to GSA officials, it is up to the discretion of each agency.

²⁰We did not review the adequacy of these policies and procedures or those currently in place to ensure the independence and balance of specific SAB members or panelists. We have previously reported issues with the policies and procedures associated with the independence of individual SAB members. In June 2001, we recommended to EPA that the SAB develop policies and procedures that better identify and mitigate potential conflicts of interest and support the development of balanced panels. See GAO, *EPA's Science Advisory Board Panels: Improved Policies and Procedures Needed to Ensure Independence and Balance*, [GAO 01-536](#) (Washington, D.C.: June 12, 2001). The agency implemented a number of new procedures in response to this report's recommendations.

²¹The U.S. EPA Scientific Integrity Policy provides a framework intended to ensure scientific integrity throughout EPA and promote, among other things, scientific and ethical standards and the use of peer review and advisory committees.

²²The goal of peer review is to obtain an independent, third party review of a product from experts who have not substantially contributed to its development as a product.

includes information on planning and conducting a peer review as well as the types of peer reviews performed by external peer reviewers, such as federal advisory committees. Specifically, the handbook provides information on the independence aspects of a peer review, such as how closely EPA officials should interact with peer reviewers when a review is being conducted to maintain independence.

The SAB staff office has also developed documents that contain some references to how the SAB and CASAC can maintain their independence from EPA. Specifically, the SAB Office developed a handbook for SAB members that includes a section on how SAB members should expect to maintain their independence.²³ For example, the handbook states that SAB committee and panel members are expected to avoid interaction with anyone—including agency representatives or members of the interested public—who might create a perception of conflict of interest. The SAB handbook also has a section on the role of the agency during the SAB's report preparation phase. This section states that the agency should not in any way approve or attempt to influence the content of draft panel or committee reports. In addition, EPA officials explained that the agency does not review or comment on drafts of SAB or CASAC products, so that it cannot influence them in their final form. Finally, the SAB office, as part of a fiscal year 2012 list of initiatives to enhance public involvement in SAB and CASAC activities included a statement that the SAB office and federal advisory committees would not accept a charge from EPA that unduly narrows the scope of an advisory activity.

Conclusions

EPA's SAB plays an important role assisting the agency in using high-quality science by providing EPA with scientific advice on a wide range of matters and reviewing scientific research the agency uses when developing environmental regulations. Under ERDDAA, the SAB is also required to provide scientific advice to designated congressional committees when requested. In November 2014, EPA issued a clarification revising its policy for how it processes congressional

²³According to EPA officials, the SAB staff office supports both the SAB and CASAC, so the same processes and procedures are applied to both. The handbook notes in the introduction that although the handbook refers to the chartered SAB and its committees and panels, many of the processes and procedures also are relevant to the CASAC. New members of CASAC and its panels are provided a copy of the handbook.

committees' requests for scientific advice from the SAB. However, shortcomings exist with EPA's policy documents.

First, the November 2014 policy clarification differs from the SAB's charter regarding which offices should receive and process congressional requests. As a result, EPA staff may not process congressional committee requests consistently, since the treatment will vary depending on whether staff follow the policy clarification or the charter. Agency officials said that the SAB charter is up for renewal in 2015. By modifying the charter when it is renewed to reflect the language in the November 2014 policy clarification, that congressional requests should be forwarded to the appropriate DFO, EPA can better ensure that its staff process congressional committee requests consistently when the agency receives them.

Additionally, EPA has not documented its procedures for reviewing congressional committee requests to determine which questions should be taken up by the SAB or criteria for evaluating those requests. By documenting the agency's procedures and criteria, EPA can provide reasonable assurance that its staff handle congressional requests consistently and in accordance with both FACA and ERDDAA.

Furthermore, the SAB's charter states that the Administrator will forward the SAB's response to a committee's request when appropriate, but EPA has not specified in policy documents when it would be appropriate for the Administrator to forward the SAB's advice to the requesting committee. Without such specification, the perception could be created that EPA is withholding information from Congress that the SAB is required to provide under ERDDAA. By clarifying procedures to reflect when it is and when it may not be appropriate for the Administrator to forward the advice to the requesting committee, EPA can better ensure transparency in its process and consistency with ERDDAA.

Finally, it is EPA's responsibility to ensure that advisory committee members and staff understand agency-specific statutes and regulations that may affect them under regulations for implementing FACA. However, EPA policy documents do not specify how the SAB would respond on its own initiative to a congressional committee's request for scientific advice unrelated to an existing EPA charge question, as it must do under ERDDAA. By documenting procedures on how the SAB should respond to a congressional committee request that does not overlap with charge questions from EPA, the agency would better position the SAB to provide

the advice it is obligated to provide under ERDDAA and EPA itself to provide direction consistent with regulations for implementing FACA.

Recommendations for Executive Action

To better ensure compliance with ERDDAA when handling congressional requests for scientific advice from EPA's SAB, we recommend that the EPA Administrator take the following four actions:

- Clarify in the charter when it is renewed which offices should receive and process congressional requests.
- Document procedures for reviewing congressional committee requests to determine which questions should be taken up by the SAB and criteria for evaluating such requests.
- Clarify in policy documents when it is and when it is not appropriate for the EPA Administrator to forward advice to the requesting committee.
- Specify in policy documents how the SAB should respond to a congressional committee's request for scientific advice unrelated to an existing EPA charge question.

Agency Comments

We provided EPA with a draft of this report for review and comment. In written comments, reproduced in appendix II, EPA stated that it concurred with the recommendations in the report and provided information on planned actions to address each recommendation. EPA also provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the EPA Administrator, and other interested parties. In addition, this report is available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or gomezj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made contributions to this report are listed in appendix III.

A handwritten signature in black ink that reads "Alfredo Gómez". The signature is written in a cursive style with a large, stylized "G" for Gómez.

J. Alfredo Gómez
Director, Natural Resources and Environment

Appendix I: Changes to the Science Advisory Board Charter

The Environmental Research, Development, and Demonstration Authorization Act of 1978 (ERDDAA) mandated that EPA establish the SAB and required the SAB to provide the EPA Administrator with scientific advice as requested. Congress amended ERDDAA in 1980 to require EPA's SAB to provide scientific advice to designated congressional committees when requested. Below is our analysis of the changes to the charter regarding to whom the SAB is to provide advice.

In 1978, the Charter Objectives and Responsibilities stated that: "The objective of the Board is to provide advice to EPA's Administrator on the scientific and technical aspects of environmental problems and issues. The Board reports to the Administrator. It will review issues, provide independent advice on EPA's major programs, and will perform special assignments as requested by the Agency and as required by the ERDDAA of 1978 and the CAA Amendments of 1977." In response to the ERDDAA amendments, EPA changed the charter in 1981 to reflect that certain congressional committees could also request advice. Additional changes to the charter over the years regarding to whom the SAB is to provide advice are reflected in the table below.

Table 2: EPA Science Advisory Board (SAB) Charter Changes Regarding to Whom the SAB Is to Provide Advice, 1981–2013

Year of charter	Charter's objectives and responsibilities (changes underlined and italicized)
1981	The objective of the Board is to provide advice to EPA's Administrator on the scientific and technical aspects of environmental problems and issues. <i>While the Board reports to the administrator, it may also be requested to provide advice to the U.S. Senate Committee on Environment and Public Works or the U.S. House Committees on Science and Technology, Interstate and Foreign Commerce, or Public Works and Transportation.</i>
1983	Same as above.
1985	Similar to above. <i>House Committee name changed to Committees on Science and Technology, Energy and Commerce, or Public Works and Transportation</i>
1987	Same as above.
1989	Same as above.
1991	The objective of the Board is to provide <i>independent</i> advice to EPA's Administrator on the scientific and technical aspects of environmental problems and issues. While the Board reports to the Administrator, it may also be requested to provide advice to the U.S. Senate Committee on Environment and Public Works or the U.S. House Committees on Science and Technology, Energy and Commerce, or Public Works and Transportation.
1993	Same as above.
1995	The objective of the Board is to provide independent advice and <i>peer review</i> to EPA's Administrator on the scientific and technical aspects of environmental problems and issues. While the Board reports to the Administrator, it may also be requested to provide advice to <i>U.S. Senate Committees and Subcommittees and U.S. House Committees and Subcommittees, as appropriate.</i>
1997	Same as above.
1999	Same as above.

Appendix I: Changes to the Science Advisory Board Charter

Year of charter	Charter's objectives and responsibilities (changes underlined and italicized)
2001	Same as above.
2003	The objective of the Board is to provide independent advice and peer review to EPA's Administrator on the scientific and technical aspects of environmental problems and issues. While the SAB reports to the EPA Administrator, certain congressional committees <i>may ask the EPA Administrator to have the SAB provide advice on a particular issue.</i>
2005	Same as above.
2007	The objective of the Board is to provide independent advice and peer review to EPA's Administrator on the scientific and technical aspects of environmental problems and issues. While the SAB reports to the EPA Administrator, certain congressional committees may ask the EPA Administrator to have the SAB <u>address a particular issue.</u>
2009	Same as above.
2011	Same as above.
2013	The objective of the Board is to provide independent advice and peer review to EPA's Administrator on the scientific and technical aspects of environmental problems and issues. While the SAB reports to the EPA Administrator, congressional committees <u>specified in ERDDAA</u> may ask the EPA Administrator to have the SAB provide <u>scientific advice</u> on a particular issue.

Source: GAO analysis of EPA documents. | GAO-15-500

Appendix II: Comments from the Environmental Protection Agency



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460

OFFICE OF THE ADMINISTRATOR

MAY 22 2015

J. Alfredo Gomez
Director
Natural Resources and Environment
U.S. Government Accountability Office
441 G Street, NW
Washington, DC 20548

Dear Mr. Gomez:

Thank you for the work of you and your staff on GAO engagement code 361573 regarding the EPA Science Advisory Board (SAB) and the Clean Air Scientific Advisory Committee (CASAC). The SAB, established in 1978 pursuant to the Environmental Research, Development and Demonstration Authorization Act (ERDDAA), and the CASAC, established pursuant to the Clean Air Act, are valued sources of independent, expert scientific and technical advice to the agency.

As noted in the draft report, ERDDAA contains a unique provision that discusses requests for scientific advice from certain congressional committees. During our discussions with GAO regarding the report, the EPA raised the potential for a Constitutionally-based separation of powers concern should that provision of ERDDAA be read as allowing congressional committees to unilaterally direct the expenditure of agency funds for the benefit of Congress wholly outside of the appropriations process. The agency explained, however, that the provision can be read to allow the agency to establish procedures for agency consideration of requests for action from these committees that both respects the unique role given to the committees by ERDDAA and avoids that Constitutional concern.

We are pleased that the GAO's report, as evidenced in the recommendations, recognizes that the agency is authorized to establish procedures for the review and processing of congressional requests for scientific advice from the SAB, including "procedures for reviewing congressional committee requests to determine which questions should be taken up by the SAB and criteria for evaluating such requests." The agency agrees with those recommendations, and will move to establish procedures for agency review and processing of such requests. Summary agency responses to each of the GAO recommendations are provided below.

GAO Recommendation 1. Clarify in the charter when it is renewed which offices should receive and process congressional requests.

Agency Response: The SAB charter currently notes that congressional committees specified in ERDDAA may ask the EPA Administrator to have the SAB provide scientific advice on a particular issue. The agency will clarify the process by which congressional requests will be received and addressed, either by including additional detail in the SAB charter or by developing additional written procedures as envisioned in the recommendations below.

GAO Recommendation 2. Document procedures for reviewing congressional committee requests to determine which questions should be taken up by the SAB and criteria for evaluating such requests.

Agency Response: The agency will develop additional written procedures for evaluating congressional committee requests for advice from the SAB, including criteria to guide the evaluation of such requests by the agency and the SAB.

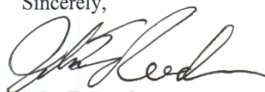
GAO Recommendation 3. Clarify in policy documents when it is and when it is not appropriate for the EPA Administrator to forward advice to the requesting committee.

Agency Response: SAB advice to the EPA Administrator is provided in the form of written letters and reports, all of which are available to the public on the SAB website. When SAB letters and reports are prepared in response to a request from congressional committees specified in ERDDAA, the letters and reports will be posted to the SAB website and the agency also will forward the written SAB advice to those committees.

GAO Recommendation 4. Specify in policy documents how the SAB should respond to a congressional committee request for scientific advice unrelated to an existing EPA charge question.

Agency Response: As noted in response to Recommendation 2, the agency will develop additional written procedures for evaluating congressional committee requests for advice from the SAB, including criteria to guide the evaluation of such requests by the agency and the SAB.

Sincerely,



John E. Reeder
Deputy Chief of Staff

cc: Christopher Zarba, Director
SAB Staff Office

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

J. Alfredo Gómez, (202) 512-3841 or gomezj@gao.gov

Staff Acknowledgments

In addition to the individual named above, Vincent Price and Janet Frisch, Assistant Directors; Ulana Bihun; Antoinette Capaccio; Greg Carroll; and John Delicath made key contributions to this report.

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